SACEP UNEP NORAD

SACEP/UNEP/NORAD Publication Series on Environmental Law and Policy No. 2

SACEP/UNEP/NORAD

JOINT ENVIRONMENTAL LAW PROJECT FOR SOUTH ASIA

REPORT OF THE REGIONAL WORKSHOP ON STRENGTHENING LEGAL AND INSTITUTIONAL ARRANGEMENTS FOR IMPLEMENTING MAJOR ENVIRONMENTAL CONVENTIONS IN SOUTH ASIA

Maldives, 1-6 April 1997

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South Asia Co-operative Environment Programme (SACEP) and
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The Norwegian Agency for Development Co-operation (NORAD)

To obtain copies of this publication please write to:

Deputy Director, Programmes
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No. 10 Anderson Road
Colombo 5,
SRI LANKA.

Printed by

M.D. Gunasena & Co. (Printers) Ltd.
Colombo, Sri Lanka.

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Message

The South Asia Co-operative Environment Programme (SACEP), conceived in 1981 through an approval of Ministers with a deep concern toward the feasibility of regional co-operation on environmental oriented development activities, currently consists of nine member Governments: Afghanistan, Bangladesh, Bhutan, Maldives, India, Iran, Nepal, Pakistan and Sri Lanka. The 15 Priority Subject Matter Areas approved at the First Governing Council Meeting of SACEP in 1983 are as follows:

1. Environmental Impact Assessment and Cost/Benefit Analysis: Environment and Development
2. Environment Quality Standards
3. Technology for Development of Renewable and Reusable Resources
4. Environment Legislation
5. Conservation of Mountain Ecosystems and Watersheds
6. Social Forestry
7. Regional Co-operation in Wildlife and Genetic Resource Conservation
8. Conservation of Coral Mangroves, Deltas and Coastal Areas
9. Island Ecosystems
10. Tourism and Environment
11. Desertification
12. Regional Seas
13. Energy and Environment
14. Education and Training
15. Training in Wildlife Management

The Priority Area of Environment Legislation was developed further in December 1995 with the holding of a UNEP/SACEP *Workshop on Framework Legislation for Environmental Management in the New Context Of Sustainable Development.* The Workshop concluded that further strengthening or development, as appropriate, of the Framework Legislation was an urgent need /prerequisite for pursuing a path of sustainable development.

As a result, and with the support of the Government of Norway, the SACEP/UNEP/NORAD *Joint Project on Environmental Law in South Asia* was launched in 1996. The Project consists of Activities at the Regional and National level, the latter through the establishment of National Task Forces. The objective of the Project is to develop and implement country-specific programmes of assistance in seven Countries to support them in their efforts to reinforce existing Framework Laws to enable these to serve as an instrument for effective environmental management including implementation of conventions, integration of environment and development in decision making at national, provincial/state and local levels and generally to promote the goals of sustainable development, and in those countries that have no such legislation, to develop the legislative and institutional basis for such a law and to translate it into an appropriate national law.

Training is a central part of this Project and indeed one of the 15 Priority Subject Matter Areas of SACEP. Such training as is evident in this first Workshop on *Strengthening Legal and Institutional Arrangements of Implementing Major Environmental Conventions*, necessarily involves collaboration with relevant organisations, such as UNEP, to avoid duplication of effort and enhance effectiveness.

I express my appreciation of the extensive experience and support brought by UNEP to this Workshop and the Project as a whole and of the work done by the compilers of this Workshop Report. I sincerely hope this Report will provide a useful reference for Participants and others working in the area of Environmental Law in South Asia, of the issues covered and presentations made.

Hussain Shihab
Director
SACEP

Foreword

The shift in focus at UNCED 1992 to sustainable development had a number of implications and direct references to environmental law. Agenda 21 which came out of the UNCED process provided a new blueprint for universal partnership for sustainable development and environmental protection and called for changes in society's economic behaviour, based on a new awareness of the impact of human activity on the Environment. Chapter 38 of Agenda 21 recognised the ever-increasing role of environmental law as a tool for promoting sustainable development and Chapter 8 recognised that laws and regulations suited to country-specific conditions would be the most important instruments for transforming environment and development policies into action. In international law, Chapter 38 called for further development of international environmental law, promotion of its implementation and coordinating functions arising from the increasing number of international legal agreements, taking into account the need for the most efficient use of resources and also called on developing countries to be given support in their national efforts to implement international agreements.

UNEP, since its inception in 1972, has a coordinating and catalytic role with respect to environment issues and has attached great importance to the role of environmental law in its programmes. UNCED and the Commission on Sustainable Development at its 1997 Session, confirmed UNEP's mandate as the principle agency in the United Nations system in the promotion of international environmental law aiming at sustainable development. Since UNCED, additional work has been undertaken by UNEP such as the negotiation of the Lusaka Agreement on Co-operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora, the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities and the development of a legally binding instrument on the prior informed consent (PIC) procedure for trade in certain hazardous chemicals and pesticides.

The Governing Council of UNEP by Decision 19/1 of 7 February 1997 called on UNEP *inter alia* to further the development of international environmental law aiming at sustainable development. The translation of sustainable development policies and international conventions into action through country-specific legislative and institutional measures and the dissemination of information in the field of International Environmental Law constitutes a major focus of UNEP's programme in the field of Environmental Law.

More specifically, the Environmental Law and Institutions Programme Activity Centre (ELI/PAC) at headquarters in Nairobi is responsible for (i) the development and implementation of global legal instruments in the field of the environment; (ii) development of national environmental legislation and establishment or support of appropriate institutions; and (iii) and the promotion of public awareness in environmental law through dissemination of information, legal education and training.

One of the strategic elements of UNEP's restructured programme, designed to enable the organisation to respond effectively to the enhanced mandate given to it by UNCED, is partnership. Partnerships, such as the substantive support from the Government of Norway (NORAD) and the regional expertise of SACEP which made this Workshop possible, not only avoids duplication of effort but brings together the comparative advantages of global, regional and national organisations and institutions having the expertise and experience to respond to the particular requirements of a region. Greater effectiveness is achieved through such partnerships which mobilise multi-disciplinary expertise to explore a range of perspectives and bridge global and local concerns.

From all of us here at ELI/PAC and the Regional Office in Bangkok, I wish to thank Hussain Shihab, Director SACEP and his colleges for the opportunity to join in this Workshop and for their enthusiastic support and organisation of the Workshop.

Donald Kaniaru
Director
ELI/PAC

List of Abbreviations

Basel Convention	Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal
CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMS	Convention on the Conservation of Migratory Species of Wild Animals
GPA	Global Programme of Action for the Protection of the Marine Environment from Land-based Activities
MARPOL	International Convention for the Prevention of Pollution from Ships
Montreal Protocol	Montreal Protocal on Substances that Deplete the Ozone Layer
Ozone Convention	The Vienna Convention for the Protection of the Ozone Layer
PIC	Prior informed consent procedure for trade in certain hazardous chemicals and pesticides
Ramsar Convention	Convention on Wetlands of International Importance Especially Waterfowl Habitat
SACEP	South Asia Co-operative Environment Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNCCD	United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa
UNCLOS	United Nations Convention on the Law of the Sea

1. INTRODUCTION

1.1 ORGANISATION OF WORKSHOP

The Nineteenth session of the Governing Council of UNEP which was held in Nairobi in February 1997, by decision 19/20:

> *commended* UNEP for the action it has taken to implement the Montevideo Programme II over the period 1993-96 and in particular the efficient use it has made of limited resources available to it;
> *endorsed* the observations and recommendations made by the Meeting of Senior Government Officials Expert in Environmental Law for the mid-term Review of the Programme for the Development and Periodic Review of Environmental Law for the 1990s on specific programme areas of the Montevideo Programme II and requested the Executive Director to use them as guidance in further implementing the programme;
> *encouraged* the Executive Director to implement the Programme, as appropriate, in close collaboration with the relevant international organisations;
> *reaffirmed that* the environmental law programme should remain among the major priority areas on which UNEP should concentrate in its 1998-1999 programme of work.

The Governing Council, by Decision 19/1, also mandated continued assistance by UNEP and other organisations for participation in and implementation of major environmental Conventions and in the inter-linkages between Conventions.

In 1996, UNEP joined hands with SACEP to pursue one of SACEP's fifteen Priority Subject Matter Areas: strengthening national environmental legislation. This was also one of the areas identified for priority action at the 1996 Session of the Commission on Sustainable Development. A Joint Programme of Activities in the Field of Environmental Law and Policy was launched with financial support from the Government of Norway. The scope of this Project is to deliver cost-effective and non-duplicative programmes of technical advice and co-operation to promote the goals of sustainable development, through national and regional activities. This Workshop was the first regional activity designed to meet these needs, by reinforcing existing legal and institutional arrangements with respect to major environmental Conventions.

The Joint UNEP/SACEP project has several national and regional components. Among the regional components was the *Regional Workshop for Countries in South Asia on Strengthening Legal and Institutional Arrangements, for Implementing Major Environmental Convention.* The value and impact of the workshop was enhanced by the participation of senior officials from the Basel Convention, UNFCCC, Ozone Convention, and CBD Secretariats as Resource Persons. This partnership between UNEP and the Convention Secretariats in the area of capacity building in international law also advances one of the goals of Chapter 39 of Agenda 21, namely co-ordinating the functions of environmental Convention Secretariats.

The seven countries participating in the Workshop were Bangladesh, Bhutan, India, Maldives, Nepal, Sri Lanka and Pakistan (for the first two days only). The Workshop demonstrated the benefits of regional delivery and the advantages of combining the comparative advantages of UNEP and other UN Agencies; intergovernmental organisations (SACEP); Academic Institutions; and national organisations to form global, regional and national partnerships. Within UNEP, partnerships were further consolidated between ROAP and ELI/PAC which enabled the participants to benefit from the considerable expertise developed at the UNEP Headquarters in Nairobi.

The organisation and structure of the Workshop was such that the first three days dealt with "brown" law issues (pollution). A cruise was undertaken on Day 4 to surrounding islands and the remaining two days dealt with "green" law issues (conservation).

Welcome addresses for the Workshop were made by Hon. Mr Abdullahi Majeed, Deputy Minister of Planning Human Resources and Environment; Mr. Hussain Shihab, Director, South Asia Co-operative Environment Programme; Mr. Donald Kaniaru, Director ELI/PAC; Hon. Mohammed Munavvar Attorney General, Republic of Maldives; and Mr. Prasantha Dias Abeyegunawardene, Deputy Director Programmes, South Asia Co-operative Environment Programme.

The opening session was chaired by Hon. Abdullahi Majeed. An overview was given by Mr. Lal Kurukulasuriya, Chief,

Regional Environmental Law Programme to emphasise the participant driven and result oriented nature of the Workshop through the use of afternoon interactive "Break Out" Sessions with Special Resource Persons from UNEP, Convention Secretariats and other Institutions. A paper was presented by Mr. K.H.J Wijayadasa on the general issues relating to implementation of the Conventions to be covered in the Workshop.

OBJECTIVES

(a) To examine existing national legal and institutional arrangements for the implementation of Conventions and their adequacy, and build upon existing structures to strengthen these arrangements to achieve more effective implementation.

(b) Impart a better understanding of the objectives, structure, obligations and rights under 8 Conventions: Regional Seas/Marine Pollution, Basel, Ozone, UNFCCC, CBD, CITES, CMS, UNCCD

(c) To promote wider participation in these Conventions.

METHODOLOGY

The seven Governments were requested to nominate two participants. To ensure the workshop was result driven and participatory, a combination of methods were adopted ranging from country presentations, question and answer sessions and panel discussions. An innovative approach was adopted being the use of "Special Resource Persons". These were four legal experts at UNEP ELI/PAC and ROAP and an Assistant Professor of the University of Singapore who worked with one or in groups of the Participating countries, to give more personalised training during the three afternoon "Break Out" Sessions of the Workshop. This ensured active participation/interaction of participants and resource persons. The work of these teams was co-ordinated by UNEP and SACEP resource persons, assisted by the Principal Resource Person who moved around the groups. The result of these three "Break Out" Sessions in Regional Seas/Marine Law, Ozone and Hazardous Waste was the production of a Country/Group Report which will be a basis and focus for further strengthening existing legislative and institutional mechanisms in the respective countries in those areas.

Prior to the Workshop, SACEP with UNEP liaised with and directed participants to make the necessary inquiries and obtain the necessary documents. A detailed questionnaire of some 18 pages was sent to participants to elicit information on areas of concern in respect of 6 of the Conventions. This encouraged Participants to collaborate with the other Participants and make inquiries with relevant government and non-government bodies of which they may not have dealt with previously as well as collect relevant laws for use in the Workshop. Participants were also asked to prepare a short Country Presentation for one of the Conventions at the Workshop which covered the concerns of the Country in the Convention, existing legal and institutional structures for implementation and the problems encountered in the implementation.

The Workshop had short plenary morning sessions, with presentations by Principle Resource Persons followed by 2-3 Country Presentations of 15 minutes duration which was either followed by "Break Out" sessions in the afternoon and a panel session in the late afternoon to hear a 'summary' of the measures developed in the "Break Out" sessions, or a panel discussion with country summaries of existing measures and questions/answers.

OUTPUTS

A. General

1. User friendly publication focussing on the costs and benefits of participation in the elected Conventions and compendia of issues that need to be addressed in the development of national legal and institutional arrangements for their implementation, with draft provisions where possible.

B. At "Break Out" Sessions /Through Group Discussions

2. Country-specific outline of appropriate national schemes, building upon existing ones, for the more effective implementation of the Conventions.
3. Participant-developed Cost/Benefit Papers in their particular national context.

ROLE OF RESOURCE PERSONS

The Principal Resource Persons explained key points and issues of the topic and historical developments so Participants could assess the specific needs, problems and priorities of their country with respect to the topic and enable them to make recommendations for action in their country. The presentations were a focus for the discussions and/or "Break Out" sessions that followed which drew out and developed issues of concern in the topic for that day and promoted open exchange and contribution from the Participants. Discussions focused on practical applications and steps to be taken. The Principle Resource Persons were also available during "Break Out" sessions on the days they presented to provide technical assistance and advice where requested.

REFERENCE MATERIAL

Three sets of materials were distributed to Participants at the start of the Workshop for use in the Workshop and afterwards when the Participants returned home. These included the SACEP/UNEP/NORAD *South Asia Handbook of Treaties and Other Legal Instruments in the Field of Environmental Law,* the IUCN Manual on the Convention for Biological Diversity and a folder which included the papers by Resource Persons and example national laws for implementing the Conventions. Also distributed during the Workshop were materials brought from the Convention Secretariats such as the Hazardous Waste Draft Model National Legislation 1996, COP Reports, UNEP/IUCN Guideline for CITES and Fact Sheets on Desertification.

1.2 CONCLUSION AND RECOMMENDATIONS

The Workshop through enthusiastic participation and interactive sessions enabled effective appraisal of the policies, institutions and laws of the South Asian countries, the steps to take in considering legislation to implement the Conventions, immediate and longer term solutions and the benefits that can result in the harmonisation of laws and co-operation within a sub-region such as South Asia. The participants recommended follow-up action to strengthen legal and institutional arrangements for implementation of environmental conventions in their countries.

GENERAL RECOMMENDATIONS

(I)

National Workshops, preferably in the national language, using some national experts as Resource Persons but with external technical and financial assistance from UNEP, SACEP and other relevant organisations. Some Government assistance to be provided in preparation/translation of materials. Focusing on:

-Obligations and commitments in implementing Conventions

-Costs and benefits on becoming a Party to Conventions

-CITES and CBD (majority of Participants also listed UNFCCC, Basel and Marine Conventions)

-Strengthening legal and institutional arrangements

-Strengthening technical aspects

-Training officers and implementing agencies

(II)

Financial and technical assistance from SACEP/UNEP for conducting public awareness activities in the countries such as:

-multimedia Workshops, in the national language,

-assistance to grassroots level and local representatives

-dissemination of publicity material and information kits

-assist in translating Conventions into local language for dissemination

(III)

Sustained technical assistance in capacity building: human resource strengthening, purchase and operation of equipment, managing technology and institutional coordination and consultations necessary to implement Conventions.

(IV)

Strengthen sub regional information and material on environmental law by means of: Strengthening SACEP's Legal and Scientific Database and preparing a SACEP Resource book of regional experts.

COUNTRY SPECIFIC RECOMMENDATIONS

Country	Recommendation
Bangladesh	1.Organisation by UNEP/SACEP of meetings and National Workshops to establish and strengthen legal and institutional linkages. Such Workshops to be on all conventions, conducted in English and Bengali using external financial assistance but with some local assistance to be provided in material preparation and translations. The focus would be: -to highlight each Article in detail to concerned government officials and NG0s - to strengthen/harmonise existing rules and regulations relating to implementation - to identify inadequacies in the legal and institutional framework. 2.Through financial and technical support from UNEP/SACEP, conduct public awareness activities by preparation of an information kit for relevant officials and the public, in Bengali and English, to be distributed through media, Seminars and at Environment Day
Bhutan	1. Strengthen institutional framework for implementation of major conventions and submit proposals to relevant Ministries for consideration on Conventions not yet ratified. 2.Organisation of National Workshops on implementation. Such Workshops to be on all ratified conventions, conducted in Dzongkha and English, using external financial assistance but with some local assistance to be provided in national experts as Resource Persons, contributions from GEF/UNDP fund, material preparation and translations. The focus would be: - legal and institutional arrangements for implementation - obligations and commitment/costs and benefits of participation 3.With UNEP/SACEP assistance in needs assessments and National Workshops, conduct public awareness activities at the grassroots level for peoples' representatives and government officials, in Dzongkha and English. 4. Further support required from UNEP/SACEP/NORAD for joint implementation, review, and resources.
India	1 Follow-up action of dissemination of the issues and decisions taken, among the concerned sections and departments; focus the specific concerns in other workshops within the country and appraise the Government on future actions needed to strengthen the conventions. 2. Organisation by UNEP/SACEP of National Workshop. Such Workshops to be on Ship Pollution, Basel, Ozone, CBD and CITES Conventions, conducted in English and Hindi, using external financial assistance but with some local assistance able to be provided in national experts as Resource Persons, material preparation and translations. The focus would be: - implementation of conventions and strengthening technical aspects; - strengthen law/regulations and mechanisms; - identify instruments/mechanisms to involve regional co-operation; - awareness and information dissemination 3. Through financial, information and technical support from UNEP/SACEP, conduct public awareness activities by holding multimedia workshops for relevant officials, media, industrialists and the public, in Hindi and English.
Maldives	1. Disseminate the issues and recommendations of the Workshop to Ministry and other relevant agencies; strengthen the legal and institutional regime; and incorporate the output from the Workshop in the National Environmental Action Plan. 2.Organisation by UNEP/SACEP of National Workshops on Ship Pollution, UNFCCC, CITES and CBD Conventions, conducted in English, using external financial assistance but with limited assistance able to be provided in administrative support, Resource Persons and material. The focus would be: - legal and institutional arrangements for implementation (especially CITES) - costs and benefits of participation. 3. Through financial support and expertise from UNEP/SACEP, conduct public awareness activities being radio programmes, eco-clubs in co-operation with school curricula, videos on planes, for schools and the public, in Dhivehi and English, to be communicated through TV, radio and news papers.

Nepal

1. Strengthen institutions and the organisational task force for legal drafting and for conventions not yet ratified, convey the importance of the Convention to the Government.
2. Organisation by UNEP/SACEP of National Workshops on Basel, UNFCCC, Ozone, CCD, CITES and CBD conventions, conducted in Nepali and English, using external financial assistance but with limited assistance able to be provided in materials, translations and Resource Persons. The focus would be on the legal and institutional arrangements for implementation.
3. Conduct public awareness activities, with support from UNEP/SACEP in translating conventions and conducting Workshops in the local language. Activities to also include radio programmes, village meetings, newsletter and school curricula targeting villagers, officers, students, industrialists and journalists, using TV, radio and workshops to communicate.
4. Further technical and financial assistance from UNEP/SACEP/NORAD to obtain office material and expenses for various task forces.

Sri Lanka

1. Request government authorities to take follow-up action from Workshop and prepare papers on each convention, highlighting the action needed for implementation and dissemination of information.
2. Prepare papers recommending consideration of participation in Conventions not yet ratified (such as desertification) and submit to ministers and focal points.
3. Organisation by UNEP/SACEP of National Workshops on all major conventions covered at Workshop, conducted in English, Sinhalese and Tamil using external financial assistance but with some assistance able to be provided through national experts as Resource persons, material preparation and translations. The focus would be:
   - legal and institutional arrangements for implementation
   - public awareness, information exchange and training relevant officers/public
4. Through financial support for translations and publicity material from UNEP/SACEP, conduct public awareness activities being Articles in newspapers, school programmes and media workshops. Activities would target schools, local groups and media and be conducted in Sinhala, Tamil and English and communicated through TV, radio and newspapers.
5. SACEP/UNEP brief the minister and relevant authorities on need for follow up action

1.3 EVALUATION

Two documents were distributed to participants to obtain feedback on the Workshop and outline country recommendations for follow-up action (see Annex 6). The first dealt with arrangements and conduct of the Workshop as well as Recommendations for follow-up action and the second dealt with Recommendations for effective national public awareness activities in the field of Environment Conventions and how these would be conducted.

All the Participants thought the Workshop was very focused and a majority were of the view that the knowledge gained and Materials distributed were comprehensive to get a proper understanding of the scope and nature of the Conventions and the national measures needed to be taken for their effective implementation. One Participant noted that the Materials could have included laws of the South Asian countries demonstrating implementation within the region as well as case studies of success stories. An undertaking was made by the Workshop organisers during the evaluation discussion, to copy and distribute all laws collected from the Participants during the Workshop.

It was thought that the time allocated for interactive sessions was adequate and that the presentations were generally comprehensive, focussing on issues relating to implementation. Particular praise was given to those presentations that used transparencies to highlight major points of the written paper and included concrete examples of effective implementation in countries.

Lal Kurukulasuriya
Chief
Regional Environmental Law Programme
UNEP-ROAP

Hussein Shihab
Director, SACEP
Colombo

2. MARINE POLLUTION MANAGEMENT LAW

2.1 TECHNICAL PRESENTATIONS

IMPLEMENTATION OF INTERNATIONAL AGREEMENTS ON PROTECTION OF THE MARINE AND COASTAL ENVIRONMENT IN SOUTH ASIA [1]

Ms Peigi Wilson, Associate Legal Officer, UNEP

Introduction

As environmental degradation has worsened and people's awareness of the problems has heightened, States have recognised their responsibilities to protect the environment in the adoption of international environmental instruments.

Many international agreements aiming at the protection of the ocean and coastal marine environment have been negotiated providing the legal basis for co-operation among States on this subject. Collectively these agreements form a substantial and coherent regime for protection of the marine environment including, pollution from sea-based activities; pollution from land-based activities; and sustainable use and protection of living marine resources.

With the assistance of the United Nations Environment Programme (UNEP) in the development and implementation of these instruments, States have begun to confront the worsening state of the marine environment. Though many of these instruments are still in the early stages of development and implementation, they provide a forward looking regime for environmental protection.

UNEP's mandate in marine protection

The roots of the United Nations Environment Programme are found in the United Nations Conference on the Human Environment held in Stockholm, 5-16 June 1972. One of the outgrowths of the conference was the decision of the United Nations General Assembly to establish the United Nations Environment Programme (UNEP) to "serve as the focal point for environmental action and co-ordination within the UN system".

UNEP's general mandate is to promote and provide advisory services for international co-operation in the field of the environment and to keep under review the world environment situation in order to ensure that emerging environmental problems of wide international significance receive consideration. In 1975, UNEP's mandate was specifically extended to include taking such measures as may be necessary for the realisation of the objectives and the implementation of strategies relating to the UNEP programme in the field of international environmental law.

The decision to concentrate on ocean and coastal marine environments was also an outgrowth of the Stockholm Conference. The Declaration adopted at the close of the Conference contained, among other things, 26 principles of common conviction regarding environmental objectives. Principle 7 states that:

> States shall take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea.

The Action Plan for the Human Environment also adopted at this Conference includes, in Annex III the General Principles for Assessment and Control of Marine Pollution. Subsequently, the Governing Council of UNEP chose oceans as one of the priority areas on which it would focus efforts to fulfill its catalytic and co-ordinating role. Among other activities, UNEP developed the Regional Seas Programme in 1974 which concentrates on assessing and addressing marine environment problems.

Twenty years after the Stockholm Conference, a second major global environmental conference was held in Rio de

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[1] The views expressed in this paper are those of the author.

Janeiro, 1992. The United Nations Conference on Environment and Development (UNCED) reviewed progress since the Stockholm Conference and adopted Agenda 21 as the blueprint for global change into the next century. Sustainable development was endorsed as the overall objective. UNCED reinvigorated the environmental movement both inside and outside of the United Nations system and Agenda 21 has become the touch stone for action.

Chapter 17 of Agenda 21 focuses on protection of the oceans; all kinds of seas, including enclosed and semi-enclosed seas; and coastal areas and the protection, rational use and development of their living resources. The following programme areas were selected for concentration:

- integrated management and sustainable development of coastal areas, including exclusive economic zones;
- marine environmental protection;
- sustainable use and conservation of marine living resources of the high seas;
- sustainable use and conservation of marine living resources under national jurisdiction;
- addressing critical uncertainties for the management of marine environment and climate change;
- strengthening international, including regional, co-operation and co-ordination; and
- sustainable development of small island developing States.

In order to concentrate on these activities as well as address environmental problems related to freshwater, UNEP has developed a holistic water programme, integrating the concerns and resources of the Freshwater Unit, the Oceans and Coastal Areas Programme Activity Centre and the water-related component of the International Environmental Technology Centre into a single focused entity. Previously, these UNEP entities largely worked individually to assist governments to address significant water-related issues. However, UNEP's new integrated Water Programme will assist governments much more effectively and efficiently to incorporate comprehensive assessment and integrated management of freshwater, coastal and marine resources into their national and regional water, environment and economic development plans. Major elements of the integrated Water Programme are the Global Environment Monitoring System (GEMS/Water), and the Regional Seas and Environmentally-Sound Management of Inland Waters Programmes. The following are priority areas in the 1996-97 biennium work programme:

* policy relevant assessments of the state of freshwater and maritime resources.. Global Freshwater Assessment;
* policy relevant assessments of the state of freshwater and marine resources: Diagnostic Studies;
* development of tools and guidelines for sustainable management and use of freshwater and coastal resources, including tools and technologies, socioeconomic impacts and water pollution control programmes;
* promotion of international co-operation in the integrated management of river basins and coastal areas with a focus on land-based activities and the special needs of small island developing States: Watershed and Coastal Zone Management;
* promotion of international co-operation in the integrated management of river basins and coastal areas with a focus on land-based activities and the special needs of small island developing States: Land-Based Activities; and
* support and institutional servicing of the Regional Seas Conventions and Freshwater and Coastal Action Plans.

Agenda 21 also reinforced UNEP's mandate in environmental law stressing in Chapter 38 that in the follow-up to UNCED, there is a need for an enhanced and strengthened role of UNEP and its Governing Council, in particular in

the further development of international environmental law. Chapter 8 of Agenda 21 highlights the need to provide assistance to countries to develop appropriate legislation to address environment and development issues and Chapter 39 outlines the need to evaluate and promote the efficacy of international environmental law and to promote the integration of environment and development concerns within such instruments.

The Environmental Law and Institutions Programme Activity Centre (ELI/PAC) is also guided in its scope of work by the Programme for the Development and Periodic Review of Environmental Law for the 1990's, established by the Meeting of Government Officials Expert in Environmental Law and adopted by Governing Council decision 17/25, on 21 May 1993. ELI/PAC addresses the needs of States in the further development and implementation of both international and national environmental law. ELI/PAC provides assistance to States in the negotiation of international environmental agreements and promoting the application of, and respect for, international law. In its national capacity building unit, ELI/PAC provides assistance to States, upon request, in the review, analysis, and development of national environmental legislation, including for the implementation of international environmental agreements.

International regime for the protection of the coastal and marine environment

There are many different legal instruments which address marine environmental protection and prescribe environmental standards to be applied. These instruments are a critical part of the overall marine environment protection regime. The principle Conventions dealing with the protection of the marine environment are:

1969 Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Damage;

1969 International Convention on Civil Liability for Oil Pollution Damage;

19 71 Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage;

19 73178 International Convention for the Prevention of Pollution by Ships;

1972 International Convention on the Prevention of Marine Pollution from Dumping of Wastes and Other Matter;

1982 United Nations Convention on the Law of the Sea (UNCLOS);

1990 International Convention on Oil Pollution Preparedness, Response and Co-operation;

the various Regional Seas Conventions and Protocols.

It should be noted that these instruments operate alongside other international laws which also generally assist with the protection of the marine environment, for example, specialised instruments on safety at sea such as the *1972 Convention on the International Regulations for Preventing Collisions at Sea.* Various other environment Conventions have a tangential effect on the marine and coastal environment. These include the *United Nations Convention on Climate Change (UNFCCC), the Basel Convention on the Control of Trans boundary Movement of Hazardous Wastes and Their Disposal* (Basel), the *Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer* (Ozone Convention and Montreal Protocol), *the Convention on Wetlands of International Importance Especially as Waterfowl Habitat* (Ramsar), *the Convention on the Conservation of Migratory Species of Wild Animals* (CMS), and various Agreements under that Convention, the *Convention on Conservation of Antarctic Marine Living Resources, Convention on Biological Diversity* (CBD) among others.

Finally, there are various "soft law" instruments that complete the marine and coastal environmental protection regime. These include the *1995 Global Programme of Action for Protection of the Marine Environment from Land-based Activities (GPA), Global Programme Of Action for Marine Mammals, the International Coral Reef Initiative,* and the various Action Plans under the Regional Seas Programme including the Action Plan for the South Asian Seas.

It is not possible to address all of these instruments thoroughly here. Instead, this paper will concentrate in outlining the global regime for protection of the marine and coastal environment as contained in the primary global and regional

instruments. Beginning with the global instruments, including UNCLOS and the GPA, the paper will then turn to the regional seas programme with concentration on the South Asian Seas region.

Global instruments

United Nations Convention on the Law of the Sea

UNCLOS covers virtually every conceivable use and benefit of the oceans including shipping, fishing and sea-bed mining. It also establishes a regime for dispute resolution, dividing the resources of the seabed, the limits of innocent passage, and coastal and flag State jurisdiction. However, the Preamble to UNCLOS recognises that a necessary part of the legal regime for the oceans is protection of the marine environment:

> *Recognising* the desirability of establishing through this Convention, with due regard for the sovereignty of all States, a legal order for the seas and oceans which will Facilitate international communication, and will promote the peaceful uses of the seas and oceans, the equitable and efficient utilisation of their resources, the conservation of their living resources, and the study, protection and prevention of marine environment. (emphasis added)

Marine pollution is defined in UNCLOS as: the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea impairment of quality for use of sea water and reduction of amenities. There are at least forty references in the Convention to protection of the marine environment. These include dumping at sea, air pollution, ice covered areas, protection of fishing stocks and mammals and carriage of nuclear materials or nuclear powered vessels. Part XII is of particular relevance.

Part XII of UNCLOS is dedicated to protection and preservation of the marine environment. Article 192 stipulates that States have a general obligation to protect and reserve the marine environment. Article 193 recognises that while States have the sovereign right to exploit their natural resources this right is subject to their environmental policies and in accordance with their duty to protect and preserve the marine environment. Further, States shall take measures to prevent, reduce and control pollution of the marine environment from any source, including:

- The release of toxic, harmful or noxious substances, especially those which are persistent, from land based sources, from or through the atmosphere or dumping;
- Pollution from vessels;
- Pollution from installations and devices used in the exploration or exploitation of natural resources of the sea-bed or subsoil; and
- Pollution from other installations and devices operating in the marine environment.

Note that these measures must not constitute an unjustifiable interference with activities carried out by other States.

Section 2 of Part XII addresses global and regional co-operation for the protection and preservation of the marine environment. States shall co-operate on a global basis and as appropriate on a regional basis, either directly or through competent international organisations such as UNEP to develop rules, standards and recommended practices and procedures for the protection and preservation of the marine environment. Such co-operation includes: establishing appropriate scientific criteria for the formulation of such rules, etc.; notification of imminent or actual damage to the environment from pollution; the development of contingency plans in case of accidents; and research programmes and exchange of information on pollution in the marine environment. This Part also addresses technical assistance to developing States and States' responsibilities for monitoring and environmental assessment.

The most substantial portions of this Part deal with international rules and national legislation to prevent, reduce and control pollution of the marine environment including enforcement. States shall adopt national legislation and international conferences shall be convened to establish rules to protect the marine environment from pollution from sea-bed activities subject to national jurisdiction, pollution from activities in the Area, pollution by dumping, pollution from vessels, and pollution from or through the atmosphere. Regimes for enforcement of various international rules

or national legislation are established in this Part depending on the jurisdiction accorded under the Convention.

UNCLOS also contains provisions requiring States to address pollution problems arising from land-based sources. States are required to adopt laws and regulations to prevent, reduce and control pollution of the marine environment from sources such as rivers, estuaries, pipelines, and out fall structures and any other such measures necessary to address this issue. These laws are to be designed to minimise the release of toxic, harmful or noxious substances, especially those which are persistent into the marine environment. UNCLOS calls on States, acting especially through competent international organisations or diplomatic conferences, to establish global and regional rules, standards, and recommended practices and procedures to reduce this type of pollution. States have responsibility for enforcing their own laws to control land-based sources of pollution and must take measures to implement applicable international rules and standards established through competent international organisations or diplomatic conferences. The GPA falls under this provision, and will be discussed at length below.

UNCLOS further provides that States have sovereign rights for the purpose of, among other things, conserving and managing the natural resources of the seas, whether living or nonliving. The Convention divides living resources into several different categories, including by where they are found such as in the EEZ or the continental shelf area, and by species such as manuals or highly migratory species. States have an obligation under UNCLOS to ensure that necessary measures are taken to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life. Nothing in UNCLOS prevents States from adopting rules for the prohibition, limitation or regulation of the exploitation of marine mammals. This section was included to take into account the existing International Whaling Commission. A final provision of UNCLOS worthy of note is the provision requiring States to take necessary measures to protect the marine environment from pollution resulting from the use of technologies under their jurisdiction or from the intentional or accidental introduction of new or alien species.

Global Programme of Action for Protection of the Marine Environment from Land-Based Activities

Many major threats to the health, productivity and bio-diversity of the marine environment result from human activities on land, both in coastal areas and further inland. Most of the pollution load of the oceans emanates from land-based activities and affects the most productive areas of the marine environment which include estuaries and the near-shore coastal waters. Pollution arises from a variety of sources including municipal, agricultural and industrial processes. Sewage, industrial wastes, pesticide runoff from farms, garbage, and eroded soil all end up in the oceans. Both UNCLOS and the Regional Seas Conventions address this problem, but as recognition of the problem has grown, a new GPA was developed. As noted earlier, the development of the GPA was envisaged under UNCLOS and chapter 17 of Agenda 21. At UNCED in 1992, States agreed that protection of the marine environment from land-based activities was a fundamental element of sustainable development.

The GPA was adopted at the Intergovernmental Conference convened for this purpose in Washington, DC from 23 October to 3 November 1995. This was the culmination of many years of work, beginning in 1982 when UNEP took the initiative to develop advice to governments on addressing impacts on the marine environment from land-based activities. This initial work resulted in the development of the Montreal Guidelines for the Protection of the Marine Environment Against Pollution from Land-based Sources in 1985. This is a soft law instrument, which means that its provisions were not binding on States, and is in the form of recommendations.

The GPA aims to prevent the degradation of the marine environment from land-based activities by facilitating the realisation of the duty of States to preserve and protect the marine environment. It is designed as a source of conceptual and practical guidance to be drawn upon by nations and/or regional authorities, such as under the regional seas agreements, in devising and implementing sustained action within their respective policies, priorities and resources, which will lead to the prevent, reduction, control and /or elimination of the degradation of the marine environment from land-based activities. Effective implementation of the GPA is a crucial and essential step forward in the protection of the marine environment and will promote the objectives and goals of sustainable development.

It is worth noting the choice of the phrase "land-based activities". Many other instruments, including Regional Seas Conventions and Protocols use the word "sources". As understanding of the problem has grown overtime, experts came to realise that it was not always possible to point to a specific source of pollution. For example, whereas an out-fall pipe from an industrial site or a municipal sewage treatment plant can be easily identified, runoff of pesticides or fertiliser from farms or leaching from polluted ground water sites are more difficult to trace. Further, harbour dredging or destruction of coral reefs are not, strictly speaking, sources of pollution, but rather polluting activities. Thus, the

drafters decided to refer to land-based activities to ensure the instrument addressed all types of land-based pollution which impact on marine resources.

The GPA lists some of the problems land-based activities impose on the marine environment including:

(A) Contaminants including:
- i) sewage;
- ii) persistent organic pollutants;
- iii) radioactive substances;
- iv) heavy metals;
- v) oils (hydrocarbons);
- vi) nutrients;
- vii) sediment mobilisation;
- viii) litter;

(B) physical alteration, including habitat modification and destruction in areas of concern;

(C) sources of degradation including:

i) point sources (coastal and upstream) including:
- a. waste-water treatment, industrial, and recreation and tourism facilities;
- b. power plants;
- c. military installations;
- d. construction works (dams, coastal structures, harbour works and urban expansion);
- e. coastal mining;
- f. research centres;
- g. aquaculture;
- h. habitat modification (dredging, filling in of wetlands, clearing of mangrove forest); and
- i. introduction of invasive species.

ii) non-point (diffuse) sources such as:
- a. urban, agricultural, horticultural, forestry, construction and mining waste runoff;
- b. landfills and hazardous waste sites;
- c. erosion as a result of physical modification of coastal features.

iii) atmospheric deposition caused by:
- a. transportation (vehicle exhaust);
- b. power plants and industrial facilities;
- c. incinerators;
- d. agricultural operations; and

(D) areas of concern including:

- i) critical habitats, including coral reefs, wetlands, seagrass beds, coastal lagoons and mangrove forests;
- ii) habitats of endangered species;
- iii) ecosystem components including spawning areas, nursery areas, feeding grounds and adult areas;
- iv) Shorelines;
- v) Coastal watersheds;
- vi) Estuaries and their drainage basins;
- vii) Specially protected marine and coastal areas; and
- viii) Small islands.

The GPA provides detailed information on actions to be taken at the national, regional and international levels to address marine pollution from land-based activities.

At the national level, countries are encouraged to develop comprehensive programmes of action for integrated coastal area management which should include:

a) identification and assessment of the problems;

b) establishment of priorities;

c) setting management objectives for priority problems;

d) identification, evaluation and selection of strategies and measures;

e) criteria for evaluating the effectiveness of strategies and measures; and

f) Programme support elements.

The GPA recommends strategies and programmes for management including:

a) Measures to promote sustainable use of coastal and marine resources and for preventing or reducing degradation of the marine environment such as best available techniques and best environmental practices, introduction of clean production practices, application of best management practices, use of appropriate, environmentally sound and efficient technologies and product substitution;

b) Measures to modify contaminants or other forms of degradation after generation such as waste recovery, recycling, and waste treatment;

c) Measures to prevent, reduce or ameliorate degradation of affected areas such as environmental quality criteria, land-use planning requirements, and rehabilitation of degraded habitats; and

d) Requirements and incentives to induce action to comply with measures such as economic instruments and incentives including polluter pays and internalisation of environmental costs, technical assistance and training, and education and public awareness.

As has been recognised through the Regional Seas Programme, co-operation at the regional level can be crucial for success in arresting marine degradation. This is particularly so where a number of countries share the same marine and coastal area, such as in enclosed or semi-enclosed seas. Regional co-operation can strengthen regional and national capacity, provide an avenue for harmonising and adjusting measures to fit particular environmental and socio-economic circumstances and support more efficient and cost-effective implementation of the programmes of action. States are encouraged to participate in regional and subregional arrangements. Effective functioning of such arrangements might include: strengthening regional information networks; inviting multilateral financing agencies, particularly regional development banks, to cooperate in and support action plans; and encouraging collaboration between national and regional focal points and economic groupings, other relevant and international organisations, development banks and regional rivers authorities in the development and implementation of action plans.

International co-operation serves a central role in capacity building, mobilising financial resources, developing an international institutional arrangement for assisting with the implementation of the GPA and furthering work in specific areas at the international level. Regular review of the implementation of the GPA, and review of the state of the world marine environment is also important at the global level to encourage exchange of experiences, flow of financial resources, scientific and technological cooperation, and transfer of cleaner technology.

Support for capacity building includes the mobilisation of experience in support of national and regional activities and the development of a clearing house mechanism. With regard to mobilisation of experience, States should cooperate to ensure the establishment of linkages with international and regional organisations, including specialised agencies such as UNEP and with ongoing international programmes monitoring and assessing the state of the marine environment and relevant river systems, including for example the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP), the Global Ocean Observing System (GOOS) and the Global Investigation of Pollution in the Marine Environment (GIPME). States should also promote cooperative interaction with private-sector groups and non-governmental organisations to introduce cost-effective and environmentally sound practices, facilitate access to new and innovative technology and sources of technical advice and assistance, and

promote cleaner production methods, particularly through training of industry personnel. The clearing house is to be established by UNEP as the secretariat for the GPA. It is intended to be a means for facilitating exchange of experience and expertise, including facilitating effective scientific, technical and financial cooperation.

Mobilising financial resources is another indispensable element of a successful programme of action. While States recognise that, in general, funding for national and regional programmes will come from national private and public sector resources, financial support will be required by countries in need of assistance to follow through on implementation of the GPA. An illustrative list of funding sources and mechanisms at the national level and from external sources is provided in the Annex to the GPA. It should also be noted that the Global Environment Fund is authorised to mobilise funds, including grants and concessionary loans to eligible countries, to achieve agreed global incremental benefits in the area of international waters.

Finally, two areas of additional international action are identified: 1. Waste water treatment and management; and 2. persistent organic pollutants.

States recognise the serious public health problems and degradation of the marine environment caused by the disposal of inadequately treated waste water in coastal areas. The Executive Director of UNEP, in close co-operation with WHO, UNDP, UNCHS (Habitat) and other relevant organisations, is called upon to prepare a proposal setting forth a specific plan for addressing the global nature of the problem to allow the issue to be addressed in follow-up to the GPA.

The GPA also promotes the development of a global legally binding instrument on persistent organic pollutants (POPs). POPs are a set of organic compounds which are particularly dangerous in that they are toxic, persistent (do not break down), liable to bio-accumulate, prone to long-range transport and deposition, and can result in adverse environmental and human health effects at locations both near to and far from their source. Due to their composition and transport patterns, they tend to accumulate in the cooler latitudes. Twelve specific compounds have been identified including PCBs, dioxins and furans, and DDT. Work is currently under way in a number of international fora to assist in the development of a multilateral environmental agreement addressing the manufacture, trade, use and disposal of POPs.

Other International Conventions

An issue that has been touched on only briefly above is protection of living marine resources. The sustainable use and conservation of marine resources will of course benefit from attention to controlling the sources of pollution noted above. Activities such as land reclamation and dredging, pollutants from land-based activities, and oil spills have tremendous impacts on the living marine resources. But other threats to living resources include loss of habitat, unregulated scientific research, live capture, over-fishing or hunting, incidental or accidental mortality such as through the use of purse seine nets, and deliberate killing because of competition to valuable economic species. Currently there is no single international body that co-ordinates action in the sustainable use and conservation of living marine resources. A checkerboard of international instruments has been developed to attempt to address some of these issues.

Of course, as described above, UNCLOS addresses this issue. There are also a couple of soft law instruments that specifically target protection of living marine resources. In addition, other global Conventions, including CBD, CMS, UNFCCC and CITES, directly or indirectly affect the protection of living marine resources. These Conventions are dealt with at length elsewhere so it is sufficient here to merely point out how these various instruments assist in the protection of living marine resources.

Global Programme of Action for Marine Mammals

This Programme of Action, adopted in 1984 by UNEP's Governing Council, was a joint effort of UNEP and the FAO. It is not a legally binding instrument but is a policy statement. The Programme covers cetaceans (whales and dolphins), pinnipeds (seals and sealions), sirenians (seacows such as the dugong and manatee) and others such as sea otters.

The objective of the Programme is to promote the effective implementation of a policy for marine mammals directed at prevention of further extinction, maintenance in optimal states of marine mammals and restoration of those species which have been depleted by exploitation, ensure that exploitative use of marine mammals is conducted in such a way that wide options for future uses are maintained, ensure that exploitative use of marine mammals is conducted in a humane manner and with minimal disruptive effect on populations and to ensure sympathetic consideration of human

communities dependent on such resources so as to not cause undue economic hardship or cultural disruption. The Programme is laid out in five areas of concentration including: policy formulation; regulatory and protective measures; improvement of scientific knowledge; improvement of law and its application; and enhancement of public understanding.

International Coral Reef Initiative

Coral reefs and associated ecosystems play a fundamental role in the coastal ecosystem and their continued health is a fundamental element of the sustainable use of coastal regions. Concern over the plight of coral reefs has been raised at numerous international fora, including the CBD, UNFCCC, the GPA, and the Global Conference on Sustainable Development of Small Island States. In 1994, the International Coral Reef Initiative (ICRI) was proposed and supported by Governments, UN Organisations including UNEP, Regional Organisations, Multilateral Development Banks and NGOs. The ICRI, among other things, calls for governments and international organisations to strengthen commitment to and implementation of programmes to protect and conserve the reefs and to incorporate management provisions for protection and restoration of the reefs and associated environments. An international workshop was held 29 May - 2 June 1995 to develop a consensus Framework for Action and regional meetings have been held throughout 1995 and 1996. At the regional meetings governments were encouraged to develop and adopt integrated coastal management measures including, among others, enforcement of regulations to protect the marine environment.

Other Relevant International Agreements

There are several other international environmental conventions that either directly or indirectly address issues of marine resource protection. These include the Vienna Convention and Montreal Protocol, the CBD, CITES, CMS and the UNFCCC.

The UNFCCC addresses climate change. The impacts of climate change are not certain, but concerns exist about the impact on habitat of ocean and coastal species as well as the ability of some of the smallest and most sensitive but most important elements of the ocean food chain to adapt to rising temperatures. The Vienna Convention and Montreal Protocol also address this last concern, as there are indications that plankton cannot withstand higher levels of radiation, which are the results of the thinning ozone layer. The sustainability of these organisms will determine the fate of larger organisms that feed on them.

The CBD is intended to promote the conservation of biological diversity, the sustainable use of its components and the equitable sharing of the benefits arising out of the use of genetic resources. At the second Conference of the Parties to the Convention held in Jakarta in late 1995, the Parties decided to request the Subsidiary Body on Science, Technology and Technological Advice to the Convention to establish a three year panel on marine/coastal biological diversity to examine in particular, protected areas, sustainable use, integrated management, introduction of alien species and mari-culture.

CMS provides a framework by which Parties may act to conserve migratory species and their habitat by adopting strict protection measures for migratory species that have been categorised as endangered, concluding agreements for the conservation and management of migratory species or their separate populations that have an unfavourable conservation status or would benefit from international co-operation and undertake joint research or management activities. Negotiated under the CMS is the Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas and the Agreement on the Conservation of Small Cetaceans of the Mediterranean and Black Sea which is currently under negotiation. Note that these are distinct from those established under the Regional Seas Programme.

The objective of CITES is to ensure that international trade in species threatened with extinction is prohibited except in special circumstances, and that trade in species whose survival might be threatened by such trade is controlled and monitored to ensure the trade is sustainable. To this end, CITES establishes a world wide system of controls on international trade in threatened animals and plants and Articles derived from them. All such trade must be authorised by government issued permits or certificates. This would include, for example, trade in sea tortoise shell.

Regional Seas Programme

One of the difficulties which exist with global instruments addressing environmental issues is that many of them are unable to deal with region specific problems. Regional agreements can be effectively concluded and implemented

precisely because of the need to protection a commonly shared resource. This is the case with protection of regional seas, including the South Asia Seas.

A Regional Seas Programme was initiated by UNEP in 1974. At present, in accordance with the relevant decisions of UNEP's Governing Council, the Regional Seas Programme covers 13 areas and 140 countries where regional action plans are operative or are under development. These include the Mediterranean Area (1975); the Kuwait Action Plan (1978); the West and Central African region (1981); the Wider Caribbean region (1981); the East Asian Seas region (1981), the Southeast Pacific region (1981). The Red Sea and Gulf of Aden region (1982). The South Pacific regions (1982); the Eastern African region (1985); the South Asian Seas region (being developed); the Black Sea region (Framework Action Plan adopted in 1993) the Northwest Pacific region (1994) and the Southwest Atlantic region (being developed).

The substantive aspects of any regional programme are outlined in an action plan which is formally adopted by an intergovernmental meeting of the governments of a particular region before the programme enters into its operational phase. In the preparatory phase leading to the adoption of the action plan, Governments are consulted through a series of meetings and missions about the scope and substance of an action plan suitable for their region. In addition, with co-operation of appropriate global and regional organisations, a review of the specific environmental problems of the region are prepared in order to assist the governments in identifying the most urgent problems in the region and the corresponding priorities to be assigned to the various activities outlined in the action plan. It is designed to link assessment of the quality of the marine environment and the causes of its deterioration with activities for the management and development of the marine and coastal environment. The action plans promote the parallel development of regional legal agreements and of action-oriented programme activities. UNEP co-ordinates directly, or in some regions, indirectly, thorough existing regional organisations, the preparations leading to the adoption of the action plan.

All action plans are structured in a similar way, although the specific activities for a given region are dependent upon the needs and priorities of that region. An action plan usually includes the following components:

* Environmental Assessment: This concerns assessing and evaluating the causes of environmental problems as well as their magnitude and impact on the region. Emphasis is given to such activities as: baseline studies; research and monitoring of the sources, levels and effects of marine pollutants; ecosystem studies; studies of coastal and marine activities and social and economic factors that may influence, or may be influenced by, environmental degradation. Environmental assessment is undertaken to assist national policy makers to manage their national resources in a more effective and sustainable manner and to provide information on the effectiveness of legal/administrative measures taken to improve the quality of the environment.

* Environment Management: Each regional programme includes a wide range of activities in the field of environmental management. Examples of such activities are: co-operative regional projects on training in environmental impact assessment; management of coastal lagoons, estuaries and mangrove ecosystems; control of industrial, agricultural and domestic wastes; and formulation of contingency plans for dealing with pollution emergencies. As both environmental assessment and environmental management activities are to be actually carried out by designated national institutions, assistance and training are provided, where necessary, to allow national institutions to participate fully in the programme.

* Environmental Legislation: An umbrella regional convention, elaborated by specific technical protocols, often provides a legal framework for co-operative regional and national actions. The legal commitment of governments clearly expresses their political will to manage individually and jointly their common environmental problems.

* Institutional Agreements: When adopting an action plan, governments agree upon an organisation to act as the permanent or interim secretariat of the action plan. Governments are also expected to decide upon the periodicity of intergovernmental meetings which are to be responsible for reviewing the progress of the agreed work plan and for approving new activities and the necessary budgetary support.

* Financial Arrangements: UNEP, together with selected UN and other organisations, provides "seed

money" or catalytic financing in the early stages of regional programmes. However, as a programme develops, it is expected that governments of the region will progressively assume full financial responsibility. Government financing is usually channelled through special regional trust funds to which governments make annual contributions. These funds are administered by the organisation responsible for the secretariat functions of the action plan. In addition, governments may contribute directly to the national institutions participating in the programme or to specific project activities.

It is essential to bear in mind that all components of a regional programme are interdependent. Assessment activities identify the problems that need priority attention in the region. Legal agreements are negotiated to strengthen co-operation among States in managing the identified problems. They also provide an important tool for national policy makers to implement national control activities. Management activities, aimed at controlling existing environmental problems and preventing the development of new ones, are one of the means by which States fulfil their treaty obligations. Co-ordinated assessment activities then continue to assist governments by providing scientific information by which to judge whether the legal agreements and management policies are effective.

Once the Action Plan has been adopted, the States may choose to proceed with the development of a convention, often further expanded upon in one or more protocols. Although the Conventions and Protocols are developed to address regional needs, they have some common traits.

The Conventions establish general provisions and obligations of the parties including taking all appropriate measures to prevent, reduce and combat pollution and ensuring sound environmental management of natural resources, cooperation in the formulation and adoption of protocols to the Conventions, endeavouring to harmonise policies, ensuring effective implementation and assisting each other in fulfilling their obligations under the Convention and Protocols. They also establish the necessary institutional arrangements, dispute resolution mechanisms and funding mechanisms to carry out the work under the Convention. Usually UNEP provides the seed money necessary to get the Convention established and operating in the first few years, with party governments taking on increasing financial responsibility for the operations as time passes.

The Conventions all have an Article which defines the geographical reach of the convention. Inland waters are generally excluded from the convention, the exception being the *Convention for Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region*, which specifically includes "related inland waters". This is changing, however, considering the concern over marine pollution from land based activities. All States with jurisdiction over a part of a drainage basin into a coastal area may have to be involved in activities to address this concern.

The conventions all also contain a section dealing with general obligations. Such obligations generally include:

a) taking all measures necessary for the conservation of the affected sea, including the prevention, abatement and combating of marine pollution;

b) establishing national standards, laws and regulations to protect the sea environment in conformity with the convention and to co-operate with international, regional and sub- regional organisations to develop regional standards;

c) ensuring that in taking measures to prevent, reduce, combat and control pollution in the convention area that the parties do not transfer damage from one area to another or transform one type of pollution into another; and

d) co-operating to develop protocols prescribing agreed measures, procedures and standards for the implementation of the convention.

Each convention then goes on to address specific issues of concern in the region. These may include pollution from land-based activities; airborne pollution; pollution from seabed activities; pollution from vessels; specially protected areas and protection of wild flora and fauna; co-operation in combating pollution in cases of emergency; pollution caused by dumping from ships and aircraft; and erosion of the coastal area. The *Convention for the Protection of the Natural Resources and Environment of the South Pacific Region* also includes provisions on disposal of wastes, storage of toxic and hazardous wastes, and testing of nuclear devices. These general clauses serve as the basis for the establishment of protocols outlining in greater detail the specifics of the actions to be taken by States in regards to these

issues.

The conventions also generally provide for environmental impact assessment, scientific and technical co-operation, technical and other assistance, and liability and compensation. The South Pacific Convention also provides that the Parties will corporate to transmit information to the other Parties on measures adopted by them in the implementation of the Convention as agreed to by the Parties.

Also established under each convention are the necessary institutional arrangements for assisting with the implementation of the convention, authorising an organisation to carry out the functions of secretariat for the convention. Often UNEP serves as the secretariat initially. The South Pacific and the *Kuwait Regional Convention for Co-operation on the Protection of the Marine Environment from Pollution* are served by independent secretariats and the *Convention for the Protection of the Mediterranean Sea against Pollution, the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region* and the East Asian Seas Action Plan secretariats are provided by specialised units within UNEP. The conventions also deal with matters such as meetings of the parties, amendment of the convention and protocols, adoption of protocols, settlement of disputes, and other standard final clauses.

Each of the Convention has at least one Protocol, setting out in greater detail specific duties outlined in the Convention. As noted earlier, the Protocols generally address one of the specific pollution concerns of greatest importance to the region. For example, the *Protocol concerning Regional Co-operation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency* under the *Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment* recognises the threat to the environment imposed by the amount of tanker traffic through the region. In fact, each of the conventions has a protocol for co-operation to address environmental emergencies, generally specifically oil spills. Other subjects for protocols include:

a) pollution from dumping from ships and aircraft;

b) pollution from land-based sources;

c) special protected areas; and

d) pollution from exploration and exploitation of the seabed and continental shelf and the subsoil thereof.

The South-east Pacific Convention is unique with its *Protocol for the Protection of the South-east Pacific against Radioactive Contamination.*

The protocols deal with the same geographic region outlined in the conventions and spell out the relationship between the convention and the protocol. Generally the rules of procedure and financial rules of the convention apply to the protocols. The parties to the convention are generally also required to become a party to at least one protocol at the same time. Sometimes this is automatic. Conversely, no State may be a party to a protocol without also being a party to the convention.

Action Plan for the South Asian Seas

The Action Plan for the Protection and Management of the Marine and Coastal Environment of the South Asian Seas was adopted at a Conference of Plenipotentiaries meeting at New Delhi, India on 24 March 1995. The Action Plan applies to the marine and related coastal environment, including international waters adjacent to Bangladesh, India, Maldives, Pakistan and Sri Lanka.

The objective of the Action Plan is to protect and manage the marine environment and related coastal ecosystems of the region, including the promotion of sustainable development and sound management of regional marine and coastal resources. As with the other Action Plans, this Action Plan addresses the five components of environmental assessment, environmental management, environmental legislation, and institutional and financial arrangements and adds a sixth: supporting measures.

In preparing for the development and implementation of the Action Plan, UNEP assisted with the compilation of national reports on environmental problems of the marine and coastal areas for each of the countries involved, which included a description of existing national legislation addressing this issue. In the area of environmental legislation,

the Action Plan recommends that:

a) National legislation and regulations be reviewed and expanded, updated or strengthened as necessary;

b) national legislation related to marine and coastal resources be effectively enforced;

c) national legislation be harmonised where international uniformity is required;

d) an up to date compilation of national laws be maintained; and

e) international agreements related to protection of the marine and coastal environment should be ratified and implemented.

The priority issues to be addressed through the South Asian Action Plan fall under four particular areas of concern in the region:

a) integrated coastal zone management;

b) development and implementation of national and regional oil and chemical spill contingency planning;

(c) human resource development through the strengthening of regional centres of excellence; and

(d) protection of the marine environment from land-based activities.

UNEP is initiating and promoting the concept of integrated management of watersheds, river basins, estuaries, and marine and coastal areas, which provides a comprehensive ecosystem based approach to protection of freshwater, coastal and ocean resources. Coastal area management concentrates on problems in the dynamic and ecologically sensitive coastal zone and a wider zone including the hinterland which influences coastal processes and can extend over an entire watershed including river basins. The management of coastal areas is linked to the environmentally sound management of resources in the hinterland, including quality and quantity of water flow and transport of soil sediments and pollutants. Within the framework of the Action Plan for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region, UNEP is in the process of preparing a document on Practical Steps in the Integrated Coastal Area Management (ICAM) Process. These practical steps are a means of communicating UNEP's ICAM experiences throughout the Regional Seas Programme to assist with developing on-the-ground practical steps for implementing the ICAM process for sustainable development. UNEP has assisted the countries of Comoros, Kenya, Mozambique and Tanzania to develop ICAM strategies.

Few of the activities to address these issues involve a law component. However, the development of national legislation, as necessary, for response to oil and chemical spill emergencies is envisaged under area (b) above.

Conceivably, in the future, a South Asia Regional Seas convention and protocols may be adopted to further strengthen activities to protect the marine and coastal environment. In February 1990, a meeting of legal and technical experts was convened to review a proposed legal framework. This included a draft convention and draft protocols on co-operation in combating marine pollution in cases of emergency, prevention of pollution from dumping by ships and aircraft, and protected areas and wild fauna and flora. The meeting came to consensus regarding the draft convention and the first two protocols. However, no further work has been undertaken on these instruments since.

The South Asia Co-operative Environment Programme (SACEP) is secretariat to the Action Plan. As such, it is responsible for formulating, negotiating and co-ordinating execution of regional projects; collating and analyzing results obtained through such projects; organizing meetings in connection with the Action Plan; keeping Parties informed of the progress achieved; managing the financial resources; and seeking involvement of the UN, multi and bi-lateral donors and NGOs in the implementation of the Action Plan. UNEP provides assistance, upon request, to assist in the further implementation of the Action Plan, including advising on the development of GEF project proposals and with the development of national legislation. UNEP, upon request, continues to provide assistance to the countries of the region and SACEP in implementation of the Action Plan. SACEP can provide up to date information on the status of implementation of the Action Plan.

Ultimately, however, the success of the Action Plan depends on the commitment of the Parties and the actions taken at the national level which demonstrate that commitment. Implementation of the Action Plan by the Parties generally should focus on according recognition to the strategy and incorporating it as a basic element of their own development planning. Institutional and financial mechanisms should integrate the principles of the Action Plan. Parties should also endeavour to enhance their information base and capacity through the creation of appropriate forums for the generation of knowledge and awareness on matters of environmental protection and through training, technology transfer and technical assistance programmes. For legal experts, focus at this point in time should be on the development of national legislation for prompt response to oil and chemical spill disasters, called for under Annex III to the Action Plan.

The Future

With UNEP's role as the focal point for environmental action and co-ordination within the UN system, it brings a unique perspective to the creation and implementation of law at the international and national levels. As environmental degradation worsens world wide with worrying new developments, environmental law plays a critical role in the prevention, reduction and control of specific environmental problems. One of the fastest growing types of law, environmental law is an important tool for the implementation of the objectives of Agenda 21. The expanded environmental agenda has heightened the need for further enhanced and more efficient legal and institutional regimes, at both international and national levels, to meet the Post-Rio requirements of integrating environment and sustainable development. Considering its importance to global health, international cooperation for and national attention to the effective environmental management of the ocean and coastal marine environment are critical elements of sustainable development worldwide.

There already exist a number of international instruments which address coastal and marine environment protection. Some work is planned to further develop these instruments, including the development of a new instrument on POPs. Most important at this time, however, is the national implementation of and compliance with these instruments. Without this, these instruments are impotent to bring change as they were intended. UNEP's championing of environmental considerations through the effective implementation of and compliance with international environmental conventions addressing the marine environment will continue to be of primary concern, as will assisting States with the development and implementation of necessary national laws and institutions. Through the development of new instruments as necessary and the further implementation of existing ones, States will reap the rewards that accrue from careful husbandry of the unique marine environment.

MARINE MATERIALS (Address for obtaining copies)

1 1996 North American Energy Response Guidebook

US Department of Transportation
Research Special Programme Administration
Office of Hazardous Material
Initiatives and training (DHM 50)
Washington DC 20590-0001 Fax 202-366 7342

2 UNEP - Consultation Version APELL for Port Areas

IMO also available from IE/PAC Paris, France
4- Albert Embankment
London SEI 7SR

3. APELL Senior Level Expert Advisory GP Meeting, 7 - 9 Oct. 96, Paris. Guidelines for the development of a National Contingency Plan

UNEP – IE/PAC
Tour Mirabeau
39 - 43 quai Andr'e Citroes 75739
Paris Cedex 15
France Fax: (33-1) 4437 1474

4. International Directory of Emerging Response Centres OECD Environment Monographs NO. 43 or UNEP IE/PAC TRS No. 8

UNEP - IE /PAC
Tour Mirabeau
39 - 43 quai Andr'e Citroes 75739
Paris Cedex 15
France Fax: (33-1) 4437 1474

5. Regulation of Major Hazards in France, Germany, Finland and the Netherlands by Alan V Jones

HSE Books: Mail Order
P.0 Box 1999, Sudbery
Suffolk COIO 6FS UK Fax 01787 313995

A GUIDE TO THE MAJOR GLOBAL INSTRUMENTS RELATING TO POLLUTION OF THE MARINE ENVIRONMENT

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Introduction: Definition and Sources

This paper is intended to provide an overview of the major global instruments governing pollution of the marine environment. It contains a brief description of the scope of the major instruments, presented in a historical context. It is not intended to provide a detailed analysis of any of the conventions or of the many outstanding issues with respect to marine pollution. It does not deal with global instruments governing the conservation and sustainable use of the living resources of the oceans.

In Article 1 of the 1982 UN Convention on the Law of the Sea, "pollution of the marine environment" has been defined to mean:

> the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities.

When most laymen think of marine pollution, they think of major oil spills, and television scenes of oil soaked birds and beaches come immediately to their minds. However, oil pollution from ships, although the most dramatic and visible source of marine pollution, is not the only serious marine pollutant. In fact, it accounts for a relatively small amount of the marine pollution. According to the 1990 GESAMP Report on *The State of the Marine Environment*[1] marine pollution is derived mainly from land-based sources and the atmosphere. In that report, it was estimated that the relative contribution of all potential pollutants from various human activities entering the sea is as follows[2]:

Offshore Production	1%
Maritime Transportation	12%
Dumping	10%
Run-off and land-based discharges	44%
Atmosphere	33%

Global Instruments on Marine Pollution

A. ***The position prior to World War II***

Under the rules of customary international law governing the oceans, the principle of *freedom of use* was the prevailing norm. The resources of the oceans were regarded as inexhaustible. The oceans were also viewed as ideal dumping grounds which were so vast that they were not capable of being polluted through the activities of man.

The potential for ships to pollute the marine environment was recognised as early as the 1920's, and a conference was convened in Washington in 1926 to draw up a draft convention on pollution from ships. However, it was only after World War II that the international community began to realise that international action may be required to regulate pollution of the marine environment.

B. ***Oil Pollution Convention, 1954***

The 1954 International Convention on the Prevention of Pollution of the Sea by Oil was the first international convention to attempt to prevent pollution of the sea by oil from tankers. It prohibited the discharge of oil or oil mixture by tankers within prohibited zones. It originally applied to all sea-going ships over 500 tons or more, but was amended in 1962 to cover tankers of 150 tons or over.

Amendments were made to the 1954 Oil Pollution Convention in 1969. It was amended to provide for more stringent requirements for operational discharges which were consistent with the "load-on-top system" of operating which had been adopted by oil tankers. In 1971, the Convention was amended to impose new standards on the construction of oil tankers. This convention has been superseded by the 1973/78 MARPOL Convention, which will be discussed later in this paper.

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[1] Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP), The State of the Marine Environment (UNEP, 1990) at 88.

[2] Ibid.

C. *Geneva Convention on the High Seas, 1958*

The 1958 Geneva Convention on the High Seas contained only two provisions relating to marine pollution. Article 24 recognised the potential harmful effects of oil pollution from ships and from off-shore oil exploration and exploitation. It placed an obligation on all States

> to draw up regulations to prevent pollution of the seas by the discharge of oil from ships or pipelines or resulting from the exploitation and it exploration of the seabed and its subsoil, taking account of existing treaties on the subject.

It thus had an indirect reference to the 1954 Convention, but only obliged States to take into account.

Article 25 of the 1958 Convention contained two provisions relating to pollution of the marine environment. First, it required States to take measures to prevent pollution of the seas by the dumping of radioactive waste. Second, it provided that States had a general obligation with respect to 'activities with radioactive materials or other harmful agents'. States were obliged to cooperate with the competent international organisations in taking measures in the prevention of the pollution of the seas from such activities.

D. *IMO International Maritime Dangerous Goods Code*

This code was introduced by a resolution of the IMO Assembly in 1965. It classifies dangerous goods and sets out detailed requirements as to marking, labelling, packaging and documentation. It has been updated on a regular basis in response to developments in the shipping and chemical industries. It is widely observed and the IMO has recommended that States adopt it as the basis for national legislation. It supplements several IMO conventions, and is essential for their effective implementation. The IMDG Code is regularly amended. Amendments made in 1994 were so extensive that the entire 2500 page Code has been reprinted.

E. *Intervention, Civil Liability and Fund Conventions*

The Torrey Canyon disaster in 1967, in which a Liberian tanker carrying over 119,00 tons of crude oil, caused considerable pollution damage along the coasts of France and the United Kingdom. This prompted two international conventions in 1969 to deal with the problem of oil spills from maritime casualties -- the Intervention Convention and the Civil Liability Convention. These two conventions were supplemented by the 1971 Fund Convention.

1. Intervention Convention, 1969

The Convention Relating to the Intervention on the High Seas in Cases of Oil Pollution Casualties was adopted in Brussels on 29 November 1969. It entered into force on 6 May 1975.

This treaty gives coastal States special powers to take self-help measures beyond the limits of their territorial sea following a maritime casualty involving oil pollution from ships which may reasonably be expected to result in major harmful consequences. Coastal States may take such measures as may be necessary to prevent, mitigate or eliminate grave and imminent danger to their coastline or related interests from pollution or threat of pollution of the sea by oil.

A Protocol adopted in 1973 extends the Convention to substances other than oil. The 1973 Protocol entered into force on 30 March 1983.

2. Civil Liability Convention, 1969

The 1969 International Convention on Civil Liability for Oil Pollution Damage was also adopted in Brussels in 1969. It entered into force on 19 June 1975.

The 1969 Civil Liability Convention creates a scheme of liability for oil pollution damage caused by oil tankers. The Convention provides that the ship owner is strictly liable for oil pollution damage, without any need to prove negligence or fault except in certain circumstances, such as war and insurrection. They allow persons who suffer damage from oil pollution to have recourse directly against the owner of the vessel, without involving States. Under the 1969 Convention the owner's liability is limited according to a formula related to the tonnage of the ship and the overall total, unless the incident occurred as a result of his actual fault.

The 1969 Convention was amended by a Protocol in 1976, which entered into force on 8 April 1981.

3. Fund Convention, 1971

The 1971 Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (1971 Fund Convention) was adopted in Brussels in 1971. It entered into force on 16 October 1978.

The purpose of the 1971 Fund Convention is to establish a fund to provide additional compensation so that within the limits of the Fund's total liability, the victims are fully and adequately compensated. The fund is established from a levy on oil importers, who are mainly the oil companies whose cargoes the vessels are likely to be carrying. The 1969 Fund Convention provides that the owner who is liable under the 1969 Civil Liability Convention is entitled to have recourse to the fund in order to relieve a portion of his liability, even where the total amount of his liability does not exceed the limits established by the 1969 Convention.

The 1969 Fund Convention also provides compensation even where no liability for damage arises under the Civil Liability Convention, or where the ship owner is financially incapable of meeting his obligations under the Civil Liability Convention. The Fund Convention thus provides a form of security for claimants who have suffered pollution damage. However, the Fund established by the Convention is not available in certain exceptional circumstances, including where the claimant cannot prove that the damage resulted from an incident involving one or more ships.

F. *Stockholm Conference on the Human Environment, 1972*

The recognition of the need for international co-operation to prevent pollution of the marine environment was given further impetus by the 1972 Stockholm Conference on the Human Environment. The Stockholm Conference called upon all States to accept and implement existing legal instruments on the control of marine pollution. It also supported proposals for new conventions on dumping and pollution from ships.

G. *London Convention, 1972*

The proposals at the Stockholm Conference led to the adoption in the following year of the 1972 Convention on the Prevention of Marine Pollution by the Dumping of Wastes and other Matter (London Convention). Draft Articles which had been prepared for the 1972 Stockholm Conference were adopted at an intergovernmental conference convened in London in which more than 90 States took part. The Convention entered into force on 30 August 1975.

The purpose of the London Convention is to regulate the dumping of wastes at sea. It regulates the deliberate disposal at sea of certain substances, including oily wastes, dredging and land-generated wastes. It does not govern oil pollution caused by operational discharges from the normal operation of ships. Nor does it govern pollution caused by maritime casualties.

Under the London Convention contracting parties pledge themselves to take all practicable steps to prevent the pollution of the sea by the dumping of waste and other matter that is liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea. Contracting Parties are obliged to take effective measures to prevent marine pollution caused by dumping and to harmonise their policies in this regard.

Two provisions are of special interest to less developed countries. First the obligation to take individual measures is 'according to their scientific, technical and economic capabilities'. Second, parties are obliged to promote support for other parties who require training of personnel, supply of equipment, and facilities for research and monitoring and disposal and treatment of waste.

The London Convention contains a 'black list' of Annex I substances that may not be dumped at sea; a 'grey list' of Annex II substances that may be dumped subject to a special permit. Annex III contains criteria for determining whether other substances may be dumped at sea, pursuant to a general permit.

The International Maritime Organisation (IMO) is the competent organisation which is responsible for secretariat duties under the Convention. Contracting Parties have obligations to make notifications on various matters to the IMO.

The IMO convenes consultative meetings of the parties to review the implementation of the Convention, adopt amendments, promote regional co-operation, etc. Periodic reviews and amendments of the Convention are made through the regular Consultative Meetings. The Convention was amended in 1978. Under a tacit amendment procedure, amendments to the annexes take effect for all parties within a certain time, unless they object within 100 days. Under this procedure, the annexes have been amended several times.

Beginning in 1991, the Contracting Parties to the London Convention began to adopt what might be described as a 'precautionary approach' to ocean dumping. Under this approach, "appropriate preventive measures are taken where there is reason to believe that substances or energy introduced in the marine environment are likely to cause harm even where there is no conclusive evidence to prove a causal relation between outputs and their effects"' The effect of the new amendments to the annexes has led to a complete ban on the dumping of radioactive waste, to a phase out of the dumping of industrial waste and to a ban on the incineration of waste at sea.

The London Convention is supplemented by regional agreements in many parts of the world. For the most part, the regional agreements do not elaborate substantially on the 1972 Convention. In some respects, however, the regional agreements set the trend for proposed amendments to the London Convention. For example, the 1992 Baltic and Northeast Atlantic agreements expressly cover dumping in internal waters, which is not governed by the London Convention.

H. *MARPOL Convention, 1973/78*

The Stockholm Conference was an impetus for the adoption of the 1973 Convention for the Prevention of Pollution from Ships (1973 MARPOL Convention) in the following year. The 1973 MARPOL Convention replaced the 1954 Convention. The 1954 Convention had not been particularly successful. Not all flag States were parties to it, and the enforcement record of flag States which were parties was weak. The Stockholm Conference had called on States to accept and implement the available international instruments and to ensure compliance by vessels flying their flag.

This Convention is known as the 1973/78 MARPOL Convention. The initial 1973 text was adopted by the IMO in 1973. Before it received a sufficient number of ratifications to enter into force, it was substantially amended by a protocol in 1978 to facilitate its entry into force. The Convention, as amended by the 1978 Protocol, entered into force on 2 October 1983.

The object of the Convention is to prevent the pollution of the marine environment by the operational discharge of oil and other harmful substances and to minimise the accidental discharge of such substances. States parties are obliged to apply the provisions of the Convention to ships flying their flag and to ships within their jurisdiction.

The Convention has had a major impact on the construction of tankers, and in practice, all tankers built after 1975 have been built to meet MARPOL requirements. In practice, the vast majority of ships today conform to MARPOL standards.

Amendments adopted in 1992 and which entered into force in 1995 impose new standards to improve the safety of tankers. All new tankers ordered after July 1993 of 5,000 dwt and above must be fitted with double bottoms and double hulls. In addition, the construction requirements for tankers of 25 years of age or above (those built prior to 1970) were amended to require the mandatory fitting of double hulls or an equivalent design. In addition, the 1992 amendments provided for an enhanced system of inspection for oil tankers aged five years and above. The effect of these amendments is likely to be that aging tankers which were constructed prior to the MARPOL Convention will be either upgraded to modern standards or scrapped.

Implementation of the Convention is based in part upon the right of inspection by port States. Parties are obliged to cooperate in the detection of violations and the enforcement of the provisions of the Convention. Ships in the port or offshore terminals of any party to the Convention are required to hold certificates issued pursuant to the Convention, and are subject to inspection by the port state to verify the certificate. If any ship in port does not carry a valid certificate, or if there are clear grounds for believing that the condition of the ship or its equipment does not correspond substantially with the particulars of its certificate, a more detailed inspection is required. In such case, the Party carrying out the inspection is obliged to take such steps as will ensure that the ship shall not sail until it can proceed to sea without presenting an unreasonable threat of harm to the environment.

The MARPOL Convention relies mainly on technical measures to limit oil discharges, including standards for the

construction of new oil tankers. Discharges of small quantities of oil are permitted, but only when the vessels are enroute and more than 50 miles from land. The Convention allows that certain areas can be designated as 'special areas' where all discharges are prohibited.

The Convention is not confined to oil pollution. It also regulates other types of pollution caused by the operation of ships, including the bulk carriage of noxious liquids and garbage. The Convention contains five annexes which contain regulations governing different types of pollutants. The annexes are:

Annex I	Oil Discharges
Annex II	Noxious Liquid Substance Discharges
Annex III	Harmful Substances in Packaged Form and Containers
Annex IV	Sewage Discharges
Annex V	Garbage Discharges

All of the annexes are in force except Annex IV on Sewage Discharges. All parties are bound by Annexes I and II.

States parties to the MARPOL Convention are obligated to supply reception facilities. However, the record of port States in supplying such facilities has been not been good in some parts of the world because of financial constraints. Another problem for implementation by port States is the cost of administering a system of inspection and enforcement, including the training of the necessary personnel.

It has also been observed that there has been lack of effective implementation of the Convention by many flag states. Among the reasons cited for this are a lack of trained and experienced personnel to carry out the inspections, especially the need to train and retain qualified and experienced surveyors.

It is generally believed that the participation costs for developing countries will be reduced if there is co-operation on a regional basis in implementing the Convention. Under Article 17 of the Convention, States parties are obligated to promote, in consultation with the IMO and with assistance and co-operation from UNEP, support for Parties requesting assistance for the training of scientific and technical personnel and the supply of necessary equipment and facilities for reception and monitoring. Another benefit of regional co-operation is the standardisation of rules and procedures.

The International Maritime Organisation (IMO) serves as secretariat for the convention. It receives reports, acts as depository, and considers amendments to the Convention and its annexes. Article 16 of the Convention provides for amendments to the Convention, its appendices, annexes and protocols either by a Conference of the Parties or through the IMO. In practice, Appendices, Annexes and Protocols have been amended by the IMO through the Marine Environment Protection Committee (MEPC). The MEPC is responsible for coordinating work with other IMO conventions and with relevant UNEP conventions (such as the 1989 Basel Convention).

I. *IMO Conventions on Maritime Safety*

Other IMO conventions and instruments, although technically dealing with maritime safety, are also relevant to prevention of pollution of the marine environment. The most important of these are: (a) 1974 Convention on Safety of Life at Sea (SOLAS); (b) 1972 International Regulations for Preventing Collisions at Sea (COLREGS); and (c) 1978 Standards of Training, Certification, and Watchkeeping.

J. *United Nations Convention on the Law of the Sea, 1982*

In 1973, the Third UN Conference on the Law of the Sea was convened. The deliberations lasted for nine years, and resulted in the 1982 Convention on the Law of the Sea. The 1982 Convention was intended to provide a global constitution for the oceans. It entered into force on 16 November 1994.

The 1982 Convention is of critical importance because it is increasingly regarded as a constitutional document, which sets out the basic legal framework for the oceans. It is a major law-making treaty, which has significance for all States, whether or not they are parties to it. As a law-making or constitutional document it can be regarded as the "best evidence" of the existing rules of general international law governing the oceans. All of the global conventions covering specific areas, such as the IMO and UNEP conventions, are generally read subject to the 1982 Convention. Subsequent documents of fundamental importance, such as Chapter 17 of Agenda 21, are also read so as to be consistent with the 1982 Convention.

The 1982 Convention is the strongest comprehensive global environmental treaty in existence. It established for the first time a comprehensive legal framework for the protection and preservation of the marine environment. It is significant because it represents the first attempt to set out in a global convention a general framework and structure for a legal regime which establishes the obligations, responsibilities and powers of States in matters of marine environmental protection. Part XII of the 1982 Convention (Articles 192 to 237) sets out State's obligations with respect to the marine environment generally and also their obligations with respect to the major sources of marine pollution. I shall now highlight some of the most important provisions in the 1982 Convention.

1. General Provisions

Prior to the 1982 Convention, States had the *right* to pass legislation to protect and preserve the environment, but no clear *duty* to do so. The 1982 Convention represents a major change because in Article 192 it places an affirmative obligation on States to take action to preserve and protect the marine environment. Article 193 recognizes that although States have a sovereign right to exploit their natural resources, they must do so pursuant to their environmental policies and *in accordance with their duty to protect and preserve the marine environment.* To this extent, the provision recognizes that the sovereign right of States to exploit their natural resources is subject to their obligations to protect and preserve the marine environment.

Article 194 provides that States shall take all measures consistent with the Convention to prevent, reduce and control pollution of the marine environment *from any source.* It recognizes that because of different levels of development and expertise, all States may not be able to take the same measures. It provides that States must use the *best practicable means at their disposal and in accordance with their capabilities.* Nevertheless, States are obliged to take all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other States and their environment. States are also obliged to take measures to ensure that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights in accordance with the 1982 Convention. Article 194 also provides that the measures taken in accordance with this Part *shall include* those necessary to protect and preserve *rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life.*

2. Global and Regional Co-operation

Section 2 of Part 12 is also significant because it specifically provides that States have an obligation to corporate on a global basis, or as appropriate, on a regional basis. Article 197 provides that States shall corporate directly or through competent international organisations, in formulating and elaborating international rules, standards and recommended practices and procedures for the protection and preservation of the marine environment. Such co-operation must take into account regional features. Article 200 provides that States shall corporate for the purpose of promoting studies, undertaking programmes of scientific research and encouraging the exchange of information and data acquired about pollution of the marine environment. Article 200 also provides that States shall endeavour to participate actively in regional and global programmes to acquire knowledge for the assessment of the nature and extent of pollution, exposure to it, and its pathways, risks and remedies.

3. Monitoring and Environmental Assessment

The most significant provision of the 1982 Convention relating to environmental impact assessments is Article 206. It provides that when States have reasonable grounds for believing that planned activities under their jurisdiction or control may cause substantial pollution of or significant and harmful changes to the environment, they shall, as far as practicable, assess the potential effects of such activities on the marine environment.

4. Pollution from the Various Sources

The 1982 Convention represents an important advance over the prior law because it addresses all of the sources of marine pollution. It contains detailed provisions on vessel source pollution, and also places a specific obligation on States to pass laws to regulate ocean dumping. Specific obligations are also set out for other sources of pollution, such as pollution from sea-bed activities, pollution from the atmosphere and pollution from land-based activities.

5. Links to IMO Conventions

The provisions of the Convention concerning pollution from ships and from dumping contain some important principles and rules. The provisions are significant because they incorporate by implication the provisions of other major environmental Conventions such as the 1972 London Convention and the 1973/78 MARPOL Convention. In certain cases the international rules and standards established in the IMO Conventions are established as a "minimum". States are obliged in certain cases to apply rules and standards no less onerous than "generally accepted international rules and standards". In other cases, the international rules and standards act as a "maximum". For example, in certain cases coastal States are permitted (but not obliged) to pass laws and regulations, and if they do, they must be laws and regulations "conforming to and giving effect to generally accepted rules and standards".

In other words, the 1982 Convention uses the IMO Conventions to define the detailed content of the obligations on States to protect the marine environment from pollution from ships and from dumping. Although there is some disagreement on the precise legal effect of these provisions, their effect seems to be that States which become parties to the 1982 Convention will be under an obligation to adopt the rules and standards set out in many of the major IMO Conventions, even if they are not parties to the IMO Conventions. This is an important step forward in the development of international law relating to the protection of the marine environment as it ties certain States to the international standards in the IMO Conventions even though they may not have accepted those Conventions.

Also, it should be noted that there is nothing in the 1982 Convention which is inconsistent with the provisions of the 1969 Intervention Convention relating to the right of coastal States to take measures to avoid pollution arising from maritime casualties. Neither is there anything in the 1982 Convention which is inconsistent with the liability regimes established in the Civil Liability and Fund Conventions.

6. Pollution from Ships

The provisions on pollution from ships are among the most detailed in the Convention. They attempt to strike a balance between the interests of coastal States and maritime interests.

With respect to *flag States*, the generally accepted international rules and standards are the minimum. Article 211(2) obliges flag States to adopt laws and regulations which at *least have the same effect* as the international rules. (This provision should be read together with Article 94, which addresses in part the problem of flags of convenience. Article 94 sets out new, stricter duties on flag States with respect to vessels flying their flag, including duties regarding the safety of navigation which are set out in IMO Conventions.)

With respect to *coastal States*, the rules in Article 211 are complex and complicated. With respect to vessels entering their ports or internal waters, the Convention makes it clear that coastal States have the power to establish their own requirements relating to pollution from ships as a condition of entry of foreign ships into their ports or internal waters. This power, if used as the basis for a co-operative agreement among port States within a region, provides the legal basis for regional port State control. It enables port States to impose international rules and standards such as those set out in the MARPOL Convention on all vessels entering the ports in the region.

With respect to vessels passing through their territorial sea, coastal States have the power under Article 211(4) to establish requirements relating to pollution from foreign vessels. (see also, Art. 19(2)(b) and Art. 21). The powers of the coastal States are more limited with respect to pollution from foreign ships in their exclusive economic zone. Under Article 211(5), coastal State regulations governing pollution from ships in their Exclusive Economic Zone *must conform to and give effect to* generally accepted international rules and standards. However, Article 211 of the Convention gives coastal States the power, in consultation with the competent international organisation (IMO), to designate *special areas* where it can apply stricter rules and standards.

The provisions on enforcement recognise that the flag States are still the most important, but they also give increased powers to coastal States and port States. The 1982 Convention contains one important development concerning pollution from ships. Article 220 of the 1982 Convention gives increased powers to *port States* to take action against a vessel in respect of any discharge from that vessel, even if the discharge was in one of the maritime zones of another State. For example, if a vessel is voluntarily in port in State A, and is believed to have committed a discharge violation which has occurred in, caused or threatened damage to the internal waters, territorial sea or exclusive economic zone of State B, State A is required, as far as practicable, to comply with a request from State B for investigation of the discharge violation. Therefore, if the 1982 Convention becomes universally acceptable, major port States are likely

to play an increasingly important role in the enforcement of laws and regulations concerning pollution from ships.

7. Pollution from dumping

Dumping is defined in Article 1 of the 1982 Convention. Article 210 obligates States to adopt laws and regulations, and take such other measures as may be necessary, to prevent, reduce and control pollution of the marine environment by dumping. It further provides that such laws, regulations and measures shall *be no less effective* that the global rules and standards. It is generally accepted that the global rules and standards referred to in Article 210 are those set out in the London Convention.

The 1982 Convention specifically covers one issue which is not clearly set out in the London Convention. It provides that no dumping can be carried out within the territorial sea and the exclusive economic zone or onto the continental shelf without the express prior approval of the coastal State. It also makes it clear that coastal States have the power to regulate or prohibit dumping in such areas. Article 216 provides that the laws and regulations and dumping shall be enforced by the coastal State with respect to dumping within its territorial sea or its Exclusive Economic Zone or onto its continental shelf, and by the flag State with respect to vessels flying its flag. It does not provide for enforcement by port States.

8. Pollution from land-based sources

It is generally recognised that the weakest environmental provisions in the 1982 Convention relate to pollution from land-based sources, even though it is estimated that as much as 70% of marine pollution is from land-based sources. The obligation on States with respect to land-based sources of pollution is set out in Article 207. It is only to *take into* account internationally agreed rules, standards and recommended practices and procedures. Furthermore, the obligation on States to endeavour to establish global and regional standards with respect to land-based sources of marine pollution expressly provides that *the economic capacity of developing States and their need for economic development* must be taken into account.

The weaker provisions with respect to land-based sources of marine pollution reflect the lack of consensus in the international community on the establishment of agreed rules and standards in this area, as well as the debate between developed and developing States on the proper balance between development and the environment. It should also be noted that at the time of the 1982 Convention there was no global instrument governing land-based sources of marine pollution

9. Implementation of marine pollution provisions

Most coastal States who benefited from the new entitlements under the 1982 Convention, such as the sovereign right over the resources in the Exclusive Economic Zone, have been very quick to enact laws and regulations claiming sovereign rights over the resources within their Exclusive Economic Zone. The same States have been much slower, however, in adopting the laws and regulations which they are required to take under Chapter XII of the 1982 Convention.

For example, those States which have ratified the 1982 Convention have a legal obligation to enact laws and regulations to prevent reduce and control pollution of the marine environment by dumping, and such laws and regulations must be at least as effective as those of the London Convention. However, many States which have ratified the 1982 Convention still have no laws and regulations preventing ocean dumping by ships flying their flags.

K. *UNEP Guidelines and Conventions*

In the 1980's, the following international instruments of relevance to the marine environment were promulgated by UNEP: (1) 1982 Guidelines Concerning the Environment Related to Offshore Mining and Drilling Within the Limits of National Jurisdiction; (2) 1985 Montreal Guidelines for the Protection of the Marine Environment from Land-based Sources; and (3) 1989 UNEP Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and in the EEZ. In addition, an important UNEP Convention adopted in 1989, the Basel Convention on the Control of the Transboundary Movement of Hazardous Wastes and their Disposal, represented the first global attempt to regulate the transboundary movement of hazardous waste.

1. Montreal Guidelines on Land-based Marine Pollution, 1985

No global treaty exists for the control of land-based sources of marine pollution. Regional agreements exist in several areas, but not in this region.

In 1985, UNEP adopted a non-binding instrument known as the Montreal Guidelines for the Protection of the Marine Environment Against Pollution from Land-based Sources. These guidelines offer a checklist for national legislation, as well as for the development of global, regional or subregional agreements. The guidelines call for the negotiation of internationally agreed rules and standards. The annexes give guidance on control strategies and the classification of substances.

2. Basel Convention, 1989

This UNEP Convention is entitled the Convention on the Control of the Transboundary Movements of Hazardous Wastes and their Disposal. It is a global convention designed to minimise and control international trade in hazardous waste. The Convention entered into force on 5 May 1992.

It governs the transboundary movement of hazardous substances produced on land which are disposed of or intended for disposal, excluding radioactive waste. Hazardous wastes are listed in Annexes to the Convention. It regulates the export of hazardous waste to another State or the passage of such waste through another State. Its regulatory regime is based upon the principle of prior informed consent.

The Basel Convention is not directly on marine pollution. However, it is related to other marine pollution conventions in the sense that it forms an integral part of a regime governing the movement of hazardous waste. The 1972 London Convention controls the dumping of such wastes in the oceans, the 1973/78 MARPOL Convention regulates the manner of storing and packing such substances during transit on the oceans, and the Basel Convention regulates their transboundary movement to other States, including the transit of such substances through other States.

It has been recognized that there is a need to study whether all of the provisions of the Basel Convention, the 1972/78 MARPOL Convention and the 1972 London Convention are compatible. There is also a need for States to understand that the three conventions complement one another and that there may be gaps or lacunae in their laws if they do not ratify and implement all three conventions. Therefore, there is a need for States to ensure that the domestic legislation implementing the three conventions are consistent with one another.

L. Convention on Oil Preparedness, Response and Co-operation, 1990

In 1990, following the *Exxon Valdez* disaster off the coast of Alaska, the IMO adopted a global instrument entitled the Convention on Oil Pollution Preparedness, Response and Co-operation which sets out general obligations for co-operation and assistance to deal with major oil pollution incidents. Its purpose is to help Governments combat major oil pollution incidents. It entered into force on 13 May 1995, one year after being accepted by 15 States.

The Convention is intended to encourage the establishment of oil pollution emergency plans on ships and offshore installations, and at ports and oil handling facilities. It also is intended to encourage the establishment of national and regional contingency plans, and a framework for international co-operation.

Amendments to the 1973/78 MARPOL Convention were adopted in 1991 in response to this Convention. The amendments, which came into force in 1995, require oil tankers of 150 gross tons and above to carry a shipboard oil pollution emergency plan adopted in accordance with IMO guidelines.

M. *UNCED – Chapter 17 of Agenda 21*

The major development in the 1990s with respect to marine pollution came out of the 1992 UN Conference on the Environment and Development (UNCED, or Earth Summit) in the form of an action plan rather than a global convention. Chapter 17 of Agenda 21 contains recommendations and guidelines relating to the pollution of the marine environment from the various sources.

Chapter 17 of Agenda 21 is not a binding legal instrument. It is an action plan designed to give guidance to States on how to develop strategies and plans to protect and preserve the marine environment at the global, regional and national

levels. It recognizes that the 1982 UN Convention on the Law of the Sea sets out the basic framework with respect to the rights and responsibilities of States with respect to the marine environment and marine pollution. It calls upon States to ratify and effectively implement the existing treaties governing all sources of marine pollution. Its major contribution is that it emphasises the need for an integrated approach to marine and coastal areas It also recognizes the need for greater co-operation at the regional and sub-regional levels.

N. *Protocols to the Civil Liability and Fund Conventions, 1992*

In 1984, amendments to the 1969 Civil Liability Convention and 1971 Fund Convention were adopted. The major purpose of the amendments was to increase the amount of compensation payable to victims of oil pollution incidents under the two Conventions. The approximate limit to ship owners under the Civil Liability Convention was US$22 million; further compensation under the Fund Convention could bring the maximum total amount to approximately US$93 million. These amounts were clearly not adequate in the case of major oil incidents.

The 1984 Protocols never entered into force, largely because the United States refused to accept them because it felt the maximum limits proposed were too low. Also, the requirements for entry into force of the 1984 amendments were too onerous. The 1984 Protocols were replaced and superseded by the 1992 Protocols. The less onerous requirements for entry into force of the 1992 Protocols have been met, and they will enter into force on 30 May 1996.

The 1992 Protocols have the same substantive provisions as those adopted in 1984. They amend the Conventions in order to widen their scope of application and provide higher limits of compensation. In order to widen the pool of potential contributors to the Fund, they lower the threshold of annual oil imports at which a liability to contribute arises. They substantially increase the liability of the ship owner, from a limit of $22 million to a limit of $92 million. The total amount of compensation payable by the Fund under the 1992 Protocol is increased from $92 million to $208 million.

Other changes are also introduced in the 1992 Protocols. First, ship owners will bear the full costs up to the limit of their total liability under the Civil Liability Convention. The fund's resources will only be available for losses above the ship owner's limit. Second, the 1992 Protocol attempts to clear up ambiguities with respect to compensation for damage to the environment. Under the 1992 Protocol, compensation for environmental damage is limited to "the costs of reasonable measures of reinstatement actually undertaken or to be undertaken." The new definition also allows recovery for loss of profit arising out of impairment of the environment.

O. *Global Programme of Action on Land-based Activities, 1995*

The major weakness of the efforts of the international community has been the failure to deal effectively with marine pollution caused by land-based activities, which accounts for nearly 70% of all marine pollution. In 1995 an attempt was made to deal with this complex problem. An Inter-governmental Conference to Adopt a Global Programme for the Protection of the Marine Environment from Land-based Activities was held in Washington, D.C. from 23 October to 3 November, 1995. The Conference, which was organised by UNEP in response to recommendations made at the UNCED Conference in Rio de Janeiro in 1992, unanimously adopted a detailed Programme of Action aimed at preventing the further degradation of the marine environment from land-based activities. The Programme of Action not only identifies the problems and ecosystems under threat, but also recommends specific practical actions at international, regional and national levels to address it.

P. *HNS Convention, 1996*

The International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS) was prepared by the legal committee of the IMO and adopted at a diplomatic conference in May, 1996. The HNS Convention establishes a system for compensation and liability covering in principle all kinds of hazardous and noxious substances.

The HNS Convention introduces strict liability for the ship owner, with higher upper limits than are available under existing general limitation regimes. It also introduces a system of compulsory insurance and insurance certificates. The ship owner's liability is supplemented by an HNS Fund, which is financed by cargo interests. Contributions to the HNS Fund will be levied on persons within the territory of contracting Parties who receive a certain minimum quantity of HNS cargo during a calendar year.

The HNS Convention goes further in its scope than the oil pollution compensation regime in that it covers not only

pollution damage but also the risks of fire and explosion. The draft convention defines its scope of application by reference to existing lists of hazardous substances in other instruments, such as the lists in Annex II to the 1973/78 MARPOL Convention and in the International Maritime Dangerous Goods Code (IMDG).

Q. *Protocol to London Convention, 1996*

A Protocol to the Convention on the Prevention of Marine Pollution by the Dumping of Wastes and Other Matter, 1972, was adopted at a conference held at IMO headquarters in London in November, 1996. The Protocol will enter into force 30 days after ratification by 26 countries, 15 of whom must be Contracting Parties to the 1972 treaty.

The Protocol represents a major change of approach to the question of how to regulate the use of the sea as a depository for waste materials. One is to introduce the "precautionary approach". This requires that "appropriate preventative measures are taken when there is reason to believe that wastes or other matter introduced into the marine environment are likely to cause harm even when there is no conclusive evidence to prove a causal relation between inputs and their effects."

The Protocol also provides that "the polluter should, in principle, bear the cost of pollution" and it emphasises that Contracting Parties should ensure that the Protocol should not simply result in pollution being transferred from one part of the environment to another.

The 1972 Convention permits dumping to be carried out provided certain conditions are met. The severity of these conditions varies according to the danger to the environment presented by the materials themselves and there is a "black list" containing materials which may not be dumped at all. The Protocol is much more restrictive. It states (in Article 4) that Contracting Parties "shall prohibit the dumping of any wastes or other matter with the exception of those listed in Annex 1." These materials include:

1. Dredged material;
2. Sewage sludge;
3. Fish waste, or material resulting from industrial fish processing operations;
4. Vessels and platforms or other man-made structures at sea;
5. Inter inorganic geological material;
6. Organic material of natural origin; and
7. Bulky items primarily comprising iron, steel, concrete and similar unharmful materials for which the concern is physical impact and limited to those circumstances, where such wastes are generated at locations, such as small islands with isolated communities, having no practicable access to disposal options other than dumping.

The only exceptions to this are contained in Article 8 which permits dumping to be carried out "in cases of force major caused by stress of weather, or in any case which constitutes a danger to human life or a real threat to vessels..."

Incineration of wastes at sea was permitted under the 1972 Convention, but this practice has since been ended and it is specifically prohibited by Article 5 of the Protocol. Incineration at sea of industrial waste and sewage sludge had already been prohibited under amendments to the London Convention adopted in 1993.
In recent years concern has been expressed at the practice of exporting wastes which cannot be dumped at sea under the 1972 Convention to non-Contracting Parties. Article 6 of the Protocol states that "Contracting Parties shall not allow the export of wastes or other matter to other countries for dumping or incineration at sea." Article 9 requires Contracting Parties to designate an appropriate authority or authorities to issue permits in accordance with the Protocol.

The Protocol recognizes the importance of implementation and Article 11 details compliance procedures under which, no later than two years after the entry into force of the Protocol, the Meeting of Contracting Parties "shall establish those procedures and mechanisms necessary to assess and promote compliance..."

A key provision is the so-called transitional period (Article 26) which allows new Contracting Parties to phase in compliance with the convention over a period of five years. This provision is supported by extended technical assistance provisions.

The Protocol contains three Annexes. Annex I is described above and the other two deal with assessment of wastes

and arbitral procedures. Amendments to the annexes are adopted through a tacit acceptance procedure under which they will enter into force not later than 100 days after being adopted. The amendments will bind all Contracting Parties except those, which have explicitly expressed their non-acceptance.

Conclusion

In this paper I have attempted to provide an overview of the major international and regional instruments relating to marine pollution in this region. Many of the conventions are highly technical in nature, and it is doubtful whether anyone can claim to be knowledgeable about the details of all of them. It is important, however, that government policy-makers have a broad overview of the various instruments which exist before they undertake a detailed examination of any one instrument. I hope that this paper has been of some assistance in providing this overview.

As this paper demonstrates, there is no lack of global conventions and other instruments to control marine pollution. The international community is not in dire need of new conventions. What is needed is effective implementation at the regional level of the existing conventions and instruments. The number of ratification by States from this region of the major global conventions is sorely inadequate. Also, this region is one of the few regions in the world where there are no regional conventions to supplement the major global conventions and adapt them to meet the particular needs and circumstances of the region.

In my view, SACEP should undertake a responsibility to study these conventions with a view to addressing the following issues:

1) Would it be in the best interests of the marine environment if the States in this region were to ratify and effectively implement these conventions?

2) What are the major impediments to States in the region ratifying the conventions, and how can these impediments be overcome?

3) What are the major impediments to the effective implementation of each of the conventions by the States in the region?

4) Can enhanced co-operation among legal experts from the States in the region help overcome some of these impediments?

5) Would greater co-operation and co-ordination among the States in the region in the implementation of the conventions, including the harmonisation of domestic laws and regulations, and the harmonisation of standards, practices and procedures, enhance the effective implementation of the conventions at the regional level?

6) Would it be in the best interests of the States in the region if they adopted regional conventions or instruments which complement and supplement some of the global conventions and which take into consideration the particular characteristics, needs and interests of the region?

APPENDIX: STATUS OF MAJOR MARINE POLLUTION CONVENTIONS IN SOUTH ASIA COUNTRIES

1982 Montego Bay United Nations Convention on the Law of the Sea

Depositary: United Nations Secretary-General
Adopted 10 December 1982
Entered into force 16 November 1994
116 Parties of 9 March 1997 (from UN Law of the Sea home page)

South Asian States	**Party**	
Bangladesh	S	
Bhutan	S	
India	Party	29-6-95
Maldives	S	
Nepal	S	
Pakistan	Party	26-2-97
Sri Lanka	Party	.19-7-94

1969 Brussels International Convention relating to Intervention on the High Seas in Cases of Oil Pollution Casualties (1969 Intervention Convention)

Depository: secretary-general of International Maritime Organisation
Adopted 29 November 1969, entered into force 6 May 1975
1973 Protocol entered into force 30 March 1983
169 Parties as of 1 March 1997 (66% of world tonnage)
38 Parties to 1973 Protocol as of 1 March 1997 (45% of world tonnage)

South Asian States	**Party**	**1973 Protocol**
Bangladesh	Party	
Bhutan		
India		
Maldives		
Nepal		
Pakistan	Party	Party
Sri Lanka	Party	

1969 Brussels International Convention on Civil Liability for Oil Pollution Damage (Civil Liability Convention. CLC)

Depository: secretary-general of International Maritime Organisation.
Adopted 29 November 1969; entered into force 19 June 1975
1976 Protocol entered into force 8 April 1981
1992 Protocol entered into force 30 May 1996
97 Parties as of 1 March 1997 (88% of world tonnage)
54 Parties to 1976 Protocol as of 1 March 1997 (68% of world tonnage)
20 Parties to 1992 Protocol as of 1 March 1997 (35% of world tonnage)

South Asian States	**1 Party**	**76 Prot**	**92 Prot**
Bangladesh			
Bhutan			
India	Party	Party	
Maldives	Party	Party	
Nepal			
Pakistan			
Sri Lanka	Party		

1971 Brussels International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (1971 Fund Convention)

Depository: secretary-general of International Maritime Organisation.
Adopted on 18 December 1971; entered into force 16 October 1978
1976 Protocol entered into force 22 November 1994
1992 Protocol entered into force 30 May 1996
72 Parties as of 1 March 1997 (88% of world tonnage)
34 Parties to 1976 Protocol as of 1 March 1997 (59% of world tonnage)
19 Parties to 1992 Protocol as of 1 March 1997 (35%% of world tonnage)

South Asian States	**Party**	**76 Prot**	**92 Prot**
Bangladesh			
Bhutan			
India	Party	Party	
Maldives			
Nepal			
Pakistan			
Sri Lanka	Party		

1972 London Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (1972 London Convention)

Depositories: Governments of Mexico, USSR, UK and USA.
Adopted 29 December 1972; entered into force 30 August 1975
1978 amendments not yet in force; 1996 Protocol not yet in force
74 Parties as of 1 March 1997 (68% of world tonnage)

South Asian States	Party	78 Amdts	96 Prot
Bangladesh			
Bhutan			
India			
Maldives			
Nepal			
Pakistan	Party		
Sri Lanka			

1973 London International Convention for the Prevention of Pollution from Ships as modified by the Protocol of 1978 (MARPOL 73/78)

Depository: secretary-general of International Maritime Organisation.
Convention and Annex I on oil, as modified by 1978 Protocol, entered into force on 2 October 1983
Annex 11 on noxious liquid substances in bulk, entered into force on 6 April 1987
Optional Annex III on harmful substances in packaged fore entered into force on 1 July 1992
Optional Annex IV on sewage, is not yet in force
Optional Annex V on garbage, entered into force on 31 December 1988
98 Parties to Annexes I & II as of I March 1997 (93& of world tonnage)
79 Parties to Annex III as of 1 March 1997 (93% of world tonnage)
65 Contracting States to Annex IV as of 1 March 1997 (41% of world tonnage)
81 Parties to Annex V as of 1 March 1997 (82% of world tonnage)

South Asian States	Party	Annex 3	Annex 4	Annex 5
Bangladesh				
Bhutan				
India	Party			
Maldives				
Nepal				
Pakistan	Party	Party	Party	Party
Sri Lanka				

1990 London International Convention on Oil Pollution, Preparedness, Response and Co-operation (1990 OPRC)

Depository: secretary-general of International Maritime Organisation.
Adopted on 30 November. 1990; entered into force on 13 May 1995
30 Parties as of 1 March 1997 (38% of world's tonnage)

South Asian States	Party
Bangladesh	
Bhutan	
India	
Maldives	
Nepal	
Pakistan	Party
Sri Lanka	

1996 London International Convention on Liability and Compensation for Damage in Connection with Carriage of Hazardous and Noxious Substances by Sea (1996 HNS Convention)

Depository - Secretary-general of International Maritime Organisation.
Adopted on 3 May 1996; not yet in force
No contracting States as of 1 March 1997

DEVELOPING REGIMES TO IMPLEMENT MARINE POLLUTION CONVENTIONS

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Ratification of Marine Pollution Conventions in the Region

The critical legal obligations in the 1982 United Nations Convention on the Law of the Sea (1982 UNCLOS) relating to the prevention, reduction and control of marine pollution govern two sources of marine pollution - pollution from vessels and pollution from ships. The 1990 GESAMP Report on the *State of the Marine Environment* states that these two sources account for 12% and 10% of the marine pollution caused by human activities.

Three global conventions must be considered when addressing pollution from vessels and pollution by dumping:

1982 United Nations Convention on the Law of the Sea (1982 UNCLOS);

1973 Convention for the Prevention of Pollution from Ships, as modified by its 1978 Protocol (MARPOL 73/78); and

1972 Convention on the Prevention of Marine Pollution by the Dumping of Wastes and other Matter (1972 London).

The two IMO conventions must be considered together with 1982 UNCLOS, as the latter is a framework convention which incorporates the provisions of the two IMO conventions by indirect reference.

First it must be pointed out that the record of ratification of the relevant global conventions in the South Asia region is poor. Three States - India, Pakistan and Sri Lanka are parties to 1982 UNCLOS. Only two States - India and Pakistan - are parties to MARPOL 73/78 on the prevention of pollution from ships; Pakistan has also accepted Optional Annexes III, IV and V. Only one State - Pakistan - is a party to the 1972 London Convention on ocean dumping.

As the Annex to my background paper indicates, the record of ratification of the other major IMO conventions on marine pollution by States in South Asia is also very poor. In my opinion it would be in the interests of all the States in the region, or a regional body such as SACEP, to examine each of these conventions to determine whether it would be in interests of the States in the region to take steps ratify and effectively implement them.

Obligations under 1982 UNCLOS

A. Pollution from vessels

With respect to vessel-source pollution from the operation of ships, 1982 UNCLOS sets out the rights and obligations of flag States, coastal States and port States. Flag States are obligated to pass laws and regulations which have *at least the same effect as those of generally accepted international rules and standards*. The generally accepted international rules and standards governing pollution from the operation of ships are those set out in MARPOL 73/78. Coastal States have broad powers to pass laws and regulations to prevent pollution from ships in their territorial sea, and such laws can be more strict than those in MARPOL 73/78. In their exclusive economic zone, coastal States may adopt laws and regulations which conform to and give effect to MARPOL 73/78. Port States may make compliance with the international rules and standards in MARPOL 73/78 a requirement of entry into their ports, even for flag States which are not parties to either 1982 UNCLOS or MARPOL 73/78.

B. *Pollution by dumping*

With respect to pollution by dumping, State's party to the 1982 UNCLOS are obligated to adopt laws and regulations to prevent reduce and control pollution of the marine environment by dumping. States are obligated to ensure that dumping is not carried out without permission of the competent authorities of States. Furthermore, the express prior approval of the coastal State is required for dumping in the territorial sea or exclusive economic zone of the coastal State, or onto the continental shelf of the coastal State. The Convention further provides that national laws, regulations and measures *shall be no less effective than the global rules and standards*. It is generally agreed that this means that the national laws must be at least as effective as than the global rules and standards set out in the 1972 London Convention. This would require States to make it an offence for ships flying their flag or ships loading in their territory to dump prohibited substances at sea unless they have a special permit, and not to dump prohibited substances in the maritime zones of other States without the express permission of the such States.

MARPOL 73/78

A. Status and Overview

The generally accepted international rules and standards relating to the prevention of pollution from ships are those set out in MARPOL 73/78. As of March, 1997, 93 States, representing 93% of world tonnage of shipping, were parties to the MARPOL 73/78 and its two compulsory annexes.

MARPOL 73/78 is the most ambitious international treaty covering marine pollution from the operation of ships which has ever been adopted. It deals not only with oil, but also with all forms of marine pollution except the disposal of land-generated waste into the sea by dumping (which is covered by the 1972 London Convention). The object of the Convention is to prevent the pollution of the marine environment by the operational discharge of oil and other harmful substances and to minimise the accidental discharge of such substances. Parties are obliged to apply the provisions of the convention to ships flying their flag and to ships within their jurisdiction.

MARPOL 73/78 contains five annexes which deal with the following:

Annex I	Oil
Annex II	Noxious liquid substances carried in bulk
Annex III	Harmful substances carried in packages
Annex IV	Sewage
Annex V	Garbage

Annexes I and II are compulsory, which means that if a State becomes a party to MARPOL 73/78, it must accept Annexes I and II. Annexes III, IV and V are optional, which means that a State can become a party to MARPOL 73/78 without accepting them. The Annexes contain detailed technical regulations. According to the IMO, the following additional documents are either an integral part of the Annexes or should be considered as such for practical purposes: (a) Unified Interpretation of the provisions of the annexes; (b) Appendices to the annexes; and (c) Appendices to the Unified Interpretation.

MARPOL 73/78 and compulsory Annex I on oil, entered into force on 2 October 1983. Compulsory Annex II entered into force on 6 April 1987. Optional Annex III on harmful substances carried in packages entered into force on 1 January 1992. Optional Annex V on garbage entered into force 31 December 1988. Optional Annex IV on sewage is not yet in force.

B. System of enforcement

One of the methods by which MARPOL 73/78 attempts to minimise pollution from ships is to impose standards on the design and construction of ships. The 1978 Protocol provided that new oil tankers above a certain size must be fitted with segregated ballast tanks. Amendments adopted in 1992 imposed design and construction standards on both new and existing ships, and required that many new tankers be fitted with double hulls. The 1992 amendments also provided that from 1995, existing crude oil tankers that are 25 years old and not constructed according to the requirements of MARPOL 73/78 will have to be fitted with double sides and double bottoms. It is expected that the combination of stricter surveys and the application of new construction standards will have a considerable effect on the existing tanker fleet, the majority of which was built in the 1970s. It is generally believed that the result of these requirements is that many of the tankers built in the 1970s will be scrapped during the next few years, as it will be uneconomical to bring them up to the standards required by the 1992 amendments.

An important feature of MARPOL 73/78 is that States are required to ensure the provision of reception facilities for wastes, so that ships can retain their wastes on board until they reach port. Although the provision of reception facilities is mandatory, many States have had difficulty meeting their obligation to ensure the provision of adequate reception facilities. MARPOL 73/78 places severe limits on the discharge of wastes into the sea and in some cases it bans discharges completely. However, if ports are not able to ensure the provision of adequate reception facilities, the temptation is great for ships to dispose of their wastes illegally at sea.

The enforcement of the Convention is dependent on a system of surveys and certifications by qualified marine surveyors, a system of record-keeping with respect to the discharge of oil and oily waste, and a system of inspections of the certificates and records. The 1978 Protocol introduced stricter regulations for the survey and certification of ships, and more clearly defined the action to be taken when ships are found to be defective or substandard. The 1992

amendments provided for an enhanced programme of inspections to be implemented, particularly for older tankers.

C. Problems of implementation

Although MARPOL 73/78 has been widely accepted, one of its major problems is that many States have been unable or unwilling to implement its provisions effectively. The provision of adequate reception facilities is one problem. Effective enforcement is another. It has also been observed that there has been lack of effective implementation of the Convention by many flag States. Among the reasons cited for this are a lack of trained and experienced personnel to carry out the inspections, especially the need to train and retain qualified and experienced surveyors.

D. Port State Control

Because of the failure of many flag States to effectively implement the Convention, there has been a gradual movement to rely more on port States to implement the Convention. MARPOL 73/78 was amended in 1995 to enhance the system of port State control. Previously, the system of port State control in IMO conventions was limited to the port State making inspections to ensure that the ship had the necessary certificates and that the physical condition of the ship and its equipment were in order. The 1995 amendments extend port State control by making it possible for ships to be inspected in the ports of other parties to the Convention to ensure that crews are able to carry out essential shipboard procedures relating to marine pollution prevention.

In some regions the system of port State control has been enhanced through regional memorandums on port State control. For example, the *Memorandum of Understanding on Port State Control in the Asia Pacific Region* was signed in Tokyo on 1 December 1993. The MOU was signed by the maritime authorities of the following countries: Australia, Canada, Peoples Republic of China, Fiji, Hong Kong, Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Papua New Guinea, Philippines, Russian Federation, Republic of Singapore, Solomon Islands, Thailand, Republic of Vanuatu and the Socialist Republic of Vietnam. This MOU, although not a legally binding document, recognizes that enhanced regional co-operation and effective action by port States is required to prevent the operation of substandard ships. It aims to strengthen co-operation and the exchange of information among port States in the region and to establish an improved and harmonised system of port State control. As a preliminary target the authorities agreed to endeavour to attain a regional annual inspection rate of 50% of the total number of ships in operation in the region by the year 2000. In implementing this MOU, the authorities agreed to carry out inspections of ships in order to check the certificates and documents relevant for the purposes of the MOU. In the absence of valid certificates or documents, or if there are clear grounds for believing that the condition of a ship or its equipment or crew does not substantially meet the requirements of a relevant instrument, a more detailed inspection will be carried out.

E. Assistance to developing countries

Under Article 17 of the Convention, Parties are obligated to promote, in consultation with the IMO and with assistance and co-operation from UNEP, support for Parties requesting assistance for the training of scientific and technical personnel and the supply of necessary equipment and facilities for reception and monitoring.

It is generally believed that the participation costs for developing countries will be reduced if there is co-operation on a regional basis in implementing the Convention. Another benefit of regional co-operation is the standardisation of rules and procedures.

In recent years, the IMO has increased its programmes to provide technical assistance to developing countries who require assistance in preparing to implement the Convention, especially if it is done on a regional basis. For example, in 1996 APCEL hosted a three-day regional Workshop on the Ratification and Implementation of MARPOL 73/78. The Workshop was held at the Faculty of Law, National University of Singapore from 30 October to 1 November 1996. It was co-sponsored by the International Maritime Organisation (IMO), the Asia-Pacific Centre for Environmental Law (APCEL) and the Maritime and Port Authority of Singapore (MPA). Government officials from Cambodia, Indonesia, Philippines and Viet Nam attended the workshop, which focused on problems of effectively implementing the Convention.

Developing a System for the Effective Implementation of MARPOL 73/78

A. Obtain and Study the Convention

Before considering ratifying or taking steps to more effectively implement MARPOL 73/78, the legal and marine

specialists in the country must carefully study and analyse the provisions of the Convention and its five Annexes, the Unified Interpretation of the provisions of the Annexes, the Appendices to the Annexes, the Appendices to the Unified Interpretation, as well as the relevant IMO resolutions, guidelines and circulars. The relevant documents must be obtained from the IMO Secretariat in London. The starting point is the 1991 Consolidated Edition of MARPOL 73/78. Subsequent amendments to this volume have been issued as an insert or published separately by the IMO.

B. MARPOL – How to do it

The starting point for any State which desires to understand the practical implications of ratifying and implementing N~MARPOL 73/78 is the 1993 IMO publication entitled MARPOL - How to do it (Manual)(IMO Sales number IMO-636E). This 128 page Manual provides useful practical information to governments, particularly those of developing countries, on the technical, economic and legal implications of ratifying and implementing MARPOL 73/78. Its objective is to provide practical information, in an easily understandable for on the technical, economic and legal implications encountered by governments and the shipping industry when ratifying and implementing MARPOL 73/78. The Manual contains practical information on the following:

a the obligations which a State undertakes when ratifying the convention
b the means of meeting the obligations of the convention
c the basic marine administration necessary
d the legal requirements
e the requirements of each annex
f possible delegation of certain duties by an administration to other organisations
g the cost of the necessary ships' equipment and shore reception facilities

As this Manual makes clear, a country must possess certain minimum requirements before it can effectively ratify a complex legal instrument like MARPOL 73/78. Most important it must have in place a basic marine administration, with the trained manpower necessary to fulfil its obligations under the convention, including qualified marine surveyors and inspectors, administrative staff and legal staff. Smaller States often delegate some of their responsibility, such as the survey of ships, to classification societies. The Manual has detailed provisions on how States can undertake such delegation of duties.

C. *Obligations under MARPOL* 73/78

1. Implementing legislation

Parties agree to make laws and regulations to give effect to the Convention in its national legal system, as well as to give effect to any Annexes to which they are parties. Most States are parties to IMO conventions on maritime safety such as 1974 SOLAS, 1966 Load Lines and 1972 COLREG. The legal officers should first examine how these conventions have been implemented into the national law. It may be possible to integrate the MARPOL implementing legislation into existing maritime legislation, such as a Merchant Shipping Act. However, most States appear to have found it more convenient to enact new legislation for the specific purpose of implementing MARPOL 73/78. An example is the *Prevention of Pollution of the Sea Act* of Singapore.

When considering implementing legislation, it is important to remember that MARPOL 73/78 is constantly being amended and updated through the tacit acceptance procedure which applies to amendments and through IMO resolutions and recommendations. Therefore, it is highly desirable to establish a system of implementation which enables the subsequent amendments to the Annexes and appendices to be incorporated into the domestic MARPOL legislation without having to have an amending act passed by the legislature. Most States find it convenient to have their legislature pass a broad enabling act to implement the main Convention, and to delegate to a Minister or some other government body the power to implement the detailed Annexes and appendices through regulations or subsidiary legislation.

2. Issue and acceptance of certificates

Maritime administration must provide that ships under their flag are surveyed and inspected and issued certificates in compliance with MARPOL 73/78. Parties are required to accept certificates issued by other parties. Port States are permitted to inspect ships to verify that they have a valid certificate. If a ship does not carry a valid certificate or the port State has doubts about the condition of the ship or equipment the port State can prevent the ship from sailing until it is satisfied that the ship presents no harm to the marine environment. Parties are to apply these same requirements

to the ships of States which are not party to MARPOL 73/78.

3. Detection of violations and enforcement

Parties are required to co-operate in monitoring compliance with the Convention and in detecting violations. Where necessary, a coastal or port States are obligated to inspect a ship in order to verify whether it has made a prohibited discharge and, where such a discharge is proved, to take appropriate measures. In response to a request from another party, a port State is obligated to inspect a ship in order to verify whether it has committed a violation in the waters of the requesting State.

4. Reports on incidents involving harmful substances

Parties are obligated under Protocol I to make reports of any actual or probable discharge into the sea of a harmful substance or effluents containing such substance.

5. Violations and sanctions

Parties are required to prohibit violations and to provide sanctions under their law and take procedures against offenders. In particular, States must:

apply the MARPOL requirements to their flag ships wherever they may be;

take proceedings against their own flag ships if sufficient information and evidence is provided by another Party, and inform that Party and IMO of the actions taken;

take proceeding against other ships which commit a violation within their jurisdiction or inform the fage administration and provide information and evidence of the violation; and

make penalties adequate in severity to discourage violation.

6. Undue delay of ships

Flag States and port States undertake to avoid unnecessary delay to a ship in carrying out their obligations to issue certificates, undertake inspections, detect violations and take proceedings against offenders.

7 Communication of information to IMO

Parties undertake to provide IMO with various documents and reports relating to their marine administration and their implementation of the Convention.

8. Provision of reception facilities

One of the obligations which States have found most difficult to meet is the obligation to ensure the provision of reception facilities adequate to meet the needs of ships using their ports or terminals. Such reception facilities are required for oil under Annex I, for noxious liquid substances under Annex II, for sewage under Annex IV, and for garbage under Annex V. The IMO has a publication entitled Guidelines on the Provision of Adequate Reception Facilities in Ports. They provide in some detail the method of assessing the capacity of reception facilities in ports or terminals to meet the needs of ships visiting them. The Manual advises that ports and terminals should be aware of the needs of ships and arrange the provision of the necessary reception facilities before implementing each Annex.

An important point to note is that obligation in the Convention is for the government to *ensure the provision of reception facilities*. This does not mean that the government is legally obligated to fund and provide the reception facility. In practice, many governments require port authorities or terminal operators in their countries to provide the reception facilities. This is often the most realistic and practical approach, especially for developing countries. The regulations in the Manual reflect this approach.

London Convention

The purpose of the London Convention is to regulate the dumping of wastes at sea. It regulates the deliberate disposal at sea of certain substances, including oily wastes, dredging and land-generated wastes. It does not govern oil pollution caused by operational discharges from the normal operation of ships, which is governed by MARPOL 73/78. Nor does it govern pollution caused by maritime casualties.

Under the London Convention, contracting parties pledge themselves to take all practicable steps to prevent the pollution of the sea by the dumping of waste and other matter that is liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea. Contracting Parties are obliged to take effective measures to prevent marine pollution caused by dumping and to harmonise their policies in this regard.

The London Convention contains a 'black list' of Annex I substances that may not be dumped at sea; a 'grey list' of Annex II substances that may be dumped subject to a special permit. Annex III contains criteria for determining whether other substances may be dumped at sea, pursuant to a general permit.

The International Maritime Organisation (IMO) is the competent organisation which is responsible for secretariat duties under the Convention. Contracting Parties have obligations to make notifications on various matters to the IMO. The IMO convenes consultative meetings of the parties to review the implementation of the Convention, adopt amendments, promote regional co-operation, etc. Periodic reviews and amendments of the Convention are made through the regular Consultative Meetings. Under a tacit amendment procedure, amendments to the annexes take effect for all parties within a certain time, unless they object within 100 days. Under this procedure, the annexes have been amended several times.

The Convention seems to assume that the government of a State ratifying the Convention has an effective waste management system, including the scientific and technical personnel to operate such a system. It does anticipate, however, that some countries may require *technical training and assistance.* Article IX of the 1972 Convention provides:

> The Contracting Parties shall promote, through collaboration with the Organisation and other international bodies, support for those Parties which request for:
>
> (a) the training of scientific and technical personnel
>
> (b) the supply of necessary equipment and facilities for research and monitoring;
>
> (c) the disposal and treatment of waste and other measures to prevent or mitigate pollution caused by dumping;
>
> preferably with the countries concerned, so furthering the aims and purposes of this Convention.

Beginning in 1991, the Contracting Parties to the London Convention began to adopt what might be described as "'precautionary approach" to ocean dumping. The effect of the new amendments to the annexes has led to complete ban on the dumping of radioactive waste, to phase out of the dumping of industrial waste and to a ban on the incineration of waste at sea.

Protocol

A Protocol to the Convention on the Prevention of Marine Pollution by the Dumping of Wastes and Other Matter, 1972, was adopted at a conference held at IMO headquarters in London in November, 1996. The Protocol will enter into force 30 days after ratification by 26 countries, 15 of whom must be Contracting Parties to the 1972 treaty.

The Protocol represents a major change of approach to the question of how to regulate the use of the sea as a depository for waste materials. One is to introduce the "precautionary approach." This requires that "appropriate preventative measures are taken when there is reason to believe that wastes or other matter introduced into the marine environment are likely to cause harm even when there is no conclusive evidence to prove a causal relation between inputs and their effects."

The Protocol also provides that "the polluter should, in principle, bear the cost of pollution" and it emphasises that Contracting Parties should ensure that the Protocol should not simply result in pollution being transferred from one part of the environment to another.

The 1972 Convention permits dumping to be carried out provided certain conditions are met. The severity of these conditions varies according to the danger to the environment presented by the materials themselves and there is a "black list" containing materials which may not be dumped at all. The 1996 Protocol is much more restrictive. It states (in Article 4) that Contracting Parties "shall prohibit the dumping of any wastes or other matter with the exception of those listed in Annex I." These materials include:

1. Dredged material
2. Sewage sludge
3. Fish waste, or material resulting from industrial fish processing operations
4. Vessels and platforms or other man-made structures at sea
5. Inter inorganic geological material
6. Organic material of natural origin
7. Bulky items primarily comprising iron, steel, concrete and similar unharmful materials for which the concern is physical impact and limited to those circumstances, where such wastes are generated at locations, such as small islands with isolated communities, having no practicable access to disposal options other than dumping.

The only exceptions to this are contained in Article 8 which permits dumping to be carried out "in cases of force major caused by stress of weather, or in any case which constitutes a danger to human life or a real threat to vessels..."

Incineration of wastes at sea was permitted under the 1972 Convention, but this practice has since been ended and it is specifically prohibited by Article 5 of the Protocol. Incineration at sea of industrial waste and sewage sludge had already been prohibited under amendments to the London Convention adopted in 1993.

In recent years, concern has been expressed at the practice of exporting wastes which cannot be dumped at sea under the 1972 Convention to non-Contracting Parties. Article 6 of the Protocol states that "Contracting Parties shall not allow the export of wastes or other matter to other countries for dumping or incineration at sea." Article 9 requires Contracting Parties to designate an appropriate authority or authorities to issue permits in accordance with the Protocol.

The Protocol recognises the importance of implementation and Article 11 details compliance procedures under which, no later than two years after the entry into force of the Protocol, the Meeting of Contracting Parties "shall establish those procedures and mechanisms necessary to assess and promote compliance..."

The Protocol contains three annexes. Annex I is described above and the other two deal with assessment of wastes and arbitral procedures. Amendments to the annexes are adopted through a tacit acceptance procedure under which they will enter into force not later than 100 days after being adopted. The amendments will bind all Contracting Parties except those, which have explicitly expressed their non-acceptance.

A key provision is the so-called transitional period (Article 26) which allows new Contracting Parties to phase in compliance with the Convention over a period of five years. (This provision will be discussed in more detail later in this paper.)

The provision on *technical co-operation and assistance* (Article 13) in the 1996 Protocol is much more specific than the equivalent provision in the 1972 Convention. It provides that States can receive advice on implementation of the Protocol. It also provides that contracting Parties can request access to and transfer of environmentally sound technologies and corresponding know-how. In addition, the Protocol was accompanied by a Resolution on Technical Co-operation and Assistance Activities.

Developing a System for the Effective Implementation of 1972 London Convention and 1996 Protocol

A. Essential IMO Publication

The starting point for any State interested in implementing the 1972 London Convention would be the 1991 IMO

publication The London Dumping Convention, The First Decade and Beyond. It contains the text of the Convention and its annexes, together with the amendments and resolutions, and the decisions of the twelve consultative meetings from 1975 to 1989, and the interpretations of the relevant provisions of the Convention, as agreed by the Consultative Meeting of Contracting Parties. This publication sets out the origin and scope of the Convention, its basic provisions, the implementation procedure, including the system and criteria for issuing permits for dumping.

B. General obligations

The major obligations in the Convention are:

> Prohibit dumping other than in the manner prescribed by the Convention, and prevent and punish conduct in contravention of the provision of the Convention.
>
> Apply the measures to vessels or aircraft registered in its territory, and to vessels and aircraft loading in its territory.
>
> Designate an appropriate authority to:
>
> > issue special permits for the dumping of Annex II waste;
> >
> > issue general permits for other matter;
> >
> > keep records of the nature and quantities of all matter permitted to be dumped and the location time and method of dumping;
> >
> > monitor the condition of the seas for the purposes of the Convention; and
> >
> > Report to the IMO on matters required in the Convention.

The general obligations under the 1996 Protocol are the same, except that the 1996 Protocol is more restrictive. It provides in Article 4 that Contracting Parties shall prohibit the dumping of any wastes or other matter with the exception of those listed in Annex 1 of the Protocol.

The general obligation under the 1996 Protocol are the same, except that the 1996 Protocol is more restrictive. It provides in Article 4 that Contracting Parties shall prohibit the dumping of any wastes or other matter with the exception of those listed in Annex 1 of the Protocol. Beckman, Developing Regimes to Implement Marine Pollution Conventions.

C. Need for waste management and disposal system

In order to effectively implement the 1972 London Convention and its 1996 Protocol, a State must have in place a waste management and disposal system. This was recognised by the IMO when it initiated a Global Waste Survey in September 1991 for the purpose of addressing the potential implications of the ban ocean dumping of industrial waste on countries world-wide, especially in developing countries, and to formulate a plan that would assist contracting parties to address their commitment to technical assistance and capacity building in a practical and cost-effective manner.

The Global Waste Survey Final Report was published by the IMO in 1995. It concluded that the capacity of developing and newly industrialised countries to effectively implement the ocean dumping ban is doubtful. It also concluded that most developing and newly industrialised countries are not able to provide consistent and reliable information on industrial and hazardous waste generation and waste disposal practices. It further stated that it is evident that uncontrolled and illegal dumping of waste, both on land and sea, is occurring, commonly due to the following:

a) diffuse or inadequate legislation and waste management authority ineffective enforcement and compliance programmes;

b) limited capacity to phase-in waste management controls in conjunction with other environmental controls;

c) the large number of small generators, with limited technical or financial capacity to manage their wastes;

d) the absence of facilities and/or inadequate or inappropriate technologies;

e) the lack of strategy or know-how with respect to transition from a situation of no or limited control over waste disposal, toward an environmentally sound waste management programme;

f) deficiencies in the financial sustainability of proposed waste management initiatives and programmes;

g) the inability to create a proper climate for investment in land-based facilities by the private sector; and

h) problems of siting land-based facilities.

The report further stated that the challenge for developing and newly industrialised countries in complying with the ban on ocean disposal of industrial waste is to apply land-based solutions that are practical, affordable and environmentally sound, as defined by local and sub-regional circumstances. The report further concluded that to achieve self-reliant and sustainable solutions, capacities need to be developed, existing technologies modified and new technologies and management strategies generated to suit local and regional circumstances.

D. Regional integrated approach to various global instruments relating to waste management and disposal systems

In my opinion, the Global Waste Survey demonstrates that States and regions should adopt an integrated approach to the various global instruments relating to waste management and hazardous waste. The 1972 London Convention and its 1996 Protocol should not be considered in isolation from the 1989 Basel Convention and the 1995 Washington Global Programme of Action for the Protection of the Marine Environment from Land-Based Sources. The three international instruments should be considered together. If the States in South Asia adopted an integrated and holistic approach to the problems of waste management and disposal, including the ratification and implementation of the major conventions, they could set an example for other regions.

E. Ratification with notification for a transitional period under Article 26

Even if the States in this region decide to approach the issue in the integrated manner suggested above, it nevertheless may be in their individual and collective interests to ratify the 1972 London Convention and the 1996 Protocol, or at least to begin to make plans to do so. The major reason for this is financial.

Under Article 13 of the 1996 Protocol, the technical assistance and, co-operation is to be provided to "Contracting Parties" that request it. States in the region can become Contracting Parties and take advantage of the provision providing for a transitional period. Article 26 permits States give notice to the IMO that they will be unable to comply with the certain provisions of the Protocol for a period of five years. States taking advantage of this provision are required to submit a programme and timetable setting out how they intend to achieve full compliance with the Protocol, together with any requests for relevant technical co-operation and assistance.

If States in the region were to collectively make known their intention to ratify the Protocol and their need for technical assistance, including their need to develop their capacities to establish waste management systems which are suitable to the local and regional circumstances in South Asia, it is likely to receive favourable consideration from not only the IMO, but from UNEP, the World Bank and other international institutions. At a minimum, I would expect that there would be great interest in convening a regional workshop to consider the ratification and implementation of the 1996 Protocol in South Asia, as well as need to develop waste management systems which are suitable to the local and regional circumstances. Such a workshop would not only interest the IMO and UNEP, but it would also be a major step forward in implementing the 1995 Global Programme of Action in South Asia.

2.2 MARINE ENVIRONMENT: ISSUES PAPER

(1) PRINCIPAL AREAS TO BE COVERED IN NATIONAL LEGISLATION.

A. General Principles- Integrated Management and Sustainable Development of Coastal Areas; Polluter Pays; Prevent, reduce, control pollution from all sources
B. Institution/s
C. Application of international standards and rules
D. Continuous monitoring/ identification / assessment/ Inventory preparation/ Record keeping
E. Eliminate/strictly limit polluting substances, requirements of Permits
F. Inspectorates
G. Strict Liability/ Deemed liability of Company Officers
H. Defences (human safety, force major, all reasonable steps taken etc)
I. Emergency Action/ Marine Casualties using Convention language such as "grave and imminent threat to coastline"(oil and chemical spill contingency planning)
J. Compensation
K. Dispute resolution, including International Tribunal
L. Regulation making power to add substances to lists, according to international Protocols etc

Land Based Sources

The 9 source categories as well as affected areas of critical habitats/coral reefs etc, licences, economic incentives, set emission levels or water quality standards.

Shipping

Prohibit/restrict substances listed in Annex; Enforcement by Flag States inside/outside jurisdiction; Coastal State powers in Territorial Sea, Contiguous Zone, EEZ, Straits; Port State powers to board/inspect/seize; Prior notification of dangers, from ships through atmosphere

Dumping

From shore, platforms, artificial islands, ships/aircraft, exploration of sea-bed and subsoil of Continental. Shelf, dumping of substances (radioactive waste etc), [of ships/aircraft].

Activities beyond jurisdiction

Pollution from activities in Area; according to international law.

(2) NATIONAL INSTITUTIONS NORMALLY ENGAGED

Environment, Ports/Shipping, Coast Guard, Customs, Fisheries, Coast and Marine, Lands/Soil, Finance, Education, Research/ Academic, Local/Provincial governments, Police/Enforcement, Attorney-Generals, Foreign Affairs, Agriculture, Industry/ Factories,Finance

(3) FACILITIES ESSENTIAL FOR EFFECTIVE IMPLEMENTATION

2.3 PRESENTATIONS OF GROUP EXERCISE /BREAK-OUT SESSION

GROUP 1 - IMPLEMENTATION OF SOUTH ASIAN REGIONAL SEAS PROGRAMME

The group was represented by the delegations of India, Nepal, Pakistan, Sri Lanka and resource persons from UNEP (Dan Ogolla and Clare Cory) and SACEP (Mr Wijayadasa and Prasantha Dias Abeyegunawardene). The group evaluated different elements of the Action Plan from the point of view of implementation of its provisions and expressed that:

1. There is a need for:

development of infrastructure, manpower and expertise in Pakistan and Sri Lanka and probably in Bangladesh and Maldives in the continuous and systematic assessment of quality of marine environment bordering these countries.

development of infrastructure, manpower and expertise in all the South Asian countries including in Nepal and perhaps Bhutan on (a) impact of developmental activities on the quality of marine environment, (b) comprehensive classification of coastal habitats and mapping of critical habitats (c) establishment of data bases on status and trends in the quality of marine and coastal environment, linked into regionally coordinated network and (d) assessment of the impact of climate and sea level change on the marine and coastal environment.

development of infrastructure, manpower and adequate funding for compilation of inventory of the sources and amount of pollutants reaching the coastal waters.

training in the management of coral reefs in India and Sri Lanka.

exchange of information, knowledge and experiences among the South Asian countries on marine pollution monitoring, development of national oil spill contingency plans, methods of alternate livelihoods in cases of affected human population due to enforcement of environmental legislation's and management plans.

integrating SACEP based environmental information system with the core institutions dealing with environmental issues in the South Asian region.

co-ordinated surveillance by the members of South Asian Seas Regional Action Plan against illegal dumping of toxic and hazardous wastes in the South Asian seas and providing information on such incidents to concerned country/ies

creation of expertise and knowledge on the techniques involved in the development of national waste disposal standards, sea water quality criteria and guidelines for carrying out Environmental Impact Assessment Studies for major coastal developmental projects and processes

2. Countries in the region recognised the existence of environmental legislation to address various environmental problems and found that most of them have been developed in haste. It was felt necessary to strengthen institutions in the form of expertise for development of implementable national environmental legislation which contain provisions for expressing opinion of concerned people. It is also necessary to strengthen the capacity of enforcing agencies in the form of additional infrastructure and manpower, for effective implementation of these legislations.

GROUP 2 - GLOBAL PROGRAMME OF ACTION ON LAND BASED SOURCES OF MARINE POLLUTION

The group was represented by the delegations of Bangladesh, Bhutan and Maldives and resource persons from UNEP (Peigi Wilson). The major land based activities of the group were identified as: industryl; agriculture; urban/rural settlements; and tourism.

Recommendations

-each country should identify and develop:
- source based pollution standards.
- institutes for research and development activities to identify best available technology and most appropriate technologies.
-legal/institutional frameworks to enforce environmental rules and regulations.
-create and build up public awareness mechanisms.

-each country should strengthen existing programmes related to coastal management

-each country should seek technology and financial assistance from developed countries.

GROUP 3 - SHIP BASED MARINE POLLUTION CONTROL, MARPOL

The group was represented by the delegations of India and Sri Lanka and resource persons from UNEP (Donald Kaniaru and Manjit Iqbal) and APCEL (Bob Beckman).

Recommendations:

-All countries of the region should review the Convention and should ratify the Convention

-Monitoring sea water periodically, with the base year being 1997. SACEP should co-ordinate this activity

-develop appropriate reception Facilities

-Provide manpower with suitable technical background for marine surveying. Arrange training programme for port employees, shipping companies, and customs personnel

-IMO should organise Workshops in collaboration with SACEP to assess the needs of the region

-IMO should prepare an inventory based on survey, on the following:
- existing law of individual countries
- infrastructural facilities available
- marine administration

-capacity building

(NB. Points related to hazardous substances will be taken up under the Basel Convention)

3.1 TECHNICAL PRESENTATION

LEGAL AND INSTITUTIONAL ARRANGEMENTS REQUIRED AT NATIONAL LEVEL FOR EFFECTIVE IMPLEMENTATION OF THE BASEL CONVENTION ON THE CONTROL OF TRANSBOUNDARY MOVEMENTS OF HAZARDOUS WASTES AND THEIR DISPOSAL (1989)

Dr. I. Rummel-Bulska, Executive Secretary, Secretariat of the Basel Convention

Part 1. Introduction

There are more than 400 million tonnes (metric) of hazardous wastes generated each year worldwide. Some 10% of these crosses national frontiers. Stockpiles of corrosive acids, organic chemicals, toxic metals and other wastes pose serious acute, long-term health and ecological threats, causing ground water contamination, leaching and other types of pollution. Due to economical reasons, a large volume of these movements used to come and is still going on from industrialized countries to developing countries as well as to the Eastern and Central Europe where the disposal costs are lower but unfortunately a number of these countries still lack environmentally sound management of waste disposal. In the developing countries future action and managing hazardous wastes is required because the capabilities for standard setting, monitoring and enforcement are quite weak. Another major problem is the scarcity of resources that could be allocated to sound hazardous waste management practices. Thus transboundary movements of hazardous wastes has become a global problem demanding global solutions. However, in developing countries front line measures are urgently required to cope with existing problems due to hazardous waste generation.

Recognising the need for urgent action, the international community put the issue of hazardous waste on the agenda. Under the auspices of the United Nations Environment Programme (UNEP), a global instrument on environmentally sound management of hazardous wastes and on their transboundary movements and disposal was elaborated from the early 1980s. The purpose of this introduction is to highlight the protracted negotiating process which led to the adoption of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal in 1989.

The Montevideo Programme

The Governing Council of UNEP, in May 1981 established an Ad Hoc Meeting of Senior Government Officials Expert in Environmental Law to identify subjects for increased global and regional co-operation in the elaboration of environmental law. The first meeting of this expert group was held in Montevideo (Uruguay) from 28 October to 6 November 1981. The so-called Montevideo Programme contained of conclusions and recommendations highlighting several important environmental issues, one of which was the transport, handling and disposal of toxic and dangerous wastes including the preparation of guidelines and principles which could lead to a global convention on hazardous wastes.

The Cairo Guidelines

The Governing Council of UNEP, in 1982, convened a working group of experts to develop guidelines of principles on the environmentally sound transport, management and disposal of hazardous wastes. After three sessions of this working group, it submitted so-called Cairo Guidelines and Principles for the Environmentally Sound Management of Hazardous Wastes on 9 December 1985 which the Governing Council of UNEP approved in June 1987 authorising the Executive Director of UNEP to convene a working group of legal and technical experts to prepare a global convention on the control of transboundary movements of hazardous wastes and also to convene a diplomatic conference to sign the convention in early 1989.

Negotiating the Basel Convention

The Basel Convention is the result of intensive negotiations in which representatives of States with different economic,

technical and geographical situations participated. It was not always easy to reach consensus, though the work was carried out in view of the common aim to reduce and control the international traffic in dangerous wastes.

The first meeting of Ad Hoc Working Group of Legal and Technical Experts took place in October 1987 in Budapest (Hungary). It had a mandate to prepare a global convention on the control of hazardous wastes taking into consideration the work of the European Economic Community (EEC) and the OECD. The experts agreed that this should be a two-tiered convention: it should take the form of a framework convention calling for further specific implementation instruments, but should also contain provisions with direct implications for the control of transboundary movements of hazardous wastes specifying clearly the responsibility of States involved in such movements. Experts from 96 States participated in one or more of the sessions and representatives of more than 50 organisations attended as observers. The Conference of Plenipotentiaries on the Global Convention on the Control of Transboundary Movements of Hazardous Wastes, convened in Basel (Switzerland) from 20 to 22 March 1989. Thus the world-wide concern about the transboundary movement and disposal of hazardous wastes resulted in a convention under the United Nations Environment Programme entitled *the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal* in 1989. 105 States and the European Community signed the final act of the conference, and 35 States and the EC signed the Convention immediately after its adoption. The conference also adopted eight resolutions to develop and further implement the convention. The convention entered into force on 5 May 1992, 90 days after it was ratified by the 20th State. As of March 1997, the Basel Convention has 109 Contracting Parties and the European Community. The rapidly increasing number of Parties reflects the growing awareness and interest of States in this important sector of environment protection.

The following countries are Contracting Parties to the Basel Convention:

Antigua and Barbuda, Argentina, Australia, Austria, Bahamas, Bahrain, Bangladesh, Barbados, Belgium, Bolivia, Brazil, Bulgaria, Burundi, Canada, Chile, China, Colombia, Comoros, Costa Rica, Cote d'Ivoire, Croatia, Cuba, Cyprus, Czech Republic, Denmark, Ecuador, Egypt, El Salvador, Estonia, European Community, Finland, France, Germany, Greece, Guatemala, Guinea, Honduras, Hungary, Iceland, India, Indonesia, Iran (Islamic Republic Of), Ireland, Israel, Italy, Japan, Jordan, Kuwait, Kyrgyzstan, Latvia, Lebanon, Liechtenstein, Luxembourg, Malawi, Malaysia, Maldives, Mauritania, Mauritius, Mexico, Micronesia (Federated States of), Monaco, Morocco, Namibia, Nepal, Netherlands, New Zealand, Nigeria, Norway, Oman, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Republic of Korea, Romania, Russian Federation, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Saudi Arabia, Senegal, Seychelles, Singapore, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Sweden, Switzerland, Syrian Arab Republic, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, United Arab Emirates, United Kingdom of Great Britain and Northern Ireland, United Republic of Tanzania, Uruguay, Uzbekistan, Viet Nam, Yemen, Zaire, Zambia.

Part 2. Structure and Content of the Convention

The Conferences of the Parties

The first meeting of the Conference of the Parties was held in Piriapolis (Uruguay) from 30 November to 4 December 1992. This meeting was attended by 56 States, the EC and 13 observers from international, governmental and non-governmental organisations. The Conference adopted 23 decisions covering a protocol on liability and compensation for damage resulting from the transboundary movement and disposal of hazardous wastes; technical guidelines to facilitate the implementation of the Convention; notification and movement documents; the development of models for national legislation; training activities; and establishment of regional centres for training and technology transfer.

The second Conference of the Parties met in Geneva on 21-25 March 1994, adopted a comprehensive work programme which was a significant step forward. More than 60 parties and 100 observers from government, United Nations organisations, intergovernmental bodies and NGOs were present.

The third Conference of the Parties met on 18-22 September 1995 in Geneva. It was attended by 81 Parties and the European Community, 19 observer States, 21 United Nations bodies, specialised agencies and intergovernmental organisations, 18 non-governmental organisations and private sector representatives. The Conference adopted an amendment to the Convention. This amendment once ratified will obligate Parties and other States which are members of OECD, EC, Liechtenstein to prohibit immediately all transboundary movements of hazardous wastes destined for final disposal to other States. It also obligates these States to phase out by 31 December 1997 and prohibit as of that date all transboundary movements of hazardous wastes which are destined for recovery operations or recycling.

Institutional process: COP and subsidiary bodies, competent authorities, focal points and Secretariat of the Basel Convention

The Conference of the Parties to the Convention (COP) means the Conference of the Parties established in accordance with Article 15 of the Convention. It is a governing body of the Contracting Parties. The United Nations, its specialised agencies, as well as any States not Party to the Convention are also invited to participate. Any other body or agency, whether international or national, governmental or non-governmental such as industry associations which environmentally having qualified in the matter of hazardous wastes or other wastes and having notified interest in attending the Conference of the Parties can participate as observers unless one third of the Parties objects. The main function of the Conference of the Parties is to continuously review and evaluate the effective implementation of the Convention. The Conference of the Parties can establish subsidiary bodies as are deemed necessary for the implementation of the Convention.

The Extended Bureau was expanded to consist of the officials of the previous Conference of the Parties to ensure the continuity. The Bureau should provide general policy and general operational directions to the Secretariat between meetings of the Conference of the Parties and provide guidance and advice to the Secretariat on the preparation of agendas and other requirements of meetings and on any other matters brought to it by the Secretariat in the exercise of its functions.

The Open-ended Ad-Hoc Committee was established to facilitate the implementation of the Basel Convention and it was agreed that it would meet between the meetings of the Contracting Parties.

The Technical Working Group was established to prepare technical guidance for the environmentally sound management of hazardous wastes, to develop criteria on which wastes are suitable for recovery and recycling operations and to provide guidance on technical matters to the Conference of the Parties.

The Ad-Hoc Working Group of Legal and Technical Experts was convened to consider and develop a draft protocol on liability and compensation for damage resulting from transboundary movements of hazardous wastes and their disposal.

The Consultative Subgroup of Legal and Technical Advisers was established to study all issues related to the establishment of a mechanism for monitoring the implementation of and compliance with the Basel Convention and to examine all issues related to the establishment of an emergency fund.

The Competent Authority is a government authority designated by a Party to be responsible, with such geographical area as the Party may think fit, for receiving the notification of a transboundary movement of hazardous wastes or other wastes, and any information related to it, and for responding to such a notification, as provided in Article 6.

The Focal Point is the entity of a Party referred to in Article 5 responsible for receiving and submitting information as provided for in Articles 13 and 16.

The Secretariat of the Basel Convention was established in Geneva, Switzerland. Its main activities consist of:

1. arranging for and servicing meetings of the Conference of the Parties and its subsidiary bodies;

2. ensuring the necessary co-ordination with relevant international bodies;

3. communicating with Focal Points and Competent Authorities established by the Parties;

4. providing information to Parties on:
   - sources of technical assistance and training;
   - scientific know-how and environmentally sound technologies; and
   - availability of resources.

5. assisting Parties in:
   - controlling movements of hazardous wastes;
   - handling of the notification system of this Convention;
   - managing and minimising of hazardous wastes;

assessing disposal capabilities and sites;
monitoring of hazardous wastes and emergency responses; and
identifying cases of illegal traffic.

Definitions

Wastes are substances or objects which are disposed of, are intended to be disposed of, or are required to be disposed of by the provisions of national law.

The Convention takes a broad view that there are 45 categories of wastes that are presumed to be hazardous in the Convention. 18 are waste streams (i.e. clinical wastes, organic solvents, mineral oils, PCB) and 27 others having constituents (i.e. mercury, lead, asbestos, organic cyanides, halogenated organic solvents). However, to be hazardous these categories of wastes need to exhibit one or more hazardous character's, such as being flammable liquid, oxidising, poisonous, infectious substances, corrosives, ecotoxic. Second, if waste is considered hazardous by the national legislation of the Party of export, import or transit, it is classified as hazardous.

The Basel Convention covers two categories of waste requiring special consideration: waste collected from household and residues arising from the incineration of household wastes.

There are two categories of wastes excluded from the scope of the Convention: radioactive waste and waste deriving from the normal operations of a ship which are covered by another international instrument. The former is covered by the International Atomic Energy Agency (IAEA) Code of Practice on the International Transboundary Movement of Radioactive Waste (1990) and the latter by the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78 Convention).

Transboundary movement means any movement of hazardous wastes or other wastes from an area under the national jurisdiction of one State to or through an area under the national jurisdiction of another State or to or through an area not under the national jurisdiction of any State, provided at least two States are involved in the movement.

According to the Basel Convention *environmentally sound management of hazardous wastes or other assets means "taking all practicable steps to ensure that hazardous wastes and other wastes are managed in a manner which will protect human health and the environment against the adverse effects which may result from such wastes."*

Main provisions

The overall goal of the Basel Convention is to protect, by strictly control, human health and the environment against the adverse effects which may result from the generation, transboundary movement and management of hazardous and other wastes. Further objectives include:

- reducing transboundary movements of wastes to a minimum consistent with their environmentally sound and efficient management, and controlling any permitted transboundary movement under the terms of the Convention;
- minimising the amount of hazardous wastes generated and ensuring their environmentally sound management;
- assisting developing countries in environmentally sound management of the hazardous and other wastes they generate.

In other words, the aim of the Basel Convention is to help reduce the transboundary movements and amounts of hazardous wastes to a minimum, and to manage and dispose of these wastes in an environmentally sound manner.

Article 4 attempts to accomplish the main goal of the Convention to reduce waste generation by preventing hazardous shipments in five situations. First, both importing and exporting parties is required to block the movement of waste that the importing State does not want. Second, for wastes not specifically prohibited by the importing State, both importing and exporting parties must prevent any waste shipment to which the importing State has not formally consented in writing so-called notice and consent requirement. Third, exporter should prohibit any waste shipment if it has reason to believe that the wastes in question will not be managed in an environmentally sound manner. Fourth, all parties to the Convention must present the shipment of any waste meant for disposal in Antarctica. Finally, all Parties must prohibit the import and/or export of any waste involving a non-party State. The purpose of this last prohibition is to exclude non-ratifying States from all legal, hazardous waste trade with States Parties to the Convention.

(Article 11) The Parties may enter into bilateral, multilateral or regional agreements or arrangements regarding transboundary movement of hazardous wastes if such agreement do not derogate from the environmentally sound

management as required by the Convention. Parties should notify the Secretariat of any bilateral, multilateral or regional agreements or arrangements and those which they have entered into prior to the entry into force of this Convention, for the purpose of controlling transboundary movements of hazardous wastes and other wastes which take place entirely among the Parties to such agreements.

The Basel Convention has set up a very strict control system, based on the prior written consent procedure. Hazardous wastes shall be exported only if the State of export does not have the technical capacity and facilities to dispose of them in environmentally sound management. Transboundary movement shall be prohibited if the State of export or import has reason to believe that the wastes shall not be managed in expected manner. Moreover, a Party should not permit hazardous wastes export to or imported from a non-Part unless it is in accordance with a bilateral, multilateral or regional agreement, the provisions of which are no less environmentally sound than those of the Basel Convention. The Convention primarily requires the notification and consent of recipient countries before any waste shipments can take place. The State of export shall notify in writing the competent authority of the States concerned of any proposed transboundary movement of hazardous or other wastes. The State of import shall respond to the notified in writing, consenting to the movement with or without conditions. The State of export shall not allow the generator or exporter to commence the transboundary movement until it has received written confirmation that the notifier has received the written consent of the State of import. Each State of transit which is a Party shall promptly acknowledge to the notifier receipt of the notification. The State of export shall not allow the transboundary movement to commence until it has received the written consent of the State of transit. The Parties shall require that each person who takes charge of a transboundary movement of hazardous wastes or other wastes sign the movement document, either upon delivery or receipt of the wastes in question. Each State of transit which is a Party shall promptly acknowledge to the notifier receipt of the notification. The State of export shall not allow the transboundary movement to commence until it has received the written consent of the State of transit. Each person who takes charge of a transboundary movement of hazardous wastes or other wastes sign the movement document, either upon delivery or receipt of the wastes in question. When a transboundary movement of hazardous wastes which is carried out in accordance with the Convention cannot be completed in an environmentally sound manner, the State of export has the duty to ensure the re-importation of the wastes.

Article 41(a) and (b) state that every country has a sovereign right to ban both import or/and export of hazardous wastes. The first Conference of the Parties referred to the limitation of the export of hazardous wastes from industrialised to developing countries. Recognising the increasing desire and demand of the international community for the prohibition of transboundary movements of hazardous wastes and their disposal especially in developing countries, the second meeting of the Conference of the Parties, adopted a decision establishing the immediate prohibition of all transboundary movements of hazardous wastes which are destined for final disposal from OECD to non-OECD countries. The transboundary movement of hazardous wastes from OECD to non-OECD countries destined for recycling or recovery operations is to be phased out by 31 December 1997. This transitional period has been seen as necessary for these movements to enable them to take appropriate measures consistent with the environmentally sound management of such wastes.

The Parties to the Convention agreed during the third Conference of the Parties referred to the adoption of the amendment, concerning the ban on transboundary movements of hazardous wastes as decided above. This amendment obligates Parties and other States which are members of OECD, EC and Liechtenstein to prohibit immediately all transboundary movements of hazardous wastes destined for final disposal to other States. It also obligates these States to phase out by 31 December 1997 and prohibit all transboundary movements of hazardous wastes which are destined for recovery operations or recycling. It was imperative to render such prohibition effective and decided on a control system through regular reporting on the implementation of the decision. In addition, those non-OECD States not possessing a national hazardous waste import prohibition and which allow the import from OECD States of hazardous wastes for recovery operations until 31 December 1997, should let the Secretariat of the Basel Convention know about their specific or particular situation and should specify the categories of hazardous wastes that are acceptable for import, the quantities to be imported, to which recovery process the waste will be subject to and the final destination or disposal of the residues derived from such operations. The Parties also recognised the need to corporate and work actively to ensure the effective implementation of this decision. Moreover, this amendment needs to be ratified by Parties in order to come into force for them. So far, only Finland has ratified this amendment.

Classification of hazardous wastes in two different lists has been elaborated in relation to the decision of third COP to amend the Convention. The preliminary lists of wastes placed on list "A" -wastes characterised as hazardous- and on list "B" wastes normally not exhibit hazardous characteristics in reference to Annex III of the Convention. These are: explosive, flammable liquids, flammable solids, substances or wastes liable to spontaneous combustion, substances

or wastes which, in contact with water emit flammable gases, oxidising, organic peroxides, poisonous (acute), infectious substances, corrosives, liberation of toxic gases in contact with air or water, toxic (delayed or chronic), ecotoxic, capable after disposal of yielding another material.

Part 3. Principal Elements that would be Required to Effectively Implement the Convention

The Conference of Parties adopted the Framework Document on the Preparation of Technical Guidelines for the Environmentally Sound Management of Wastes subject to the Basel Convention and sets of Technical Guidelines on priority waste streams and disposal operations, namely on:

a) hazardous waste from the production and use of organic solvents (Y6);

b) waste oils from petroleum origins and sources (Y8);

c) wastes comprising or containing PCBs, PCTs and PBBs (Y10);

d) wastes collected from households (Y46).

e) Specially Engineered Landfill (D5);

f) Incineration on Land (D 10);

g) Used Oil Re-refining or other Re-uses of previously Used Oil (R9).

The Technical Working Group is preparing technical guidelines on physico-chemical and biological treatments. Work is also progressing on the preparation of guidance materials for clinical wastes and pneumatic tyres.

The provisions of the Basel Convention provide a number of obligations to Parties to ensure that if pollution occurs as a result of transboundary movement of hazardous wastes or their management, they shall minimise the consequences for human health and the environment. In addition, the Secretariat of the Basel Convention has one of its functions to corporate with Parties and with relevant international organisations in the provisions of experts and equipment for the purpose of rapid assistance to States in the event of an emergency situation:

The Technical Working Group of the Basel Convention has developed technical elements for guiding States in their activities to be carried out within the framework of environmentally sound management of hazardous wastes which include:

-provisions for the establishment of emergency plans specifying the steps to be taken in the event of occurrences such as fire, explosion and spillage, and

-consideration of the problems created by contamination of the environment by hazardous wastes, taking into account their environmental and health effects in both short and long-term.

Protocol on Liability and Compensation

The Basel Convention obligates the Contracting Parties to corporate with a view to adopting a protocol setting out rules and procedures in the field of liability and compensation for damage resulting from the transboundary movement and disposal of hazardous wastes and other wastes. The Ad-Hoc Working Group of Legal and Technical Experts has been working on the development of this protocol which will be submitted to the fourth meeting of the Conference of the Parties in autumn 1997. The working group preliminary agreed on a definition of damage which results from an accident during the transboundary movement of hazardous wastes and their disposal. A preliminary agreement was also reached on the objective and scope of the Protocol. The main issues to be further considered include the question of who is liable: the generator, dispose, broker or the person who has control of the wastes, or should there be a joint liability regime; the limits of compensation to be covered by insurance and other financial guarantees; and the relationship between the future Protocol and other bilateral, multilateral and regional agreements. The experts will also consider the liability of States.

Emergency fund

Article 14 of the Convention stipulates that Parties shall consider the establishment of a resolving fond to assist, on an interim basis, in case of emergency situations to minimise damage from accidents arising from transboundary movements of hazardous wastes and/or during the disposal of these wastes. The above-mentioned working group will also consider the necessary elements for establishing an emergency fund and its relationship to the Protocol on liability and compensation required under the Basel Convention.

Regional Centres for Training and Technology Transfer

The Basel Convention calls for the establishment of regional or subregional centres for training and technology transfer regarding the management of hazardous wastes and other wastes and the minimisation of their generation. The successful implementation of the Convention and the achievement of the environmentally sound management of hazardous wastes relies upon developing the adequate capacity at the national or regional level. Based on the identification of the specific needs of the different regions and subregions the Parties agreed to select the sites for the establishment of regional centres. The increasing demands for assistance from developing studies in Africa, Asia & Pacific, Latin America & Caribbean, and Eastern & Central Europe to establish regional centres in these geographical regions which was required as a precondition for concluding the selection of sites. The feasibility of establishing regional centres was undertaken on the basis of information received from governments.

Africa

A feasibility study for the establishment of regional/sub-regional centres for the environmentally sound management of hazardous wastes for English-speaking African countries identified the main needs of these countries with regard to training and technology transfer for the implementation of the Convention as well as their available resources to address those needs. The reports for the Feasibility studies for establishment of sub-regional centres for French speaking and for Arabic speaking African countries have been finalised and will provide the basis for discussion to initiate work.

Asia and the Pacific

The regional centre has been established in Beijing for the Asian region. The meeting held in July 1996 adopted the recommendations of the feasibility study and agreed the priorities and the organisational set up for the future centre.

Central and Eastern Europe

A sub-regional centre for training and technology transfer has been established in Bratislava, Slovakia. Switzerland signed an agreement with the Secretariat of the Basel Convention for financial support of this centre for first two years of its operation. The first training course is expected to be held in March 1997. Another sub-regional centre has been established in Moscow, but the financial support is still open.

Latin America and the Caribbean

A regional centre so-called coordinating centre has been established in Montevideo, Uruguay and sub-regional centre in Buenos Aires, Argentina. In relation to the establishment of a sub-regional centre for the Caribbean expert missions were undertaken and a regional seminar was held in St. Lucia in October 1996 where a Plan of Action for the environmentally sound management of hazardous wastes in the Caribbean was adopted.

Manual for implementation

The First Meeting of the Conference of the Parties adopted decision 1/3 entitled Manual for the Implementation of the Basel Convention which requested the Secretariat to identify the purposes of and to prepare the outline for a manual and to report on its progress to the second meeting of the Conference of the Parties. The purpose of the Manual, is to facilitate the implementation of the Basel Convention for the Parties and any natural and/or legal persons involved in the generation, export, import and/or disposal of wastes subject to the Basel Convention.

National legislation

Article 4 of the Basel Convention requests Parties to take appropriate legal, administrative and other measures to implement and enforce its provisions. In order to assist the Parties to fulfil this obligation, the Secretariat submitted Model National Legislation to the second meeting of the Conference of the Parties which accepted the model and requested it to be distributed to Parties and non-parties and to take it into account when providing technical assistance in the field of national legislation.

Technical Assistance and Training

The successful implementation of the Basel Convention and of the decisions taken by the Conference of the Parties and the achievement of the environmentally sound management of the hazardous wastes rely upon developing the adequate capacity at the national or regional levels and upon the active and effective co-operation among Parties, and of Parties with non-parties and international organisations. The growing number of contracting Parties to the Basel Convention entails increasing demands for assistance from developing countries and countries with economies in transition. The secretariat has assisted in developing national legislation, setting up inventories of hazardous wastes, assessing the hazardous waste management situation and preparing hazardous wastes management plans.

The Secretariat is also assisting the countries to solve specific problems related to the management of hazardous wastes. Support has been or will be provided to Barbados, Saint Lucia, Ecuador, Bulgaria, Benin, Cape Verde, Guinea, Morocco, Senegal, Syria, the Philippines and Viet Nam.

Moreover, the Secretariat aims to find financial and technical support to organise national and sub-regional seminars on the implementation of the Basel Convention in Cuba, Ecuador, Morocco, the Russian Federation, Seychelles, Sri Lanka and Syria.

Prevention and Monitoring of Illegal Traffic

One outstanding aspect of the Convention is that illegal traffic -transboundary movement of hazardous wastes carried out in a manner not consistent with the provisions of the convention or its control system is considered criminal. Accordingly, Parties have an obligation to enact national legislation to prevent and punish it. The countries should promulgate stringent national legislation to pertain to the control of transboundary movements of hazardous wastes. In order to build up the capacity for an effective response to the illegal traffic, regional and sub-regional cooperation is called for. The United Nations Regional Commissions as well as other regional bodies and conventions have taken and should continue to take an effective role in the monitoring and prevention of illegal traffic in cooperation with the Secretariat.

In the international field, the State of export is responsible for the actions of the exporter and the generator, while the State of import is responsible for the actions of the importer and the dispose. The State responsible for the action leading to an illegal movement has the obligation to ensure the wastes environmentally sound disposal by re-importation into the State of export or otherwise, within 30 days of receiving information about the illegal movement. Moreover, if an otherwise legal transboundary movement cannot be performed in accordance with the contractual agreement, the State of export has a duty to ensure the reimportation of the waste, unless alternative arrangements for their environmentally sound management is agreed.

The United Nations General Assembly at its 44th session adopted the resolution entitled: *Traffic in Toxic and Dangerous Products and Wastes*. It requested each UN regional Economic Commission to contribute to the prevention of the illegal traffic in toxic and dangerous products and wastes by monitoring and making regional assessments of this illegal traffic and its environmental and health implications in each region, in co-operation with UNEP and other relevant bodies. UNEP implemented this resolution developing regional project in close co-operation with ESCAP in 1992.

The Basel Convention co-operates with the Interpol in relation to illegal traffic. Moreover, both organisations participate in international conferences on environmental crime involving hazardous wastes aimed at raising awareness of the fighting of environmental crime. It was pointed out that criminal activities involving hazardous wastes are on the rise as substantial profits can be gained at the cost of irreparably damaging the environment.

Illegal traffic of hazardous wastes in most cases has tended to flow from developed to the developing countries. Whilst

this problem is readily recognised by UNEP and the countries most severely afflicted have been identified, it is also well known that the extent of the illegal trafficking can only be estimated and only a small number of the incidents are ever uncovered and reported.

Cooperation with UN bodies, Other Inter-governmental and Non-governmental Organisations

The Conference of the Parties gave a strong mandate to the Secretariat to corporate with the relevant United Nations bodies, other intergovernmental bodies and non-governmental organisations in order to achieve environmentally sound management of hazardous wastes. In particular, these are:

EC (European Community)
The European Community has amended its legislation on shipments of wastes in order to implement the amendment to the Basel Convention. From 1 January 1998, exports of hazardous wastes from the EU to non-OECD countries and imports vise versa will cease whether bilateral, multilateral, regional agreement has been concluded at EU level or by individual Member State. Moreover, SBC and the EC corporate on the preparation of Technical Guidelines for the environmentally sound management of wastes, on separate identification of wastes in the Harmonised System and on hazard characterisation of wastes.

FAO
SBC, in co-operation with UNEP/International Register of Potentially Toxic Chemicals (WTC), follows closely the work of the Food and Agriculture Organisation (FAO) on the disposal of obsolete and unwanted pesticides stock in Africa and the Near East. In addition, FAO participates in the work of the Technical Working Group because it is developing guidelines for pesticides management.

IAEA
SBC and the International Atomic Energy Agency (IAEA) corporate to make sure that the provisions of the Basel convention are taken into full account and are considered a bottom line for instruments which regulate the transactions involving nuclear wastes. The Secretariat continues its co-operation with the IAEA in preparing a Convention on Safety of Management of Radioactive Wastes because radioactive materials are excluded from the scope of the Convention.

IMO
SBC and the International Maritime Organisation (IMO) collaborate to harmonise the provisions of the Basel Convention and the other international instruments in the field of marine transportation of hazardous wastes, such as the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Dumping Convention, 1972) and International Convention for the Prevention of Pollution from Ships (MARPOL 73/78 Convention).

OECD
SBC has a memorandum of understanding with the Organisation for Economic Co-operation and Development (OECD) in order to expand co-operation in regard to information and data on hazardous waste movements and their generation. Moreover, the OECD Environment Policy Committee reaffirmed that waste prevention should be the highest priority, complemented by strategies for reuse, recycling and environmentally sound disposal. It also reaffirmed the importance of the amendment to the Basel Convention and committed to meet this obligation. The OECD Waste Management Policy Group (WWG) continued its work on the waste minimisation programme and on definitions, terms and concepts as well as measurement and evaluation of waste minimisation.

UNIDO
The United Nations Industrial Development Organisation (UNIDO) collaborates with the SBC in providing information on existing data bases with regard to available technical and scientific know-how on hazardous wastes.

UN Regional Commissions
A close working relationship carried on with UN Regional Commissions, in particular with the UN Economic Commission for Europe (UN-ECE)on matters related to the recommendations, rules and regulations governing the transport of hazardous wastes as well as on matters pertaining to hazard characterisation of wastes.
SBC is co-operating with the other UN regional commissions with a view to promote the development of compatible regional systems for the prevention of illegal traffic in hazardous wastes. Information is exchanged particularly with the UN Economic and Social Commission for Western Asia (ESCWA), UN Economic and Social Council for Asia

and the Pacific (ESCAP) and UN Economic Commission for Latin America and the Caribbean (ECLAC). The latter has initiated the work on a draft Convention for the region on the establishment of a mechanism to prevent illegal traffic.

WCO
In order to achieve an effective control and monitoring at the border of any act of illegal traffic intended to leave or enter the territory of a State, SBC and WCO incorporate a number of wastes as defined by the BC in the Harmonised System of the WCO.

The Secretariat also collaborates closely with the following United Nations bodies and specialised agencies: United Nations Department of Humanitarian Affairs (UN-DHA), United Nations Department for Policy Co-ordination and Sustainable Development (UN-DPCSD), United Nations Institute for Training and Research (UNITAR), World Health Organisation (WHO) as well as with other intergovernmental organisations such as Caribbean Community (CARICOM), Interpol, Organisation of African Unity (OAU), South Pacific Forum (SPF), South Pacific Regional Environment Programme (SPREP).

The Secretariat is also co-operating with the industry and business associations (e.g. International Chamber of Commerce (ICC), International Recovery Bureau (BIR), European Federation of Waste Management (FEAD), Council of the Federation of European Chemical Industries (CEFIC), International Precious Metal Institute (IPMI), International Council of Metals and the Environment (ICME), EUROMETAUX and with environmental groups (e.g. Green Peace International).

Part 4. Costs and Benefits of Participation

To ensure that developmental activities will be environmentally sound, provide sustained benefits and protect human health and natural resources, effective control of the generation, storage, treatment, recycling and reuse, transport, recovery and disposal of hazardous wastes is of paramount importance. The Basel Convention confirms the right of the Parties to prohibit the import of hazardous wastes. The Party exercising this right will have to notify the Secretariat of the Convention. Other Parties will respect this right of prohibition and therefore shall prohibit the export of hazardous wastes to it (Article 4, paragraphs 1 (a) and (b)).

Parties to the Convention shall prohibit export of hazardous wastes and other wastes if the State of import does not consent in writing to the specific import.

Parties shall employ appropriate means to corporate in order to assist developing countries in reducing to the minimum the generation and transboundary movement of hazardous wastes, ensuring the availability of adequate disposal facilities for the environmentally sound management of hazardous wastes and that the person involved in such management is able to prevent pollution or if such pollution occurs to minimise the consequences thereof for human health and the environment (Article 10, paragraph 3).
In accordance with Article 10 of the Convention, international co-operation shall be extended to developing countries in the following fields:

(a) Transfer of technology and management systems related to the environmentally sound management of hazardous wastes;

(b) The development and implementation of new environmentally sound low-waste technologies and the improvement of existing technologies with a view to eliminating, as far as practicable, the generation of hazardous wastes and other wastes and achieving more effective and efficient methods of ensuring their management in an environmentally sound manner, including the study of the economic, social and environmental effects of the adoption of such new or improved technologies;

(c) Monitoring of the effects of the management of hazardous wastes on human health and the environment;

(d) Development and promotion of environmentally sound management of hazardous wastes and other wastes;

(e) Public awareness.

In accordance with Article 16 of the Convention, every country Party to the Convention will be able to receive assistance from the Secretariat of the Basel Convention in the following areas:

(a) The management of hazardous wastes and other wastes;

(b) Environmentally sound technologies relating to hazardous wastes and other wastes, such as low- and non-waste technology;

(c) The assessment of disposal capabilities and sites;

(d) The monitoring of hazardous wastes and other wastes;

(e) Emergency responses;

(f) Information on consultants or consulting firms having the necessary competence in the field of management of hazardous wastes;

(g) The identification of cases of illegal traffic.

According to the specific needs of different regions and subregions, regional or subregional centres for training and technology transfers regarding the management of hazardous waste and other wastes and the minimisation of their generation should be established. Such centres will be of utmost importance for developing countries which lack trained manpower and technology. In the field of training, UNEP and the Secretariat of the Basel Convention (SBC) have since 1988 organised a number of seminars and workshops for developing countries in the field of management of hazardous wastes.

Article 14, paragraph 2, of the Convention stipulates that Parties shall consider the establishment of a revolving fund to assist on an interim basis in case of emergency situations to minimise damage from accidents arising from transboundary movements of hazardous wastes and other wastes or during the disposal of these wastes. Developing countries will be the group of countries to benefit from the facilities provided by such fund in cases of emergency.

In case of an illegal movement of hazardous wastes or other wastes to a developing country Party to the Convention as a result of conduct on the part of the exporter or generator, the State of export shall ensure that the wastes in question are taken back by the exporter of the generator or, if necessary, by itself into the State of export or are otherwise disposed of in accordance with the provisions of the Convention.

UNEP and SBC provided the financial support for the participation of the developing countries in the meetings organised for the preparation as well as the implementation of the Convention. Since the establishment of SBC by the Executive Director of UNEP, financial assistance has permitted the developing countries to participate in the meetings organised for the implementation of resolutions 1, on mechanisms for the implementation of the Convention, 3, on liability and compensation for damage, and 8, on technical guidelines, adopted by the Basel Conference of Plenipotentiaries at the same time as the Convention.

Costs

A Trust Fund for assistance to developing countries has been established under the Basel Convention which is used for support of developing countries' representatives to participate at the meeting for organisation of technical assistance for developing countries and for training activities and seminars in developing countries. At the second Fund, namely the Trust Fund for the Implementation of the Convention, shares of developing countries whose contributions under the United Nations scale of assessments are below 0.1 per cent have been waived.

The Basel Convention remains the broadest and most significant international treaty on hazardous waste presently in effect. Because the impact of hazardous waste on the environment has planetary repercussions, effective regulation requires global cooperation.

The Basel Convention is a unique forum where Governments of the planet discuss and negotiate solutions, in a cooperative spirit, to their own hazardous waste situations as well as to issues experienced at the regional and international levels.

Given the potential for high profits, it is likely that the market for hazardous wastes involving developing countries will continue to be attractive and available. The potential health risks, environmental impacts, and other long-term implications arising from a waste trade activity may exceed the short-term economic gains by several orders of magnitude. Improper waste management practices may reduce the future development potentials of the country accepting wastes in a trade deal. There is therefore the need for a careful evaluation of any national policy and development program involving waste imports.

It should be remembered that hazardous wastes are but one component of the total waste problem - a problem that calls for an integrated approach dealing with, all types of wastes.

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OVERHEADS Presented by Harald Egerer- Basel Secretariat

(Geneva, 17th March 1997)
List of parties to the Basel convention on the control of transboundary movements Of hazardous wastes and their disposal (adopted in 1989 and entered into force in 1992)

Africa	Asia and Pacific	Western Europe and Others	Central and Eastern Europe	Latin America and Caribbean
Burundi	Bahrain	Australia	Bulgaria	Antigua and
Comoros	Bangladesh	Austria	Croatia	Barbuda
Cote d'Ivoire	China	Belgium	Czech Republic	Argentina
Egypt	India	Canada	Estonia	Bahamas
Guinea	Indonesia	Cyprus	Hungary	Barbados
Malawi	Iran (Islamic Republic	Denmark	Latvia	Bolivia
Mauritius	of)	Finland	Poland	Brazil
Morocco	Japan	France	Romania	Chile
Mozambique	Jordan	Germany	Russian	Colombia
Namibia	Kuwait	Greece	Federation	Costa Rica
Nigeria	Kyrgyzstan	Iceland	Slovakia	Cuba
Senegal	Lebanon	Ireland	Slovenia	Ecuador
Seychelles	Malaysia	Israel		El Salvador
South Africa	Maldives	Italy		Honduras
Tunisia	Micronesia (Federated	Liechtenstein		Mexico
United Republic of	States of)	Luxembourg		Panama
Tanzania	Nepal	Monaco		Paraguay
Zambia	Oman	Netherlands		Peru
	Pakistan	New Zealand		Saint Kitts and
	Papua New Guinea	Norway		Nevis
	Philippine	Portugal		Saint Lucia
	Qater	Spain		Saint Vincent and
	Republic of Korea	Sweden		the Grenadines
	Saudi Arabia	Switzerland		Trinidad and
	Singapore	Turkey		Tobago
	Sri Lanka	United Kingdom of		Uruguay
	Syrian Arab Republic	Great Britain and		
	Turkmenistan	Northern Ireland		
	United Arab Emirates			
	Uzbekistan			
	Viet Nam			
	Yemen			
19	30	26	11	**23**

Political and/or Economical Integration Organisations: European Economic Community

TOTAL NUMBER OF CONTRACTING PARTIES : 109 States Parties and 1 Economic Integration Organisation.

BASEL CONVENTION:
A GLOBAL LEGAL INSTRUMENT ON THE CONTROL AND THE MANAGEMENT OF HAZARDOUS WASTES

I HISTORY AND ADOPTION OF THE BASEL CONVENTION

II OBJECTIVES AND PRINCIPLES

III MAIN PROVISIONS OF FINAL TEXT

IV ACTIVITIES OF THE VARIOUS BODIES OF THE BASEL CONVENTION

I CHRONOLOGY AND ADOPTION OF THE BASEL CONVENTION

* PRELIMINARY WORK OF THE UNEP
  THE MONTEVIDEO PROGRAMME
  THE CAIRO GUIDELINES

* AWARENESS TO THE ISSUES OF TRANSBOUNDARY MOVEMENTS OF HAZARDOUS WASTES IN THE 80's

* RATIFICATION OF THE BASEL CONVENTION

* AGENDA 21

II OBJECTIVES AND PRINCIPLES

PROTECT THE HUMAN HEALTH AND THE ENVIRONMENT A
THE ADVERSE EFFECTS OF HAZARDOUS WASTES

1. TO DIMINISH THE NUMBER OF TRANSBOUNDARY MOVEMENTS OF HAZARDOUS WASTES AND/OR THE VOLUME AND THE POTENTIAL HAZARDOUSNESS OF THE WASTES TRANSPORTED

   - NATIONAL SOVEREIGNTY PRINCIPLE
   - PROXIMITY PRINCIPLE
   - LEAST TRANSBOUNDARY MOVEMENT PRINCIPLE
   - NON-DISCRIMINATION PRINCIPLE
   - SOURCE REDUCTION PRINCIPLE

2. ENVIRONMENTALLY SOUND MANAGEMENT OF WASTES AND OTHER WASTES
   (... TAKING ALL PRACTICABLE STEPS TO ENSURE THAT HAZARDOUS WASTES ARE MANAGED IN A MANNER WHICH WILL PROTECT HUMAN HEALTH AND THE ENVIRONMENT AGAINST THE ADVERSE EFFECTS WHICH MAY RESULT FROM SUCH WASTES.)

   - PRECAUTIONARY PRINCIPLE
   - INTEGRATED LIFE CYCLE PRINCIPLE
   - POLLUTER PAYS PRINCIPLE
   - INTEGRATED POLLUTION CONTROL PRINCIPLE

III. MAIN PROVISIONS OF FINAL ACT AND ADOPTED DECISIONS

1 MONITORING AND CONTROL OF TRANSBOUNDARY MOVEMENTS OF HAZARDOUS WASTES.
- PROHIBITION OF IMPORT/EXPORT
- GLOBAL STRATEGY FOR THE PREVENTION OF ILLEGAL TRAFFIC
- BILATERAL, MULTILATERAL AND REGIONAL AGREEMENTS AND ARRANGEMENTS
- REGULATORY REGIME OF THE BASEL CONVENTION

2. ENVIRONMENTALLY SOUND MANAGEMENT OF HAZARDOUS WASTES
- GUIDELINES
- ENVIRONMENTALLY SOUND MANAGEMENT
- TRANSBOUNDARY MOVEMENTS DESTINED FOR RECOVERY OPERATIONS
- DEVELOPMENT OF NATIONAL AND/OR REGIONAL STRATEGIES

3. TRANSMISSION OF INFORMATION
CONTRACTING PARTIES / SECRETARIAT

4. INTERNATIONAL COOPERATION
-TECHNICAL COOPERATION TRUST FUND
-FINANCIAL MECHANISM FOR THE ESTABLISHMENT OF THE REGIONAL CENTRE
-VOLUNTARY BI/MULTILATERAL CONTRIBUTION

III. 1.1 PROHIBITION TO IMPORT/EXPORT

BASEL CONVENTION
Compliance with the sovereign right to prohibit imports (Art.4 1)
Compliance with procedures and non-consent option (Art.4. 1)
Prohibition to import/export from/to non-contracting parties (Art.4.5)
Prohibition to transport or dispose of, to non authorised or allowed persons (Art.4.7)
Authorisation for exports consent in the case of particular conditions (Art.4.9)
-in absence of technical capacity, facilities capacity -or suitable disposal sites
-wastes are required as a raw material for recycling or recovery
Amendments (Art.4.A.1)
(Art.4.A.2)

INTERNATIONAL CONVENTIONS
Bamako, prohibition to import from non-contracting parties.
ACP/E.E.C. (Lome IV) 1989, prohibition to export the ACP countries

III. 1.2 A GLOBAL STRATEGY TO PREVENT ILLEGAL TRAFFIC

On national level

-appropriate legislation to prevent and punish (Art.9.5)
-interministerial coordination to prevent and punish (Dec II/4.4)
-assistance of SBC for identification (Art. 16, Dec.III/5.4)

On regional level

-co-operation with regional conventions,NGO's, industry, private sector (Dec. III/5.6.)
-organise training courses for custom officers, port authorities, judiciary personnel, police

On international level

-co-operation with Interpol WCO, IMO for prevention, of illegal traffic (Dec III/5.6)

Definition of illegal traffic

Any transboundary movement of hazardous wastes, (Art 9. 1)

-without notification pursuant to all states concerned
-without the consent of the state concerned
- consent obtained by fraud
- resulting in the deliberate disposal in Contravention to the convention or international law

Prohibition of transboundary movements: Art.4.1 . Art.4.5. Art.4.7, Art.4.9

Criminalisation of illegal traffic

-illegal traffic is criminal (Art 4.3)
-parties prevent and penalise illegal traffic (Dec II/4.2. Dec II/4.4. Dec II/5.5)

Reparation

Exporter/generator/take back or dispose of in accordance with the convention within 30 days (Art 9.2)

Importer or disposer : environmentally sound disposal (Art. 9.3)

Uncertain responsibility: cooperation of parties

III 1.4 REGULATORY REGIME OF THE BASEL CONVENTION

Strengthening of the institutions

-competent authorities (Art.5)

Strengthening of legislation

-general obligations (Art.4), transboundary movements (Art.6), duty to report (Art.7), liability and compensation (Art. 12),...

Procedures of notification/ prior informed consent

notification by C.A of exporting country (Art. 6.1)
consent of C.A of importing countries (Art. 6.2)
(tacit) consent of C.A of transiting country (Art. 6.2)
existence of E.S.M contract with disposer (Art. 6.3)
Notification to SBC
general notification (Art. 6.5)
notification of reception and completion of disposal (Art. 6.9)
notification to non parties transiting states(Art.7)
duty to re-import (Art 8)

Notification and movements document

harmonisation with EU and OECD documentation

III. 2 ENVIRONMENTALLY SOUND MANAGEMENT

To achieve, the principles

- national/regional strategy
- technical guidelines
- regional centres - capacity building
- training and seminars by UNDP/SBC

III. 3 TRANSMISSION OF INFORMATION

Contracting parties inform SBC:

-competent authorities, focal points
-significant changes in the national legislation
(definitions, import/export,...)
-cases of illegal traffic
- Annual reports
-data on the transboundary movements of hazardous wastes, production, transport and elimination
-reduction of volumes suggest to transboundary movements
-implementation of the Basel convention
-nationally patented facilities and installations
-accidents
-final disposal methods in practice

SBC informs the contracting parties on:

-sources, of technical assistance, training, expertise, funding, ...etc
-nationally patented facilities and installations
-cases of illegal traffic

III. 4 INTERNATIONAL CO-OPERATION

Bi/multilateral co-operation between parties

-improve the environmentally sound management of hazardous wastes (Art: 10.1)
-harmonisation of norms and technical practices (Art.10.2.A)
-monitor adverse effects on the human health and the environment (Art. 10.2.B)
-facilitate transfer of technologies (Art. 10.2.D)
-elaboration of technical guidelines and/or adequate codes of practice

Assistance from the secretariat of the Basel convention

-handling of the notification system
-environmentally sound management
-assessment of disposal capabilities and sites
-environmentally sound technologies, such as low and non-waste technology
-emergency responses
-research of funding sources

IV. ACTIVITIES OF THE VARIOUS BODIES OF THE BASEL CONVENTION BODIES

Technical Working Group

Legal Working Group

Open Ended Ad-hoc Committee

Conference of the Parties

Secretariat of the Basel Convention

ACTIVITIES:

- Model national legislation
- Manual for the implementation of the Basel Convention
- Protocol on liability and compensation
- Mechanism for the implementation of and compliance to the Basel Convention
- Establishment of the regional centre on training and technology transfer
- Technical guidelines for the environmentally sound management of hazardous wastes
- Characterisation and classification of hazardous waste
- Programme of technical assistance to contracting parties

3.2. HAZARDOUS WASTE: ISSUES PAPER

POSSIBLE ELEMENTS FOR A STRATEGY FOR THE IMPLEMENTATION OF THE BASEL CONVENTION

By Harald Egerer, Secretariat of Basel Convention

PROBLEM AREAS

Limited capacity to oversee the management of hazardous wastes and their movements across borders.
Deficiency of ensuring effective control measures at the national level .
Difficulties in identifying hazardous wastes, assessing their hazardousness and effects on health and environment.
Lack of specialised equipment for testing and sampling of hazardous wastes .
Lack of technical capacity to treat or dispose of hazardous wastes generated locally.
Absence of regional harmonisation of laws and policies.
Lack of awareness.

OBJECTIVES

To achieve effective control of the transboundary movements of hazardous wastes through appropriate enforcement procedures and training of personnel.
To facilitate identification of hazardous wastes through methods for testing and sampling.
To improve storage, transport, treatment and disposal of hazardous wastes to avoid harmful effects on human health and the environment.
To facilitate harmonisation of policies, regulations and procedures between countries in the region
To improve awareness.

ACTIVITIES

To prepare, consolidate or revise national legislation on hazardous wastes implementing the Basel Convention.
Setting up/strengthening of institutional capacity (competent authority) and of national information units (focal points)
Training/equipment of enforcement personnel to monitor and control transboundary movements of hazardous wastes and to prevent illegal traffic.
To aim at the environmentally sound management of hazardous wastes (e.g. hospital wastes, used oils)/waste minimisation .
To prepare national inventories on stocks and generation of hazardous wastes regional co-operation
Awareness-raising programmes.

MAIN HAZARDOUS WASTE RELATED PROBLEMS TO BE ADDRESSED

Bangladesh

Wastes from:

1 Tanneries
2 Pesticide formulation
3 Pharmaceutical
4 Hospitals, Clinics, Laboratories
5. Steel galvanising and Electroplating Industries
6 Chemical Industries, Caustic-chlorine, Sulphuric acid manufacturing plants
7 Textile dyeing

India

1 Implementation of legislative regime.
2 Lack of expertise at local/state level at identification and characterisation of wastes generated locally.
3 Lack of authentic statistics on production of hazardous wastes in the country.
4 Lack of availability of technical and financial resources for developing waste treatment and disposal sites for wastes generated by local industry.

Maldives

1 Interpretation of hazardous wastes
2 Monitoring and surveillance of EEZ
3 Safe disposal of produced waste

Nepal

Industrial development in Nepal is at infancy stage. Low quantity of hazardous wastes are discharged and /or disposed off by the industries, hospitals and medical centres, without any treatment. At present, environmental management and safe disposal of untreated effluent, dumping of urban wastes and hospital wastes, and stock of about 50 tons of pesticides are of major concern. Nepal also lacks knowledge, skills, technologies, treatment facilities and investment to handle these wastes in an environmentally sound manner.

Pakistan

No access to relevant technology. Lack of general awareness. Absence of reliable data with regard to the generation, identification, classification according to international standards and import of hazardous wastes. No access to modern laboratories. Ineffective regulations and laws in the past (effective regulation is underway). Difficulty of trained technical experts. No effective system of monitoring of the generation, transportation, handling, import and disposal of hazardous wastes. Lack of finical resources to go for treatment plants for the vast industrial and municipal waste in the country.

Sri Lanka

1. Transboundary movements:
   - i) Lack of sufficient technical and institutional capacity to:
     - -identify the exact constituents in consignments of hazardous waste
     - -Characterisation of hazardous wastes
     - -risk analysis of imports and exports
   - ii) Lack of enforcement capacity in case of illegal traffic of hazardous wastes

2. Internal management:

2.1 Industries:

i) High cost and inadequate accessibility to technologies related to environmentally sound management of hazardous wastes.

ii) Lack of technical capacity to select, use and maintain proper technology

2.2 Regulatory bodies: lack of enforcement capacity (technical and institutional)

RESOURCES AVAILABLE AT NATIONAL LEVEL

Bangladesh

Expertise agencies:

Department of Environment
Institute of Public Health
Bangladesh Atomic Energy Commission
Bangladesh Council of Scientific and Industrial Research
Bangladesh Agricultural Research Council
Bangladesh Standards and Testing Institution
Bangladesh Small and Cottage Industries Corporation
Bangladesh University of Engineering and Technology

Legal Aspects:

i) Environment Conservation Act, 1995
ii) Pesticide Ordinance of 1971, 1984 and Pesticide Rules, 1985
iii) Dangerous Drugs Act, 1930, 1988
iv) Explosive Substance Act 1968, 1983
v) Import Policy Order, 1993, 1995
vi) Inland Shipping Ordinance, 1976
vii) Merchant Shipping Ordinance, 1983
viii) Port Rules, 1967

Some people have been trained at higher level, official mid level, officials supervisors and worker level. Awareness being created through TV, Radio and Newspapers.

India

1 Legal regime for management and handling of hazardous wastes and for waste minimisation, 1 waste audit exists.
2 Technical expertise with infrastructure facilities exist and various research organisations, educational institutions and management establishments.
3 An ESCAP/UN Asian and Pacific centre for transfer of technology has been functioning at the Delhi since 1993.
4 Regional level meetings have been conducted to train personnel at various levels in the field of hazardous wastes.
5 Educational curricula and modules have been developed.
6 Public awareness campaigns are launched through TV, radio and through publications and brochures.

Maldives

1 Framework legislation
2 Good public awareness
3 Co-operative trade sector

Nepal

1 Expertise – None
2 Legal provisions - very few (scanty) in Municipality Act, 1992; Town Development Act, 1988; Industrial Enterprises Act, 1992; Labour Act, 1993; Solid Waste (Management and Resource Mobilisation) Act, 1987; Pesticide Act, 1991; New Umbrella Environmental Protection Act, 1993 will contain provisions for hazardous waste management, and incentives to industries, employing waste minimisation technologies.
3 No training courses so far.
4 Federation of Nepalese Chambers of Commerce and Industries (FNCCI) has established industry and environment crew.
5 Public awareness increasing on pesticide waste
6 Education – none
7 Resources - none

Pakistan

Legal framework is underway both at the Federal and provisional levels. A few technical experts on hazardous wastes are available at the national level. EPA's are actively engaged in fostering general awareness amongst the public about the hazards of such wastes and amongst the generators about their responsibility towards the nation and society. NGO's are also being encouraged by the EPA's to assist in their campaign. Environmental clubs are being set up in the educational institutions with the help of Education Ministry. Federations of Commerce and Industry have shown keen desire to help the EPA's in the implementation of environmental laws and standards. Facilities for arranging training like accommodation etc. are available, but technical expertise are lacking. Regional Centre can assist Pakistan in arranging such courses in Pakistan. Political will and support is now available at the highest level which has made the EPA's (5 in number) now effective in handling the environment related issues. World Bank and AusAID are also extending help.

Sri Lanka

Hazardous management:

1 Limited facilities are available for the following:
   i) treatment
   ii) analysis and testing
   ii) identification

2 In case of pesticides facilities are available for the following:
   i) storage
   ii) minimisation
   iii) classification
   iv) regulations - legal
   v) risk assessment
   vi) analysis and customs
   vii) inspection
   viii) ports and costs

ix) packing
x) labelling

3 Industrial Partnership:

The Federation of Chambers of Commerce and Industry of Sri Lanka (FCCISL), and the Ceylon Chambers of Commerce and the Board of Investment are members of the national co-ordination committee established for the implementation of the Basel Convention.

3. 3 HAZARDOUS WASTE: COUNTRY PRESENTATIONS

BANGLADESH

Dr. Md. Omar Faruque Khan, Deputy Secretary, Ministry of Environment and Forest

INTRODUCTION

The present population of Bangladesh is estimated to be 115 million, growing at a rate of 2.4 per cent per annual. It is expected that the population will be doubled by the year 2022. It consists of an area of 147,570 KM^2 and has a density of 750 persons per KM^2. The economy is heavily dependent on small scale agriculture which contributes about half of the GDP and three quarters of employment. About 29 per cent of the population live in urban arose, which is growing very fast. The infrastructural development cannot keep pace with the increase in the urban population resulting in acute shortage of drinking water, sanitation, facilities, housing and health care facilities. Major industries are textile (garments) manufacturing, fertiliser, tobacco, tannery, fish processing, cement, pulp and paper, petroleum, plastic, pesticides etc.

The generation, storage treatment transport recovery transboundary movement and disposal of hazardous wastes pose a red problem to society and represent a serious danger for human health and environment. Our concern is that parties to the Basel Convention, business industry and international organisation need to take vigorous action for environmentally sound management of 400 million tones of hazardous waste known to be generated globally. Because of increasingly higher cost of safe treatment, disposal of these hazardous waste in the country where it is generated many companies prefering to get rid of the problem at a lower cost by transporting them to another countries. There results in other movement of hazardous waste sometimes in disguise and sometimes in the name of useful products to the developing countries like Bangladesh where controls and standard are less strict or non-existence. Illegal traffic of these waste often had adverse effects, both acute and long term on human health and the environment with related detrimental consequence on the quality of life.

In order to mitigate such potential threats, measures should be taken urgently: (a) to avoid or reduce the generation of hazardous wastes; (b) to optimise environmentally sound recovery of those waste; (c) to reduce to a minimum or eliminate, the transboundary movements of hazardous wastes; and (d) to manage those wastes in an environmentally sound and efficient way and dispose them as close as possible to the place where they are generated.

To take one example, in 1992, the Bangladesh government purchased more than 3,000 tons of fertiliser from a U.S. company, Stoller Chemical Company (South Carolina) with money provided by the Asian Development Bank (ADB). The U.S. Company allegedly mixed 1,000 tons of toxic copper smelting furnace dust into the fertiliser prior to shipping the same to Bangladesh. Tests revealed that the fertiliser indeed contained high level of hazardous substances. Some foreign ocean going vessels are intentionally doing extensive and large scale clean-ups of vessels under the guise of "normal" operations while in the ports or waters of Bangladesh, leaving large quantities of wastes hazardous to the marine environment.

LEGISLATION

Though there is no specific legislation in Bangladesh to control generation storage, treatment, recovery, safe disposal and transboundary movement of hazardous wastes. However, Bangladesh Import Policy Order 1992 imposes ban on the import of all sorts of waste including hazardous waste.

The Environment Preservation Act 1995 has defined hazardous substances as "those substances which by reason of its chemical or biochemical properties is such that its manufacture storage discharge or unregulated transportation can be responsible for the damage of environment". And the Article 4(2)C of the same Act has empowered the Director-General, Department of Environment to control handling storage, transportation, import and export of hazardous substances or its components. Necessary rules are being framed to enforce this law.

The DOE, the chief controller of imports and exports under the ministry of Commerce, and the Customs Department have responsibility of enforcing environmental legislation.

The Bangladesh Coast Guard Act, 1994, has a provision on prevention of illegal traffic of hazardous wastes. A small contingent of coastguards have been deployed along the 700 km of coastline of Bangladesh to protect the coastal area from pollution and other illegal activities.

DOE has undertaken to prepare a comprehensive national profile on Chemicals as per UNITAR guidelines. A study with the help of ADB assistant has been completed to establish a regulatory frame work to control import of hazardous substance and toxic products.

In addition to the above mentioned legislation there is other legislations for the management of hazardous substances and toxic chemicals. The most relevant are the following:

1 Pesticides Control Ordinance of 1984 and Pesticides Rules 1988.
2 The Poisons Act 1919.
3 The Dangerous Drug Act. 1930 (amended in 1988).
4 Drug Control Ordinance of 1982 (amended in 1984).
5 The Territorial Water and Maritime Zones Act 1974.
6 The Bangladesh Merchant Shipping Ordinance, 1988.
7 Petroleum Act 1984.
8 Factories Act 1965 and the Factory Rules 1979.
9 the Explosives Substance Act 1906 (Modified up to May, 1983).
10 The Explosive Act Acts, 1984.

Bangladesh has ratified the Basel Convention and has began enforcing it from 30th June, 1993 and also takes part in the voluntary information exchange of the amended London guidelines, 1989.

Bangladesh does not permit import of hazardous wastes, from any country for reuse, recycle or dumping and disposal. Bangladesh also does not export any wastes either hazardous or not.

INSTITUTIONAL ARRANGEMENT & PROBLEMS ENCOUNTERED IN IMPLEMENTATION.

The main government agencies having operational responsibilities related to toxic substances and hazardous wastes are the Department of Environment, under the Ministry of Environment and Forest, the plant protection wing of the Ministry of Agriculture, Directorate of Health of the Ministry of Health Controller of Import & Export of the Ministry - of Commerce, the Customs authority of the Ministry of Finance and Port authorities.

While there many governmental agencies having operational responsibilities regarding toxic Chemicals and hazardous waste control, those agencies have one common problem: lack of adequate trained personnel required at various phases of environmentally sound management of toxic and dangerous products and wastes. Detection and identification of hazardous waste is the major obstacle in the implementation of Basel Convention. Lack of appropriate label and information of handling remains still another drawbacks to achieve the objectives of Basel Convention.

Some form of co-ordination exist between the plant protection wing and DOE. As a matter of fact, on the basis of study and suggestions by DOE, 8 harmful pesticides have been banned since 1989 and some more are under consideration for a ban.

Bangladesh does not have any independent Environmental Research and Training Centre. Such a training and research centre is necessary to develop analytical methods, to detect or identify hazardous waste and substances and to develop monitoring data of pollution caused by hazardous substances. Education and training is also necessary to develop manpower for chemical analysis of hazardous waste in the environment effect, analysis testing for carcinogens and mutage testing etc. To cater such demand Bangladesh needs to establish an Environmental Research and Training Centre with adequate technical or skilled manpower.

Environmental awareness is a concern of the Government of Bangladesh. Low literacy rate impedes understanding of information on environmental issues brought about by the fact that educational services cannot cope with the demand due to the rapidly growing population and budgetary constraints.

HAZARDOUS WASTE MANAGEMENT SITUATION IN BANGLADESH

Like other developing countries, industrialisation in Bangladesh, so far, has taken place at a slow pace. But in recent years industries, which use hazardous substances and toxic chemicals are growing rapidly. These industries i.e tanneries, fertilisers, cements, pesticides formulation, pharmaceuticals, sugar and distilleries, paper and pulp, generate 333,000 M^3/day of hazardous waste water.

Contribution of different sector of industries for hazardous waste generation is given below:

Industrial Sector	No. of industries	Waste water discharge m^3/day
Leather	196	15,800
Textile	502	40,000
Paper and Pulp	5	228,000
Chemicals	100	3,500
Pharmaceuticals	102	30,000
Pesticides	4	200
Distilleries	4	1,638
Metal finishing re-rolling	84	13,802

In most cases these industries do not have proper treatment and disposal facilities and dispose of their wastes without any treatment. Wastes from the hospitals and clinics are mixed with municipal waste, and for disposal of municipal solid waste, there is no sanitary landfill site.

CONCLUSION

To solve the problems of hazardous waste generated inside the country and to prevent illegal transfer of hazardous waste, Bangladesh needs financial and technical assistance from the developed countries. To fulfil the obligation of the Basel Convention, financial, technological and administrative capacities of the implementing agency i.e. Department of Environment need to be strengthened. To improve the situation of hazardous waste movement (legally or illegally) world-wide and management of toxic waste generated locally, immediate measures need to be taken at national and international level.

Last February 1997, DOE, with technical and financial assistance from International Programme on Chemical Safety (IPCS) held in Dhaka, a-day-long briefing session and a ten-day technical training workshop on Promotion of Chemical Safety. Senior Govt. officers, industry managers and an NGO Official took part in the Session. Both the briefing session and the workshop was very successful to promote the cause of hazardous Chemicals and toxic waste management. The BASEL Convention Secretariat may take such initiative for effective implementation of the convention on hazardous waste.

INDIA

Dr. N. K. Mosabettu, Additional Director
(from Hazardous Wastes (SAARC - Meeting) 13.3.97)

* The Basel Convention on the control of Transboundary Movements of Hazardous Waste and their Disposal was adopted unanimously on 22nd March, 1989 by 116 States participating in the Conference of Plenipotentiaries which was convened by UNEP's Executive Director and held in Basel.

* Government of India signed the Basel Convention on 15th- March, 1990 and ratified the same on 24th June, 1992. The Convention has come into force by 5th May, 1992.

* As a party to the Convention, Government of India's (GOI's) contribution to the Annual Budget has been worked out to be 0.37% as per
UN Scale of Payment under norms prescribed by UNEP.

* India has recently-made its payments of US$ 15,305 towards (i) Trust Fund for implementation of Basel convention and (ii) Trust Fund for Technical Co-operation for the year 1996.

ITEM 1 : REGULATIONS FOR HAZARDOUS WASTE MANAGEMENT IN INDIA

The Ministry of Environment and Forests, Government of India notified an umbrella Act entitled "The Environment (Protection) Act" in 1986. In addition to notifying standards for emission and discharges, the Act comprehensively deals with hazardous substances management, accident prevention and emergency preparedness.

Under the Environment (Protection) Act, 4 sets of rules dealing with hazardous substances management have been notified so far. The Hazardous Wastes (Management & Handling) Rules, 1989 was notified by the Ministry. These Rules provide for a control for the generation, collection, treatment, transport, import, storage disposal of wastes listed in the schedule annexed, to these rules. The implementation of these rules are through the identified State agencies viz., State Pollution Control Boards and the State Government (Department of Environment). The applicability of these rules have been stated in Rule 2 and the definitions are provided in Rule 3.

1. Categories of Wastes:

18 categories of wastes have been identified along with regulatory quantities in the schedule annexed to these Rules. The Rules shall apply to these categories of wastes.

2. Responsibility of Generator:

(i) To report to State agencies about the wastes being handled (Rule 4).
(ii) To apply for authorisation for handling in Form 1 provided in the Rules (Rule 5).
(iii) Proper packaging, labelling and transportation in accordance with the provisions in Motor Vehicles Act, 1988 (Rule 7).
(iv) To maintain records on the generation and disposal in Form 3 prescribed in the Rules (Rule 9)
(v) To file the annual return in Form 4 to the concerned Pollution Control Board (Rule 9).
(vi) To report accidents to State Pollution Control Boards (Rule 10).

3. Responsibility of State Pollution Control Boards.

i) To examine the authorisation applications and grant authorisation in Form 2 (Rule 5).
ii) To suspend or cancel the authorisation (Rule 6)
iii) To examine the import cases and grant/refus' permission after examining each case on merit. (Rule 11)

4. Responsibility of the State Governments:

i) Identification of sites for the disposal of hazardous wastes in their States after ascertaining the suitability of the sites through the Environment Impact Assessment Studies. (Rule 8)
ii) Prepare and maintain an inventory of such sites. (Rule 8).

5. Responsibility of Importer:

i) The importer has to provide detailed information on the proposed imports of hazardous wastes to the concerned SPCB seeking permission for the imports to take place. This information is required to be provided in Forms 6 to the concerned SPCB and the Boards are required to examine these cases on merit and permit/refuse the import accordingly.

6. Responsibility of Exporter:

i) As per Sub-rule (2) and (3) of Rule-11 the exporter or the exporting country shall apply to the Ministry of Environment and Forests seeking permission in Form-6 to export wastes listed in Schedule-1 of the rules to India for reuse or reprocessing only. Export of hazardous waste to India for dumping and disposal is not permitted.

ITEM 2 : PROHIBITION/RESTRICTION ON THE IMPORT OF HAZARDOUS WASTE

Rule 13 of the Environment (Protection) Rules, 1986 notified under the Environment (Protection) Act 1986 empowers the Government of India to prohibit/restrict handling of hazardous substances. The rules also lay down the procedures to be followed for prohibiting or restricting any hazardous substance namely, a draft notification calling for objection giving 60 days time and a final notification within 30 days of the receipt of the objections either confirming the prohibition or vacating the same.

Due to indiscriminate exports and exports from non-signatories to the Basel Convention, huge quantities of hazardous waste are likely to arrive at Indian ports. In order to arrest this phenomena, waste category No. 1, cyanide waste and waste category No. 4, mercury and arsenic bearing wastes, as per the Hazardous Wastes (Management & Handling) Rules, 1989 have been prohibited for exports and imports from 26th December 1996.

A draft notification calling for objections prohibiting exports and imports to India, the wastes containing the following as constituents are waste bearing the following as contaminants has been issued on 16 January, 1997:

Asbestos (dust and fibre)
Beryllium

Selenium
Chromium (Hexavalent)
Thallium
Waste oil and other wastes containing or contaminated with
Polychlorinated biphenyles (PCB)
Polychlorinated terpheiiyles (PCT)
Polybrominated biphenyles (PBB)
Wastes containing :
Pesticides, herbicides and insecticides and their intermediates/residues there of including outdated pesticides.

The final notification will be issued on 17th April 1997.

SRI LANKA

Ms Sandhya M.J.Weerasinghe, Deputy Director, CEA

GENERAL AND RESOURCES TO BE MANAGED (Questionnaire)

1 When did you ratify the Convention ? Or what are the steps you are taking to determine whether to ratify?
August 1992

2. Which of the following categories of waste, taken from Annex 1, need to be managed in your country?

Waste Controlled under Basel Convention: Waste Streams - Totally Banned

Y1 Clinical Wastes from medical care in hospitals, medical centres and clinics
Y2 Wastes from the production and preparation of pharmaceutical products
Y3 Waste pharmaceutical, drugs and medicines
Y4 Wastes from the production, formulation and use of biocides and phytopharmaceuticals
Y5 Waste form the manufacture, formulation and use of wood preserving chemicals
Y6 Waste from the production, formulation and use of organic solvents
Y7 Wastes from heat treatment and tempering operations containing cyanides
Y8 Waste mineral oils unfit for their originally intended use
Y9 Waste oils/water, hydrocarbons/water mixtures, emulsions
Y10 Waste substances and Articles containing or contaminated with polychlorinated biphenyls (PCBs) and/or polychlorinated terphenyls (PCTs) and/or polybrominated biphenyls PBBs)
Y11 Waste tarry residues arising from refining, distillation and any pyrolytic treatment
Y12 Wastes from production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish
Y13 Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives
Y14 Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on man and/or the environment are not known
Y15 Wastes of an explosive nature not subject to other legislation
Y16 Wastes from production, formulation and use of photographic chemicals and processing materials
Y17 Wastes resulting from surface treatment of metals and plastics
Y18 Residues arising from industrial waste disposal operations

Wastes having as constituents

Y19 Metal carbonyls	Totally Banned
Y20 Beryllium; beryllium compounds	Totally Banned
Y21 Hexavalent chromium compounds	Totally Banned
Y22 Copper compounds	Restricted
Y23 Zinc compounds	Restricted
Y24 Arsenic; arsenic compounds	Totally Banned
Y25 Selenium; selenium compounds	Totally Banned
Y26 Cadmium; cadmium compounds	Totally Banned
Y27 Antimony; antimony compounds	Totally Banned
Y28 Tellurium; tellurium compounds	Totally Banned
Y29 Mercury; mercury compounds	Totally Banned
Y30 Thallium; thallium compounds	Totally Banned

Y31	Lead, lead compounds	Totally Banned
Y32	Inorganic fluorine compounds excluding calcium fluoride	Restricted
Y33	Inorganic cyanides	Totally Banned
Y34	Acidic solutions or acids in solid form	Restricted
Y35	Basic solutions or bases in solid form	Restricted
Y36	Asbestos (dust and fibers)	Totally Banned
Y37	Organic phosphorous compounds	Restricted
Y38	Organic cyanides	Totally Banned
Y39	Phenols; phenol compounds including chlorophenols	Restricted
Y40	Ethers	Restricted
Y41	Halogenated organic solvents	Totally Banned
Y42	Organic solvents excluding halogenated solvents	Restricted
Y43	Any congenor of polychlorinated dibenzo-furan	Totally Banned
Y44	Any congenor of polychlorinated dibenzo-p-dioxin	Totally Banned
Y45	Organohalogen compounds other than substances referred to in this Annex (eg. Y39, Y41, Y42, Y43, Y44)	Restricted

Categories of Wastes Requiring Special Consideration

Y46	Wastes collected from household	Restricted
Y47	Residues arising from the incineration of household wastes	Restricted
	Radio Active Waste	Totally Banned

Categories of wastes and waste streams to be controlled under national legislation.

Wastes having as constituents:

(01) Metal carbonyls
(02) Beryllium. beryllium compounds
(03) Hexavalent chromium compounds
(04) Copper compounds
(05) Zinc compounds
(06) Arsenic; arsenic compounds
(07) Cadmium; cadmium compounds
(08) Mercury; mercury compounds
(09) Thallium; thallium compounds
(10) Lead; lead compounds
(11) Inorganic cyanide
(12) Asbestos (dust and fibres)
(13) Organic phosphorous compounds
(14) Organic cyanide
(15) Halogenated organic solvents
(16) Any congener of polychlorinated dibenzo-furan
(17) Any congener of polychlorinated dibenzo-p dioxin
(18) Antimony; antimony compounds
(19) Tellurium; tellurium compounds

Wastes Streams:

(20) Wastes from the manufacture, formulation and use of wood preserving chemicals.
(21) Wastes from the production, formulation and use of organic solvents.
(22) Wastes from heat treatment and tempering operations containing cyanide.
(23) Waste substances and Articles containing or contaminated with polychlorinated biphenyes (PCBs) and/or polychlorinated terphenyls (PCTS) and/or polybrominated biphenyles (PBBs)
(24) Wastes from production, formulation and use of links, dyes, pigments, paints, lacquers, varnish.
(25) Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives.
(26) Wastes resulting from surface treatment of metals and plastics.
(27) Residues arising from industrial waste treatment operations
(28) Wastes arising from formulation and/or manufacture of pesticides

3. How many waste treatment facilities does your country have? Give details of each and whether they are locally or foreign owned. **NO**

4. Which of the following waste disposal operations, taken from Annex IV. A, are applicable in your country (please**)

**D1	Deposit into or onto land, (e.g., landfill, etc.)
D2	Land treatment, (e.g., biodegradation of liquid or sludgy discards in soils, etc.)
D3	Deep injection, (e.g., injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.)
D4	Surface impoundment, (e.g., placement of liquid or sludge discards into pits, ponds or lagoons, isolated from one another and the environment, etc.)
**D5	Specially engineered landfall, (e.g., placement into lined discrete cells which are capped and
**D6	Release into a water body except seas/oceans
D7	Release into seas/oceans including sea-bed insertion
**D8	Biological treatment not specified elsewhere in this Annex which results in compounds or mixtures which are discarded by means of any of the operations in Section A
**D9	Physico chemical treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations in Section A, (e.g., evaporation, drying, calcination, neutralisation, precipitation, etc.)
**D10	Incineration on land
D11	Incineration at sea
D12	Permanent storage (e.g., emplacement of containers in a mine, etc.)
D13	Blending or mixing prior to submission to any of the operations in Section A
D14	Repackaging prior to submission to any of the operations in Section A
D15	Storage pending any of the operations in Section A

5. What government financial assistance is provided to these waste treatment and disposal facilities and to research on waste treatment? If financial assistance is provided by developed countries or international agencies (World Bank, Basel Secretariat etc.) give details.

World Bank has given assistance for a feasibility study to identify a site for hazardous waste disposal and survey for hazardous waste management

6. What is your government's policy on the following : environmentally sound management of hazardous waste; minimising waste generation; minimising movement of hazardous waste; treatment and disposal of waste close to its source; banning the import of hazardous waste for disposal and recycling from OECD countries; exporting of hazardous waste and duties to reimport exported waste; waste transiting your country?

Supporting all the issues

7. Is the policy/ies above harmonised with other development and action plans of your country? What is the date of the policy/ies and is it regularly reviewed? **Yes**

8. Identify who you believe to be the stakeholders in hazardous waste management in your country? (State/local government agencies, NGOs, industries, media, public, consumers, transport companies, research institutes, enforcement bodies etc.) **All**

9. Does your country import waste for disposal or recycling? If so give details for the last three years. **No**

10. How is waste (generated in or imported into your country) transported to disposal or recycling facilities? Are there statistics kept and if so who keeps them and how are they co-ordinated? **Not applicable**

11. How many illegal movements of waste or false documentation incidents have been detected in the last three years for your country? Of these how many resulted in successful prosecutions? **Not detected**

EXISTING ARRANGEMENTS FOR IMPLEMENTATION OF CONVENTION

12. What is, or would be if you were a party, the designated Competent Authority/ies an National Focal Point/s for hazardous wastes?

Designated Competent Authority - Central Environmental Authority
National Focal Point - Ministry of Transport, Envt. And Women's Affairs

13 What are the institutional arrangements for implementing the Convention in the following areas:

-management of hazardous wastes identified by you in Question2 (relevant authorities for analysing, identifying, inspecting, issuing of permits for hospital wastes etc.)

Regulations for this purpose are being gazetted very recently.
Implementation will be done by the Central Environmental Authority.

-preparation of annual Reports to Secretariat (how is information collected, networks, meetings etc.)

By the National Focal Point with the assistance from the Member of the Coordinating Committee

- providing /controlling disposal facilities identified by you in Question 4(bodies responsible for monitoring, transport, registering of incineration plants etc.)

Not applicable

-emergency action and prevention of pollution

Not applicable at present

-enforcement (i.e. border control arrangements for imports/Exports/transits)

No imports allowed

- information dissemination, research and training in waste identification, management and transport

Through Workshops, Meetings, Electronic Media Etc.

14. What are the legal (laws, regulations, subdecrees) and administrative (guidelines, directives) arrangements in your country for the following:

National Environmental (Protection and Quality) Regulation of No 1 of 1990 amended by extraordinary Gazette No 924/13 of 23rd May 19961

a) defining 'waste' and 'hazardous waste' (is it identical to those definitions in the Convention or has a wider definition been adopted to include other wastes not in the Convention and/or wastes derived from shipping operations- MARPOL definition etc.) **Under definition**

b) management of hazardous waste identified by you in Question 2 (registration of substances and facilities, permits, conditions, analyses and testing, identification etc.) **Through framed regulations**

c) control of transboundary movement of wastes including transits identified by you in Question 2 (is there provision to use the notification and movement forms listed in Annex V of Convention, do you follow recognised international transport rules/codes/classification, packaging/labelling provisions, bans on exports to non - OECD countries and bans on imports from OECD countries etc.)

Sri Lanka Doesn't allow any hazard waste import into the country

d) obligations to re-import waste exported in contravention of the Convention

Country with the imported party

e) proper recovery/recycling of hazardous waste identified by you in Question 4(b) (for example legal provisions concerning used oil refining etc.). **Not applicable**

f) control of disposal facilities identified by you in Question 4 (provisions on landfills, incinerators, power to revoke registrations etc.) **No legal provision**

g) minimisation of the generation of waste taking into account social. economic and technological aspects. **Though awareness programme etc. No legal frame work**

h) monitoring and inspection of pre and post disposal operation and effects. **Through regulatory provisions**

i) emergency action (contingency and action plans for incidents at facilities in your country)

j) enforcement action (offences, penalties, powers of entry, search, seizure, taking samples, use of evidentiary certificates etc.) **Through the regulatory provisions**

k) liability - and compensation measures for damages restful from disposal of hazardous waste (i.e. replacing ecological deterioration disposal) **Through the Regulatory provisions**

l) disclosure of information to the public on decisions made and provision for public participation

m) research and training **Administrative procedure**

n) risk assessments **Administrative procedure**

STRENGTHENING EXISTING ARRANGEMENTS

15. What are the major problems /barriers to the effective implementation of the Convention?

1. Transboundary movements: Lack of sufficient technical and institutional capacity to:
i identify the exact constituents in consignments of hazardous waste.
ii characterisation of hazardous waste
iii risk analysis of imports and exports
iv Monitoring of Hazardous waste
Lack of enforcement capacity in case of illegal traffic of hazardous waste
2. Internal management: Industries:
i High cost and inadequate accessibility to sound management
ii lack of technical capacity to select, maintain and use of proper technology
3. Regulatory bodies: lack of enforcement capacity (technical and institutional)

16. Of the arrangements described above, which do you feel takes priority in the need for strengthening, in order to make implementation more effective in your country? **All are of priority nature**
17. Why?
18. List the steps that you would need to take in order to strengthen the existing arrangement. What would be the methods to achieve this goal?
    1. **Need to train the officers in the relevant institutions**
    2. **Need to strengthen the monitoring and analytical capabilities**

19. Generally, how can institutional arrangements be strengthened in your country to make 2 implementation of the Convention more effective and enhance the integration of relevant sectors.

Main problems in relation to the implementation of the Basel Convention
Transboundary Movements of Hazardous Waste

With the adoption of the decisions 11/2, 111/12, and 111/ pertaining to the ban on the transboundary movement of hazardous waste from OECD countries to non OECD countries, one of the major problems in the future would mainly concern the prevention and detection of illegal traffic.

Sri Lanka lack sufficient facilities required for the identification of the exact constituents in consignments of hazardous waste. In that context Basel Convention is one of the most difficult environmental treaties to implement because of the diversity of waste and the wastes are often mixtures of different chemicals which require advanced facilities and skills for their identification. In Sri Lanka advanced facilities and skills of that nature are not presently available to the regulatory bodies such as the Department of customs and the Central Environmental Authority. Upgrading of existing laboratory facilities are necessary to implement the Basel Convention effectively.

Under legitimate imports of chemicals in very large quantities there is a possibility of hazardous waste being brought into the country disguised as pure chemicals. Therefore the relevant authorities should be very vigilant to detect the exact constituents of the waste.

Furthermore, legal capacity of Sri Lanka should be strengthened to deal with the process of implementation of the treaty in cases of illegal traffic of hazardous waste.

Internal Management of Hazardous Waste.

The generation of hazardous waste within the country is relatively low. As high and medium polluting industries are under Environmental Protection Licensing Scheme and the new hazardous waste regulations for internal management are in place, the industries will be compelled to adapt environmentally sound strategies for the generation and disposal of hazardous waste.

However, due to high cost and inadequate accessibility of the environmentally sound technologies and the lack of technical capacity to select, maintain the use the proper technology, industries will find it difficult to comply with the regulations. Assistance in the form of incentives, accessibility to cleaner technology.

At present, the capacity of the regulatory bodies are also inadequate to ensure the effective implementation of the new hazardous waste regulations. By considering the existing capacity to implement these regulations internally, priority has been given to the most hazardous waste to be regulate under the new regulations. Sri Lanka needs technical, institutional and legal facilities to control all the hazardous waste through its national regulations.

3.4 ANALYSIS OF QUESTIONNAIRE

BASEL COVENTION

(Note: full questionnaire, including categories of waste, appears at 3.3 -Sri Lanka Presentation)

Q2&4. Which of the following categories of waste, disposal/recovery operations apply in your country?

Bangladesh	India	Nepal
Y 1-5, 7-12, 14, 16-18 D1-2, 4,6, 10-13,15 R1-5, 9-10, 12-13	Y 1-4,6-13, 15-18 D 1-2, 4-5, 9-10,15 R 2-5, 7,9,13	Y 1-4,6, 11-14, 16-18 D 1-6,9-10,14-15 R 3-5, 7,10

Q3. How many waste treatment facilities does your country have?

Bangladesh	India	Nepal
After 1990 all new factories must install waste treatment facilities/Notices sent to 1176 existing potentially polluting industries	The 18 categories of waste must be disposed of as per Regulations	5 companies, owned locally

Q4-7. Financial assistance and government policy?

Bangladesh	India	Nepal
Govt and ADB planning treatment plant for 200 small tannery industries at Hazaribagh, Dhaka. WHO provided consultant, 2 Workshops and DoE project. Government policy is on first 4 areas listed and is reviewed every 2 yrs.	World Bank assistance. Government policy deals with all aspects of waste and law has been in integrated with environmental appraisal procedures	Not applicable. Solid Waste Management and Resource Mobilization Centre responsible for disposal. Policies are harmonised and reviewed

Q8. Identify who you believe to be the stakeholders in hazardous waste management.

Bangladesh	India	Nepal
local government bodies, industries	Government, industries, media, public, research institutes, police	government, consumer groups, industries

Q9-11 Imports/exports, transport methods and statistics, crimes in past?

Bangladesh	India	Nepal
Imports banned, transport is by truck and of the 2 incidents in past, no successful prosecution.	From 26/12/96 banned cyanide waste, mercury, arsenic bearing waste. Other wastes under consideration. SPC Board keeps statistics	No imports, no statistics of wastes and no crimes/accidents

Q12-13 National Focal Point and Institutions implementing Convention.

Bangladesh	India	Nepal
Dept of Environment should be NFP. DOE, Customs, Port Authority implements. No monitoring of imports, no system to collect information Customs/coast guard/paramilitary enforce. Media disseminates information	Ministry of Env and Forests is NFP. State Pollution Control Boards/State Environment Departments implement	Ministry of Local Development is NFP. Institutions are being planned to implement.

Q14 Legal and Administrative measures

Bangladesh	India	Nepal
Definition in Env Preservation Act 1995: inherent physical and chemical properties such that manufacture, storage,discharge, transport can damage environment. DoE takes major role in monitoring disposal (landfill and incineration), research/training, risk assessment, giving "clearance certificates",conducts EIA. No liability or compensation measures yet. No export/reimport measures needed.	Hazardous Waste (Manage-ment and Handling) Rules 1989	Definitions in line with Convention. No export/import/recovery of waste done. No monitoring or enforcement measures, no provision for risk assessments. Criteria is being developed for management. Research and training is done in limited cases.

3.5 HAZARDOUS WASTE PRESENTATIONS FROM BREAK-OUT SESSIONS

BANGLADESH

PROBLEM AREAS

1) Limited capacity to oversee the management of hazardous waste and their movement across borders
2) Lack of uniform legislation
3) Lack of Institutional co-ordination
4) Lack of technical capacity to treat or dispose of hazardous waste generated locally
5) Lack of Awareness
6) Lack of Specialised Equipment's for testing and sampling of hazardous waste

OBJECTIVES

1) to achieve effective control of the transboundary movements of hazardous waste through appropriate enforcement procedures and training of personnel
2) to achieve uniformity in legislation for all aspects of hazardous waste
3) to ensure effective co-ordination
4) to improve public awareness

ACTIVITIES

1) &2) Bangladesh has an Environment Protection Act 1995, which is broad based. Under this Act there are draft Hazardous Waste Rules 1996 expected to be in action very soon. These draft rules need to be strengthened because there are gaps. e.g.

- there is no mention of Import/Export control which are partially dealt with in other instruments such as the Import/Export Policy, Agricultural Pesticides Amendment Act. etc.
- need for inclusion of duty to reimport waste illegally coming from other countries.
- need to prepare a waste management plan (section 9(4))
- need to prepare inspection methodology under section 9 (7)
- DOE preparation of guidelines for the consideration of authorising facilities (section 6 (4))
- need to prepare the example conditions to impose on factories, hospitals etc. (drawing on the SBC guidelines where they exist) in terms of giving authorisation to operate a facility (section 6(5))
- need to develop the civil liabilities regime in case of accidents, "damages rising from the accidents involving generation, transport, storage and disposal of hazardous waste shall be covered by civil liability as well as insurance and guarantee"
- to ban import/exports of hazardous waste and impose penalties in conformity with the Import Policy Order and shall inform the other parties through SBC.

3) To set up a committee comprising relevant Ministries and Departments (10) as well as NG0s. The Committee would have about 30 people. The committee's function would be to harmonise standards, enforcement, training, co-ordinate interdepartmental/ interministerial activities and decision making. The Committee should meet twice a year and be set up under the Environment Protection Act 1995

4) (I) Public awareness tough strengthening the school syllabus to add some basic components e.g. identifying hazardous waste, effect of hazardous waste on environment etc.

(II) Public Awareness through mass media and organising national workshops in co-operation with SBC

BHUTAN

RELATED PROBLEMS:

-hospital and clinic wastes
-Waste oil from automobiles
-Waste batteries - automobile and domestic
-Lack of expertise to identify types of waste (public/govt)
-Pesticides and other related products.

RESOURCES AND INSTITUTIONAL:
-National Environment Commission
-Nature Conservation Section
-Research, Extension and Irrigation Division Forestry Research Institute
-Revenue and Customs
-Trade free
-Indigenous recycling methods

LEGAL:
-EIA Sectoral Guidelines
-Environmental Quality Standard
-National Environmental Protection Act Quarantine Act
-Customs Act
-Notification to proper solid waste disposal like hospital wastes

PROBLEMS:
-Ensuring effective control measures at National Level
-Lack of specialised equipment for testing and sampling
-Lack of capacity to treat or dispose waste (locally)
-Lack of awareness
-Import of products that is banned in the country of export or origin

OBJECTIVES:
- Facilitate identification of waste through method for testing and sampling such as capacity building and infrastructure development.
- Improve awareness for general public and technical personnel. Improve or set up storage, transport, treatment and disposal of waste to avoid harmful effect on human health and the environment.
- Include the SBC list A and B in the existing Customs Act
- Establishment of waste disposal site

ACTIVITIES:
- Setting up and strengthening institutional Capacity
- Training/ equipment - to control waste and prevent illegal import or export aim at the environmentally sound management of waste e.g. crack oil, hospital waste
- Regional Co-operation
- Awareness programme
- Immediate establishment of waste disposal site for the problems identified
- Including the SBC List A and B

INDIA

PROBLEM AREAS
1. Identification and classification of hazardous wastes.
2. Control of transboundary movement of hazardous wastes.
3. Environmentally sound management of hazardous wastes.

OBJECTIVES
1. Hazardous waste (M&H) Rules, 1989 cover 18 Category of Hazardous wastes. There is a need to cover all Categories of wastes Referred to in Basel Convention.
2. Ensuring strict adherence by all stakeholders to the procedures relation to the export and import of Hazardous waste.
Note: Under the HW (M&H) Rules, 1989, import is allowed for reuse and reprocessing only (and not for dumping/ disposal).
3. Access to cleaner technology to minimise generation of hazardous waste and to develop improved waste treatment methods.

ACTIVITIES
1. -Inventorise and establish a database of all categories of wastes produced locally

-Inventorise and establish a database of hazardous waste being imported to the country
-Auditing of the data and updating of the information
-Evaluating appropriate criteria for classification of wastes under 'other wastes' of Basel Convention

2. -Institutional strengthening (for eg: licensing authority,customs authority, port and airport authority, transport authority, etc) to monitor the import and movement of hazardous wastes
-Awareness campaigns
-At regional level vis. South Asia Countries must ensure that exports from their countries strictly adhere to procedures & rules related to transboundary movement and respect internal prohibitions imposed by the other member countries.
-Countries in the region must work towards a) Harmonisation of legislation and b) Networking technical and related information/exchange.

3. -Make appropriate rules to prohibit or phase out process technologies resulting in hazardous waste generation in specific industries for eg: Mercury sludge generation industry; Cyanide waste generation industry
-Make fiscal measures for adaptation of cleaner technology.
-Strengthen surveillance and monitoring system to ensure adherence to comprehensive waste treatment transportation & disposal standards in accordance with regulations.
-To develop properly designed common landfill site for waste disposal in industrial estates.

LEGISLATIVE REQUIREMENTS AT NATIONAL LEVEL
Develop legal framework for environmentally sound management of hazardous wastes covering the following areas.
- standards
- treatment 1 recycling
- transportation
- disposal
- licensing of generating facilities

Develop legal provisions for regulating the transboundary movement of hazardous waste covering:
- procedures for export and import
- procedures for transportation
- transit
- safe management and disposal of the wastes arising from the hazardous waste imported for reuse /reprocessing in the country.

GENERAL ACTION PLAN FOR COUNTRIES IN SOUTH ASIA (SACEP / SAARC)
1. A centre for hazardous waste management may be established to effectively undertake the related activities under Basel Convention including actions to regulate dumping by ships in marine environment.
2. Training and capacity building in this field for the stakeholders in the region.

MALDIVES

PROBLEM AREAS
1. There are no regulations implementing key provisions of the Convention such as those requiring regulations on the import and export of hazardous wastes. Regulations could be issued under the Environment Act, which does contain a provision making the unauthorized disposal of waste an offence. The law requires persons who need to dispose of or transport hazardous waste to seek guidance from the Ministry of Environment.

2. There are difficulties in identifying hazardous wastes being generated being current economic activities. The following wastes which were identified as problems:
medical wastes from hospitals and clinics
used oil from power plant, automobiles and boats
used household and automobile batteries.
household detergents

3. Government officials need training in how to identify waste generated in the country and hazardous substances entering the country.

4. The government has limited capacity to oversee the management of wastes generally and hazardous wastes in particular. Household waste from Male is being placed in a dump site being used to reclaim land; this site is not intended for residential use. Tourist resorts take care of their own waste, and are required to have tin compactors and incinerators. Other islands have areas set aside for dumping household wastes.

5. There is a lack of technical capacity to treat or dispose of hazardous waste generated locally. There is no special facility for disposing of hazardous wastes. Hospital waste and batteries are currently being disposed of at a dump site together with domestic waste. Used oil is being burned at the dump site

RECOMMENDATIONS

1. National legislation implementing the basic provisions of the Convention needs to be drafted. It could be issued as regulations under the Environment Act.

2. The government requires assistance in conducting an inventory of all hazardous waste currently being generated locally, and advice and assistance on how to manage and dispose of such waste in an environmentally sound manner. Such advice might include technical assistance in establishing specially engineered landfills for hazardous wastes.

3. There is a need to organise training courses for customs and other enforcement personnel in how to monitor and control the import of hazardous substances and how to monitor and manage hazardous substances which have been imported.

4. There is a need for the training of personnel in how to manage waste in general and hazardous waste in particular.

5. There is a need for a programme, to sensitise and educate policy makers and the general public on the need to minimise waste and to manage it in an environmentally sound manner.

NEPAL

PROBLEMS

1 Inadequate consideration of hazardous waste in the policies and legislators. (existing policy and legislation have covered all the important environmental issues, however, inadequate attention paid to hazardous wastes due to late ratification (19 January 1997) of the Basel Convention).
2. Lack of sound Environmental Management practices related to hazardous wastes. (Nepal has implemened management practices of solid wastes only).
3. Inadequate technical capability (at present, there exists the technical capability only for solid waste disposal and for management).
4. Inadequate administrative mechanism for the management and enforcement of hazardous waste.
5. Inadequate awareness.
6. Inadequate funding.

OBJECTIVES

1. To incorporate hazardous waste management aspects in regulations, in accordancewith Basel Convention.
2. To develop management and administrative mechanism for the disposal and management of hazardous waste.
3. To develop capabilities to enforce the regulation.

ACTIVITIES

1. Legal

i) Preparation of Environmental Protection Regulation related to hazardous waste management under Environmental Protection Act.

ii) Review the existing the law and regulation (Solid Waste Management and Resource Mobilisation Act) and find out gaps related to Basel Convention

iii) Identification of hazardous waste in order to include in regulation.

iv) Following provision will be included in regulations

a. Definition of "hazardous waste" and " solid waste."

b. Restriction of import, export and transit of hazardous waste
c. Scope of Legislation
d. Source point control: low quality generation at the source
e. Scientifically transport management of hazardous waste
f. Duty to re-import hazardous waste
g. Illegal traffic of hazardous waste
h. Penalties to the importers
i Responsible institution for enforcement, including licensing

2. Institutional strengthening
i) Establishment of a unit for hazardous waste in the existing institution
ii) Manpower development by training to administrators, technicians
iii) Seminars and workshops
iv) Capacity building by providing required equipment and tools.

3. Strengthening administrative mechanism
i) Strengthening administrative procedures related to hazardous wastes.
ii) Enforcement will be carried out by the agency of Ministry of Population and Environment.
iii) Public awareness will be enhanced by the mass media

4. Management of hazardous waste
i) Preparation of hazardous waste manual (including source, nature and possible impacts)
ii) Management strategy, Guidelines and action plans
iii) Strengthening the existing laboratory.
(Providing equipment, chemicals, launching manpower development, preparing laboratory manual).

PRIORITIES
1. Preparation of regulation.
2. Preparation of Management strategy
3. Strengthening the existing laboratory and institution.

SRI LANKA

The presentation will cover the issues relating to national legislation, national institutions, and effective implementation.

NATIONAL LEGISLATION FOR THE CONTROL OF TRANSBOUNDARY MOVEMENT OF HAZARDOUS WASTE

Sri Lanka has identified the need to provide enabling legislation to give effect to the Basel Convention in the national legislation. As a first step, the Government of Sri Lanka has identified from the lists in Annex 1 & 2 and informed the Basel Secretariat of the wastes and waste streams that are banned and restricted. At present there is no special law or regulation or specific provision giving the lists, legal effect.

Sri Lanka has already gazetted national regulations under the National Environmental Act for the management of hazardous wastes generated within the country. It is envisaged to elaborate these regulations to give effect to the obligations under the Basel Convention, especially to cover transboundary movement of hazardous wastes.

ESSENTIAL ELEMENTS IN THE FRAMING OF LEGISLATION AND REGULATIONS
i. Include a chapter on the control of transboundary movement of hazardous wastes in the proposed (new) National Environmental Act
ii. Sharpen definitions of: hazardous wastes, other wastes, management, collection, transport, disposal, storage, etc
iii Obligations of the Central Environmental Authority (CEA) for the collection of hazardous wastes
iv. Define aims and scope, transboundary movement, and export and import of hazardous wastes
v. Include sections on regulation and regulatory authorities, importation and exportation, and illegal traffic
vi. To gazette regulations for the control of transboundary movement of hazardous wastes after enabling legislation has been enacted

NATIONAL INSTITUTIONS

vii. To provide institutional arrangements (making use of existing ones where possible) and empowering them to implement and enforce the provisions of the enabling legislation

viii Formalise the Co-ordinating Committee for the Implementation of the Basel Convention (at present it is only an administrative body)

ix. To undertake a comprehensive national study on the status of hazardous waste generation and their disposal

x. For enforcement purposes - training of personnel and strengthening institutions in monitoring capabilities including standard setting

xi. The CEA will be made the competent authority for the implementation for the enabling legislation

xii. Training responsibilities will also be with the CEA, keeping in mind the various activities of the agencies involved

xiii. Build technical capabilities to deal with the treatment and disposal of hazardous wastes - CEA to co-ordinate with Research Institutions such as the Ceylon Institute of Scientific and Industrial Research (CISIR)

xiv. Strengthen enforcement capacity to deal with illegal traffic

xv. Capacity building in identification, analysis and testing, treatment, storage, transport and disposal

4. THE CLIMATE CHANGE CONVENTION

4.1 TECHNICAL PRESENTATION

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

Mr. Seth Osafo, Secretariat of the UNFCCC

OBJECTIVE

1. The ultimate objective of the Convention as stated in Article 2 is "the stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner." By recognising the need eventually to stabilise atmospheric concentrations of greenhouse gases, the objective acknowledges climate change as a problem and helps legitimise it as a matter of global concern.

GLOBAL IMPORTANCE

2. Concern about global climate change led the United Nations General Assembly to adopt resolution 45/212 of 21 December 1990 establishing the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change (INC). The mandate of the INC was to negotiate a convention containing appropriate commitments in time for signature at the United Nations Conference on Environment and Development in June 1992 at Rio de Janeiro, Brazil. Before the adoption of this resolution by the United Nations General Assembly, several international meetings, both of a scientific and political nature were held in Villach, Austria in 1985, the Toronto Conference on the changing atmosphere of 1988, the Bergen Ministerial Meeting in 1988 and the Nordwijk Conference of 1989. The Intergovernmental Panel on Climate Change (IPCC) was established by UNEP and WMO at the request of governments to provide internationally co-ordinated assessments of the magnitude, timing and potential environmental and socioeconomic impact of climate change and realistic response strategies. The first Assessment Report issued by the IPCC in August 1990 at Sundsvall, Sweden predicted that if "states continue business as usual, the global mean temperature will rise during the next century by an average 0.3 C per decade," a rate of change unprecedented in human history. The IPCC meeting in Sundsvall was followed in November 1990 by the Second World Climate Conference. The ministerial declaration issued by the meeting stressed the need to stabilise the emissions of greenhouse gases.

BENEFITS & RELEVANCE TO SOUTH ASIAN COUNTRIES

3. Environmental problems have no respect for national boundaries, and since change to the earth's climate and its adverse effects have been recognised as a common concern of humankind, the question of climate change is of great significance to all countries. Although developing countries historically may not have contributed significantly to global warming and climate change, the fact remains that the adverse effects of climate change will be felt all the world over. The relevance of the Climate Change Convention should therefore be seen in the opportunity it offers developing countries to address the problems of climate change. The opportunities the Convention offers to the developing country Parties include the following:

(a) opportunity for addressing sustainable development by orienting energy consumption patterns through energy efficiency and increased use of renewable sources of energy among other policies;

(b) opportunity for important increase of transfer and development of appropriate technologies and for capacity-building (research, education, training and public awareness);

(c) opportunity for tapping important sources of funding, mainly GEF and bilateral donors for projects and activities contributing to sustainable development; and

(d) opportunity for intensifying North-South and South-South dialogue and co-operation in a constructive and productive manner by jointly managing a global process of interest to all nations.

PROCEDURES

4.

(a) The Convention was opened for signature during the United Nations Conference on Environment and Development held from 4-14 June 1992 at Rio de Janeiro, Brazil and signed by representatives of over 150 States. Thereafter it remained opened for signature at the United Nations Headquarters in New York from 29 June 1992 to 19 June 1993.

(b) To date (as of 13 March 1997) the Climate Change Convention has been ratified by 165 States. The Convention received the 50th ratification necessary for its entry into force on 21 December 1993 and actually entered into force on 21 March 1994, ninety days thereafter in accordance with Article 23.

IMPLEMENTATION

5. All Parties have commitments under the Convention and these have been set out in Article 4.1. Both developed and developing country Parties have accepted to:

(a) Develop, periodically update, publish and make available to the Convention of the Parties (COP), national inventories of anthropogenic emissions by sources and removals by sinks of all greenhouse gases;

(b) To adopt national programmes for mitigating climate change and develop strategies for adapting to its impacts;

(c) To promote the transfer of technology and the sustainable management, conservation, and enhancement of greenhouse gas sinks and reservoirs such as forests and oceans.

In addition, the Parties, will take climate change into account in their relevant social, economic, and environmental policies, cooperate in scientific, technical and educational matters and promote education, public awareness, and the exchange of information related to climate change.

6. In accordance with Article 4.2 of the Convention the Annex I Parties which includes the OECD members as well as the countries of Central and Eastern Europe are committed to adopting policies and measures aimed at returning their greenhouse gas emissions to 1990 levels by the year 2000. They must also submit national communications on a regular basis dealing with their climate change strategies. Countries in transition to a market economy are granted a certain degree of flexibility.

7 At the first Conference of the Parties (COP 1) held in Berlin, Germany in March/April 1995, the Parties agreed to begin a process to enable it to take appropriate action for the period beyond 2000, including the strengthening of the commitments of the Parties included in Annex I to the Convention, through the adoption of a protocol or another legal instrument. The Conference requested the Ad Hoc Group on the Berlin Mandate established to negotiate the protocol or another legal instrument to ensure the completion of its work as early as possible in 1997, with a view to having it adopted at the third session in December 1997. The possible ad hoc group recently concluded its sixth session in Bonn, Germany and is expected to hold two more sessions before the COP in December 1997.

8. Developed country Parties are hard at work preparing their first national communications describing their efforts to implement the Convention, which will become due beginning 21 September 1998. Climate change country studies are underway in many developing countries, often involving the development of emissions inventories and the identification of response options. All of these actions, in addition to supporting the Convention and responding to climate change, are building blocks of sustainable development.

9. There are benefits which accrue to states that become Parties to the Convention. Developing country Parties are entitled to received funding through the financial mechanism to:

(a) Meet the agreed full costs incurred by developing countries in complying with their obligations under Article 12.1 to communicate information on their activities and measures taken to implement the Convention to the Conference of the Parties Article 4.3.

(b) Meet the agreed full incremental costs of implementing measures that are covered by Article 4.1 and that are agreed between the developed country Party and the international entity or entities entrusted with the operation of the financial mechanism.

(c) Transfer to them environmentally sound technologies, and know-how.

(d) Cooperate in conducting research and systematic observation with other Parties.

10. Meanwhile, the international scientific community, through the Intergovernmental Panel on Climate Change, is assessing the state of knowledge of climate change and possible responses. The IPCC's Special Report, its second full assessment report, released in 1995 provided the scientific basis for the deliberations of the COP. It appears that so-called 'proof' of climate change remains elusive. Indications are that it will continue to be sometime before the level of scientific uncertainty can be reduced significantly. This places a heavy burden on decision-makers who must balance costs and benefits, the short term and the long term as well as precaution and inaction.

11. The problems that most developing country Parties face as they seek to meet their obligations under the Convention are three fold:

(a) Lack of financial resources,
(b) Lack of information and appropriate data at the country level;
(c) Lack of national experts who can adequately address problems.

12. The, Convention tries to address these problems by:

(a) defining a financial mechanism that will provide financial resources to developing country Parties to meet their commitments;

(b) providing for the agreed full costs of preparing national communications. This will enable developing country Parties to collect and store relevant information as part of the preparations for communicating information. The Convention also calls on the Parties to exchange relevant information and data among themselves;

(c) identifying as a priority, enabling activities including endogenous capacity building including institutional strengthening, training, research and education that will facilitate implementation of effective response measures.

13. Many developing countries have done little to cause the increase in greenhouse gas concentrations, and few are in a position themselves to directly influence limitation. Nevertheless, all states should explore the options for the mitigation and adaptation to climate change impacts. The Convention in Article 4.1 provides the commitments which should be undertaken by all Parties, however, developing countries can contribute to the stabilisation of greenhouse gas concentrations in the atmosphere by:

(a) Increases in the efficiency of energy production and use. This is the most cost effective method of reducing emission of greenhouse gases. Experience in the developed countries have shown that large improvements in energy efficiency are possible without sacrificing economic growth. End use efficiency options include the replacement of incandescent light bulbs by fluorescent lighting, efficient - cooking stoves, fuel efficient vehicles, etc. Some studies have shown that it is possible to achieve average energy savings up to 40% or more with current available technology;

(b) Encouraging the development of carbon free energy sources such as hydropower, solar photovoltaic systems and wind turbines;

(c) Reducing the rate of deforestation. Agriculture and forestry sectors contribute significantly to greenhouse gas emissions. The largest emissions are from land-use changes, principally deforestation. Most of tropical deforestation is due to transfer of forest to agricultural use through agriculture and conversion to pasture. Rapidly increasing populations also add to the demand of forest lands for agriculture and energy needs. In particular, fuel wood use which is a major source of residential energy also contribute to deforestation;

(d) Expansion of carbon sinks. This option consists of using biological processes to remove carbon from the atmosphere and store in vegetation. This is achieved by aggressive reforestation and afforestation programmes.

14. The effects of anthropogenic emissions in the atmosphere will be noticeable in some places even if the emissions are reduced drastically in the short-term. This will call for adapting to or defending against the negative impacts. To a certain extent such adaptation would include:

(a) Sea wall construction to protect against sea level rise;
(b) Movement of population due to flooding and drought;
(c) Research to adapt crops to new, especially dryer conditions;
(d) Change in land-use including movement of agriculture to new areas.

15. Although the problem of climate change is global, the remedial measures have to be implemented within each country's national boundaries, and it is for each country to determine its own priorities.

IMPLICATIONS

16. The Climate Change Convention has several implications for developing countries and will require the establishment of appropriate frameworks at the national level before the Convention can be effectively implemented and the benefits emanating from it realised. Implementing the Climate Change Convention will have scientific, technical, economic, social, legal, institutional and financial implications for all Parties. The following are some of the steps that developing countries that are Party to the Convention may have to take to meet their obligations under the Convention.

Technical implications

17. Each Party should have the capability to assess the impact of Climate Change within its boundaries and determine appropriate measures to adapt to expected changes. Scientific and technological expertise in these and other areas will have to be developed if maximum benefits are to be reaped by South Asian countries. This will entail cooperation and collaboration between scientists from the region and their colleagues elsewhere in other developing countries as well as in the developed countries. Opportunities exist under the Convention for such cooperation and it is hoped that developing countries will take advantage of the opportunities offered.

18. Another issue of great importance to developing countries is the transfer of technology. For such transfer to be meaningful and beneficial, developing countries will have to develop their own endogenous capacities and technologies, as well as being able to determine the type of technologies that are appropriate to their specific conditions. Article 4.5 calls on the developed country Parties to take all practicable steps to promote, facilitate and finance as appropriate, the transfer of or access to environmentally sound technology and know-how to other Parties, particularly developing country Parties to enable them to implement the provisions of the Convention. The ability to determine the type of technology needed and the effective utilisation of such technology when provided are of crucial importance and needs to be addressed.

Legal, Administrative and institutional implications

19. All treaty obligations require for their implementation at the domestic level the placement or establishment of the necessary legal, administrative and institutional structures. Climate change is a multisectoral and multifaceted subject. It has implications for the environment, economy, social conditions, agriculture, energy, transportation, etc. As yet there is no one institution that can adequately address all these issues. It therefore requires the cooperation of several government ministries, departments, industry and local communities. Coordination of the activities of all the related sectors is also of critical importance. The need to integrate into national economic planning the impacts of climate change and adaptation to it cannot be over emphasised.

20. Appropriate legislation will have to be introduced to facilitate implementation. This may entail mending existing legislation or enacting new legislation. Whiles recognising the important role of each sector, there will be the need for an overall national body that will bring together all the key sectors to look at this multisectoral issue in an integrated and holistic manner.

Financial implications

21. The Convention does not impose any financial obligations on developing countries. They are only expected to contribute to the cost of running the secretariat. The commitment to provide new and additional financial resources is that of the developed country Parties, and this will be made available through the financial mechanism whose interim operating entity is the Global Environment Facility (GEF). The Convention has identified activities that would be

eligible for funding under the financial mechanism, and several of these could be undertaken with great benefits accruing to the national economy.

TRANSPARENCIES:
STRUCTURE AND CONTENT OF THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

1. Background

(A) Overview of the problem

(B) International response

(i) Formation of IPCC
(ii) Ministerial meetings and conferences Bergen, Nordwijk 1989, 1990
(iii) UNEP-WMO initiatives
(iv) Second World Climate Conference - November 1990
(v) United Nations General Assembly Resolution 45/212 of 21 December 1990

2. An overview of negotiations leading to the adoption of Convention in May 1992 in New York and signature in Rio de Janeiro, June 1992.

3. Date of entry into force - 21 March 1994.

4. Relevant Provisions of Convention

(A) Preamble

- Climate change is common concern of humankind (para. 1)
- pertinent provisions of Stockholm declaration
- special situation of small island states, developing countries and countries whose economies are heavily dependent on fossil fuel production.

(B) Principles (Art. 3)

- intergenerational equity
- main responsibility
- common but differentiated responsibility
- precautionary principle
- right to sustainable development

(C) Commitments

(i) Position of countries and blocks on the allocation of commitments:-

- U. S.A. - No targets - position has changed with new president
- EEC and EFTA countries - in favour of setting targets
- Oil producing countries - concerned about effects on the economy
- Small island states - danger of sea level rise. Very existence threatened
- Developing countries - not a priority
- Would like to help solve problem on condition financial assistance is provided.

(ii) Commitments for all Parties (Art. 4.1)

- Develop and periodically update and publish national inventories using comparable methodologies
- Formulate, implement, publish and regularly update programs containing measures to mitigate and adapt to climate change
- To co-operate in preparing for adaptation to the impacts of climate change
- Promote and co-operate in the full and open exchange of relevant scientific, technological, technical, socioeconomic and other research etc.
- Communicate to the COP information related to the implementation of the Convention

(D) Commitments for developed country Parties listed in Annex 1 (Art. 4.2)

- Parties included in Annex 1 to adopt national policies and take corresponding measures on mitigation of climate

change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs Art. 4.(2) (A). Aim of returning to 1990 emissions levels by the year 2000.
- Each of the parties included in Annex 1 shall communicate, within 6 months of the entry into force of the Convention for it and periodically thereafter, and in accordance with Art. 12, detailed information on its policies and measures referred to in para. 4 (2)(A). (Art. 4 (2)(B)).
- Conference of the Parties at its first session (COP I) to review adequacy of Art. 4.2 (A) and (B). (Art. 4(2)(D)).

(E) Financial provisions (Arts. 4.3, 4.4, 4.5)

- Commitment by the Parties included in Annex 11 to provide new and additional financial resources to meet the agreed full costs incurred by developing countries in complying with their obligations under Art. 12.1 - Communication of information.
- They shall also provide such financial resources, including for the transfer of technology, needed by the developing country Parties to meet the agreed full incremental costs of Art. 4.1 and that are agreed between a developing country Party and the international entity or entities referred to in Art. 11.
- Parties included in Annex II to assist developing country parties that are particularly vulnerable to the adverse effects of climate change in meeting the cost of adaptation to those adverse effects.
- Annex II countries to promote the finance and transfer of technology to developing countries.
- Assistance to countries with special circumstances:
    - Countries undergoing transition to a market economy. A certain degree of flexibility allowed to meet commitments in Article 4.2 (A) and (B)
    - Developing countries listed in Art. 4.8
    - Least developed countries
    - Developing countries with economies that are vulnerable to the adverse effects of climate change, e.g. oil producing countries.

(F) Financial Mechanism (Arts. 11 and 21)
- Financial mechanism to function under the guidance of and be accountable to the COP (Art. 11. 1)
- COP to decide on policies, programme priorities and eligibility criteria. (Art. 11.1)
- GEF entrusted with the operation of the financial mechanism on an interim basis - GEF to be restructured and its membership made universal (Art. 21.3).

Other Relevant Provisions:
- Research and systematic observation - (Art. 5)
- Education, training and public awareness - (Art. 6)
- Conference of the Parties - Supreme body of the Convention (Art. 7)
- Secretariat - permanent secretariat to be designated by COP at its first session. (Art. 8)
- Subsidiary Body for Scientific and Technological Advice (SBSTA) (Art. 9)
- Subsidiary Body for Implementation (Art. 10)
- Communication of information related to implementation (Art. 12)
    1. Developed country Parties - Annex I within six months after the entry into force.
    2. Developing countries within three years of entry into force.
    3. Least developed countries - anytime.
- Entry into force - status of ratification

5. Post Adoption Activities
- Preparation towards first session of the Conference of the Parties.
- Relationship of Convention with the GEF.

DRAFT ELEMENTS OF A NATIONAL LEGAL AND INSTITUTIONAL ARRANGEMENT TO IMPLEMENT THE CLIMATE CHANGE CONVENTION

Seth Osafo, Secretariat, UNFCCC

1. Legislative Options

(a) Amending existing legislation relating to sources of greenhouse gases

(b) Developing regulations under appropriate existing enabling legislation to regulate emission of greenhouse gases into the atmosphere

(c) Enactment of an Act of Parliament devoted entirely to addressing climate change issues. This option will give Climate Change issues greater visibility and also indicate that the government recognises it as an important issue.

2. Objective of Legislation

To regulate anthropogenic emissions of greenhouse gases into the atmosphere and enhance their removals by sinks, and thereby contribute to the global efforts to mitigate climate change.

3 Scope of Legislation

(a) Sources of Carbon Dioxide

- Electricity generating plants powered by fossil fuels;
- Transportation - C02 emissions from motor vehicles;
- Emission from industrial plants eg. cement factories, petroleum refineries, etc.

(b) Sources of Methane

(a) Coal mining/processing
(b) Livestock
(c) Rice paddies
(d) Biomass burning
(e) Landfills
(f) Human and animal waste
(g) Leakage of natural gas pipelines
(h) Venting of natural gas from oil and gas wells

4. Sinks

1 Sustainable management of forests, including reforestation, afforestation, urban forestry, and improved forestry management and agricultural practices.

2. Examination of possible role of oceans.

5. Institutional Structure for Implementation

(a) Identification of institutions whose activities are related or contribute to global warming, and these would include the following institutions:

Ministry of Energy
Ministry of Agriculture/Animal Husbandry
Ministry of Industries
Ministry responsible for Forestry

Ministry of Finance
Ministry of Planning
Ministry of Foreign Affairs
Ministry for Local Administration
Meteorological Services
Scientific Research Institutions

(b) Determination of Focal Point for Climate Change issues at both the national and international level.

(c) Every government will have to determine the appropriate institutional location for the focal point since issues relating to Climate change impact the activities of several ministries.

6. Functions

1. Policy formulation

- Economic or fiscal instruments including taxes, levies, charges, tolls, and loan, grant or subsidy programmes;
- Energy and fuel efficiency policies and measures for equipment, motors, appliances, vehicles and other energy using devices;
- Energy conservation policies and measures including [to elaborate];
- Policies and measures designed to promote or require fuel switching;
- Emissions collection/capture and disposal policies and measures for methane and carbon dioxide;
- Sink enhancement policies and measures including reforestation, afforestation, urban forestry and improved forest management and agricultural practices;
- Research, development and demonstration policies and measures for new technologies;

2. Co-ordination of activities of other institutions

3. Setting of emissions standards

4. Enforcement

5. Education and awareness

7. Implementation

Responsibility for the implementation and enforcement of legislation could be entrusted to the Ministry of the department of the environment as its activities cut across those of several ministries including all those listed above.

8. Enforcement

Existing provisions relating to air pollution, emissions from motor vehicles, land use and forestry management should be vigorously implemented:

- Imposition of stiff penalties?
- Creation of incentives?
- System of permits and licenses?

9. Community participation in decision-making

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BHUTAN

Nedup Tshering, National Environment Commission

BHUTAN'S NATURAL HERITAGE

Located in the Eastern Himalayas, Bhutan is one of the ecological wonders of the world. The country straddles two biogeographical realms: the Palearctic realm of the temperate Euro-Asia and the Indo-Malayan realm of the Indian sub-continent. The result is a nation rich in biodiversity with its natural forest cover largely intact. The biomes in Bhutan stretch from subtropical in the south(150m ASL:Above Sea Level) through temperate in the central interior, to an alpine zone in the north(7000m+ASL). Animals such as the tiger, elephant, one-horned m rhinoceros, Asiatic water buffalo, pygmy hog and the rare golden langur exist in the lush tropical forests of the South. The snow leopard, blue sheep, and take-in are found in the cool forests and alpine meadows of the North. There are over 165 species of animals (mammals), and more than 770 species of birds have been identified (very limited data inventories have been conducted in these fields).

Within Bhutan's borders, one can find over 60 percent of the endemic species of the Eastern Himalayan region. In addition, Bhutan's rich flora includes over 50 species of Rhododendron, and over 300 species of medicinal plants, mostly alpine, that are used in traditional herbal medicine. As a result, Bhutan has been declared as one of ten global "hot-spots" for the conservation of biological diversity (Myers, N., "Threatened Biotas: Hot-spots in Tropical Forests", 1988). Many ecologists believe that Bhutan represents the last best chance for conservation in the Eastern Himalayas, a region considered of critical importance to the global efforts to conserve biological diversity.

Bhutan's rich biological diversity is found in the national parks and sanctuaries in which clean and abundant drinking water and unpolluted air exist side-by-side with serene turquoise lakes, gushing streams and mighty waterfalls. Bhutan is in many ways the last Shangri-La of this world.

Area (square kilo-meter)	40,077[1]
Population	600,000
Population Growth	3.1%
GNP per capita (US Dollar)	425
Land used	
Forecast	72.5%
Cultivated Areas	8.1%
Numbers of Protected Areas	10
Protected Areas as % of total land	26.23%
Total protected area (square Km)	10,513

The preservation of the country's rich biological diversity can be attributed to two factors: the enlightened leadership and the strong conservation ethic of the Bhutanese people. Conservation is a central tenet of Buddhism. Buddhism believes in preserving nature and giving back to the earth what one has taken. Buddhism also believes in the sanctity of life. The importance of protecting nature in all its manifestations has permeated our consciousness and has become integral to the Bhutanese way of life. The pre-Buddhist "Bon"(animism) beliefs whereby , forests, mountains, lakes, rivers and the sky are the domain of spirits and desecrating them will lead to disease and suffering, are very strong. Therefore, preservation of the environment, sacred and cultural heritage sites are an important and an integral part of the Bhutanese value system.

His Majesty the King Jigme Singye Wangchuck has stated that: "Throughout the centuries, the Bhutanese have treasured their natural environment and have looked upon it as the source of all life. This traditional reverence for nature has delivered us into the twentieth century with our environment still richly intact. We wish to continue living in harmony with nature and to pass on this rich heritage to our future generations." This statement was made in a letter to the UNDP Administrator, Mr. Draper during the signing of the Bhutan Trust Fund for Environmental Conservation

in 1991.

His Majesty the King has also ensured that the processes of economic development and environmental and cultural integrity are not mutually exclusive, but critical to the long-term viability of Bhutanese development. As eloquently summarised by His Majesty, himself, "Gross National Happiness is more important than Gross National Product. " This has been the principle guiding force of Bhutan's sustainable development strategy.

After centuries of self-imposed isolation, Bhutan embarked upon its socioeconomic development programs in the early 1960's with the start of its first Five Year Plan. This late start puts Bhutan in a unique position to learn from the experiences of other neighbouring countries and to follow a path of development where environmental conservation is an integral part of the economic development process.

In May 1990, senior government representatives gathered in Paro to begin threshing out the broad criteria of Bhutan's sustainable development agenda. Bolstered by a national character that promotes the community rather than the individual, these representatives committed the country to what they identified as the "Middle Path" of sustainable development. The result of this workshop was a holistic statement of principles and beliefs known as The Paro Resolution on Environment and Sustainable Development. (See Box 1)

As a result of the enlightened leadership and the strong tradition of environmental conservation and preservation, Bhutan now has over 26 % of its land area under protected area management and over 72.5 % of the country under forest cover. While many parts of the world have suffered from alarming deforestation rates, the forest cover in Bhutan has actually increased in the last decade. The 73rd session of the National Assembly in 1995 has mandated that the country must at all times keep 60 % of the country under forest cover.

ENVIRONMENTAL CHALLENGES AHEAD FOR BHUTAN

Bhutan faces the twentieth century with many challenges ahead. The country is small, there is limited arable land, the economy is rural based and there is a scarcity of trained manpower. The traditional economy is facing new pressures and consumption patterns, which has put a greater strain on its natural resources.

Bhutan has little to sell to the outside world to pay for its numerous needs. Foremost among these needs is the cost of financing development. The Royal Government is committed to providing a wide range of comprehensive free services to its people, e.g., education, public health, and public safety. These services are very costly to provide in any case, but the costs are even higher in a country like Bhutan where so many of the people live in scattered and remote settlements that are isolated from each other and from administrative centres. Compounding these problems is the low tax base. So much of Bhutan's domestic economy is still based on centuries-old methods of subsistence and the government has declined to charge users' fees for most public resources (this is slowly changing in urban centres like Thimphu where residents will soon be paying user charges for essential services). As a result, Bhutan is unable to generate internally the hard currency that it needs for its ambitious development agenda.

The same forces that make Bhutan so rich in natural beauty, make it relatively poor in those commercially valuable raw materials upon which most national development schemes are based. Though covered in robust natural forests, the Royal Government has strong conservation policies that discourage commercial extraction of forests. Though valuable mineral deposits undoubtedly exist, unscientific large-scale mining is discouraged. The Mining Act, 1995 requires environmental impact assessments to be conducted for all mining projects. And though the soil is rich in nutrients, Bhutan is severely limited by the topographical fact that only 16% (currently only 8% of the land is being used for agriculture) of the national territory is suitable for agricultural activity.

Further compounding these shortcomings is the high population growth rate that is now estimated at an alarming rate of 3.1 percent. Only ten years ago, that rate was a little over 2 percent. This increase is due primarily to the dramatic success of the health programs. In Bhutan's case, the opening up of the country to humanitarian aid projects combined with increases in the domestic transportation sector has also brought about significant reductions in the crude death rate, from 13.4 to 9.0 per 1,000 population. The most appreciable drops have come in the Infant and Under Five Mortality rates (from 102.8 to 70.7 for the former, and from 162.4 to 96.9 for the latter (both per 1,000 live births). At this rate, the present population of approximately 600,000 will double by the year 2015. The country's most pressing resource-based need will be to meet the food, shelter, and clothing needs of this rapidly expanding population.

Box 1: THE PARO RESOLUTION ON ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

We, the senior officials of the Kingdom of Bhutan and other participants in the Workshops on Environment and Sustainable Development, meeting here in Paro on the fourth and fifth of May 1990, solemnly declare our commitment to a sustainable development strategy for our nation.

During the last three decades, the Kingdom of Bhutan has pursued a course of gradual economic progress. Living standards have improved and Bhutan's unique natural environment has been preserved. While we are pleased with the health of our environment, we note with alarm the environmental devastation in other countries, where in these few decades forests have been stripped, soils eroded, and people impoverished.

The Kingdom of Bhutan now stands at an important cross-roads, we believe, with the future health and prosperity of the nation at risk. In the years immediately ahead, the Kingdom will face rapidly growing local environmental problems, as well as new global threats such as ozone depletion and greenhouse warming. A careful and balanced approach to development may become ever harder to maintain. Our nation will soon face a question that others confront: whether we can maintain a development path that allows us to meet our pressing current needs without compromising the prospects of future generations. This is the challenge of sustainable development: To raise the material well-being of all our citizens and to meet their spiritual aspirations, without impoverishing our children and grandchildren.

We recognise the potential of new technology and industries, but wish to affirm the central role that the natural environment and accompanying resources will continue to play in the future development of the Kingdom. No amount of technology or monetary assets can make up for a razed forest, depleted soils, polluted waters and ravaged climate. Continuing growth in Bhutan's population will invariably place increased stress on the country's natural resources. We therefore urge the Royal Government to accelerate its efforts to slow population growth and thereby preserve the balance between people and resources. No other programme is so critical to a sustainable future for the nation.

We fear that the balance between crop land, forest land and livestock population is in danger of being lost with serious risks for the natural environment and economy. New extractive industries will likely add additional threats. As a consequence, the country's environmental problems will require increased attention from Bhutan's Government and the society at large. We believe that preserving, indeed strengthening, Bhutan's natural resource base is central to a sustainable and prosperous future for the country. We urge the development of a National Environmental Strategy that will ensure the careful stewardship and sustained use of these natural resources. It is particularly important that this strategy include an integrated approach in the design of all development programmes, so that policies in one sector do not damage the resource base of another.

Sustainable development does not imply a stagnant society. Indeed, we believe that the Kingdom of Bhutan has some major human challenges before it, particularly in reducing infant mortality and providing more comprehensive health care. A healthy and happy population is essential to the creation of a sustainable society. But while our Society changes and evolves, it must continue to meet the basic challenge of sustainable use of resources. The key is to find a development path that will allow the country to meet the pressing needs of the people, particularly in terms of food, health care and education, without undermining the resource base of the economy. New industries, new agricultural markets, and new forestry products need to be carefully developed, with respect to their broader environmental ramifications. In the attached reports of our three working groups we have developed a more detailed set of guidelines for sustainable development of Bhutan.

Sustainable development, we believe, is a concept that is in harmony with the cultural and religious traditions of Bhutan. Our nation already has a strong conservation ethic, and indeed, respect for the natural world is a central tenet of Buddhism. It is therefore essential that the traditional culture be kept strong so that its values can guide our sustainable development path.

We urge the nation to build on this ancient wisdom, to pursue a Middle Path of Development for the Kingdom, and thereby ensure the sustained happiness and prosperity of our people. This is an effort that can productively involve all levels of our society, including the dzongkhag administrations and non-governmental organisations, as well as our Royal Government. Let the effort begin.

This increase in population will present another set of equally daunting challenges on the urban areas. Though only 15 % of the population currently resides in urbanised areas, that proportion is expected to increase dramatically as a result of the combination of two dynamics -- the "pulls" of urban communities in terms of the employment and social opportunities they offer and the "push" of the rural areas that comes from diminishing employment, and social prospects.

Based on the plausible assumption that half of the national population increase will occur in urban areas, Bhutan's current urban population of slightly over 100,000 will exceed 500,000 by the year 2020. The next twenty-five years will thus see an unprecedented stress put upon the country's urban and peri-urban environments. Such surges are

common in the first phases of development and Bhutan doesn't have to look far for examples of the problems that ensue. In Bhutan's case, however, the adverse potential is exacerbated by the fragility of most of the land upon which that growth is destined to occur. Given the country's predominantly mountainous terrain, urban growth is constrained by a shortage of suitable, level ground. Bhutan's current urban centres have sprung up were they can - in major river valleys. The narrowness of most of these valleys has severe environmental implications for most urban sector activities housing construction, road building, and the provision of sanitation services.

To date, Bhutan's urban settlements have sprung up with only minimal urban planning. Town planners were simply not prepared for the dramatic increases in urban populations that have come to pass in the past two decades. As a result, there have been substantial adverse effects. Thimphu and Phuntsholing are suffering from vehicular emissions, the contamination of water supplies, and the accumulation of industrial and domestic pollutants/wastes.

Now that they have been firmly established, Bhutan's urban areas will continue to grow -- and be augmented by additional centres that result from new industrial enterprises. Within the next ten to twenty years, a dozen or more emerging population centres can be expected to be affected with the same ailments that have come to plague Thimphu and Phuntsholing. The pressure on natural resources and pollution from urbanisation will be tremendous if facilities like solid and liquid waste treatment and management is not provided. Standards have to be set for emissions of pollutants in soil, water, and air if urban life is not to become a health hazard.

The demand for low-cost urban housing will increase dramatically to avoid slums and shanty towns. There will also be a great pressure on the government to provide educational, health, and recreational facilities - all of which will have considerable impact on the environment through pressure on natural resources and pollution. And so, there is a pressing need in Bhutan for integrated rural/urban planning. Not only are the problems of the one interconnected with the problems of the other, their mutual solution depends in large part on the successful resolution of shared concerns. This is especially true in light of the fact that the government's agenda for sustainable development has both industrial and agricultural components and that the activities of the two are so interwoven.

Despite these many daunting challenges ahead, and limited economic opportunities for Bhutan, the Royal Government has stated categorically that she will not resort to unlimited marketing of its natural resources as such a policy will quickly undermine the country's tradition of conservation and place Bhutan in the same predicament as countries that face severe ecological and environmental problems. Instead the Royal Government has chosen to forego immediate economic gains and has placed a higher priority on the conservation of natural resources.

NATIONAL INSTITUTIONS IN THE FIELD OF ENVIRONMENTAL CONSERVATION

Nature Conservation Section

The primary responsibility for nature conservation activities fall on the Nature Conservation Section (NCS) of the Forestry Services Division. The NCS maintains the protected areas and ensures that forests are protected. The main objective of the NCS is to conserve Bhutan's rich biodiversity in line with the Royal Government's policy of sustainable development and environmental protection. The NCS is divided into three units, the biological, the Geographical Information Systems/database management unit and the management/planning unit.

The biological unit conducts biodiversity surveys in protected areas. To date, surveys have been completed for two national parks, the Royal Manas and the Jigme Dorji National Park, and work has currently been started in the third park, the Black Mountain National Park. Critical surveys of the Phibsoo, the Kulong Chu and the Trumshingla National Parks have also been initiated.

The World Wildlife Fund (WWF, U.S.A) supports environmental conservation activities in Bhutan. They began work in Bhutan with the key aim of developing a national capacity for conservation and resource management. The supports long-term training in the natural resource field and provides institutional support to the Nature Conservation Section of the Royal Government. WWF also supports the Royal Society for the Protection of Nature (RSPN), the only environmental non governmental organisation in Bhutan.

The Nature Conservation Section faces human resources, and financial constraints in carrying out its mandates. In addition to the large costs of maintaining protected areas, writing management plans, there is also the need to provide protection to the endangered species from the onslaught of poachers. Of late many anti-poaching squads have been launched.

Existing Protected Areas System

(As per Notification No. AFD/FO/ic-5/93/1464

Name	Dzongkhag	Area (sq km)
Torsa Strict Nature Reserve	Ha/samtse	644.00
Jigme Dorji National Park	Paro/Thimphu/GAsa, Punakha	4,200.00
Black Mountain National Park	Wangdue/Tongsa, Zhemgang/Bumthang	1,400.00
Trumshingla National Park	Zhemgang/Bumthang, Mongar	768.00
Royal Manas National Park	Gaylegphug/Zhemgang, S.Jongkhar	1,000.00
Sakteng Wildlife Sanctuary	Trashigang	650.00
Kulong Chu Sanctuary	Lhuntsi/Trashiyangtse	1,300.00
Phibsoo Wildlife Sanctuary	Gaylegphug	278.00
Khaling/Neoli Sanctuary	S.Jongkhar	273.00
Total		10,513.00

Percentage of total land area: 26.23%

In addition His Magesty the King has declared Bumdeling in Tashiyangtse as a National Sanctuary for the Black-Necked Crane

Source: Forestry Services Division, Nature Conservation Section, 1995, Thimphu

Until the late 1980's, the Royal Government felt that conservation activities were being conducted by the relevant Ministries such as the Forestry Services Division and a national coordinating agency was unnecessary. The issues related to environment as perceived by the Royal Government were mainly related to the protection and preservation of natural resources. Since then, the Government has recognised that environmental related issues are cross-sectoral in nature. And the need for a national agency was recognised.

THE NATIONAL ENVIRONMENT COMMISSION (NEC)

Recognising that socioeconomic development must be consistent with the needs of the people and the carrying capacity of the fragile environment in order to provide a sustainable base for the future, and to monitor such a process, the Royal Government under the command of His Majesty King Jigme Singye Wangchuck established the National Environment Committee in 1989.

This National Environmental Committee was later upgraded to the National Environment Commission. This National Environment Commission is a high level, cross-sectoral body of senior ministers and councils under the leadership of the current Chairman, the Planning Minister. The NEC is empowered to meet its long-term objective of defining policies and programs, plans and actions whereby the sustainability of natural resources will be fully integrated into every aspect of Bhutan's social and economic development. Its high-level commission ensures that it will have the authority to call for the assistance it will need from other government bodies. The Commission also monitors the impact of development on the environment and aims to put in place the necessary controls, regulations and incentives to the private/public sectors to achieve sustainable development through the judicious use of natural resources. The co-ordination of cross-sectoral programmes, the implementation of policies and legislation is also another important mandate of the Commission.

The National Environment Commission comprises of the following members:

Minister, Planning Commission,	Chairman
Minister of Home Affairs,	Member
Minister of Trade and Industries,	Member
Deputy Minister for Environment, NEC	Secretary, Member
Secretary, Ministry of Agriculture,	Member
Joint Secretary, Forestry Services Division,	Member

The objective of the NEC are to:

- to serve as an environmental adviser to the government on matters related to sustainable development;
- formulate a National Environmental Strategy, which will serve as a planning document for the country;
- to institutionalise Environmental Impact Assessments; and
- to enhance the knowledge and understanding of environmental matters and sustainability in the Bhutanese society.

To implement its mandate effectively the NEC works in close collaboration with the line ministries , the Dzongkhag administration, the Dzongkhag Yargay Tshogehungs (District Development Committees) and the Gewog Yargay Tshogchungs (Block Development Committees). The National Environment Commission Secretariat is headed by a Deputy Minister of the Royal Government. This Secretariat plays a key role in promoting sound environmental policies and investments and carries out the mandates given to it by the National Environment Commission. This Secretariat is, however, at an early stage in its development and requires significant institutional strengthening including training of staff in order to carry out its mandate effectively. The Danish International Development Agency (DANIDA) is the main donor to the NEC. DANIDA plays an important role in providing both institutional and financial support.

As affirmed at the 1990 Paro workshop, one of the ultimate objectives for the NEC will be to draft a National Environmental Strategy (NES), a dynamic, long-term strategy for bringing about sustainable development through improved environmental planning, policy-making, and management. The officials stated that as much as the country would like to proceed along a path of strict sustainability, it is inevitable that accomplishing the goals that it has set for itself will mean that compromises will have to be made. Since the state of Bhutan's future natural environment will be closely linked to the way its natural resource base is exploited, it is also imperative that the current National - Environmental Strategy emphasises not only the optimal utilisation of the country's natural resources, but also the possibility of alternative utilisation, especially in the industrial sector. Such an approach is dictated by Bhutan's inherent smallness and its mountain environment, both of which place severe limitations on its absorptive capacity. It is therefore critical that a concerted emphasis be placed on integrating the planning need inputs from those sectors involved primarily in the development of Bhutan's national resources. If done effectively, the result will be a blueprint that facilitates the adoption and evolution of sustainable natural resource management systems and methods, and, by doing so, allows Bhutan to begin its national journey down the Middle Path of sustainable development.

The NEC, with an inter-ministerial task force, is currently in the process of developing a National Environmental Strategy. The first draft of the strategy has been completed. The final strategy is expected to be completed by September, 1996. The NEC believes that this strategy will help Bhutan find a path that will allow for both development and environmental conservation. Strengthening the resource base of the country is crucial to a sustainable and prosperous future. This strategy ensures an integrated approach in the design of all development programs, so that policies in one sector do not damage the resource base of another. However, the implementation of the National Environmental Strategy represents a major challenge. Threats to the land, forests and watersheds of the country from inappropriate agriculture and livestock management, hydropower and road construction, mining, tourism and other facets of economic development are looming on the horizon.

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

In 1992, Bhutan commissioned its first National Environmental Impact Assessment Guidelines for Bhutan. It is now a mandatory to carry out EIAs for every development projects. The National Environment Commission (NEC) carried out EIAs of many developing projects such as hydropower development project, industrial development and forestry sectors. In due course the secretariat faced several difficulties while reviewing EIAs. Thereby, the NEC felt the urgent need to develop Sectoral EIA guidelines.
The NEC is in the process of developing the guidelines and is expected to be completed by end June 1997.

MEETING THE ENVIRONMENTAL CHALLENGES

Although, Bhutan faces many of the constraints of a least developed country and has imminent needs and problems at hand, Bhutan is committed to doing her part in the protection of biological resources for future generations. As recognised by the United Nations Conference on Environment and Development UNCED), nature has bestowed the stewardship of some of the richest natural areas of our planet to developing countries which unfortunately have more immediate-priorities to meet in terms of the welfare of their people. It is, therefore, imperative that the financial needs for conservation are supported by the international community.

In addition to UNCED, the World Trade Organisation (formerly General Agreement on Tariff and Trade), has also released a report saying that the World Community should pay for these opportunity costs where developing countries set aside large areas of their land to conserve biodiversity and the forests processes which mitigate climate change.

BHUTAN TRUST FUND FOR ENVIRONMENTAL CONSERVATION:

Bhutan has received the generous support of donors in the conservation and sustainable development field. However, the country has suffered from the lack of continuity in project funding that result from fluctuating budgets, which often leads to projects ending before they have had a chance to become fully realised. Over the years, every sector in the country has suffered from the lack of continuity in projects. Fortunately, most development projects do benefit from the income generating aspects of the project and therefore can take on a life of its own when funding ends. However, this is not the case with environmental conservation projects. With few exceptions, a national park will not be paying its way in the short term. The economic benefits of cutting the forests of Bhutan's Manas National Park, probably one of the most important reserves in all of South Asia, will in the short term generate greater revenues than setting it aside as a national park. Yet Bhutan has set aside some 26 percent of its land area, conserving the rich natural heritage of the Eastern Himalayas. For this considerable sacrifice whereby Bhutan gives up much of the opportunity to exploit its natural resources, but makes a major contribution to the global efforts to conserve biodiversity and mitigate climate change, for which Bhutan will never be fully compensated. However, Bhutan hopes that its partners in development will defray some of the costs of maintaining these protected areas.

To this end, Bhutan has established the Bhutan Trust Fund for Environmental Conservation, which can well prove to be an excellent role model of how the world community can effectively assist countries in making major commitments to the global environmental efforts. This Trust Fund was established in March 1991 as an innovative financing mechanism which will help Bhutan continue conservation activities and will ensure that the country can uphold its commitment to the environment in spite of the pressures to reduce conservation activities and focus on economic development.

The Bhutan Trust Fund for Environmental Conservation activities are to:

* develop a national system of protected areas;
* draw up and implement management plans for protected areas;
* provide institutional support to environmental organisations and train natural resource professionals;
* survey Bhutan's rich biological resources;
* develop a natural resource database; and
* design and pilot integrated conservation and development projects.

The World Wildlife Fund at the 5th Round Table Meeting in Geneva stated that "project by project funding has had only limited success and will just not work in the long term for activities where results are often not realised for some 15, 25 or even 50 years. You do not grow a forest in five years.. If the industrialised and developed nations are truly serious about the environment, then we must find new and innovative ways of supporting such activities over the long term. , and if I may speak for the other founding donors, the Netherlands and the Global Environmental Facility, are convinced that the Bhutan Trust Fund is such an innovative approach and merits our full support."

Bhutan hopes that endeavours such as the Bhutan Trust Fund for Environmental Conservation will be supported. As, funding for such projects will ensure that the weight of global conservation does not fall on small countries like Bhutan who have much more imminent needs at hand.

RECIPROCITY AND SUSTAINABLE DEVELOPMENT

The Government of the Netherlands and Bhutan believe that in order to implement sustainable development, global partnership is needed. The Government of the Netherlands felt that the United Nations Conference on Environment and Development (UNCED) did not make a real breakthrough. Countries from the North and the South had divergent view points. Therefore, the Government of the Netherlands decided to forge a partnership with the Governments of Bhutan, Benin and Costa Rica through the signing of the Bilateral Sustainable Development Agreement in March 1994. The partners of this Bilateral Sustainable Development Agreement felt that through this partnership new concepts could be developed and new experiments in development programs could be conducted. This agreement was based on the principle that sustainable development's a joint responsibility of both the North and South. The other leading principles of these agreements are reciprocity, equity and participation. The principle of reciprocity recognises that development partners can contribute to each others development process. This belief runs contrary to the

traditional donor-recipient relationship. This principle of reciprocity is an instrument towards the goal of sustainable development.

Bhutan and the Netherlands are working on Joint Implementation Projects with the view towards achieving sustainable development models for the world. The Bhutanese benefit from the financial assistance while the Government of the Netherlands benefit from the traditional conservation ethic and the pristine environment of the Bhutanese people. The Bhutanese and the Dutch have identified the following areas namely, environmental management, energy, climate change, biodiversity, sustainable agriculture, culture and tourism as the most promising for operationalizing the concept of reciprocity. The Bhutanese and Dutch are also exploring new areas such as carbon trading. The large forest areas in Bhutan could serve as potential carbon sinks to the green house gases emitted by the Netherlands. This is in line with the UNFCCC, which aims to stabilise anthropogenic carbon dioxide (C02) emissions to levels that do not threaten the global ecosystem. To this end, the Convention calls on its parties to reduce their emissions and to enhance "sinks" of greenhouse gases. The Intergovernmental Panel on Climate Change (IPCC) has identified forestry and other land-use based mitigation measures as sinks for greenhouse gases.

BIOLOGICAL DIVERSITY AND CLIMATE CHANGE CONVENTIONS

Bhutan signed the CBD and UNFCCC during the United Nations Conference on Environment and Development (UNCED) at Rio de Janeiro in June 1992. The 73rd session (1995) of the National Assembly ratified these conventions. Bhutan is fully committed to the objectives of the Conventions.

SCOPE:	The Convention on Biological diversity has global coverage and each country which is a party to the Convention has responsibility for the sustainable use of its own biodiversity Parties also have the reponsibility to manage processes and activities which threaten biological diversity.
OBLIGATIONS:	The convention requires the development of a set of strategies for conservation and sustainable use of biodiversity which will be integrated into relevent cross-sectoral plans and policies; the identification of important of biodiversity and monitor activities that pose threats to biodiversity; and where possible establish protected areas manage biological resources and maintain the viable populations.
ACTION :	The Sustainable use of biodiversity is an important part of the National Environmental strategy in Bhutan. Protection and preservation of biodiversity is an integraral part of the country's cross-sectoral plans and policies. The Nature conservation section of the forestry services division is conducting biodiversity. The country has already placed 26% if its land area as protected areas. And every effort is made to allow both flora and fauna to survive in their natural surroundings.

SCOPE :	The UNFCCC is to stabilise green house gases in the atmosphere to prevent global warming.
NEED:	It is stated that countries should protect and improve their forests and oceans that act a sinks and reservoirs for greenhouse gases.
ACTION:	Bhutan, recognises the need to protect its forests to serve as carbon sinks. Therefore, Bhutan has placed over 72.5% of its country under forest cover. Besides the emissions of some carbon and methane gases, Bhutan does not emit Nitrous Oxide, Precursor and other greenhouse gases.

Bhutan participates at international fora and signs international conventions. However, as each convention has many legal obligations, Bhutan faces great difficulties in meeting the legal and financial obligations, implementing the activities and enforcing the provisions of the conventions. Despite these constraints, Bhutan recognises that it must play its part in ensuring that the global environment is protected.

Bhutan realises that it may be a small country and its effort in the global environment may seem limited. However, Bhutan is fully committed to maintaining and preserving one of the last remaining areas of pristine forests and rich biological diversity for the benefit of all future generations.

PROGRAMMES:

The following programmes are being implemented to fulfil some of the obligations of the two conventions:

1. Under the United Nations Framework Convention for Climate Change, the National Environment Commission is implementing a project on National Communication under the Article 4 and 12. The project is known as Bhutan National Greenhouse gases Project. It is funded by UNDP/GEF. The budget allocated for this project is US $ 296,000.00 for a period of three years. The project is expected to be completed by end of 1999. The objective of the project is to fulfil one of the obligations of the convention that is National Communication.

2. Under the CBD, the nature conservation section of Forestry Service Division is implementing a project on Biodiversity Action Plan for Bhutan as an Obligation to the convention.

3. The national Environment Commission is also implementing a project on Capacity 21 Which is being funded by UNDP/GEF. The total budget allocated for the project is US$ 679,421.00 for a period of two years. The project is expected to be completed by 1998. The objective of the project is to enhance the institutional capacity within the line ministries and Dzongkhag level in the field of environment.

BHUTAN OVERVIEW In Gg CO2-eq	CO2	CH4	N20	Nox	CO	NMVOC	HFC	TOTAL
GWP 100 year	1	21	310				1000	
1. ENERGY	119.32	95.25	18.47	0	0	0	0	*233.04*
burning of fossil fuels	119.32	0.28	0.38	0	0	0	0	119.98
burning of biomass fuels	0	93.42	18.09	0	0	0	0	111.51
coal mining & handling	0	1.55	0	0	0	0	0	1.55
2. INDUSTRIAL PROCESSES	156.24	0	0	0	0	0	0	156.24
limestone use	96.24	0	0	0	0	0	0	96.24
calcium carbide	0	0	0	0	0	0	0	0
silicon carbide	0	0	0	0	0	0	0	0
ferro silicon	60.00	0	0	0	0	0	0	*60.00*
3. HFCS, SF6, etc	0	0	0	0	0	0	0.06	0.06
4. AGRICULTURE	-25.18	511.25	4.55	0	0	0	0	*490.63*
livestock	0	388.31	0	0	0	0	0	*388.31*
rice fields	0	90.89	0	0	0	0	0	90.89
N20 from soils/man.mangt.	0	0	0	0	0	0	0	0
field burning of residues	0	0	0	0	0	0	0	0
Tshed agriculture	-25.18	32.04	4.55	0	0	0	0	11.42
5. LAND USE, & FORESTRY	-12654.53	0	0	0	0	0	0	*-12664.53*
Change woody biomass stock	-12650.41	0	0	0	0	0	0	*-12650.41*
Forest & grassland conversion	0	0	0	0	0	0	0	0
On-site , burning of forests	0	0	0	0	0	0	0	0
Abandoneded managed lands	-4.13	0	0	0	0	0	0	*-4.13*
C02 from soils	0	0	0	0	0	0	0	0
6. WASTE	0	11.33	0	0	0	0	0	11.33
Sold waste disposal	0	11.33	0	0	0	0	0	11.33
Dom. & comm. wastewater	0	0	0	0	0	0	0	0
And. wastewater	0	0	0	0	0	0	0	0
Human sewerage	0	0	0	0	0	0	0	0
TOTAL	*-12404.141*	*617.83*	23.02	0	0	0	*0.06*	*-11763.24*

PER CAPITA EMISSION

Annual per capita emission Bhutan: -19.6 tonnes
Annual per capita emission NL: 14.3 tonnes.
Annual per capital emission DCs: 2.5 tonnes

BHUTAN: NATIONAL INVENTORY OF SOURCES AND SINKS OF GHGs

*Case 1: **strong growth** of forest*

OVERVIEW	*Gg C02*	*Gg CH4*	*Gg N2O*	*GgNox*	*Gg CO*	*Gg N MVOC*	*GgHFC*	
1.ENERGY	119.32	4.54	0.06	2.30	76.27	9.06		
burning of fossil fuels	119.32	0.01	0.00	0.79	1.74	0.33		
burning of biomass fuels	0.00	4.45	0.06	1.50	74.53	8.72		
coal mining & handling	0.00	0.07						
2.INDUSTRIAL PROCESSES	156.24							
limestone use	96.24							
calcium carbide	0.00							
silicon carbide	0.00							
ferro silicon	60.00							
3. HFCS, SF6, etc							0.00006	
4. AGRICULTURE	-25.18	24 .35	0.01	0.53	13..35			
livestock		18.49	0.00					
rice fields		4.33						
N20 from soils iman mangt.			0.00					
field burning of residues	0.00	0.00	0.00	0.00	0.00			
Tsheri agriculture	-25.18	1.53	0.01	0.53	13..35			
5. LAND USE & FORESTRY	-12654.53	0	0	0	0			
Change woody biomass stock	-12650.41							
Forest & grassland conversion	0							
On-site burning of forests	0	0	0	0	0			
Abandoned managed lands	-4.13							
CO_2 from soils	0							
6. WASTE		0.54	0					
Solid waste disposal		0.54						
Dom. & comm. wastewater		0						
And. wastewater		0						
Human sewerage			0					
TOTAL	*-12404.14*	29.42	0.07	2.83	89.63	9.06		0

MALDIVES

Hon Mr. Abdullahi Majeed, Deputy Minister of Planning, Human Resources and Environment

Situated in the Central Indian Ocean about 600 km South of India and about 670 km west of Sri Lanka, the Maldives Archipelago of approx. 1200 islands traverse the equator from 7N to 1S. The average elevation is 1.6 m above sea level. This setting together with the main livelihood of fishing and tourism make Maldives potentially vulnerable to the global warming, climate change and its consequent sea level rise.

Should the IPCC-project one metre in sea-levels occur by the year 2100, it would be catastrophic to Maldives. At least 80% of its land area will be wiped out and the remaining 20% will be often prone to flooding at the mercy of winds and waves during storm surges.

Recent extreme weather events have proved this to a great extent to many Maldivians. In 1987, almost 1/3 of the country was flooded due to a storm surge while in the following year 1988, storms flooded many islands. The worst storm in the recorded history of Maldives occurred in 1991. For 12 days from end of May to the middle of the second week in June that year, a rapidly formed cyclone virtually brought Maldives to a standstill. Winds of over 60 kmph with a maximum of 150kmph along with heavy rains halted fishing and the operations of our international assistance to cope with this disaster. In November 1993, a deep depression with its winds of over 70 kmph and rains lashed the country.

The government of Maldives gives a high priority for the conservation of the environment. The overall responsibility for the preservation of the environment is assigned to the Ministry of Planning, Human Resources and Environment. A consultative body consisting of 18 members from key government ministries and departments called the National Council for the Protection and Conservation of the Environment is also formed to assist the Ministry at its work. Few years back the government created the Environmental Research Unit, entrusted with the task of carrying out environmental impact studies, coastal erosion and management etc.

In 1993, our parliament passed the bill on the conservation of environment in Maldives. Under this law all the major projects require an environmental impact assessment before their commencement. The Environment Law, also imposes a fine equivalent from US$ 10 to US$100 millions depending on the gravity of the infringement.

Another practical measure the government has taken is to restrict the sand and coral mining used as the traditional building materials. In the meantime, import duties levied on pebbles, rock aggregates, cement and soil are reduced to favour this action.

The country also maintains a modest climatic network and records the water level. We have found out that the average temperature for the decade 1980 to 1990 has risen by 0.3^{0}C compared to the preceding decade 1970 to 1980 for the capital island, Male.

Maldives also keeps up a strong campaign of public education and awareness under the slogan of "Environment Preservation Everybody's Responsibility". The general public is quite aware of the climate change and its possible serious threat to their lives though they cannot themselves alone do much about that for this is due not from their own making or choice.

Thus far, I have only dwelt upon actions taken in the domestic area. Maldives also tries hard to keep pace with international developments with regard to climate change. In fact, it is our President H. E. Maumoon Abdul Gayoom who first brought this issue to attention of the Commonwealth Summit in 1987. In the same year, he also actively took part in the UN Debate on Environment and Development.

Maldives was among the first countries to ratify theUNFCC and the CBD

The Ministry of Planning, Human Resources and Environment represents the country at most major UNEP Meetings while the Department of Meteorology takes part in important meetings of WMO, IPCC and the INC.

Mr. Chairman, I do not mean to state that our efforts to combat the climate change is complete. Far from that though we have the basic infrastructure in place, we lack severely in trained manpower and equipment.
This brings me to a subject close to my heart: request assistance in this regard. Therefore, I appeal all the competent

international organisations and friendly countries to lend us a hand in training and equipment. We are doing all within our means to encounter the threat of climate change. We ask only to share, understand and take action in our burdens globally for this is a global challenge.

The Maldives ratified the UNFCCC on 9 November 1992. It was the sixth country to do so. The country's main interest in this Convention lies with 1) the setting targets and time tables for the stabilisation of greenhouse gases; 2) technology transfer; and 3) the availability of new and additional financial resources. So, I suspect, will be the concern of a number of developing states.

The Maldives among with the other Member States of the Alliance of Small Island States (AOSIS) tabled the AOSIS Draft Protocol calling for the reduction of greenhouses, mainly, carbon dioxide to a level at least 20% below that attained in 1990 by Annex 1 Parties.

The new Subsidiary Body formed at COP-1 (1995) to draft "a protocol or another legal instrument" with a view to its adoption at COP-3 this year considered setting qualified emission limitation objectives (QELROS) with specified time horizons such as 2005, 2010 and 2020.

The objective of the Convention is described in Article 2 as follows:
"Stabilisation of greenhouse gases naturally becomes the priority of this Convention. However the Article 4.2 paragraphs (a) and (b) stating as follows does not stipulate any target or timetable for the structures which means life and death to any low-lying small island state. Therefore Maldives does not consider these two paragraphs of the Article at all adequate. This is the prime reason that the country joined the members of the AOSIS to submit the Draft Protocol. However this draft Protocol does not enjoy the popular support as the industrialist countries and OPEC exercises a campaign of effective opposition against such a draft protocol or other legal instrument. Nevertheless it should be voted up to date the AOSIS Draft Protocol remains the only document legally constituted and forwarded to the COP under Article 17 of the Convention.

The other dilemma is since the voting methods are blocked by OPEC Members there is no way forward without consensus. It is a great concern and a shame that we after two sessions of COP and a number of meetings of the subsidiary they the Rules of Procedure cannot be approved.

Judging from the history and current state of affairs of the negotiations of the Climate Conventions I do not perceive any substantial achievements in strengthening Article 4.2 (a) or (b) can be agreed by or COP-3 (December, Japan).

The other matter of worry to Maldives is the operational system of GEF or the Conventions, "financial mechanisms,": it may be years before any project can be approved by GEF, our own experience being over four years.

Further restructuring of GEFs operational methods are required, flexible transparent and helpful approach towards low-lying small islands developing States, the main stakeholders of Climate Change is absolutely essential.

As for local legislation no separate enaction in place for Climate Change. The one and only law exclusively on Environment protection is Act 4/93. This law deals with environmental guidance, environmental protection and conservation, Protected Areas and Nature Reserves, Environmental Impact Assessments, Waste Disposal, Oil and Poisonous / Hazardous or toxic substances. The Act also empowers the Ministry of Planning, Human Resources and Environment to levy fines up to US$ 10 million for infringements or to terminate at difficult co-operation any project that has an undesirable impact on the environment.

A local workshop, held in December 1996 to review the adequacy of existing laws in the country, found that many legislation's overlap responsibility between different authorities and the jargon being used unclear. Work is currently undergoing to remedy this situation in a near future.

Recent developments like the running aground of the freighter "Thomas Delmas" surfaced that no adequate legal deterrent exist to safeguard reefs. This warrants urgent attention. Existing administrative rules and regulations in the country gives some protection to the coral reefs of Maldives which is far from being complete.

Thirdly I note inadequate manpower available in the country hampers capability of Maldives and many other small island States.

Whenever a small State rectifies and feels that there are legally binding commitments for the nation to fulfil, at least two capable persons should be assigned full-time just to monitor the instrument ratified. When one employee constantly monitor recommendations and decisions and speed at various fora , the other should be left to look after projects. if any, to be implemented.

The present situation in the Maldives. and many small island nations is that a senior official having multiple daily routine of duties are assigned to work after several conventions and attend meeting in the subject area. This results in poor participation as well as unacceptable delays in implementation.

What is the cure? To constantly and generously help financially and technologically in capacity building of needy nations to train their manpower.

THE INTERNATIONAL RESPONSE TO CLIMATE CHANGE- MALDIVES INFORMATION SHEET

Climate Change was recognised as a serious problem by the First World Climate Conference in 1979.

A number of inter governmental conferences focusing on climate change were held in the late 1980's and early 1990's. The key events were the Villach Conference (October 1985), the Toronto Conference (June 1988), the Ottawa Conference (February 1989), the Tata Conference (February 1989), the Hague Conference and Declaration (March 1989), the Noordwijk Ministerial Conference (November 1989), the Cairo Compact (December 1989) and the Bergen Conference (May 1990).

The Intergovernmental Panel on Climate Change (IPCC) was established in 1988 by UNEP and WMO. IPCC released its First Assessment Report in 1990. This report confirmed the scientific evidence for climate change and enabled governments to base their policy decisions on the most up to date information available. It provided the basis for negotiations on the Climate Change Convention.

The 1990 Second World Climate Conference called for a framework treaty on climate change. The final declaration did not specify any international targets for reducing emissions but did support a number of principles later included in the Climate Change Convention.

In December 1990, the UN General Assembly approved the start of treaty negotiations. The Intergovernmental Negotiating Committee for a Framework Convention on Climate Change (INC/FCCC) met for five sessions between February 1991 and May 1992. The Convention was finalised in 15 months and was adopted in New York on 9 May 1992.

It was signed by 154 States at Rio de Janeiro and entered into force on 21 March 1994. This was 90 days after the receipt of the 50th instrument of ratification. The INC was dissolved after its 11th and final session in February 1995, and the Conference of the Parties became the Convention's ultimate authority.

The Conference of the Parties held its first session in Berlin from 28 March - 7 April 1995. In COP-1, parties agreed that the commitments contained in the Convention for developed countries were inadequate and launched the Berlin Mandate talks on additional commitments.

The IPCC adopted its Second Assessment Report in December 1995. Published in April 1996, the Second Assessment Report was written and reviewed by some 2000 scientists and. Experts and concluded that "the balance of evidence suggests that there is a discernible human influence on global climate". The IPCC will produce a series of technical papers and special reports before publishing its Third Assessment Report in 2001.

The COP-2 was held at the Palais des Nations in Geneva from 8-19 June 1996. The COP-3 will be held from 1-12 December 1997 in Kyoto, Japan. It is expected to adopt a "protocol or another legal, instrument" committing developed countries to reducing their greenhouse gas emissions after the year 2000.

THE CLIMATE CHANGE CONVENTION

The United Nations Framework Convention on Climate Change (UNFCCC) was adopted in 1992 at the Rio Earth Summit. Its ultimate objective is the "stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic (man-made) interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner."

The Convention sets out some guiding principles. The precautionary principle says that the lack of full scientific certainty should not be used as an excuse to postpone action when there is a threat of serious or irreversible damage. The principle of the common but differentiated responsibilities of States assigns the lead in combating climate change to developed countries. Other principles deals with the special needs of developing countries and the importance of promoting sustainable development.

Both developed and developing countries accept a number of general commitments. All parties will develop and submit "national communications" containing inventories of greenhouse gas emissions by source and removals by sinks. They will adopt national programmes for mitigating climate change and develop strategies for adapting to its impacts. They will also promote technology transfer and the sustainable management, conservation, and enhancement of greenhouse gas sinks and reservoirs. In addition the Parties will take climate change into account in their relevant social, economic and environmental policies; corporate in' scientific, technical and educational matters; and promote education, public awareness, and the exchange of information related to climate change.

Industrialised countries undertake several specific commitments. Most members of the Organisation for Economic Co-operation and Development (OECD) plus the States of Central and Eastern Europe - together known as Annex I Parties are committed to adopting policies and measures aimed at returning their greenhouse gas emissions to 1990 levels by the year 2000. They must also submit national communications on a regular basis detailing their climate change strategies. Several States may together adopt a joint emissions target. OECD countries should take the strongest measures, while the countries intransition to a market economy are granted a certain degree of flexibility.

The richest countries shall provide "new and additional financial resources" and facilitate technology transfer. These so-called Annex I, countries will fund the "agreed full cost" incurred by developing countries for submitting their national communications. These funds must be "new and additional" rather than redirected from existing developmental aid funds. Annex II parties will also help finance certain other Convention related projects, and they will promote and finance the transfer of, or access to, environmentally sound technologies, particularly for developing country Parties. The Convention recognises that the extent to which developing country Parties implement their commitments will depend on financial and technological assistance from the developed countries.

The supreme body of the Convention is the Conference of the Parties (COP). The COP comprises all States that have ratified the Convention (165 at end - 1996). The COP's role is to promote and review the implementation of the Convention. It will periodically review existing commitments in light of the Convention's objective, new scientific findings, and the effectiveness of national climate change programmes. The COP can adopt new commitments through amendments and protocols.

The Convention also establishes two subsidiary bodies. The Subsidiary Body for Scientific and Technological Advice (SBSTA) provides the COP with timely information and advice on scientific and technological matters relating to the Convention. The Subsidiary Body for Implementation (SBI) helps with the assessment and review of the Convention's implementation.

A financial mechanism provides funds on a grant or confessional basis. The Convention states that this mechanism shall be guided by and be accountable to the Conference of the Parties, which shall decide on its policies, programme priorities, and eligibility criteria. There should be an equitable and balanced representation of all Parties within a transparent system of governance. The operation of the financial mechanism may be entrusted to one or more international entities. The Convention assigns this role to the Global Environment Facility (GEF) on an interim basis; this status was extended by COP- 1 for four years.

AOSIS PROTOCOL

Alliance of Small Island States (AOSIS) is a group of developing countries which share common objectives on environment and sustainable development matters. The group was formed during the Second World Climate

Conference in 1990 and comprise small island and low-lying coastal developing countries which are members of island regional groupings or organisations. Members are particularly vulnerable to the adverse consequences of climate change such as sea level rise, coral bleaching and the increased frequency and intensity of tropical storms.

AOSIS has expressed the view that the current commitments of Annex I Parties are inadequate in the light of the Convention's objective and the best available scientific knowledge. Consequently, AOSIS submitted a Draft Protocol on Greenhouse Gas Emissions Reduction to the Interim Secretariat in time for consideration -and possible adoption by COP 1.

The key features of the AOSIS Draft Protocol can be summarised as follows:

- no additional commitments for developing countries;

- additional commitments for Annex I Parties to reduce emissions of carbon dioxide by the year 2005 to a level at least 20% below that attained in 1990;

- setting targets and timetables for other greenhouse gases in a phased manner to be decided by the Parties to the Protocol; and
- establishing a co-ordination mechanism to facilitate international co-operation on specific economic, administrative and other policies and measures to implement the Protocol's Objective.

AOSIS presented the Draft Protocol to the Plenary at INC 11 and requested that it be transmitted to COP 1 for consideration in the context of the COP's first review of the adequacy of the commitments.

The conclusions reached at INC 11 were not particularly supportive of adopting a protocol at COP 1 itself in that INC failed to agree that the commitments in Article 4.2 (a) and (b) were "inadequate".

COP 1 adopted the Berlin Mandate launching talks on new commitments. The Convention required the COP 1 to review whether the commitments of developed countries to take measures aimed at returning their emissions to 1990 levels by the year 200 were adequate for meeting the Convention's objective. The Parties agreed that new commitments were indeed needed for the post 2000 period.

In COP 1 a new subsidiary body, the Ad hoc Group on the Berlin Mandate (AGBM), was established to draft "a protocol or another legal instrument" for adoption at COP-3 in 1997. The Berlin Mandate process is to, consider all greenhouse gases. It is also to consider setting quantified objectives- for limiting and reducing emissions within specified time-frames such as 2005, 2010, and 2020. It is not to introduce any new commitments for developing countries.

The second session of the COP was held from 8-19 July 1996. COP-2 took stock of progress on the Berlin Mandate. Ministers stressed the need to accelerate talks on how to strengthen the Climate Convention. In their Geneva Declaration the ministers also endorsed the 1995 Second Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) "as currently the most -comprehensive and authoritative assessment of the science of climate change, its impacts and response options now available." They further stated that the Report ,"should provide a scientific basis for urgently strengthening action at the global, regional and national levels, particularly by Annex I (industrialised) countries to limit and reduce emissions of greenhouse gases."

MOST RECENT DEVELOPMENTS

The Ad Hoc Group on the Berlin Mandate (AGBM) has held six sessions. A considerable number of proposals have been received to be included in the negotiating text for a protocol or other legal instrument. In the sixth session held in Bonn from 3-7 March 1997, work was undertaken to elaborate on and streamline a negotiating text to be ready by June 1, 1997.

All parties that have proposed specific targets have supported 1990 as a baseline year from which Parties reductions will be measured.

Flat rate target proposals which will impose the same target on all industrialised Parties, currently fall into two categories, those which would establish a specific target year, and those that would establish a period of Years during which each Party would have to remain within an emissions budget.

The European Union proposes that Annex I Parties, individually or jointly, in accordance with the Berlin Mandate shall

reduce emissions levels for CO^2, CH^4 and N_2O together by 15% by 2010 (reference year 1990). The EU also agrees that an interim target for 2005 should be sent.

The United States, Australia, Japan, New Zealand have proposed Quantified Emission Limitation and Reduction Objectives (QELROs) based on a system of budgets. There are many risks and unknowns associated with the budget proposals.

The G 77 and China adopted a position that called for the establishment of a concrete compensation mechanism for damage to developing counties (OPEC countries) arising from the implementation of response measures by developed countries. This proposal is supported by Kuwait, Nigeria, Iran and Saudi Arabia. Many believe that this controversial proposal could become the major obstacle in adopting a protocol in Kyoto.

THE UNPRECEDENTED STORMS OCCURRING MALDIVES 27th MAY TO 9th JUNE 1991

SALIENT FEATURES

Meteorological

Highest wind- 167 km/h
Lowest Pressure- 997.3 hPa(3 hPa in one hour)
Temperature drop- 4 °C in 30 minutes.

Human Dimensions

---3,300 dwellings
---250 public buildings
---20 boat yards
--- 36,000 people affected in homes or businesses
--- 190,000 trees uprooted or damaged
--- Fishing industry disrupted
--- Operation of International Airport suspended for a few days.
--- No Deaths

4.4 ANALYSIS OF QUESTIONNAIRE

FRAMEWORK CONVENTION ON CLIMATE CHANGE

GENERAL and RESOURCES TO BE MANAGED

1

When did you ratify the Climate Change Convention ? Or what are the steps you are taking to determine whether to ratify?

BHUTAN	BANGLADESH	INDIA	MALDIVES	NEPAL	SRI LANKA
8/95	2/94	11/93	1992	5/94	11/93

2. Does your Government have a national policy on climate change?

BHUTAN	BANGL	INDIA	MALD	NEPAL	SRI LANKA
no	No, but has Environment Policy 1992	existing policy is sufficient	yes	no, but laboratories and data bank	in process

3&4

How important are climate change issues to your country? High priority, low priority, irrelevant

BHUTAN	BANGLADESH	INDIA	MALDIVES	NEPAL	SRI LANKA
high	high	is a common concern of mankind	high	low	high

5

Of the following resources that need to be managed under the Convention, which are applicable to your country and what is the extent of the threat posed by each(give statistics where possible)?

Carbon Dioxide-a) electricity generated by fossil fuels b) transportation (motor vehicle emissions) c) Industry plant emissions (cement plants oil refineries)

BHU	BANGLADESH	INDIA	MALD	NEPAL	SRI LANKA
a)-c)	a)-405,000t oil/y b)-63,000t oil/y c)-1275,000t oil/y 1990-13443000t from fossil fuels	yes		a)-c) yes	a)643 Gg/92 b) 2345Gag/92 c) 561 Gag/92

Methane-a) Coal mining b) livestock c) rice paddies d) biomass burning e) landfills f) Human and animal waste g) leakage of natural gas

BHUT	BANGLADESH	INDIA	MALD	NEPAL	SRI LANKA
a)-f)	b) 520 Gg/y c) 457 Gg/y d) 189,000t e)73.5 Gg/y g) 6 Gg/y	yes, 2.5-6tg/y	-	b)-f) yes	b) 100Gg/92 c) 500Gg/92 d) 16Gg/92 e) 12Gg/92 f) 10Gg/92

Forests/Oceans- for Enhancement of sinks a) What is the percentage of forest/Ocean cover?

b) Is there a policy for the sustainable management of forests/oceanic use and coastal protection in your country, that incorporates climate change concerns?

BHUTAN	BANGLADESH	INDIA	MALDIVES	NEPAL	SRI LANKA
72.5%forest, yes, Paro Resolution, NEStrategy & Trust Fund	a) Forest 17% b) yes Forest Dept a) oceans42% b)NEMAPlan suggests policy needed	yes	98% ocean, yes	Forest 37.4%, yes have policy	22% forest, Forest Sector Master Plan 96 not include CC, Coastal Management Plan includes CC

6

Of the developed countries listed in Annex I or II of the Convention, which have provided financial or technological assistance to your country? Describe the nature of the assistance.

BHUTAN	BANGL	INDIA	MALD	NEPAL	SRI LANKA
Netherlands on hydropower	USA finances for GHG Emission, CC Country Study, 1994-96	USEPA estimated methane. GEF project	GEF project	USA Country Study. Germany-monitoring programme. Denmark, USA,UK,Australia,Japan, Finland, Netherlands and Germany on Community Forestry with focus on manpower development.	USA,$174,000 Country Study for GHG Communication

7.

What activities has your government initiated since becoming a party to the Convention?

BHUTAN	BANGLADESH	INDIA	MALD	NEPAL	SRI LANKA
National CC Committee in NEC	IPCC Study 1991-94 on vulnerability to sea-level rise; USA study; and Study on Asia Least Cost GHG Abatement Strategy	MOEF and ADB CC study, Methane Project with 15 agencies	SAARC, SACEP	HMG has launched a)air quality monitoring b) water quality monitoring c) pollution prevention demonstration project in BID d) Industrial Pollution Control	USA Study on Public Awareness Programmes, lectures and through Media

8.

Are there any **regional** initiatives to address the issues of climate change?

Bhutan - Yes in preservation of forest cover.

Bangladesh/ Sri Lanka- Yes SAARC Regional Study on GH Effect and Impact on region but no progress due to lack of funds.

EXISTING ARRANGEMENTS FOR IMPLEMENTATION of CONVENTION

9.

What government department or Agency has the lead role with regard to climate change issues?

BHUTAN	BANGL	INDIA	MALDIVES	NEPAL	SRI LANKA
NEComm	DOE under MEF	MOEF	MPHRE	EPCouncil under PM. MOPE is secretariat of EPC	Environment Division,MTEWA

10. Which other government departments or Agencies are involved in addition to the lead agency?

BHUTAN	BANGL	INDIA	MALD	NEPAL	SRI LANKA
Forestry Services Div & Trade and Industry Div	Meteor-ology	S&T, Coal , Power, Industry	Meteor-ology	MOPE, Mof Industry, MOST, MOForest, M ofWater Supplies, M Works/Transport, Dwater/Soil Conserv, DNPWC, Meteorology, Environment Sanitation Section(Health), Env Management Unit(Roads), Env Section(Migration), Urban Env Unit(Housing/Planning), D Env (Water and Energy Comm), D of Archeology	Meteor-ology

11& 12. Has a body been established at the national level to coordinate climate change matters among the different governmental bodies?Describe the institutions existing at the national regional and local levels for addressing climate change related laws and regulations.

BHUTAN	BANGLADESH	INDIA	MALDIVES	NEPAL	SRI LANKA
NEC-national	National Steering Committee formed, also DOF, Energy Monitoring Cell	IMG:Inter-Ministerial Gp, Specific Scientific Advisory Gps established	National Council Protection & Conservation of Env't and Env Research Unit	EPC and MOPE at National Level	Interministerial Coordinating Committee on CC since 1992, regular meetings

13 For the following obligations under the Convention (Article 4), describe the legal (regulations, laws, decrees), institutional (ie interagency committees, national, provincial or local procedures) and/or administrative (guidelines, orders, directives) arrangements that exist in your country

National Climate Change Action Plan.

a) legal provisions requiring an Action Plan b) institutional c) administrative d) has this Plan been developed in harmony (integrated) with other development, national policy and private sector plans? How?

BHUTAN	BANGLADESH	INDIA	MALDIVES	NEPAL	SRI LANKA
none	not developed yet	existing Policy sufficient	-	b) EPC to prepare	4 cross sectoral Working Gps examining

Greenhouse Gas Emission Inventories

a) legal provisions requiring preparation of Inventories b) institutional (which public and private sector organisations are involved in preparation of the Inventories) c) administrative

BHUTAN	BANGLADESH	INDIA	MALDIVES	NEPAL	SRI LANKA
in process	no legal provision c) DOE study with4 other agencies (BCAS,BIDS,BUPB UET)	yes, see Q7, Methane Project in Phase II	-	in progress	2 consultants from Uni, for MTEWA. To involve concerned organisations.

Mitigation Studies (programmes to abate and adapt to climate change)

a) legal b) institutional c) administrative d) Are any economic incentives in place to promote use of alternative technology, greater energy efficiency (tradeable emission permits, domestic waste collection charges, carbon taxes or international carbon offsets with developed countries, grants/loans/subsidies)

BHUTAN	BANGL	INDIA	MALDIVES	NEPAL	SRI LANKA
in process	-	yes, GHG Reduction Study with ADB	a) & c) Restrict coral & sand mining in blg	a)Vehicles Transport and Managment Act 1993-quality standards b)Dof Transport Mge't for traffic and MOPE coordinates c)Traffic Police for emission control	c) Project to USA for "Activities Implement Jointly" Programme d) have Energy Conservation Fund

Protection of Sinks and Reservoirs (Oceans and Forests)

a) legal b) institutional c) administrative

BHUTAN	BANGLADESH	INDIA	MALDIVES	NEPAL	S L
yes	Coast Guard Act, Forest Act, DOF research institute responsible	yes	a) & b)	a) Forest Act 93 Forest Regs 95 b)District Forest Officers c)District Unit of Police, Army and Community to take action	none

Impact Assessment and Adaptation to Impacts of Climate Change

a) legal provisions to carry out Impact Assessments b) institutional c) administrative

BHUTAN	BANGLADESH	INDIA	MALDIVES	NEPAL	SRI LANKA
in process	none	yes	EPAct 4/93, Env Research Unit	-	-

National Communications to the Conference of the Parties(COP)

a) legal b) institutional (who prepares the Communication,who collects data, how is it collected and is it compared with industry, agriculture, transport and NGO data) c) administrative d) at what stage is the preparation of this Communication in your country

BHUTAN	BANGLADESH	INDIA	MALDIVES	NEPAL	SRI LANKA
in process	Env Conserv Act 95 DOE responsible	-	b) climatic network-records water levels	a) Working Party of MOPE b)c)Env Policy and Evaluation Section in MPOE compiles d) initial stage	MTEWA prepares . Inventory 1990-92 completed

Promotion of scientific, technological, technical and socio-economic research

a) legal b) institutional c) administrative d) regional cooperation

BHUTAN	BANGL	INDIA	MALDIVES	NEPAL	SRI LANKA
N/A	none	-	a)-d)	-	b)Universities, Research Institutes in Plantations under own budget

Promotion of full, open and prompt exchange of information

a) legal (freedom of information legislation etc) b) institutional c) administrative d) regional cooperation(if any)

BHUTAN	BANGL	INDIA	MALD	NEPAL	SRI LANKA
N/A	yes, voluntary exchange	-	-	a) Constitution guarantees FOI b)MOPE & MoCommunication d)project for international cooperation being formulated	c)in process

Promotion of education, training and public awareness

a) legal b) institutional arrangements including involvement of media,schools, military etc c) administrative

BHUTAN	BANGLADESH	INDIA	MALDIVES	NEPAL	SRI LANKA
in process	Schools, colleges NGOs and various news media	-	Slogan used "Environment Preservation Everybody's Responsibility	b) school curriculum " revised and mass media c)MOPE coord	in process

Enforcement of Standards to reduce emissions or mitigate climate change

a) legal b) institutional c) administrative.

BHUTAN	BANGL	INDIA	MALDIVES	NEPAL	SRI LANKA
in process	none	-	Fines US$10-10million	N/A	a) Industry and Power Sector Emission Standards gazetted

14 Of the existing laws in your country that relate to climate change, has there been any effort to collate, review and update those laws to bring them in line with commitments under the Convention?

BHUTAN	BANGLADESH	INDIA	MALDIVES	NEPAL	SRI LANKA
Forest Act 1969 and new act of NEC due in 1998	none	Provision for review of Policy instruments exists	yes	yes, laws adapted in line with FCCC	no laws relate to CC

STRENGTHENING EXISTING ARRANGEMENTS

15-17. What are the major problems /barriers to the effective implementation of the Convention? Which do you feel takes priority in the need for strengthening, in order to make implementation more effective in your country?Why?

BHUTAN	BANGLADESH	INDIA	MALDIVES	NEPAL	SRI LANKA
accurate data and institutional structure	financial resources and technology transfer both are a priority	Technology tranfer and fiunding from Developed Countries/GEF	Technology transfer and new funding	technical support, then manpower development and funding	Funding and lack of info/ technology for enabling activities

18. List the steps that you would need to take in order to strengthen the existing arrangement. What would be the methods to achieve this goal?

BHUTAN	BANGLADESH	INDIA	MALD	NEPAL	SRI LANKA
N/A yet	bilateral and multilateral finacial assistance to be made available Training of existing manpower and recruit more skilled personnel	Transparancy of decision making, prepare inventories, exchange info, sinks,planning process to include in 5Yr Plans ands Sectors, mitigation measures,data archives and promote education	-	a) study need for reform, b)develop alternatives c) prepare action plan d) find resources e) implement	-

19. Would you consider the laws and regulations in your country effective in addressing the problems of climate change? If not, what can be done to make the laws effective?

BHUTAN	BANGLADESH	INDIA	MALDIVES	NEPAL	SRI LANKA
yes	no, need new laws	yes	-	no	yes but not implemented

20. Generally, how can institutional arrangements be strengthened in your country to make implementation of the Convention more effective and enhance the integration of relevant sectors (agriculture, industry, mining, transport, forestry, consumers of energy, education, NGOs)

BHUTAN	BANGLADESH	INDIA	MALDIVES	NEPAL	SRI LANKA
provision for data collection	training /education of existing staff, financial resources through ODA, technology transfer	through MOEF	develop manpower	Inclusion of sectoral agencies and NGOs into Env Protection Council for coordination and policy feedback	Funding for training of officers and obtaining facilities

21. What do you consider to be the greatest contribution your country can make to the implementation of the Climate Change Convention and how can this be achieved?

BHUTAN	BANGLADESH	INDIA	MALDIVES	NEPAL	SRI LANKA
carbon trading	Increasing GH sinks, preserving forests, using renewable energy sources	Having Sustainable Development policies and low GHG levels		-	Developing relevant Policies, use of Hydroelectric power, extend thermal power and emission trading in EIG projects

5 OZONE REGIME

5.1 TECHNICAL PRESENTATION

THE IMPLICATIONS OF BECOMING OR NOT BECOMING A PARTY TO THE VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER AND THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEPLETE THE OZONE LAYER

Mr K. M. Sarma, Executive Secretary, Secretariat for the Vienna Convention and its Montreal Protocol (The Ozone Secretariat)

CONTENTS

1. INTRODUCTION

1. This paper has been prepared to assist the countries that have not yet become Parties to the Vienna Convention for the Protection of the Ozone Layer and/or the Montreal Protocol on Substances that Deplete the Ozone Layer in assessing the implications of becoming Parties.

2. The paper outlines the main provisions of the Vienna Convention and the Montreal Protocol and it describes the practical and moral implications of becoming or not becoming a Party to the two legal instruments. The main obligations and benefits of being a Party and the consequences of not being one are explained. The paper also includes brief summary notes on the main issues that a country could consider in becoming a Party, including notes on a survey that the country may wish to conduct in order to ascertain its position as a Party.

2. BRIEF BACKGROUND

Early efforts in protecting the ozone layer (overhead)

-Stockholm Conference on Human Environment and UNEP since its birth in 1972, concerned with the issue of ozone layer depletion.

-Scientific theories, on ozone depletion in the 70's

-Initially threats perceived from Supersonic Aircraft space flights and Nitrous oxides from fertilisers.

-In 1973, Rowland and Molina link CFC's with ozone depletion which grasps public imagination

-International Conference of Experts and World Plan of Action in 1977 UNEP sets up Co-ordinating Committee on Ozone Layer (CCOL)

-Phase-out of CFC's in aerosols by USA in 1977 and similar bans by Canada, Norway and Sweden

-Slackening attention thereafter

-However, continuing action by UNEP:

- -Continuous assessment by CCOL
- -Establishment of working group on a framework convention in 1981, resulting in the Vienna Convention for the Protection of the Ozone Layer

3. As concerns over the depletion of the ozone layer mounted during the mid-seventies, UNEP was asked to co-ordinate a World Plan of Action. A Co-ordinating Committee on the Ozone Layer (CCOL), consisting of representatives of Governments, organisations and chemical manufacturers, was established to assist in the tank. Several studies and assessments were carried out after 1977 and these formed the basin for the Convention for the Protection of the Ozone Layer, which was adopted in Vienna in 1985. After two more years of intensive negotiations, efforts to protect the ozone layer took a vital step forward with the adoption of the Protocol on Substances that Deplete the Ozone Layer in Montreal in September 1987.

4. The Vienna Convention entered into force on 22 September 1988 and the Montreal Protocol on 1 January 1989. The First Meeting of the Conference of the Parties to the Vienna Convention and the First Meeting of the Parties to the Montreal Protocol were held in Helsinki from 26 to 28 April 1989 and 2 to 5 May 1989, respectively. The Second Meeting of the Parties to the Montreal Protocol was held in London from 27 to 29 June 1990. At this Meeting, the Parties adopted the adjustments and the Amendment to the Montreal Protocol. The adjustments strengthen the control measures (Article 2), requiring the Parties to phase out the production and the consumption of the five CFC's and the three halons listed in Annex A of the Protocol by the year 2000. The Fourth Meeting of the Parties in 1992 in Copenhagen further adjusted this phase-out schedule to phase out halons by the end of 1993 and CFC's by the end of 1995. The adjustments are binding on all the Parties.

5. The London Amendment to the Montreal Protocol includes the control of ten other CFC's, carbon tetrachloride and methyl chloroform. The Copenhagen adjustment of the London Amendment provides for the production and consumption of these substances to be phased out by the end of 1995. The London Amendment also includes a strengthened provision on the transfer of technology and a financial mechanism that will facilitate the necessary transfer of technology and enable developing countries to comply with the Protocol. The Copenhagen Amendment included hydrochlorofluorocarbons (HCFC's), hydrobromoflourocarbons (HBFC's) and methyl bromide in the list of controlled substances. HCFCs are to be gradually phased out by the year 2030 and HBFC's by 1996 and the consumption of methyl bromide is to be frozen by 1995.

6. To date, 136 States and the EEC are Parties to the Vienna Convention and 133 States and the EEC are Parties to the Montreal Protocol. The London Amendment to the Montreal Protocol has been ratified by 86 Parties while the

Copenhagen Amendment to the Protocol has been ratified by 24 Parties.

3. THE VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER

7. The Vienna Convention for the Protection of the Ozone Layer contains 21 articles and 2 annexes, by which the Parties are obligated to protect human health and the environment from the effects of the depletion of the ozone layer and to participate in research, observation and information exchange.

The main provisions

8. The obligations of the Parties are explained below under the relevant provisions of the Convention:

(a) Article 2. General obligations

9. This article states the ultimate objective of the Convention to protect human health and the environment against adverse effects resulting from human activities which modify or are likely to modify the ozone layer and urges the Parties to take appropriate measures in accordance with the provisions in the Convention and its Protocols which are in force for that Party.

10. To achieve these objectives, the Parties, within their capabilities, are expected to: (i) co-operate to better understand and assess the effects of human activities on the ozone layer and the effects of the modification of the ozone layer; (ii) adopt appropriate measures and co-operate in harmonising appropriate policies to control the activities that are causing the modification of the ozone layer; (iii) co-operate in the formulation of agreed measures for the implementation of this Convention; and (iv) co-operate with competent international bodies to implement effectively this Convention and protocols to which they are party.

(b) Article 3. Research and systematic observations

11. Under this article, the Parties should initiate or co-operate in research and scientific assessments on: (i) physical and chemical processes that may affect the ozone layer; (ii) effects on human health and other biological effects of the modification of the ozone layer, particularly changes in ultra-violet solar radiation having biological effects (UV-B); (iii) climatic effects of modification of the ozone layer; (iv) substances, practices, processes and activities that may affect the ozone layer, and their cumulative effects; (v) alternative substances and technologies; and (vi) related socio-economic matters (as further elaborated in annexes I and II).

12. The Parties should also undertake to promote or establish programmes for systematic observation of the ozone layer and other relevant parameters (as elaborated in Annex I of the Convention).

13. The Parties must also co-operate in ensuring the collection, validation and transmission of research and observational data through appropriate world data centres in a regular and timely fashion.

(c) Article 4. Co-operation in the legal scientific and technical fields

This article urges the Parties to facilitate and encourage the exchange of scientific, technical, socio-economic, commercial and legal information relevant to this Convention (as elaborated in Annex II of the Convention).

The Parties shall co-operate in promoting the development and transfer of technologies and knowledge, taking into account in particular the needs of developing countries, through: (i) facilitation of the acquisition of alternative technologies by other Parties; (ii) provision of the necessary information on such technologies; (iii) the supply of necessary equipment and facilities for research and systematic observations; and (iv) training of scientific and technical personnel.

(d) Article 5. Transmission of information

16. Under this article, information on the measures adopted in implementing the Convention and protocols should be transmitted to the Conference of the Parties through the secretariat.

(e) Article 11. Settlement of disputes

17. The first step in resolving a dispute between Parties concerning interpretation or application of the Convention is to seek solution by negotiation between the Parties concerned. If an agreement by negotiation cannot be reached, the Parties concerned may jointly seek mediation of a third Party. If the dispute is still not resolved, then either one or both of the following means will be used: (i) arbitration in accordance with the procedure adopted by the Conference of the Parties at its First Meeting, as required by paragraph 3 (a) of this article; (ii) submission to the International Court of Justice. When ratifying, accepting, approving or acceding to the Convention (or anytime thereafter), a State may declare in writing to the Depository, that it accepts one or both of the means of dispute settlement. If the Parties concerned have not agreed to use the same or any procedure, the dispute may be settled by conciliation, whereby a conciliation commission will be created to

render a final and recommendatory award.

4. THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEPLETE THE OZONE LAYER

18. The Montreal Protocol on Substances that Deplete the Ozone Layer is a protocol under the Vienna Convention. The Protocol controls the production and consumption of the most commercially and environmentally significant ozone-depleting substances - the substances listed in the Annexes to the Protocol. One feature of the Montreal Protocol which makes it unique is Article 6, which requires the control measures to be revised at least every four years (starting in 1990), based on the review and assessment of latest available-information on scientific, environmental, technical and economic aspects of the depletion of the ozone layer.

19. Based on the reports of assessment panels appointed by the Parties and taking into consideration the needs and situation of the developing countries, the Protocol has already been adjusted and amended twice.

The main provisions

20. The main provisions of the Protocol and the obligations of the Parties are explained below:

Definitions (Article 1) (overhead)		
1.	"Controlled Substances"	Substances in Annex A or Annex B
2.	"Calculated level"	The figure for each substance in a group must be multiplied by its Ozone Depletion Potential Specified in the Protocol. The resulting figures must be added for each group to give the calculated level.
3.	Consumption	Production + imports – exports
4.	Production	Amounts produced -amounts destroyed by Technologies approved by the Parties. A Technical Committee now assessing such technologies. The amount used as feedstock to make other chemicalsis deducted. The amount recycled and re-used is not production.

Montreal Protocol (1987), Adjusted and Amended. 1990, 1992, 1995 (overhead)

-Scientific confirmation of ozone depletion:

-1985 British Antarctic Survey publishes its observations since 1982 which reveal "the ozone hole" over Antarctic

-Satellite data from USA confirms the findings

-Negotiations for protocol with control measures begin in 1985 and continue until 1987

-Protocol's overall purpose: To phase-out ODS consumption and production

-Parties to phase-out consumption and production of specified ODS in stages by 2000 (Article 2)

-Developing countries with controlled-substances consumption less than 0.3 kg per capita may delay compliance with control measures by 10 years (Article 5)

-Trade with non-parties restricted (Article 4)

-Assessment of the adequacy of the measures for,the protection of the ozone layer and adjustment and amendment of the Protocol (Article 6)

-Reporting. (Article 7)

-Non-compliance (Article 8)

-Parties to co-operate in research, development and exchange of information (Article 9)

-Financial mechanism to assist developing countries (Article 10)

-Technology Transfer (Article 10A)

-Protocol adjusted and amended in 1990, 1992 and 1995 after assessments in 1989, 1991 and 1994.

(a) Articles 2A and 2B - CFCs and halons (control measures)

21. The Protocol controls five CFCs and three halons (listed in Annex A of the Protocol), which have a high ozone-depleting potential and are commercially significant. The Parties are required to phase out the consumption and production of CFCs and halons according to the following schedule:

CFCs:	Freeze at 1986 level from 1 July 1989 Reduction by 75 % by 1994 Total phase-out by 1996
Halons:	Freeze at 1986 level from 1 January 1992 Total phase-out by 1994

Any year denotes 1 January of that year.

22. The Parties included a provision to permit production or consumption for essential uses to be approved by Meetings of the Parties. The Parties at their Fifth Meeting held in Bangkok in November 1993, decided that no production or consumption of halons is necessary for 1994.

(b) Articles 2C, 2D and 2E - Other fully halogenated CFC's, carbon tetrachloride and methyl chloroform (control measures)

Other CFC's:	Reduction by 20 % of 1989 level by 1993 Reduction by 75 % by 1994 Total phase-out by 1996
Carbon tetrachloride:	Reduction by 85 % of 1989 level by 1995 Total phase-out by 1996
Methyl chloroform:	Freeze at 1989 level by 1993 Reduction by 50 % by 1994 Total phase-out by 1996

(c) Article 2F - Hydrochlorofluorocarbons (HCFC's)

23. The Parties are requested to phase out consumption of HCFC's according to the following schedule:

Freeze by 1996
Reduction by 35% by 2004
Reduction by 65% by 2010
Reduction by 90% by 2015
Reduction by 99.5% by 2020
Reduction by 100% by 2030.

(d) Article 2G - Hydrobromofluorocarbons (HBFC's)

24. HBFCs	100% phase-out by 1996

(e) Article 2H - Methyl bromide

25. Methyl bromide	Freeze in consumption by 1995.

Exemption for quarantine and pre-shipment applications.

26. A ten per cent increase in production for each reduction step and fifteen per cent for the final step of total phase-out are allowed for the purpose of satisfying the basic domestic needs of the Parties operating under paragraph 1 of Article 5 of the Protocol.

SUMMARY OF CONTROL MEASURES UNDER THE MONTREAL PROTOCOL

Note: An Article 5(1) Party is a party classified at a meeting of the parties as a developing country and whose annual per capita consumption of Annex A and Annex B substances are below the limits set in Article 5 of the Montreal Protocol.

Annex A - Group I : Chlorofluorocarbons (CFC-11, CFC-12, CFC-113, CFC-114 and CFC-115)

Applicable to production and consumption

Non-Article 5(1) Parties	Article 5(1) Parties
Base level: 1986	Base level: Average of 1995-97

Freeze: July 1, 1989, and 10 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1)

75 percent:reduction January 1, 1994, and 10 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

100 percent:reduction January 1, 1996 (with possible exemptions for essential uses), and 15 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

Freeze: July 1, 1999 and 10 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

50 percent:reduction January 1, 2005, and 10 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

85 percent:reduction January 1, 2007 and 10 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

100 percent reduction January 1, 2010 (with possible exemptions for essential uses) and 15 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

Annex A - Group II : Halons (halon 1211, halon 1301 and halon 2402)
Applicable to production and consumption

Non-Article 5(1) Parties
Base level: 1986

Freeze: January 1, 1992 and 10 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

100 percent:reduction January 1, 1994 (with possible exemptions for essential uses), and 15 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

Article 5(1) Parties
Base level: Average of 1995-97

Freeze: January 1, 2002 and 10 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

50 percent:reduction January 1, 2005, and 10 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

100 percent:reduction January 1, 2010 (with possible exemptions for essential uses) and 15 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

Annex B - Group I : Other fully alogenated FCs (CFC-13, CFC-111, CFC-112, CFC-211, CFC-212, CFC-213, CFC-214, CFC-215, CFC-216, CFC-217)
Applicable to production and consumption

Non-Article 5(1) Parties
Base level: 1989

Article 5(1) Parties
Base level: Average of 1998-2000

20 percen: reduction January 1, 1993 and 10 percent of base reduction level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

75 percent: reduction January 1, 1994 and 10 percent ofbase level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

100 percent: reduction January 1, 1996 (with possible exemptions for essential uses), and15 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

20 percent: reduction January 1, 2003, and 10 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

85 percent: reduction January 1, 2007 10 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

100 percent: reduction January 1, 2010 (with possible exemptions for essential uses), and 15 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

Annex B - Group II : Carbon tetrachloride

Applicable to production and consumption

Non-Article 5(1) Parties
Base level: 1989

85 percent: reduction January 1, 1995 and 10 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

100 percent: reduction January 1, 1996 (with possible exemptions for essential uses), and 15 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

Article 5(1) Parties
Base level: Average of 1998-2000

85 percent: reduction January 1, 2005 and 10 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

100 percent: reduction January 1, 2010 (with possible exemptions for essential uses), and 15 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

Annex B - Group III : 1,1,1-trichloroethane (methyl chloroform)

Applicable to production and consumption

Non-Article 5(1) Parties
Base level: 1989

Freeze: January 1, 1993 and 10 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

50 percent: reduction January 1, 1994 and 10 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

100 percent: reduction January 1, 1996 (with possible exemptions for essential uses), and 15 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

Article 5(1) Parties
Base level: Average of 1998-2000

Freeze: January 1, 2003 and 10 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

30 percent: reduction January 1, 2005 and 10 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

70 percent: reduction January 1, 2010 and 10 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

100 percent: reduction January 1, 2015 (with possible exemptions for essential uses), and 15 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

Annex C - Group I : HCFC's
Applicable only to consumption

Non-Article 5(1) Parties
Base level: 1989 HCFC consumption + 2.8percent of 1989 CFC consumption
Freeze: 1996.
35 percent:reduction January 1, 2004.
65 percent:reduction January 1, 2010.
90 percent:reduction January 1, 2015.
90.5 percent:reduction January 1, 2020, and thereafter, consumption restricted to the servicing of refrigeration and air-conditioning equipment existing at that date.

100 percent:reduction January 1, 2030.

Article 5(1) Parties
Base level: 2015 consumption

Freeze: January 1, 2016
100 percent:reduction January 1, 2040.

Annex C - Group II : HBFCs
Applicable to production and consumption

Non-Article 5(1) Parties
100 percent: reduction January 1, 1996
(with possible exemptions for essential uses)

Article 5(1) Parties
100 percent: reduction January 1, 1996
(with possible exemptions for essential uses)

Annex E : Methyl bromide
Applicable to production and consumption, amounts used for quarantine and preshipment applications exempted.

Non-Article 5(1) Parties
Base level: 1991

Freeze: January 1, 1995 and 10 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

25 percent: reduction January 1, 2001 and 10 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

50 percent: reduction January 1, 2005 and 10 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

100 percent: reduction January 1, 2010 with possible critical agricultural use exemptions and 15 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

Article 5(1) Parties
Base level: Average of 1995-98

Freeze: January 1, 2002 and 10 percent of base level production allowed to be produced additionally to meet the basic domestic needs of parties operating under Article 5(1).

(f) Article 3. Calculation of control levels

27. The control measures are based on calculated levels, of production and consumption for each group of substances (Group I - CFC's, Group II halons, etc.). Consumption is defined as production plus import minus export.

28. The calculated level of production of a controlled substance is the actual amount multiplied by the ozone depleting potential (ODP) specified in Annex I of the Protocol for the substance. The total calculated production is the sum of the calculated production of each substance. Consumption is defined as production plus import minus export. The calculated level of import, export and consumption for a substance is determined in the same way as for calculated level of production, i.e. multiplied by the corresponding ODP.

(g) Article 5. Special situation of developing countries

29. As defined under this Article, if a country belongs to the list of developing countries adopted by the Parties for the purposes of this Protocol and has a calculated per capita consumption of the controlled substances of below 0.3 kg for substances in Annex A and below 0.2 kg for substances in Annex B, the country can delay its compliance with the control measures by 10 years. However, such countries must stay below 0.3 kg and 0.2 kg per capita consumption respectively in order to be eligible for the grace period. It must be noted that the ten year delay in complying with the control measures is only for the purpose of satisfying basic domestic needs: i.e. expansion of production of controlled substances and products containing controlled substances for the purpose of exports is not allowed.

30. This Article also requires the Parties to undertake to facilitate access to environmentally safe alternative substances and technology for Parties that are developing countries and, bilaterally or multilaterally, to facilitate the provision of subsidies, aid, credits, guarantees or insurance programmes for this purpose.

31. Under Article 5, any Party operating under paragraph 1 of the Article can submit a notification to the Secretariat if, after having taken all practicable steps, it is unable to comply with the control measures due to inadequate implementation of the provisions on the transfer of technologies and the financial mechanism. The Parties will consider these notifications at their Meetings and will decide on appropriate action to be taken. During the period between the submission of notification and the decision on appropriate action, the non-compliance procedure will not be invoked against the Party concerned. Furthermore, there is a provision that allows revisions of the control measures applicable to the Parties operating under this Article, taking into account the effectiveness of the implementation of financial co-operation and transfer of technology.

Provisions regarding control of Trade with non-parties (Article 4) (overhead)
1. From 1 January 1990 Parties cannot import controlled substances from non-parties.
2. From 1 January 1990 Parties cannot export controlled substances to non-parties.
3. The Parties approved in their meeting of June 1990, a list of products containing controlled substances as an Annex to the Protocol. The Parties shall ban the import of these products from non-parties.
4. Parties discourage the export to non-parties of technology for producing and for using controlled substances.
5. No subsidies, aid, credits, etc. for export to non-parties of products equipment, plants or technology that would facilitate the production of controlled substances.

Article 5 of the Protocol for Developing Countries (overhead)	
1	Grace period of ten years only for Parties recognised as developing by the Parties to the Protocol. (List finalised by the first meeting of the Parties. Turkey added by Third Meeting, Georgia by the Eighth Meeting).
2	Annual calculated level of consumption of the controlled substances in Annex A must be less than 0.3 kg per capita, (and 0.2 kg per capita for substances of Annex B) on the date of the entry into force of the Protocol for the country or as any time thereafter till 1 January 1990.
3	Such developing countries can delay their compliance for ten years (beyond the time schedules for countries not operating under Article 5). But now, the time table fixed according to groups of substances.
4	The base figure for substances under Annex A is 0.3 kg or average consumption from 1995 to 1997 whichever is lower.
5	The base pure for substances under Annex B is 0.2 kg or average consumption from 1998 to 2000, whichever is lower.
6	If the country is unable to implement the Protocol due to inadequate provision of technical and financial assistance provided in the Protocol it can report so to the Parties, who will take appropriate action. Till the appropriate action is decided, the non-compliance procedure under Article 8 of the Protocol will not be pursued.

(h) Article 7. Reporting of data

32. This Article provides for reporting of statistical data on production, imports and exports of each substance controlled under the Protocol for the base year 1986 and annually, beginning in the year during which the Protocol entered into force for the country. For the base year, the Parties can report best estimates where actual data are not available. The annual data on exports should be split into exports to Parties and to non-parties.

33. The data are reported to the Secretariat. The data must be reported by each Party within three months of becoming a Party, and annual data not later than nine months after the year to which the data relate. The Protocol enters into force for

a country on the ninetieth day following the date of deposit of its instrument of ratification, acceptance, approval of the Protocol or accession thereto.

Legislative basis for reporting	Information to be provided
1. Article 2, paragraph 5, 5 bis, 6 and 7	Transfer or addition of production (as and when it occurs)
2. Article 7	Baseline 1986 data on production, imports and exports for Annex A substances
	Baseline 1989 data on production, imports and exports for Annex B and C substances
	Baseline 1991 data on production, imports and exports for Annex E substances
	Annual production data for Annex A, B and C substances, and data on feed stocks, destroyed,imports from and exports to Parties and non-Parties
	Annual imports and exports of substances in Group II of Annex A and Group I of Annex C that have been recycles
3. Article 9	Every two years, summary of activities pursuant to Article 9 (promoting research, development and exchange of information regarding best technologies, possible alternatives, and costs and benefits of relevant control strategies)
4. Decision VII/30	Annual report on imports of controlled substances to be used as feedstocks
5. Decision IV/II (3) (b)	Annual report on actual quantities of ozone-depleting substances destroyed calculated on the basis of destruction efficiency of the facility employed
6. Decision IV/24	Annual report on import and export of recycled and used controlled substances
7. Decision VI/19(4)	Annual report of reclamation facilities and their capacities
8. Decision VII/9(4)	Annual list of types, quantities and destinations of exports of ozone-depleting substances
9. Decision VI/9(3), Annex II paragraph 4	Annual report on purity, quantity, application specific test standard or procedu. - equiring its uses, and status of efforts to eliminate its use in each application. Report to include copies of published instructions, standards, specifications and regulations requiring the use of the controlled substance
10. Decision V/15	Information relevant to international halon bank management to the UNEP Industry and Environment Centre
11. Decisions V/2591),VI/14A(a)	Parties operating under Article 5 to furnish,letter specifying the 1 volume of substance required from a supplying country to meet basic domestic needs
12. Decisions V/25(2),VI/14A(b)	Parties supplying ODS to provide to the Secretariat a summary of requests received from Article 5(1) Parties for exports to meet their basic domestic needs
13. Decision VII/32	Report on actions to adopt legislative and administrative measures, including labelling of products and equipment, to regulate the export and import of products and equipment containing substances listed in Annexes A and B and of technology used in manufacturing of such products and equipment - in order to avert the adverse impact of obsolete products/equipment
14. Decision VIII/9(9), Annex IV	Parties that have had their essential use exemption granted for previous years to submit their report in the approved format by 31 January of each year.

Possible Solutions for Reporting Problems (overhead)

-Some Parties reporting difficulties about reporting.

-Import control with customs regulations.

-Adoption of codes for the substances and mixtures by each Party as a sub-system of the Harmonised Commodity System.

-Legislation on reporting of data by importers.

-A periodical special survey of user industries.

-All country studies must begin by collection of data required by the format.

(i) Article 4. Control of Trade with non-Parties

34. Trade with non-parties in controlled substances and products containing or manufactured with controlled substances is subject to the following schedule;

- By 1 January 1990, the Parties are required to ban the import of controlled substances from any non-party countries;
- By 1 January 1992, the Parties should adopt a list of products containing controlled substances as a new annex to the Protocol. The Parties that do not object to the annex must ban the import of the products listed under the annex from non-parties;
- By 1 January 1994, the Parties should determine the feasibility of banning or restricting the import of products made with but not containing controlled substances in Annex A from non-parties. If determined feasible, the Parties should adopt an annex listing such products. The Parties that do not object to the annex must ban the import of the products listed under the annex from non-parties;
- within one year of entry into force of the London Amendment the Parties are required to ban the import and export of the substances in Annex B of the Protocol from and to the non-parties;
- Under the London Amendment, the Parties are also required to ban the export of the controlled-substances in Annex A of the Protocol as of 1 January 1993;
- Also under the London Amendment, in 1997 the Parties shall consider the feasibility of banning products made with but not containing controlled substances in Annex B and elaborate them in an annex.

35. In addition to the above, the Parties are discouraged from exporting the technology for producing and using the controlled substances (except for products, equipment, plants or technology that contribute to reducing the emission of controlled substances into the atmosphere) and to refrain from providing new subsidies, aid, credits and guarantees that would facilitate the production of controlled substances.

36. The Parties, at their Third Meeting in Nairobi, adopted a new annex, Annex D, listing the products containing controlled substances. The products listed in Annex D are: (i) automobile and truck air conditioning units (whether incorporated in vehicles or not) ; (ii) domestic and commercial refrigeration and air conditioning/heat pump equipment, e.g. refrigerators, freezers, dehumidifiers, water coolers, ice machines. and air-conditioning and heat pump units; (iii) aerosol products, except medical aerosols; (iv) portable fire extinguishers; (v) insulation boards, panels and pipe covers; and (vi) pre-polymers.

(j) Article 8. Non-compliance

37. In accordance with this Article, the Parties adopted the non-compliance procedure at their Fourth Meeting. The procedure provides for dealing with the Parties that are found to be in non-compliance with the provisions of the Protocol, including requirements to report data, the control measures and the trade provisions.

38. The Implementation Committee established under the procedure examines the circumstances of the cases of possible non-compliance, attempts to identify the problems and recommend ways to assist the Parties concerned in order to bring about full compliance. The Committee aims to secure amicable solutions as far as possible.

Non-Compliance Procedure (Article 8)

Parties may write to Secretariat, reporting non-compliance by another.

Opportunity to reply.

Issues examined by an Implementation Committee, with ten members, 2 from each geographical region.

Implementation Committee reports to the Parties.

Parties may call for steps to bring about full compliance, including measures to assist.

(k) Article 9. Research, development, public awareness and exchange of information.

39. This Article requires that the Parties co-operate in research, development and information exchange on the reduction of emissions of the controlled substances through recovery, recycling, improved containment and other means; on alternatives to controlled substances and manufactured products containing or made with controlled substances; and on costs and benefits of control strategies.. The Parties must also promote public awareness on the consequences of the emission of ozone-depleting substances. The Parties are required to report biennially on the activities conducted pursuant to this Article.

(l) Article 10 A. Transfer of technology (new Article under the London Amendment)

40. Article 10 A is a provision on transfer of technology, requiring the Parties to take every practicable step to ensure transfer of the best available and environmentally safe substitutes and related technologies to the developing countries operating under paragraph 1 of Article 5 of the Protocol under fair and most favourable conditions.

Transfer of Technology (OVERHEADS)

Parties to take every practicable step consistent with programmes of Financial Mechanism.

Technology to be best available, environmental safe, and expeditiously transferred.

Transfer to be under fair and most favourable conditions.

Transfer of Technologies to Developing Countries

-Aerosols- transfer is the fastest due to economic advantages of alternatives.

-Flexible Foams- replacements by methylenechloride, water, HCFC blends. Due to low cost of alternatives and funding from the Multilateral Fund, transfer is rapidly occurring.

-Rigid Foams- limited transfer of technologies – using cyclopentane and HCFC-141B. Technologies maturing only recently.

-Halon 1211 - slow transfer - substituted by dry powder, water, carbon dioxide, and foams.

-Halon 1301 - slow - substituted by FM 200 in some cases, recycling plants and banking.

-Domestic Refrigeration- HFC-134A projects implemented in some countries, some countries studying hydrocarbons/HCFC, HFC blends.

-Commercial Refrigeration and Air-Conditioning CFC technologies already applied, HCFC/HFC blends introduced.

-Mobile air Condition - HFC-134A.

-Solvents - phase-out fast where MNC involved, local enterprises lagging behind.

Factors Inhibiting/Promoting Transfer of Technologies

Awareness of issues and solutions.

Information on alternative technologies.

Availability of technologies and funding.

Local regulations to promote phase-out.

Export orientation promotes adoption of alternatives.

Connection with enterprises in industrialised countries promotes transfer and transition.

Large and medium enterprises get information directly from vendors.

Small and informal enterprises lag behind, need more information on assessed alternatives.

(m) Article 10. Financial mechanism

41. Article 10 establishes a financial mechanism to facilitate the transfer of substitutes and related technology referred to in Article 10. The mechanism includes a Multilateral Fund as well as other means of multilateral, regional and bilateral co-operation. The Multilateral Fund will:

- cover the "agreed incremental costs" incurred by developing countries operating under paragraph 1 of Article 5 in complying with the control measures provided for in the Protocol;
- finance a clearing-house function; and
- finance the Secretariat for the Fund. (The Secretariat has been established in Montreal.)

42. The Parties operating under paragraph 1 of Article 5 are the beneficiaries of the Fund. All other Parties are required to contribute towards the Fund on the basis of the United Nations scale of assessments. Up to twenty per cent of the

required contribution by a Party could be in the form of bilateral or regional co-operation or in-kind contributions, which will be assessed according to guidelines established by the Executive Committee of the Multilateral Fund.

43. The costs incurred by the Parties operating under paragraph 1 of Article 5 in converting from the production or use of controlled substances to substitutes and alternatives should be covered by the Fund. An indicative list of such "incremental cost" has been adopted by the Parties. These eligible Parties can design projects and programmes that are in line with the indicative list and apply for funds from the Fund.

44. The Executive Committee, consisting of 14 members, 7 Parties operating under paragraph 1 of Article 5 and 7 Parties not so operating, has been established to develop and monitor the implementation of specific operational policies, guidelines and administrative arrangements. It allocates the resources as appropriate, and considers and approves project.

45. UNEP, UNDP, UNIDO and the World Bank are the four Implementing Agencies. One important function performed by the Implementing Agencies is to assist the developing countries operating under paragraph 1 of Article 5 to prepare country programmes to phase out the consumption of the controlled substances. Country programmes will form the basis for the provision of financial and technical support for specific phase-out projects and activities.

46. The Multilateral Fund is making good progress in assisting the developing countries achieve a rapid phase-out of controlled substances. For the years 1991-1993 the Fund received a total contribution of US$ 164 million and disbursed about US$ 140 million. Country programmes have been taken up for 56 countries. A total of 27 country programmes have been finalised and approved. Over 400 activities have been approved in the developing countries so far to eliminate consumption of the controlled substances. To date, US$ 7.1 million has been allocated for institutional strengthening in 30 developing countries.

Financial Mechanism (overhead)

Purpose: -Provide financial and technical co-operation to Article 5 countries to enable them to comply with the control measures

Contributions should be additional to other financial transfers to such countries.

Includes a Multilateral Fund to: -meet the incremental costs
-finance clearing house functions
-facilitate and monitor other assistance.

Executive Committee with 14 members - 7 each from Article 5 countries and others.

Contributions from Non-article 5 countries on the basis of UN Scale of Assessments.

The Multilateral Fund started on 1 January 1991 - the UNDP, UNEP, UNIDO and the World Bank are the implementing agencies.

540 million collected so far.

Almost the entire amount disbursed to the implementing agencies for more than 1000 activities approved.

Activities, under implementation. in 85 developing countries including investment projects to phase out about 75,000 tonnes (more than a third).

5. THE ADVANTAGES OF BEING A PARTY AND DISADVANTAGES OF NOT BEING A PARTY

The advantages of being a Party

(a) Transfer of the latest technology

47. The Parties are in a better position to acquire the technologies for producing and using substitutes as well as for reducing the use and emission of the controlled substances in accordance with the provision of Article 10A of the Protocol, which requires the transfer of technology, and the various programmes and projects that are and will be undertaken within the framework of the financial mechanism (Article 10).

48. Alternative technologies for phasing out the controlled substances are available. Activities are already being undertaken by the implementing agencies to disseminate information (through workshops, the publication and dissemination of newsletters, reports and manuals as well as through a computerised information system), training courses, networking, demonstration projects, pre-investment and investment studies and implementation of country programmes that form the basis for specific projects to phase out the consumption of controlled substances.

(b) Preserving/gaining access to the world markets

49. When the Parties obtain the new technologies for producing or using substitutes, they will be able to compete better as sellers/exporters in the world market for the substitutes and related products. The experience of some international companies has shown that alternative technologies are often cost-effective and lead to an improvement in the quality of end products. Industries in the Party countries that use new technologies will gain a competitive advantage in export markets.

(c) Access to financial and technical assistance from the Multilateral Fund

50. Through the Multilateral Fund, Parties operating under paragraph 1 of Article 5 obtain the necessary financial and technical support to phase out the consumption of controlled substances. Various projects and activities for phasing out the controlled substances will be funded consistent with the indicative list of incremental costs (extra costs incurred due to the implementation of the Protocol).

(d) Ability to import controlled substances to maintain existing equipment

51. Any Party operating under paragraph 1 of Article 5 is eligible to delay compliance with the control measures for ten years for the purposes of satisfying its basic domestic needs. Hence, if such a Party requires controlled substances, e.g. for maintaining the operation of existing equipment, it may import the necessary controlled substances from other Parties (but without exceeding, the consumption limit of 0.3 kg per capita for the substances in Annex A of the Protocol and 0.2 kg per capita for Annex B substances until such time as it is required to reduce its consumption.

52. if a Party operating under paragraph 1 of Article 5 is unable to obtain adequate supply of the controlled substances that it needs. this Party can submit a notification to the Secretariat and such notification will then be considered by the Parties for appropriate action.

(e) Favourable provisions in the Protocol

53. As provided for under Article 5 of the Protocol, a Party operating under paragraph 1 of Article 5 can submit a notification if, having taken all practical steps, it is unable to comply with the control measures, due to the inadequate implementation of the provisions on technology transfer and the financial mechanism. Such notification will be considered by the Parties and, until such time, the Party will not be regarded as not complied with the Protocol.

The disadvantages of not being a Party

(a) Obsolete technologies

54. It will not be easy for non-parties to gain access to new technologies that replace the production and use of CFC's and halons. Financial and technical support for the transfer of technology are provided under the framework of the financial mechanism for the Parties. Hence, non-Parties are likely to have to operate for a longer period with technologies that are rapidly becoming obsolete. Continuing the use of obsolete technologies and building new facilities that use obsolete technologies would be an economic disadvantage, since it would result in the loss of export markets for the non-parties industries.

(b) No trade in controlled substances or products containing those substances

55. Effective from 1 January 1993, the Parties have banned the export of controlled substances to non-parties. Hence, the supply of controlled substances to any non-Party can be made only by other non-Parties. All the producers of controlled substances are already Parties to the Protocol, however, and it would therefore be difficult for non-parties to obtain controlled substances.

56. The Parties have banned the import of the products listed in Annex D from any non-Party country.

57. Any country that is actually complying with the control measures will be treated as a Party for the purposes of the trade provisions, and any Party that is not complying will be treated as a non-party. Whether or not a country is in compliance with the control measures will have to be determined by the Meeting of the Parties.

(c) Affecting the global environment

58 The ozone layer can only return to its pre-industrial state if all nations join the effort to eliminate the emission of ozone-depleting substances into the atmosphere. The depletion of the ozone layer results in an increase of harmful UV-B radiation at the earth's surface, which can cause catastrophic damage to human beings and the environment. Failure to ratify the ozone treaties and the continued emission of ozone-depleting substances into the atmosphere would set at naught international efforts to protect the earth from the adverse effects of ozone-layer depletion. Damage caused by ozone-layer depletion will not be confined to those that continue using ozone-depleting substances but will have a global impact.

The financial implications

59. The Parties to the Vienna Convention and the Montreal Protocol, at their First Meetings in Helsinki, established two separate Trust Funds for their respective activities; one for the Montreal Protocol and another for the Vienna Convention. The cost of the Secretariat is covered by the two Trust Funds.

60. The contributions towards the Trust Funds are voluntary and made by the Parties on the basis of the United Nations scale of assessments. Parties which, under the United Nations scale of assessments, have a level of contribution of 0.1 per cent or less are not required to contribute towards the Trust Funds. The contributions by other Parties are adjusted so that no Party contributes more than 25 per cent and the remaining percentage is distributed among the contributing Parties in proportion to each Party's level of contribution in the United Nations scale.

61. The total budget for the two Trust Funds for 1992 and 1993 as adopted by the Parties is US$ 2,630,075 (Vienna Convention: US$ 351,430 and Montreal Protocol: US$ 2,278,645) for 1992 and US$ 3,276,435 (Vienna Convention: US$ 877,445 and Montreal Protocol: US$ 2,398,990) for 1993.

62. To illustrate the required voluntary contributions of developing countries, 27 of the 37 developing country Parties to the Protocol did not have to contribute to the Trust Fund for the Montreal Protocol for 1991, as their level of contribution under the United Nations scale is 0.1 per cent or less. The contribution of the other ten developing countries ranged between US$ 2,000 and US$ 13,000.

6. THE MORAL OBLIGATION

63. Over recent years, scientific research has greatly advanced understanding of stratospheric processes, including the depletion of the ozone layer. Scientific evidence shows, beyond reasonable doubt, that manmade chlorinated and brominated substances are the major cause of the destruction of the ozone layer, which shields the earth from the harmful UV-B radiation of the sun. The destruction of the ozone layer therefore results in increased amounts of UV-3 radiation.

64. Increase in UV-B at the earth's surface would be catastrophic. Adverse effects to human-beings include increased incidence of skin cancer, eye cataracts leading to blindness and damage of the immune system, resulting in the increased occurrence of infectious diseases and undermining the effectiveness of existing immunisation programmes. Increased UV-3 may also have adverse effects on several species of plants, resulting in decreased crop yields and damaged forests. Small aquatic organisms that form the basis of aquatic food chains are also negatively affected, leading to a decline in fish-stocks. Damage caused to materials, especially plastics and rubbers used outdoors as well as wood, paint, paper and textiles, would be very expensive. There will be an increase in the photochemical pollution in the troposphere that occurs especially around cities where the ingredients for the pollution are present.

65. These adverse effects will affect all countries in the world. The most severely affected will be the developing countries - especially countries already suffering from infectious diseases coupled with inadequate medical facilities, countries which rely heavily on fish as an important source of food and exports and countries with poor crop yields.

66. Through understanding and co-operation, the world community reached agreement on a mechanism to provide new and additional resources for the protection of the ozone layer to those countries that need them most. Now that there is a Multilateral Fund with the financial resources and the capacity for technical assistance, the developing countries will be able to comply with the Montreal Protocol without having to compromise their economic development.

7. SUMMARY NOTES ON IMPORTANT POINTS TO CONSIDER IN BECOMING A PARTY

67. This section outlines the main issues that a country may wish to consider in becoming a Party.

1. Determining whether or not the country is eligible to operate under Paragraph 1 of Article 5

For the country to operate under paragraph 1 of Article 5, the following conditions must be fulfilled:

It must belong to the list of developing countries that was adopted by the First Meeting of the Parties to the Montreal Protocol. The list is as follows:

Afghanistan, Albania, Algeria, Angola, Antigua and Barbuda, Argentina, Bahamas, Bahrain, Bangladesh, Barbados, Belize, Benin, Bhutan, Bolivia, Botswana, Brazil, Brunei Darussalam, Burkina Paso, Burma, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Chile, China, Colombia, Comoros, Congo, Costa Rica, Cote d'Ivoire,

Cuba, Cyprus, Democratic Kampuchea, Democratic People's Republic of Korea, Democratic Yemen, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, equatorial Guinea, Ethiopia, Fiji, Gabon, Gambia, Ghana, Grenada, Guatemala, Guinea, Guinea Bissau, Guyana, Haiti, Honduras, India, Indonesia, Iran (Islamic Republic of),Iraq, Jamaica, Jordan, Kenya, Kuwait, Lao People's Democratic Republic, Lebanon, Lesotho, Liberia, Libyan Arab Jamahiriya, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Mauritania, Mauritius, Mexico, Mongolia, Morocco, Mozambique, Namibia, Nepal, Nicaragua, Niger, Nigeria, Oman, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Qatar, Republic of Korea, Romania, Rwanda, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa, Sao Tome and Principe, Saudi Arabia, Senegal, Seychelles, Sierra Leone, Singapore, Solomon Islands, Somalia, Sri Lanka, Sudan, Suriname, Swaziland, Syrian Arab Republic, Thailand, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Uganda, United Arab Emirates, United Republic of Tanzania, Uruguay, Vanuatu, Venezuela, Viet Nam, Yemen, Yugoslavia, Zaire, Zambia and Zimbabwe.

-It must have a total calculated consumption (for the controlled substances in Annex A) of below 0.3 kg per capita at the time of entry into force of the Protocol for the country or at any time thereafter and until 1 January 1999. As soon as the 0.3 kg per capita is exceeded the country loses its Article 5 status. Under the London Amendment the total calculated consumption of controlled substances in Annex B must be below 0. 2 kg per capita for the country to retain its Article 5 status.

The main advantages of operating under paragraph 1 of Article 5 are:

-the right to delay compliance with the control measures set out in Articles 2A-2E by ten years without increasing production of the controlled substances or related products for export purposes, i.e. this grace period is allowed so that basic domestic needs can be satisfied;

-eligibility for financial and technical support through the Multilateral Fund to phase out the consumption of controlled substances;

-strong prospects of expeditiously obtaining the best available, environmentally safe substitutes and related technology, since the Amendment to the Protocol re requires all Parties to take every practicable step to ensure this for Parties operating under paragraph 1 of Article 5.

2. A survey of the consumption of the controlled substances in the country (it is not a requirement to conduct a survey before ratification)

A survey of the controlled substances in the country would be useful for the following purposes:

-to determine whether the country is eligible to operate under paragraph 1 of Article 5 (if, however, the country appears in the list of developing countries, it will be treated as operating under paragraph 1 of Article 5 unless figures reveal otherwise);

-to facilitate the reporting of statistical data in accordance with Article 7, when the country becomes a Party;

-to facilitate the preparation of a country programme, which will be the basis for obtaining assistance from the Multilateral Fund for specific projects and activities for phasing out the consumption of controlled substances;

-to facilitate the monitoring of compliance with the control measures and trade provisions.

The survey should include the following components:

-identification of the industries producing controlled substances and the quantities produced;

-quantities imported/exported as bulk chemical including mixtures. A survey both of customs records and of importing/exporting industries would be useful;

-identification of the use patterns of the controlled substances in the country and quantities of the controlled substances used under each use sector;

-identification and quantities of the products containing controlled substances that are being imported/exported by the country, as well as the countries from/to which the products are imported/exported;

-identification and quantities of the products made with controlled stances that are being imported/exported by the country, as well as the countries from/to which the products are being imported/exported;

-collection of information on industrial practices and processes including recycling methods used (and quantities recycled), as well as industry strategies.

Useful notes for the survey:

When the country becomes a Party, a country programme would be prepared with the assistance of one of the implementing agencies and financial support from the Fund. The country programme would require a survey as above, upon which the action plan for reducing and phasing out the controlled substances will be based. Hence a survey by the country would facilitate the preparation of the country programme.

For the purpose of reporting data as required by Article 7, only bulk chemicals and mixtures are included and not the controlled substances contained in manufactured products such as in refrigerators, air conditioners and foams. The consumption data for the base years 1986 for Annex A substances and 1989 for Annex B substances must be reported within three months of the country having become a Party.

The uses of controlled substances are:

(a) as refrigerants (CFC-11,-12,-113,-115, azeotropic mixtures 502,500)
- domestic refrigerators, industrial refrigerators, water coolers, bottle and walk-in coolers, ice machines, cold-storage units

(b) in air conditioners (CFC-11,-12,-113)
- room a/c, packaged a/c, central a/a - reciprocating and centrifugal, mobile a/c in cars, trucks, buses, ships, trains

(c) as foam-blowing agents (CFC-11,-12,-113,-114)
- flexible polyurethane, rigid polyurethane, phenolic foam, polyoleofinic foam, polystyrene

(d) as aerosol propellants (CFC-110-12,-13,-14,-114)
- bottle aerosols, can aerosols, inhalers,

(e) as process solvents
- pesticides, pharmaceuticals, industrial paint manufacturing

(f) as solvents for cleaning (CFC-11,-113, carbon tetrachloride, methyl chloroform)
- degreasing for electronic components, metal cleaning, cleaning computer hard disks, dry cleaning

(g) in fire extinguishers (halon-1301,-1211,-2402)
- portable fire extinguishers, flooding units

3. Financial contributions towards the Trust Fund for the Vienna Convention, the Trust Fund for the Montreal Protocol and the Multilateral Fund

If the country's level of contribution on the United Nations scale of assessments is less than 0.1 per cent, it is not required to contribute to the Trust Funds for the Vienna Convention and for the Montreal Protocol.

If the country's level of contribution is above 0.1 per cent, the country will be required to contribute to the two Trust Funds on a scale based on the United Nations scale and adjusted in accordance with the number of Parties that will be required to contribute and a 25 per cent ceiling. The total budget of the two Trust Funds in 1992 and 1993 are approximately US $ 2,630,075 and US $ 3,276,435, respectively.

If the country is operating under paragraph 1 of Article 5, it is not required to contribute to the Multilateral Fund.

If the country is not operating under paragraph 1 of Article 5, it is required to contribute to the Multilateral Fund in accordance with the adjusted scale of contribution, based on the United Nations scale.

4. Consideration of the main obligations as a Party

A Party must comply with the control measures to phase out the production and consumption of controlled substances in accordance with Article 2. If the Party is operating under paragraph 1 of Article 5, a ten-year delay is allowed for complying with the control measures.

A Party must report statistical data on the production, import and export of each controlled substance annually and for the base years 1986 (Annex A) and 1989 (Annex B under the London Amendment). Best estimates could be reported for the

base years if actual data are not available.
A Party must ban the import from and export to non-parties of the controlled substances listed in Annexes A and B.
A Party must ban the import from non-parties of products listed in Annex D.
A Party must report on the activities undertaken pursuant to Article 9 of the Protocol.

5. Ratification, accession, approval or acceptance

To become a Party to the Vienna Convention and the Montreal Protocol, an official instrument of ratification, accession, approval or acceptance (depending on the domestic legal system) should be submitted, normally from the Head of State or the Minister for Foreign Affairs to the Depository of the two legal instruments, i.e., the Secretary General of the United Nations in New York.

Status of Ratification (on 31-12-1996)

-163 countries ratified the Montreal Protocol of 1987 - out of the 116 countries have been categorised as developing countries operating under Article 5
-112 countries ratified the London Amendment
-63 countries ratified the Copenhagen Amendment

5.2 OZONE REGIME: ISSUES PAPER

Consider	(1)	Legal Provisions Necessary
	(2)	Institutional Arrangements Necessary to Implement
	(3)	Financial Assistance Required
	(4)	Public Awareness Activities Necessary
Or:	(1)	Problems
	(2)	Objectives
	(3)	Activities

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DRAFT MODEL NATIONAL LEGISLATION - MAIN ELEMENTS

Policy Statement -	Give effect to Convention and Protocol (long title)
Definitions	
Substantive Part -	Phase out requirements, prohibitions according to set dates in Protocol, prohibitions without a licence to import, export or manufacture Exemptions. System of labelling/warning/assessment and control measures Restrictions and obligations.
Procedural Sections-	Set up Institutions/Authorities
Functions	Implementation of licence system, monitoring, enforcement, Administer Ozone Fund, prepare and maintain National Inventory of ODS, exchange technical/information and prepare strategies for reducing emissions, report of data to Secretariats, Co-ordination between Ozone and other Conventions
Financial	Establish Ozone Fund
Enforcement	Offences, penalties, evidentiary certificates.
Dispute resolution body	
Appeal and standing procedures	
Other Measures	Regulation making power. Public information and public awareness. Formal and informal education. Training. Scientific research on ODS. Economic incentives: tax, subsidies, fiscal measures Schedules - for import phase out.

5.3 ANALYSIS OF QUESTIONNAIRE

OZONE PROTECTION

GENERAL and RESOURCES TO BE MANAGED

1 When did you ratify the Montreal Protocol? Did you ratify the London and Copenhagen Amendments? If not, what are the steps you are taking to ratify?

BANGLADESH	INDIA	MALD	NEPAL	SRI LANKA
MP 2/8/90, London 18/3/94	MP 17/9/92 London 19/6/92	14/8/88 no	MP and London on 6/7/94	MP 15/12/89 London-16/6/93, Copenhagen-Cabinet approval,MFA to deposit

2. What are the challenges and benefits for your government, industry and consumers in implementing the Convention and Protocol? Have they been informed of these challenges and benefits before ratification?

BANGLADESH	INDIA	MALD	NEPAL	SRI LANKA
benefit- 4 projects submitted to MLF (a) institutional strengthening (b) aerosol (c)large refrig units (LRUS) (d) training in refrid A/C sector	Protection of human health and natural ecosystems. Yes, all informed before ratification.	no	Vehicle emissions are a problem, so informed on these	Benefit to industry-can obtain supply of controlled substances, yes

3. Have you prepared your country programme for implementing the Protocol?-What are your strategic objectives? (-your industrial development plans, -export markets, -technology objectives, -consumer interests, -faster phase out than required)

BANGLADESH	INDIA	MALDIVES	NEPAL	SRI LANKA
yes 1994, faster phase out for industrial sector,consumer sector according to Protocol	Yes, involving gov and Industry. Concerns are: minimise economic dislocation, needs of SSI units, one time replacement, maximise indigenous production, minimise obsolescence costs	yes, want faster phase out than required	Industrial norms and EIA guidelines developed/ prepared	Faster phase out proposed: Manufacture of new products- 2000; for Servicing Industry-2005

4 What is your situation regarding the consumption of the Ozone Depleting Substances(ODS)?
-Have you identified the consumers and producers of ODS? -What is the structure and ownership of the consumer and producer companies? (Public/private, multinational/national, tiny/small/medium/large).

BANGLADESH	INDIA	MALD	NEPAL	SRI LANKA
yes identified Public Co (ACI Ltd) using 49% ODS, rest by private users. In 1995: No Halons imported, CFC11 (88.610 MT, 26.99% aerosol sector), CFC12 (192,070 MT, 58% Aerosol, A/C refrid); HCFC22 (37.810MT 11.52% Refrid &A/C), Methyl Cl(2.231MT, 0.68%Pharmacy/ Chemical Industries), no info on Methly Br obtained	Producers identified and all in private sector. Consumers in Small Scale sectors are being identified. Consumers companies are in public/private sharing with multinationals and of all sizes.	yes,public/ private small/med Co's i.e. MIFIO/ Resorts	only small fraction of population identified as ODS consumers	identified consumers: Importers are national/ multinational Co's Consumer Co's tiny/small

5.Do you have a substance wide plan of phasing out ODS?

BANGLADESH	INDIA	MALD	NEPAL	SRI LANKA
Consultant has 3mths to a) design H Coding for all ODS b) formulate tariff & economic policies c) economic impacts analysis for ODS ban for policy making	yes by 2010. Have project wise phase out plan in all sectors	yes	no	yes, includes CCFC,CTC MCFC. No regulation for balance

6. What alternative substances and technologies are you considering? How do you judge their technical feasibility and cost effectiveness?

BANGLADESH	INDIA	MA	NEPAL	S L
Aerosol-phase out 49%ODS current use, by LPGpropellant. MLF approval awaiting Gov apr. Refrid &A/C awaiting economic consultant report	From 3 yrs experience: Aerosols -use HAP; Foams:- Rigid/Polyethylene useHCFC-141(b) and purified LPG, Flexible use Methyl chloride; Integral skin use wate; Rigid for refrig insulation use Cyclopentene. Refrigerators use HFC134a, R600a isobutane and HCFC123 for chillers. Fire extinguishers using ABC Power, Water mist, CO2, Inergen or in future FM200. Solvents use DI water with ultrasonics detergents and alcohol ketones. Technical feasibility judged by enterprises experts, experience and local conditions. Cost effectiveness as fixed by EC/ MLF is a benchmark	-	N/A	HCFC and Hydrocarbo ns will depend on consultants report.

7 Have you prioritised the sectors for phase out? What are your main problems for each sector?
(a)Aerosols, (b)refrigeration, (c)air-conditioning, (d)Foams, (e)cleaning agents, (f)firefighting

BANGLADESH	INDIA	MAL	NEP	SRI LANKA
(a) top priority, (b)&(c) 21% operational losses, need training for 6000 service mechanics under MLF project (d)N/A, (e) little ODS use, (f) no 95 imports	Priority guided by enterprize decisions. Thereafter projects on a first cum basis. (a) policy decision by the ExCom, (b)(c) technological option to be decided by enterprises, (d) progressing well, (e) by decision of Meeting of Parties, (f) have separate cost effectiveness norms for SMEs	yes, (b), (c), (f)	N/A	(a)1Factory MLF assistance given to convert (b) All 3 Factories MLF assisted (c) A/C use HCFC22-not under immediate control (d)only as refrigerator bodies (e)not significant (f) not used my longer

8 What is your system for obtaining assistance from the Fund?
(a)project preparation, submission, clearance; (b)presentation to the Multilateral Fund; (c)monitoring the implementation after sanction by the Fund; (d) evaluation.

BANGLADESH	INDIA	MALD	NEPAL	SRI LANKA
(a)-(b)through UNDP (c)Ozone Cell in DOE under MEF applies for Government approval and monitors project (d) UNDP	(a)Proposals in specified format prepared by enterprise and submitted to Ozone Cell(MOEF), Standing Committee sends to Steering Committee for final recommendation (b) Implementing agencies (WB, UNDP, UNIDO) present to ExC of MLF (c)Ozone Cell and Implementing agencies monitor (d) ExC decision on evaluation awaited	working on (a)	no assistance received to date, will request to develop a Country Programme	(a) &(d) through UNDP

9. What are your arrangements to pass on the Fund assistance to your companies? Do you have a financial intermediary?

BANGLADESH	INDIA	MALD	NEPAL	SRI LANKA
not yet decided	IDBI for World Bank projects,UNOPS for UNDP, UNIDO imlements own projects	- none yet	N/A	present pre-feasibility report to UNDP

10. What measures are you contemplating to protect your consumers from obsolescent equipment, after the phase out?

BANGL	INDIA	MALD	NEPAL	SRI LANKA
not yet decided	Require enterprises to certify that replaced equipment has been destroyed/non-operational. Enterprises encouraged to cease using ODS in future activities	none yet	N/A	not planned yet

11. What voluntary measures are you considering for implementation? (a)Industry Agreements; (b)Standards and codes of practice

BANGL	INDIA	MALD	NEPAL	SRI LANKA
not yet decided	Industry Agreeements	evaluating	(b) being developed gradually	not planned yet

12. Market mechanisms under your consideration (-Tradeable permits for imports; -Taxes and duties on ODS and ODS products; -Tax benefits and incentives for alternative substances and products)

BANGL	INDIA	MALD	NEPAL	SRI LANKA
not yet decided	Customs/Excise exemption for ODS substitution since 1995, new projects with non-ODS technologies as of 1/3/97	eval-uating	none	requested from the Government

EXISTING ARRANGEMENTS FOR IMPLEMENTATION of CONVENTION

13. Legislation and regulation (- ban or regulation of use, imports or production; -labeling requirements)
(a) Do the legal or administrative arrangements make provision for the phase out dates? If so what are those provisions.
(b) Do the legal or administrative arrangements make provision for licencing and licencing fees for import/export and manufacture of ODS? If so what are the provisions?
(c) Do the legal or administrative arrangements make provision for establishment of a Fund?
(d) Do the legal or administrative arrangements make provision for preparation and maintenance of an Inventory?
(e) Do the legal or administrative arrangements make provision for offences and penalties and the use of evidentiary certificates of proof in cases? If so what are those provisions?
(f) Do the legal or administrative arrangements make provision for access to information concerning decisions and Appeal mechanisms against those decisions and Standing rights to bring actions? If so what are those provisions
(g) Do the legal or administrative arrangements make provision for dispute resolution?

BANGLADESH	INDIA	MALD	NEPAL	SRI LANKA
(a),(b)&(e) to be prepared by local legal consultant recruited after economic impact assessment to prepare clauses on delegation to Ozone Cell of DOE	(a) Hazardous Ozone Depleting Substances Handling (Regulations) under EPA drafted for phase out of CFC's. Ban on trade with non-parties (b) yes, compulsory licencing, (a) -(g) Regulations under preparation	can use existing laws on Imports (duty), &EPAct	(a)-(g) no	(a) Regulation gazetted under NEAct in 1994. (b)-(f) no (g) yes, in general

14. What facilities do you have to prepare proposals for policies, strategies, laws regulations, industry agreements etc?

BANGLADESH	INDIA	MALD	NEPAL	SRI LANKA
Ozone Cell in DOE which has computer and qualified personnel and will have short term legal and economic consultants	Ozone Cell in MOEF with some inputs from Industry and related Gov Depts		none	facilities but need funds to implement

15. Which agencies are assisting you in the implementation? Please specify. (-implementing agencies of the Fund; -Industry associations; -other Government agencies; -NGOs; -Bilateral, regional agencies)

(a) Does the legislation designate the National Focal Point?

(b) Does the legislation establish an institution to implement the Convention? What is name of the institution

(c) What is the function of the institution? i.e. process and issue licences, research, training, coordinate views of stakeholders, disseminate information, inspection and monitoring, enforcement.

BANGLADESH	INDIA	MALD	NEPAL	SRI LANKA
Ozone Cell in DOE and Inter-Ministerial National Technical Committee on Ozone(NTCODS)	CII, REGMA, DC SSI, APCTT, SDC, CPCB, IDBI etc Implementing agencies and other Gov agencies. (a)-(c) MOEF is NFP and Ozone Cell in MOEF is initiating and coordinating actions	-	NGO, INGOs promoting concept of legislation	UNDP , Ceylon Institute of Scientific Industrial Reseach & M of Industry and Technology. Implement through Montreal Protocol Unit at MTEWA also CEA

16. How do you coordinate the activities of these agencies?

BANGLADESH	INDIA	M	NEPAL	SRI LANKA
Through NTCODS which consists of MEF, M Industry Commerce, Home Ag, Fisheries, Livestock,Bd of Revenue, Fire Services,FBCCI, Cold Storage Asn National A/C & Refrid Asn,BILIA Director of Institutional Strengthening project, press and NGOs	Ozone Cell headed by Director coordinates actions. Concerned with international negotiations relating to policy decisions of COP, Policy initiatives by Gov to encourage phase out ODS, preparation and implemention of ODS phaseout projects by individual enterprises. ie negotiating with REGMAsn on objections to Draft Regs on compulsory registration for ODS sellers.	-	N/A	Through Co-ordinating Committee at MTEWA

17 What is your system for reporting data regularly to the Ozone Secretariat? (-how do you get data from: -importers, -industries using ODS, -producers, -exporters, -armed forces)
-do you compare this data with:-the customs data, -data from industry associations

BANGL	INDIA	MALD	NEPAL	SRI LANKA
data from yearly survey report	Chemicals- collected from producers, CTC&Halon- industry has had to report from mid-96 on imports for licencing Compare results withDG Commercial Intelligence and DG FT (Export & Import)	all data through Custom	N/A	request info from relevant authorities, compare with Customs data only

18. What are your activities to raise awareness among: - Government officials concerned, -industry, -NGOs -consumers, -technicians, -importers.

BANGLADESH	INDIA	MALD	NEPAL	SRI LANKA
ODS importers, users and their associations are targeted for awareness. Activities on World Env Day and Int Ozone Day.	Workshops, Country Programme and Sectoral W/S, regular dialogue with industry by SSI, visit by delegation of EC/ MLF visited in 9/96 for discussion with Industry. Information Kit, Print media, Query response service, printing of UNEP brochures, Ozone Day observed, Newsletter.	National W/S, courses at MITE, TV, radio and leaflets	MOPE has been raising awareness through mass media and NGOs	Seminars, public lectures advertis-ments

19. What is your system for obtaining and dissemination of information on Ozone layer protection with regard to: -Provisions of the Montreal Protocol, -Decisions of the Meetings of the Parties from time to time, -Alternative substances and technologies, -Policies of your Government, -Procedures for Industry/consumers to get information/assistance, -information exchange with other Parties

BANGL	INDIA	MALD	NEPAL	SRI LANKA
Secret-ariat send info through MEF.	Participate in Meetings of Parties, OEWG & Ex Com, the UNEP Ozone Action Programme in Paris, Asia Pacific Centre for Technology Transfer and UN has been publishing newsletter and have Query Response Service. Ozone Cell also distributing info	Ozone-Action Prog's, UNEP,TV, Radio, Gov Press releases,ODS users network to be set up	Through M of Foreign Affairs if HMG agencies need it	Ozone Action newsletter, documents for National Protocol meetings and newsletter from Industrial Association

20. What is your system for training: -technicians of industry, -servicing facility personnel, -recycling facility personnel, -decision makers

BANGL	INDIA	MALD	NEPAL	SRI LANKA
not yet decided	UNEP-IE training: in projects by concerned IAs, and developing strategy for removing dead lock in Aerosol sector, removing cost-effectiveness threshold or separate theshold for SMEs, production sector guidelines, solution of Process Agents Issue, Service Tail, and Stability to Protocol to avoid frequent charges	courses at MITE	yet to develop	MLF training course for technician and recycling Industry

STRENGTHENING EXISTING ARRANGEMENT

21-23. What are the major problems /barriers to the effective implementation of the Convention?Which takes priority? Why?

BANGLADESH	INDIA	MALD	NEPAL	SRI LANKA
lack of more MLF aided projects and training of personnel, esp in refrigeration and A/C service sector	-	lack of trained people, tech'l training in refrig and A/C Funding	To systematically implement need policy formulation, resource generation, manpower development	difficulty in obtaining money from MLF

24. List the steps that you would need to take in order to strengthen the existing arrangement. What would be the methods to achieve this goal?

BANGLADESH	INDIA	MALD	NEPAL	SRI LANKA
a) recruit local economic&legal consultants b) Prepare "Refrigeration Management Plan"	-	-	identify problem, develop alternatives,prepare action plan, make financial arrangements, implement	Funds and technology

25. Generally, how can institutional arrangements be strengthened in your country to make implementation of the Convention more effective and enhance the integration of relevant sectors(industry, customs, NGOs)

BANGLADESH	INDIA	MALD	NEPAL	SRI LANKA
Enhance training of Ozone Cell personnel so they can accomplish ODS Phase Out programme sucessfully	-	-	(a) Mobilize NGOs for awareness promotion, (b)support of private sector, (c) human resource development within gov (d) sharing experiences with developed countries	Extend the current projects when they come to an end

5.4 COUNTRY PRESENTATIONS FROM BREAK-OUT SESSIONS

IMPLEMENTATION OF THE MONTREAL PROTOCOL

Group 1
COUNTRIES: Maldives, Nepal, Sri Lanka
RESOURCE PERSONS:

Ms. Peigi Wilson
Ms. Clare Cory
Mr. K. H. J. Wijayadasa
Mr. K. M. Sarma

OUTLINE OF PRESENTATION:

LEGAL PROVISIONS
INSTITUTIONAL ARRANGEMENTS
FINANCIAL ASSISTANCE
PUBLIC AWARENESS

MALDIVES

A. LEGAL PROVISIONS

The Environmental Protection Act, No.4 of 93 is the framework law
Considered adequate to provide enabling legislation for the implementation of the Montreal Protocol
Identified section 6 as the appropriate clause for the making of regulations "Termination of Projects - The Ministry of Planning and Environment has the authority to terminate any project that has an undesirable impact on the environment."
To prescribe a user or producer of ODS as a "Project" and to make regulations terminating such projects with effect from a given date
Draft regulations (Legal Committee has initiated action)

B. INSTITUTIONAL ARRANGEMENTS

Focal Point is the Ministry of Planning, Human Resources and Environment
Ozone Desk established in the same Ministry
National Committee for the Protection of Environment (to monitor this subject)
Trainers for the training of officers in the Department of Customs, Ministry of Trade and Ministry of Environment

C. FINANCIAL ASSISTANCE

Need to be identified
One project to be funded by the Multilateral Fund for Institutional Strengthening (not for industries)
Ministry of Planning, Human Resources and Environment has direct access to negotiate with International Organisations

D. PUBLIC AWARENESS

On going -Monthly Radio Programmes and Workshops in association with the Tourism Association and Fisheries Association (Freezers)

NEPAL

A. LEGAL PROVISIONS

The Environment Protection Act contains enabling provisions for the banning / phasing out of the use of ODS.
Alert related associations and Ministries, i.e., Environment Protection Council, Ministry of Environment, Ministry of Industries, Ministry of Trade, Chamber of Commerce, Tourism Association, Ministry of Tourism, Conduct Seminar, Draft Notice to be presented to Cabinet.

B. INSTITUTIONAL ARRANGEMENTS

No Focal Point
Ministry of Population and Environment - Relevant Ministry
Environment Protection Committee - Headed by the Prime Minister and includes the Secretaries of Ministries related to Environment.
Officer or Committee to be appointed.

C. FINANCIAL ASSISTANCE

Need to identify an implementing agency
Request Multilateral Fund for financial assistance to draw up a Country Programme for the Implementation of the Montreal Protocol

D. PUBLIC AWARENESS

Target groups - Chamber of Commerce and Small Scale Industries Association
Television, Newspapers, Radio and Workshops

SRI LANKA

A. LEGAL PROVISIONS

National Environmental Act (1980) is the Framework Law
Regulations made in 1994 prohibiting the use of materials (substances) specified in the schedule to the regulations in any process, trade or industry as being ozone depleting materials and substances
Prohibition is effective from 1 January 2000
Materials listed in the schedule correspond with the listed substances under Annex A & B of the Montreal Protocol
Regulations permit the use of prescribed materials until 1 January 2005 for the limited purpose of servicing equipment or industrial plants already in operation or which were installed prior to 1 January 2005
Need to provide licences to regulate continuing use after 2005
Regulations to give effect to the granting of licences to be drafted
Regulations made under the Import and Export Control Act No. 1 of 1969 - To control the import of Air Conditioners, Refrigerators and Freezers

B. INSTITUTIONAL ARRANGEMENTS

Focal Point - Montreal Protocol Unit of the Environment Division of the Ministry of Transport, Environment and Women's Affairs
Implementing Agency - Central Environment Authority
Co-ordinating Committee - headed by the Secretary of the Ministry of Transport, Environment and Women's Affairs and includes representatives from the Ministry of Industrial Development, Ministry of Science, Technology and Human Resource Development and Department of Internal and External Trade, Department of Customs, Department of Meteorology, Central Environment Authority and Chamber of Commerce and Industry (Administrative Body)

C. FINANCIAL ASSISTANCE

Financial assistance obtained for the establishment of the Montreal Protocol Unit and to assist selected industries to change over to non-ODS technologies
Further funding required for the continuation of the programme

D. PUBLIC AWARENESS

Ongoing - Workshops, Seminars and Media
Target Groups - Industrialists and the General Public
Ozone Newsletter - 1st issue is being finalised

Group 2

RESOURCE PERSONS
- Mr. K.M. Sarma
- Mr. Harald Egerer

COUNTRIES
- Bhutan
- Bangladesh
- India

BHUTAN

STATUS / PROBLEMS

Not being a Party to Vienna Convention and Montreal Protocol

OBJECTIVE

To facilitate the country to become a Party to the Convention and Protocol

ACTIVITIES

Main obligations and benefits of being a Party as well as disadvantages of not being a Party to the two legal instruments reviewed:

- Access to transfer of state of art technology for ODS substitutes
- Access to the world market (export/import)
- Access to financial and technical assistance from Multilateral Fund (MLF)
- Favourable provisions for non-compliance of protocol on justifiable grounds

Bhutan will not have to contribute to the Trust Fund under Vienna Convention and Montreal Protocol in accordance to the UN assessment scale. This to be brought to Royal Government of Bhutan's attention.

Bhutan may consider becoming a Party to the Conventions without further delay.

BANGLADESH

STATUS / PROBLEMS

- Signed the Protocol on August, 1990
- Ratified on March 1994
- Nodal Ozone Cell constituted in the Department of Environment under the Ministry of Environment and Forests
- Implementation of the Protocol at nascent stage

OBJECTIVES

To activate and strengthen the institutional framework for effective implementation of the Protocol

ACTIVITIES

Recruitment of technical/legal personnel to the Ozone Cell

Preparation of Project Proposals for Grant of Funds:
- -Country Programme
- -Sectoral Strategies (e.g. Refrigeration, Aerosol, Foam, etc.)
- -ODS Phase-out activities

Four Proposals already submitted to MLF but decision awaited; needs to be pursued.

Training of the Identified personnel in the concerned Departments including Ozone Cell

To enhance awareness generation among different target groups namely Policy makers, Industry groups, Technicians/Service groups, ODS importers and Users/ consumers etc.. through multi-media, Workshops and Information Kits.

To formulate Legal Instruments, Rules and Guidelines

INDIA - POLICY FRAMEWORK FOR ODS PHASEOUT

INTERNATIONAL EFFORTS

-India became party to the Vienna Convention on June 19, 1991 and to the Montreal Protocol on September 17, 1992
-India is an Article 5 Country under the Protocol

STATUS OF PRIMARY FACTORS AFFECTING ODS PHASEOUT IN INDIA

Factors	Status
- Market Dynamics	
Industry Structure	
Export Orientation	Unfavourable
Foreign Ownership	Unfavourable
Size	Unfavourable
Supply of ODS	Unfavourable
Information Flow	Mixed
- Time for Societal Transition	
(Relative National Priority)	Unfavourable
-MLF Support	Mixed
-Govt. Policies	Mixed

BASIC CONCERNS OF INDIA IN COUNTRY PROGRAMME

- Minimise Economic Dislocation
  *Avoid Closure
- Needs of SSI Units
- Preference to One Time Replacement
- Maximise Indigenous Production
- Minimise Obsolescene Costs

AWARENESS GENERATION - SOME HIGHLIGHTS

-1992 Workshop
-Country Programme & Sectoral Workshops
-Regular Dialogue with Industry
-Workshops by SISIs
-COTE - CII Workshops
-UNEP - NAM Centre Workshop
-Newsletter
-Query Response Service
-Reprinting of UNEP Technical Brochures
-Reprinting of UNEP Poster
-Ozone Day Celebrations
  -Involvement of Schools
  -Involvement of States
-Information Pack by CCE
-Planned Workshops for NGOs

ELEMENTS OF PROPOSED REGULATIONS

- ODS Production & Consumption Control - As per Protocol
- Ban on New Investments in Manufacturing
  -SPCBs
  -Banking Sector
- Sectoral Phaseout Dates
- Registration of ODS Users & Sellers
  -All (?)

ODS PHASEOUT IN INDIA IS CONTINGENT ON:

-Availability of Funds
-Transfer of Technology

STATUS, ACTIONS REQUIRED & CONCERNS - HALON

Status

-Very Low Consumption
-One producer has voluntarily stopped Halon consumption
-Other producer did not produce Halon 1301 due to lack of demand

Actions Required

-Protocol controls on consumption and production will suffice
-MLF Funding for:
  -Conversion Projects
  -Revision of Standards
  -Training in Use of Alternatives
  -Regional and National Halon Banks
  -Essentiality Use Panel

Concerns

-Transfer of Technology
-Availability of Halons for Servicing
-Identification of Unorganised Sector

STATUS, ACTIONS REQUIRED & CONCERNS - RAC

Status

-MAC
-Commercial Refrigeration
-Domestic Refrigerator (FOAM)

Actions Required

-Choice of Refrigerant
-MLF Funding
-Duty Concessions

Concerns

-Funding for transfer of technology for compressors
-Identification and conversion of unorganised sector
-Service Sector:
  - Funding
  - Training
-Training of Trainees.
-Feasibility of R&R
-Service Tail or Retrofit Costs

STATUS, ACTIONS REQUIRED & CONCERNS - AEROSOL

Status

-Availability of HAP
-Change in Packaged Commodity Rules

Actions Required
-MLF Funding
-Safety Training and Audit

Concerns
-Identification and relocation of unorganised sector

REGULATORY MEASURES TAKEN SO FAR (BY ADMINISTRATIVE ORDER)
-Ban on trade in ODS with non-parties
-Halon standards dropped in 1992 & 1993
-Compulsory licensing for import and export of ODS listed in Annex A & B
- 'New Produced CFC's' - Compulsory Labelling
-Ban on export of Annex A & B ODS to Non-Article 5 Parties

FISCAL MEASURES TAKEN SO FAR
-Customs & Excise duty exemption
-No finance / refinance by financial institutions for new investments with ODS
-Extension of Customs & Excise duty exemption for MLF eligible projects including cases of:
- Retroactive Funding
- No MLF Funding
- Items of Recurring Use including Non-ODS

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6. DESERTIFICATION

6.1 TECHNICAL PRESENTATION

THE UN CONVENTION TO COMBAT DESERTIFICATION, 1994

Dr. D.B. Ogolla
Legal Officer, UNEP/ELI/PAC

INTRODUCTION

The call for an international convention to combat desertification gained momentum at the Rio Summit in June 1992 when the African countries mobilised the support of other developing countries, particularly South American countries, and eventually succeeded in gaining the attention and support of the United Nations Conference on Environment and Development (UNCED) for such an instrument. African countries took the lead on the desertification issue because they are the most affected by the problem.

International concern over the issue, however, predates the UNCED. The first all-Africa Seminar on the Human Environment convened in August 1971, under the auspices of the United Nations Economic Commission for Africa (ECA), was the first International forum to make specific recommendations to combat the spread of deserts in Africa. This seminal meeting, and its recommendations, increased international action to respond to the problem. The United Nations by General Assembly Resolution 3337(XXIX) of 17th December, 1974, decided to convene a United Nations Conference on Desertification (UNCOD) in 1977. The Conference resulted in the adoption of the United Nations Plan of Action to Combat Desertification (PACD) in the same year.

It was subsequently suggested under Chapter 12 of *Agenda 21* that the General Assembly establish an intergovernmental negotiating committee for a convention to combat desertification (INCD) to be completed by June 1994. The formation of this negotiating committee and the subsequent adoption of the United Nations *Convention to Combat Desertification in those Countries Experiencing Drought and/or Desertification particularly in Africa*[1] demonstrate the growing need to combat the problem of desertification and the key role the UN plays in this task. This Paper outlines the basic tenets of the emerging International law on desertification, illustrates the major components of the legal regime, and relates them to national legislation and practice.

WHAT IS DESERTIFICATION?

Land degradation is world-wide in its geographical spread, leaving no continent unaffected; it is global in its environmental and socio-economic impacts. Over 100 countries, including more than 80 developing countries, are affected by land degradation in their dry lands. Dry lands, excluding hyper-arid deserts, cover over one third of the land mass of the Earth. At present, about 40 million people are said to be suffering from malnutrition in the dry lands of Africa alone. Hundreds die daily because of their inability to feed themselves from exhausted decertified dry land soils.

Unfortunately, there has been much confusion over the meaning of the term "desertification". To some, the term desertification suggests that the world's deserts are spreading, extending their sands over more fertile land. The borders of the deserts expand and shrink cyclically with fluctuations in the climatic conditions and rainfall. but this is a different matter. Desertification an ugly word for an ugly process is more like a skin disease. Patches of degraded land erupt separately, sometimes as far as thousands of kilometres away from the nearest desert. Gradually, the patches spread and join together, creating desert-like conditions. This is the issue that affects so many people and is largely man-made. If fully recognised and tackled, it should be resolved by man.

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[1] 33 ILM (1994) 1332-82

Desertification was defined by UNCOD in 1977 as follows.

"Desertification is the diminution or destruction of the biological potential of land, and can load ultimately to desert-like conditions. It is an aspect of the widespread deterioration of ecosystems, and has diminished or destroyed the biological potential, i.e. plant and animal production, for multiple use purposes at a time when increased productivity Is needed to support growing populations in quest of development."

This definition was found inadequate and insufficiently operational when attempts started in different parts of the world to implement various recommendations of the Plan of Action to Combat Desertification and to undertake the quantitative assessment of desertification. A series of definitions were developed by individual scientists, scientific institutions and implementing agencies.

As defined by UNEP, "desertification is land degradation in arid, semi-arid and dry sub-humid areas resulting mainly from human activities." This definition was modified by the UN conference on Environment and Development in 1992[1] and subsequently adopted by the United Nations Convention to Combat Desertification, to read as follows:

"Desertification is land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors, including climatic variations and human activities"(Article 1 (a)).

This definition has been internationally negotiated and approved and should be acceptable to all as the operational standard. The Convention adds that desertification is caused by complex interactions among physical, biological, social, cultural and economic factors (Article 16(c)).

THE MAGNITUDE OF THE PROBLEM:

The problem is more acute in the drylands which stretch across more than a third of the Earth's land surface. It is here where the soils are especially fragile, vegetation is sparse and the climate is particularly unforgiving that desertification takes hold. Some 70 percent of the 5,200 million hectares of the drylands used for agriculture around the world are already degraded. This is almost 30 percent of the total land area of the world. Just over a million hectares of Africa, 73 percent of its drylands, are moderately or severely affected by desertification. Another 1.4 million hectares are affected in Asia. However, it is not just a problem of developing countries: the continent which has the highest proportion of its dryland severely or moderately decertified - 74 percent - is North America. Five of the European Union's countries also suffer from it, and many of the other affected areas are in the countries of the former Soviet Union.

In all, 99 countries, 18 developed or oil-producing and 81 developing, are affected and even more are at risk. The United Nations Environment Programme estimates that desertification costs the world $42 billion a year. Africa alone loses some $9 billion a year, equivalent to the GNPs of Uganda, Tanzania and Ethiopia combined.

The human cost is even higher. The livelihoods of at least 900 million people - about a sixth of the entire population of the globe - are now at risk. Over 135 million - equivalent to the population of France, Italy, Switzerland and the Netherlands combined, may be in danger of being driven from their land. Nobody knows how many have already had to abandon their land as it turns to dust, but it certainly runs into millions: one-sixth of the population of Mali and Burkina Faso has already been uprooted in this way.

As a result of the numerous problems posed to the world by desertification, it became apparent in Rio that desertification is a serious problem which not only threatens hundreds of millions of people, but is also an obstacle to sustainable development. Indeed, it was the Sahelian drought of 1968-73 and its tragic effect on the peoples of that region that drew the world's attention to the chronic problems of human survival and development on the desert margins. Consequentially, the General Assembly recommended in resolution 3202 (S-VI) that the international community undertake concrete and speedy measures to arrest desertification and assist in the economic development of affected areas.

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[1]Chapter 12 of Agenda 21 of the United Nations Conference on Environment and Development (1992).

THE NEGOTIATION PROCESS

The Inter-Governmental Negotiating Committee for the Convention on Combating Desertification (INCD) held five substantive meetings which concluded the negotiating process of the Convention.

The first substantive session was held in Nairobi from May 24-3 June 1993, while subsequent sessions were held from 13-24 September 1993 in Geneva, 17-28 January. 1994 in New York and 21-31 March 1994 in Geneva respectively. The final session, where the convention was adopted and opened for signature was held in Paris from the 6-17 June 1994.

The two areas that provoked divergent views in the negotiation process were, financial resources and mechanisms and regional instruments. Although there appeared to be agreement on the need for improved donor co-ordination and more effective utilisation of existing funds, disagreement prevailed in a number of areas. These include: new and additional resources; establishment of a special fund; a new window in the GEF to fund desertification; and mandating the contribution of 0.7 percent of GNP for development assistance.[1]

Difficulties also developed between the G-77 and the Western European and Other Group (WEOG) over one major issue: the "global" nature of desertification. Some developed country delegates felt that the term "global" had specific connotations within the *Climate Change Convention*. In this regard, the responsibility of developed countries had been established and certain obligations assumed. At the INCD, developed countries wanted to avoid any possible linkages that would alter the nature of future assistance. making it, in essence, an obligation. In addition, some delegates felt that by using the word "global" would allow for a claim to be laid to access GEF funds for combating desertification.

MAJOR COMPONENTS OF THE CONVENTION

The final draft of the *United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa*, Paris, 1994, contains 40 Articles and four regional implementation annexes for Africa, Asia, Latin America and the Caribbean, and the Northern Mediterranean. The convention takes an innovative approach, breaking new grounds both in the way it tackles desertification and in International environmental law as a whole. It is designed to forge a new deal between Governments, the international community, development practitioners and local people. Here, only the major components of the legal regime of this convention are examined.

Objective

Article 2 states in the first part that, the objective of the Convention is to combat desertification and mitigate the effects of drought through action at all levels, supported by international co-operation and partnership arrangements, with the aim of achieving sustaintable development in affected areas (Art 2(1)). The convention gives particular priority to Africa, where the problem has its most serious effects. Indeed, the last session of the Intergovernmental Negotiating Committee which finally agreed on the text of the convention, passed a resolution on urgent action for Africa

- calling on affected African countries urgently to prepare action programmes and on donors to support them - even before the convention formally comes into force.[4]

The second paragraph of Article 2 stresses the importance of long-term integrated strategies (Art 2(2)).

Principles

In order to achieve its objectives and ensure adequate implementation, the convention lists four principles to guide the parties. The convention pioneers a democratic bottom-up philosophy in international environmental law. It clearly emphasises that the people who bear the brunt of the desertification and who best understand the fragile environment in which they live, must be fully involved and be allowed to participate in the decisions that will shape their lives. The first principle binds parties to ensure the participation of populations and local communities in the design and implementation of programmes to combat desertification (Art 3(a)).

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[1]Desertification Control Bulletin, No. 23, 1993 at page 6.

[4]The resolution is contained in document A/AC.241/L.22/REV.1. Also see the summary of the 5th substantive session of the INCD (Paris, 6-17 June 1994), in "Earth Negotiations Bulletin", Vol. 4, No. 55, 20 June 1994.

The second principle calls for the improvement of co-operation and co-ordination at sub-regional, regional and international levels on the basis of a spirit of solidarity and partnership (Art 3(b)).

The third principle extends the concept of partnership to relationships within the affected countries and, in doing so re-emphasises the importance of ensuring the participation of local communities (Art 3(c)).

In the fourth principle, the convention further stresses the consideration of the special needs of affected developing countries (Art 3(d)).

General Obligation of Parties to the Convention

The convention prescribes a general obligation to all parties acceding to it, and further sets special obligations to affected countries and developed countries respectively.

Article 4 lists the general obligations of all parties under the convention, emphasising the need to co-ordinate efforts and develop a coherent long term strategy at all levels. These obligations include:

adopting an integrated approach In addressing desertification and drought (Art 4(2)(a)); giving due attention to the situation of affected developing country parties with regard to international trade, marketing arrangements and debts (Art 4(2)(b)); integrating strategies for poverty eradication into efforts to combat desertification and mitigate the effects of drought; promoting co-operation among affected country parties; strengthening sub-regional, regional and international co-operation and co-operating within relevant Intergovernmental organisations (Art 4(2)(c-h)).

Obligations of Affected Country Parties

The obligations of affected country parties are set out in Article 5 of the convention. They include giving due priority to combating desertification and mitigating the effects of drought by allocating adequate resources and establishing strategies (Art 5(a) and(b)); paying special attention to the socio-economic factors when addressing the causes of desertification (Art 5(c)); promoting awareness and facilitating participation of local populations (Art 5(d)); strengthening existing legislation or enacting new laws; and establishing long-term policies (Art 5(e)).

Obligations of Developed Country Parties

Article 6 defines the obligations of developed country parties. This paragraph proved to be one of the most contentious paragraphs in the entire conventions[5]. It states that developed countries undertake actively to support the efforts of affected developing country parties to deal with desertification and drought (Art 6(a)), and to provide substantial financial resources and other forms of support to assist them in developing and implementing their own long-term plans and strategies in that regard (Art 6(b)). It further obliges developed countries to encourage the mobilisation of funding from the private sector and other non-governmental sources (Art 6(c) and (d)); to promote and facilitate access by affected country parties to appropriate knowledge, know-how and technology (Art 6(e)).

Priority For Africa

Article 7 calls on parties, in implementing this convention, to give priority to affected African country parties, while not neglecting affected developing country parties in other regions.

Transfer, Acquisition, Adaptation and Development of Technology

Article 8 of the convention deals with this subject.[6] It states that parties shall fully utilise relevant existing information systems and clearing-houses for the dissemination of information on available technologies (Art 18(1)(a)); facilitate access to technologies most suitable to practical application for specific needs of local populations (Art 18(1)(b)); facilitate access to technology among affected country parties (Art 1 8(1)(c)); and take appropriate measures to create domestic market conditions and incentives conducive to the development, transfer, acquisition and adaptation of suitable technology,

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[5] See summary of the 5th substantive session of the Intergovernmental Negotiating Committee for the Elaboration of an International Convention to Combat Desertification (Paris, 6-17 June 1994) in "Earth Negotiations Bullertin", vol 4, No. 55, 20 June 1994. At Page 6.

[6] The desision arrived at in this article was based on Chapter 34 on technology transfer in *Agenda 21*

knowledge, know-how and practices (Art 18(1)(c)).

The parties shall also make inventories of technology, knowledge, know-how and practices and their potential uses (Art 18(2)J(a)),ensure that such technology, knowledge, know-how and practices are adequately protected (Art 18(2) (b)); encourage and support the improvement and dissemination of technology; and facilitate the adaptation of such technology (Art 18(2)(c) and (d)).

Capacity Building, Education and Public Awareness

Under Article 9 which deals with these issues, parties agree to promote the building of institutions, the training of people and development of capacities both locally and nationally. They agree to do so in the co-operative and participatory spirit that pervades the treaty. Affected developing countries are to review their capacities and facilities and the potential for strengthening them, in co-operation with other parties and intergovernmental and non governmental organisations. National Institutions and legal frameworks are to be strengthened and new ones created where needed.

All parties undertake to "promote capacity building through the full participation of local people, particularly at the local level, especially women and youth, with the co-operation of non-governmental and local organisations." In a bottom-up approach, the parties further agree "to foster the use and dissemination of the knowledge, know-how and practices of local people."

Similarly, they undertake to provide training and technology "in the use of alternative - especially renewable - energy," to lessen dependence on fuelwood, while agreeing to "adapt traditional methods of agriculture and pastoralism" and environmentally sound technology to modern conditions. Article 19 also provides for the promotion of "alternative livelihoods, including training in new skills."

Pursuant to Article 19, Parties are to corporate in strengthening developing countries' capacity to collect, analyse and exchange scientific and technological information, and to train "decision makers, managers and personnel" responsible for data on food production and early warnings of drought.

The parties further agree to corporate amongst themselves, and with intergovernmental and non-governmental organisations, in organising campaigns to raise public awareness, encouraging the establishment of associations that contribute to it and helping people obtain permanent access to the information they need.

They also agree to assess educational needs in affected areas; expand educational and literacy programmes - especially for women and girls, and elaborate school curricula; develop "interdisciplinary participatory programmes" integrating desertification and drought awareness into educational systems and programmes. The parties also undertake to establish and strengthen regional educational and training centres.

Regional Implementation Annexes

The Convention contains regional implementation annexes for Africa, Asia, Latin America and the Caribbean, and the Northern Mediterranean.

The Regional Implementation Annex for Africa comprises 19 Articles and addresses a broad range of issues including scope; commitment and obligations of both African and developed country parties; strategic planning, framework and content of the national, sub-regional and regional programmes; technical assistance and co-operation, as well as transfer, acquisition, adaptation and access to environmentally sound technology; financial mechanisms and resources; and co-ordination, partnership and follow-up arrangements.

The Regional Implementation Annex for Asia is much shorter and more general in scope than the African Annex. It contains only eight articles purpose; conditions of the region; framework and content of national action programmes; regional activities financial resources and mechanisms; and co-ordination and co-operation mechanisms.

The Annex for Latin America and the Caribbean is similar in content and scope to the Asian Annex. It is also general and concise but contains only seven articles.

The annex for the Northern Mediterranean covers mainly Greece, Portugal and Spain. It differs from the other annexes in its orientation. It is the only Annex that provides for co-ordinated activity with other regions, particularly with North Africa, in preparation and implementation of action programmes.

Financial Resources and Mechanisms

Articles 20 and 21 address financial resources and mechanisms, respectively. They are considered, at least by the affected parties, as the two most important Articles of the convention and are the outcome of intense consultations during the final stages of the negotiations.

Given the central importance of financing to the achievement of a objective of the convention, Article 20 states that the parties, taking into account their capabilities, undertake to make every effort to ensure that adequate financial resources are available for programmes to combat desertification and mitigate the effects of drought (Art 20(1)).

Among other measures, developed country parties agree to promote the mobilisation of adequate, timely and predictable financial resources including new and additional funding from the Global Environmental Facility (GEF) of the agreed incremental costs of those activities concerning desertification that relate to its four focal areas, namely reduction of global warming, preservation of biological diversity, protection of international waters and prevention of further depiction of the ozone layer.

They also agree to explore innovative methods and incentives for mobilising and channelling resources, including those of private-sector entitles, particularly debt swaps and other innovative means which increase financing by reducing the external debt burden of affected developing country parties. The affected country parties undertake to mobilise adequate financial resources for the implementation of their national action programmes (Art 20(2)-(7)).

Article 21 establishes a Global Mechanism to promote actions leading to the mobilisation and channelling of substantial financial resources, including for the transfer of technology, on grant and/or concessional terms, to affected developing country parties. That mechanism should function under the authority and guidance of the Conference of the Parties and be accountable to it (Art 20(4)).

The Conference of the Parties should identify, at its first session, an organisation to house the Global Mechanism. Also at its first session, the Conference of the Parties should make the administrative arrangements for the operation of such a mechanism, and at its third session it should review its policies, operational modalities and activities (Art 20(5)-(7)).

INSTITUTIONS

1. Conference of the Parties

Article 22 of the Convention establishes the Conference of the Parties (COP) . The COP, is established as the "supreme body" of the Convention. It will meet not more than a year after the treaty enters into force, and then annually for the next three years. After that its meetings will be held at two yearly intervals and it can call extraordinary sessions.

The mandate of the COP is to make the decisions necessary to promote the effective implementations of the Convention (Art 22(2)). It will, among other things, review its implementation and the functioning of its institutions; establish subsidiary bodies; give them guidance and review their reports; promote and facilitate the exchange of information on measures adopted by the parties; adopt its own rules of procedure by consensus and approve its own programme and budget and those of subsidiary bodies (Art 22(2)-(8)).

2. The Permanent Secretariat

The Convention also establishes a permanent Secretariat. It will among other duties, make arrangements for sessions of the COP and its subsidiary bodies and compile and transmit reports submitted to it. It will also facilitate assistance to developing country parties, particularly in Africa, to compile and communicate the information required by the Convention.

It will report on the execution of its functions to the COP and co-ordinate its activities with the secretariats of other international bodies and conventions (Art 23(1)-(3)).

3. Committee an Science and Technology

Article 24 of the Convention provides for a Committee on Science and Technology. It is established as a subsidiary body of the Conference of the parties to provide it with information and advice on scientific and technological matters relating to combating desertification and mitigating the effects of drought. The Committee will be composed of government representatives and open to all parties (Art 24(1)).

The COP will set up and maintain a roster of independent experts and draw on this for ad hoc panels to give it information and advice on specific issues (Art 24(2)).

Communication and Information

All parties are to give reports to the COP on what they have done to implement the convention (Art 26(1)). Developing countries are to describe their strategies to fulfil their obligations under the Convention, and those that have implemented action programmes are to give detailed descriptions of them (Art 26(1) and (2)). The COP will facilitate the provision of technical and financial support to do this to affected developing countries, particularly in Africa (Art 26(7)).

Ratification, Acceptance, Approval and Accession

Article 34 states that the Convention and any additional regional implementation annexes or amendments to regional implementation annexes will be subject to the ratification, acceptance, approval or accession by States and regional economic integration organisations.

COST AND BENEFITS OF PARTICIPATING IN THE CONVENTION BY STATES

The Convention is based on the principle of a global partnership for sustainable development established by Agenda 21. Country Parties are enjoined to co-operate in the development of strategies and action plans, the transfer, adaptation and development of technologies for dealing with the problems of desertification and drought; in the exchange of information, know-how and practices; in capacity-building; and in ensuring adequate financial resources required for the effective implementation of the demands of the Convention. Developing Country Parties will derive benefits from these arrangements since they largely suffer from lack of national capacities, technological endowment, and financial resources to address these issues.

The costs related to participation in the Convention will include: the costs of structural changes in administration and legal arrangements associated with the implementation of the Convention at the national level; the financial resources required for the implementation of action plans and programmes; and reporting costs.

OBLIGATIONS ASSUMED BY A STATE WHEN IT BECOMES A PARTY TO THE CONVENTION AND NATIONAL MEASURES REQUIRED TO GIVE EFFECT TO THESE OBLIGATIONS

As mentioned previously, the obligations of parties to the Convention are clearly listed in Articles 4, 5 and 6.
The Convention has set out to refocus measures to be undertaken from simply combating desertification and mitigating the effects of drought, by integrating social and economic issues into the heart of its analysis and implementation,
affected country parties undertake, therefore, to " address the underlying causes of desertification, and pay special attention to the socio-economic factors contributing to the desertification processes" (Art 5(c)).

All parties have an obligation to "adopt an integrated approach addressing the physical, biological and socio-economic aspects of the processes of desertification and drought" (Art 4(2)(a)). More specifically, they are required to integrate strategies for poverty eradication into efforts to combat desertification and mitigate the effects of drought.
The Convention also insists at the outset that programmes to combat desertification must not be conceived and implemented in isolation, but should be integrated into development policies as a whole.

National Legislation to Effectively Implement the Convertion
Country Parties are expected to adopt national legislation for the effective implementation of the Convention. In the light of the provisions of the Convention such legislation may provide for:

- the formulation of strategies and action plans and programmes
- the establishment of national co-ordinating bodies
- the sustainable management and use of land and land-based resources
- the regulation of land use activities
- the integration of programmes to combat desertification into national development policies
- public participation in decision-making and implementation
- public education and awareness
- the use of appropriate technologies in land husbandry
- providing for regional co-operation
- facilitating capacity-building

CONCLUSION

It is true that any agreement is only as good as the action taken to implement it. The United Nations Convention to Combat Desertification is not an exception to this statement. There are many steps to be taken in order to ensure effective implementation of the Convention.

Countries will need to create national co-ordinating bodies. This will act as a catalyst for preparing, implementing and evaluating the national action programmes. Such national focal points should work out what institutional arrangements will be needed to implement the programme of action, what it will cost, and what the nation can spend. It should start a broad and thorough process of consultation both with its own nation's citizens and with donor countries and international organisations. It should ensure full participation of the people of the drylands and non-governmental organisations in assessing the strengths and weaknesses both of the past and current programmes, and of the strategies proposed for implementing the new ones. A national forum should also be organised to formalise, this Interactive process and lead to setting up a consultative group with donors that would conclude partnership agreements.

Donor countries should in the meantime be urged to mobilise resources and rearrange priorities so as to play their part in these partnerships and provide the substantial, timely and predictable finance that is needed.

Another important step is the necessity to mobilise local and community interest in the Convention and the preparation of national action programmes. Most challenging is that many governments do not have a tradition of popular participation. Access to information is very limited and bottom-up input practically does not exist. Thus, NGOs and government alike must embark on a major campaign to disseminate information to grassroots and community organisations to ensure that bottom-up input is received and incorporated into the action programmes.

Desertification is a global problem that affects first and foremost the economies and well-being of the people as well as the economies of nations that the dryland people subsequently turn to for survival. In addition, to the individual losses and sufferings of about 900 million people, costs due to desertification include loss of biological diversity, loss of the earth's biomass and bio-productivity and effects on global climatic change. The immediate ratification and implementation by States of the UNCCD will have a salutary effect on their efforts to deal with the problems of desertification and drought and, consequently, reduce human suffering.

7 BIOLOGICAL DIVERSITY

7.1 TECHNICAL PRESENTATION

LEGAL AND INSTITUTIONAL ARRANGEMENTS REQUIRED AT THE NATIONAL LEVEL FOR THE EFFECTIVE IMPLEMENTATION OF THE CONVENTION ON BIOLOGICAL DIVERSITY

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PART 1 - INTRODUCTION

The environmental problem that the Convention on Biological Diversity (CBD) seeks to address through international co-operation

The distribution and magnitude of the biodiversity that exists today is a product of over 3.5 billion years of evolution, involving speculation, migration, extinction, and more recently, human influences. Recent estimates of the total number of species range from 7 to 20 million, but it is believed that a good working estimate is between 13 and 40 million, of which only about 1.75 million species have been scientifically described, just under a fifth of them plants and vertebrates.

The loss of the world's biological diversity, and the economic and ecological consequences of that loss are now widely recognised as an environmental matter of urgent global concern. It is only recently that the relative "smallness" of the planet, the extent to which human activity can cause the extinction of species, and the implications for the environment and the human society have come to be recognised. The rate at which species are becoming extinct is unclear, because so many species are unknown, and because of the absence of a baseline from which to measure. However, a recent United Nations report suggested that over the next quarter century from 2 per cent to 25 per cent of species in tropical forests in the various groups examined might be extinct, which represents a rate between 1000 to 10,000 time the historic rate of extinction.

Origin and history, principal issues that were the subject of negotiation of the intergovernmental negotiating committee

Well before the intergovernmental negotiations began under the aegis of the United Nations Environment Programme (UNEP), international experts had been promoting the idea of a global Convention on biological diversity and working to develop elements for such an instrument.

The World Conservation Union had been exploring the possibilities for a treaty on biological diversity and from 1984 to 1989 had prepared successive drafts of articles for inclusion in a treaty. The IUCN draft articles, which were prepared by the IUCN's Commission on Environmental Law and the IUCN Environmental Law Centre with help from numerous experts, concentrated on the global action needed to conserve bio-diversity at the genetic, species and ecosystem levels, and focused on in-situ conservation within and outside protected areas. It also included the provision of a funding mechanism to alleviate the inequality of the conservation burden between the North and the South.

In 1987, the UNEP Governing Council recognised the need to increase and streamline international efforts to protect biological diversity. It therefore established an ad hoc working group to investigate the "desirability and possible form of an umbrella convention to rationalise current activities in this field, and to address other areas which might fall under such a convention" (UNEP Governing Council Res. 14/26 (1987)).

The first meeting of the group in late 1988 concluded that the existing conventions addressed specific questions of bio-diversity conservation but, because of the fragmented character, did not address the conservation of biological diversity in a holistic manner. By early 1990, the ad hoc working group had reached a consensus that a new global treaty on bio-diversity was needed, in the form of a framework treaty, building on existing Conventions.

With draft articles developed by the IUCN and by FAO before them for consideration, as well as a number of studies commissioned by UNEP, the working group prepared a large number of elements for possible inclusion in a global treaty. The UNEP Secretariat, assisted by a small group of legal experts, then prepared a first draft of the convention based on all the elements that had been produced so far.

The formal negotiation process started in February 1991, when the group was renamed the Intergovernmental Negotiating Committee for a Convention on Biological Diversity. The main issues were divided between two working groups for discussion article by article. Working Group I dealt with general issues, such as the fundamental principles, general obligations, measures for in-situ and ex-situ conservation and the relationship with other legal instruments. Working Group II dealt with issues of access to genetic resources and relevant technologies, technology transfer, technical assistance, financial mechanisms and international co-operation.

The work culminated on 22 May 1992 with the Nairobi Conference for the Adoption of the Agreed Text of the Convention on Biological Diversity.

The Convention was opened for signature on 5 June 1992 at the United Nations Conference on Environment and Development in Rio de Janeiro. It remained open for signature until 4 June 1993, by which time it had received 168 signatures. The Convention entered into force on 29 December 1993, which was 90 days after the 30th ratification.

The principal areas in which accommodation were made of conflicting positions taken by the different groups of states in the pursuit of consensus

The proposition that biodiversity should be considered as the "common heritage of mankind" was rejected at an early stage of the negotiations, since most components of biological diversity are situated under national jurisdiction. Instead, emphasis was placed on the States' sovereign rights over biological diversity.

Access-related issues were some of the thorniest in the negotiation of the CBD. In order to be willing to discuss and eventually take on the conservation obligations, developing countries made certain demands of their own. Not only did they press for the Convention to become more directly use-oriented, but many made their participation in the negotiations conditional on the inclusion in the CBD of obligations and measures on three types of access: access to genetic resources, which they wished to have recognised as subject to national authority; access to relevant technology, stressing that it includes biotechnology; and access for the providing States to benefits ultimately gained from the use of genetic material in the development of biotechnology.

Any matters of particular relevance to the South Asia region

The Asia-Pacific region is one of the biologically richest parts of the world. It includes the world's highest mountain system, the second largest expanse of rainforest, more than half of the world's coral reefs, and a countless number of islands. The cultural diversity of the region has been a critical factor in its contribution to the global list of species used for food, spices, medicines, and domesticated animals. Despite such natural endowment, rapid population growth, rising resource consumption, and thoughtless demands for economic growth have contributed to a significant deterioration in habitats and loss of species. The rate of loss in forest cover in the region is higher than for either Africa or Latin America. Future remedial action needs to follow three basic strategies: expand public awareness about the relevance and significance of bio-diversity as a means of strengthening public will and ability to act; enable the local communities to participate meaningfully in the conservation effort, and link these efforts to rural development; and demonstrate conservation benefits through a practical field level "show-by results" campaign.

Status of implementation/ratification of the Convention

As of 18 February 1997 the Convention has been ratified by 165 States and one regional economic integration organisation with a further 6 states having signed the Convention.

PART 2 - STRUCTURE AND CONTENT OF THE CBD

The CBD is a framework convention in the sense that it leaves it up to individual Parties to determine how most of its provisions are to be implemented. The provisions are expressed as overall goals and policies, rather than as hard and precise obligations. The CBD does not set any concrete targets, there are no lists, no annexes pertaining to sites or protected species. However, the Conference of the Parties, may if they so decide, negotiate annexes and protocols to the

Convention. The Convention is thus evolving as a policy guidance body, based on the ecosystem approach, which seeks to promote action through existing institutions. This is illustrated by the focus of the decisions on framework programmes and guidance statements.

Objectives

The three objectives of the CBD are: "the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding." Any strategy to slow down the loss of biodiversity and to enhance its contributions to development must integrate these three essential elements. In the development of national strategies and action plans, as called for by the CBD, we need to know if there are conceptual approaches to address conservation and sustainable use in broad terms: internationally, nationally, or locally, in a bio-region, landscape or ecological community, for instance.

The Convention on Biological Diversity also recognises that the cause of species and ecosystem losses are diffuse in nature, involving many sectors. Economic and institutional factors therefore play important roles in integrating the objectives of the CBD as most effects on bio-diversity result from the secondary consequence of activities such as agriculture, forestry, fisheries, water supply, transportation, urban development, energy and so forth. management objectives must incorporate the concerns and aspirations of the many stakeholders involved, including local communities.

Important definitions

Article 2 of the CBD addresses the use of terms an defines the terminology used for the purposes of the Convention. Terms defined include:

Biological diversity is defined as "the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part. This includes diversity within species, between species and of ecosystems."

Biological resources includes genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity.

Biotechnology means any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use.

Ex-situ conservation means the conservation of components of biological diversity outside their natural habitat.

In-situ conservation means the conservation of ecosystems and natural habitats, and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties.

Genetic material means any material of plant, animal, microbial or other origin containing functional units of heredity.

Genetic resources means genetic material of actual or potential value.

Protected area means a geographically defined area which is designated or regulated and managed to achieve specific conservation objectives.

Sustainable use means the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.

Technology includes biotechnology.

Other terms defined include: country of origin of genetic resources, country providing genetic resources, domesticated and cultivated species, ecosystem, habitat, in-situ conditions, and regional economic organisation.

General principles

The sovereign rights of States over their natural resources are referred to in the preamble and in Articles 3 (Principle) and 15 (Access to genetic resources). Article 3 is basically a reiteration of Principle 21 of the Stockholm Declaration, in recognising that States have the sovereign right to exploit their own resources pursuant to their own environmental policies. Article 15 recalls the sovereign rights of States over their natural resources as a basis for the authority to determine access to genetic resources. The CBD also recognises in its preamble that the conservation of biological diversity is a common concern of humankind, which implies a common responsibility to the issue based on its importance to the international community as a whole.

Obligations, rights and duties

The purpose of both Article 4 (Jurisdictional scope) and Article 5 (Co-operation) is to address the scope of the CBD's obligations, by clarifying in what instances, and in what geographical areas, a Party is obliged to act. Therefore the two Articles need to be read together. The Articles, however, do not innovate, but simply apply existing rules of international law to the subject matter of the Convention.

According to Article 4(a), a Party's obligation to implement those Convention provisions which apply to the components of biological diversity is limited to areas within the limits of national jurisdiction. Article 4(b) requires each Party to implement the CBD's provisions dealing with processes and activities for 1) areas within its national jurisdiction or 2) areas beyond the limits of national jurisdiction, to the extent that the activities or processes are carried out under the Party's jurisdiction or control.

Article 5 requires Parties to co-operate directly or through competent international organisations in areas beyond national jurisdiction and where there is a matter of mutual interest in order to conserve and sustainable use biological diversity in these areas. The obligation to co-operate also applies to processes and activities in areas beyond the limits of national jurisdiction and to any other matters of mutual interest

Conservation and sustainable use

The Convention contains a series of far-reaching obligations related to the conservation of biological diversity and the sustainable use of its components. Obligations on the sustainable use of biological resources are interwoven into a number of articles, as for instance in Article 6 (General Measures for Conservation and Sustainable Use), Article 8 (In-situ Conservation) and are also specifically addressed in Article 10 (Sustainable use of components of biological diversity). Parties undertake to regulate or manage biological resources for conservation and sustainable use and to encourage the development and methods for sustainable use. The principle that environmental considerations should be integrated into economic and other development plans, programmes and projects, and that development needs should be taken into account in applying environmental objectives is reflected in Article 6(b) of the CBD. Many of the Parties to the CBD have already developed strategies which facilitate a cross-sectoral integration of bio-diversity considerations with 27 Parties announcing that they had completed their strategies at the last COP. Mindful of the resource limitations in many developing country Parties the second meeting of the COP instructed the financial mechanism to facilitate the urgent implementation of Article 6 by availing developing countries financial resources in a flexible and expeditious manner. Several Parties have also established multi-departmental committees to ensure that bio-diversity issues are considered on an ongoing basis.

Parties shall also integrate sustainable use of biological resources into national decision-making, adopt measures to avoid or minimise adverse impacts on biological diversity, protect and encourage customary use of biological resources, support local populations and implement remedial action in degraded areas, and encourage co-operation between its governmental authorities and its private sector in developing methods for sustainable use of biological resources (Article 10).

Identification and monitoring

In order to have a good scientific basis for their activities, each Party undertakes to identify important components of bio-diversity and to identify priorities which may need special conservation measures, or which may offer the greatest potential for sustainable use. Processes and categories of activities which may have significant adverse effects on conservation and use are also to be identified and monitored (Article 7).

***In-situ* conservation**

Article 8 provides the main set of Convention obligations to conserve biological diversity. *In-situ* conservation is recognised as the primary approach for bio-diversity conservation. The Article addresses the conservation of ecosystems, wild species and genetic diversity. It also covers the *in-situ* conservation of human created plant varieties and animal breeds.

The Article calls for measures ranging from the establishment of a system of protected areas to the rehabilitation of degraded ecosystems and recovery of threatened species, the protection of natural habitats and the maintenance of viable populations of species in natural surroundings.

The role of indigenous peoples and local communities

Indigenous and local communities have been developing, conserving and using the biological resources on their lands and territories in a sustainable manner for millennia and consequently have a vital role to play in achieving the objectives of the CBD. As the foremost legally binding international instrument embodying these rights, indigenous and local communities have actively participated in the CBD process. The role of indigenous and local communities in conserving biological diversity is recognised in Articles 8 (j), 10 (c) and in the preamble to the CBD. The importance of maintaining their knowledge and practices as relevant to the conservation of bio-diversity and the sustainable use of its components is recognised, as is the need to encourage equitable sharing of benefits derived from the use of their knowledge and innovations.

Access and participation in the CBD process of such groups has been actively promoted by the Parties and the organs of the CBD. The Executive Secretary has advised and provided information on the relationship between indigenous and local communities and forests, as invited by the Inter-Agency Task Force of the Intergovernmental Panel on Forests. The third meeting of the Conference of the Parties stressed the need for Parties to implement the relevant provisions of the CBD and initiated an intergovernmental process to further develop these provisions. As part of this intersessional process, the Executive Secretary has been requested to arrange a five-day meeting of the Parties and other participants before the fourth meeting of the COP.

Parties have been encouraged to conduct case studies of the relationships between intellectual property rights and the knowledge, practices and innovations of indigenous and local communities. Parties have also been invited to share experiences on incentive measures and make relevant case studies available to the Secretariat. Parties are also encouraged to promote the mobilisation of farming communities, including indigenous and local communities, for the development, maintenance and use of their knowledge and practices in the conservation and use of biological diversity in the agricultural sector. Parties are encouraged to develop national strategies, programmes and plans which, *inter alia*, empower their indigenous and local communities and build their capacity for in-situ conservation and sustainable use and management of agricultural biological diversity, building on the indigenous knowledge systems.

***Ex-situ* conservation**

In addition to *in-situ* conservation measures, in some cases the components of biological diversity can also be conserved *ex-situ*, such as in gene banks, in-vitro plant tissue and microbial culture collections, in captive breeding facilities, zoos, aquarium and botanical gardens. Article 9 *(Ex-situ* conservation) makes it very clear that *ex-situ* should predominately complement *in-situ* measures.

Incentive measures

Article 11 requires each party to adopt measures which act as incentives to conserve biological diversity and sustainable use its components. These measures should be economically and socially sound. The private sector has an especially important role to play in the design and implementation of incentive measures. To this end, Parties have been encouraged to develop training and capacity-building programmes to implement incentive measures and promote private-sector initiatives. The Executive Secretary has been requested to encourage the involvement of the private sector in supporting the objectives of the CBD.

Research, training and capacity building

Measures for research and training are addressed in Article 12 of the Convention. It addresses human capacity budding (scientific and technical training), research and international co-operation to apply biodiversity related research. Article

13 reflects the well accepted principle that environmental education and awareness is vital for safeguarding the natural environment. The essence of the article is furthering human understanding of bio-diversity through formal and informal education.

The Conference of the Parties has identified the need for Parties to initiate projects on capacity-building with indigenous and local communities to address concerns in the conservation and sustainable use of biological diversity and of equitable sharing of the benefits arising from the utilisation of their knowledge, innovations and practices has been emphasised. The financial mechanism has been requested to examine supporting capacity budding projects for indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity with their prior informed consent and their participation.

Impact assessment and minimising adverse impacts

Article 14 deals with four different areas. Paragraphs 1 (a) and (b) concern environmental impact assessment of a Party's proposed projects, programme and policies. Paragraphs 1 (c) and (d) deal with transfrontier co-operation, in particular notification, information, consultation and emergencies. Emergency planning, including international co-operation, is addressed in paragraph 1 (e). Finally, paragraph 2 touches on the issue of liability for damage to biological diversity.

Sharing of benefits arising from the use of genetic resources

Following the national orientation of the CBD, Articles 15 (Access to genetic resources), 16 (Access to and Transfer of technology) and 19 (Handling of biotechnology and distribution of its benefits) require that access to results and benefits be given on a bilateral level, so that those Parties providing the genetic material obtain a fair and equitable share of the benefits when and if these are realised. The arrangement is to be decided in each individual situation according to mutually agreed terms.

Benefit sharing is one of the advantages which can accrue from controlling access to genetic resources. The CBD lists some examples of benefits which may be shared, including participation in scientific research, the fair and equitable sharing of research and development results and commercial and other benefits derived from genetic resource use, access to and transfer of technology making use of genetic resources, participation in biotechnological research activities based on genetic resources, and priority access to results and benefits arising from biotechnological use of genetic resources provided. The concept of fair and equitable sharing of benefits should be internalised in plans, programmes and strategies relating to the conservation and sustainable use of biological diversity and its components. Modalities for the fair and equitable benefits sharing will be addressed at the next COP.

Access to and transfer of technology

Article 16 defines the basic obligations of each Contracting Party regarding technology transfer, the basis of transfer to developing countries and what measures are to be taken to institute the transfers contemplated. Article 16 must be read in conjunction with other articles because internal barriers, such as lack of scientific, institutional and administrative capacity, could impede the introduction and use of new technology by some Parties. Article 16 should therefore be implemented along with Article 12 (Research and training), Article 17 (Exchange of information), Article 18 (Technical and scientific co-operation) and Article 19 (Handling of biotechnology and distribution of its benefits).

Biotechnology

Biotechnology provides important tools for bio-diversity utilisation for human benefit. A major aim of biotechnology is to improve production quantitatively and qualitatively. Living organisms can be used as factories for specific products, targeted at a variety of production end uses, harnessed for environmental remediation, or used in industrial processes. Biotechnology applications can serve rural, manufacturing and extractive activities. Nearly all modern crop varieties and some highly productive livestock strains contain genetic material recently incorporated from related wild or weedy species, or from more primitive genetic stocks still used and maintained by traditional agricultural peoples. Likewise, both cultivated and wild biota are important contributors to the pharmaceutical and health industries. The CBD recognises the sovereign rights of States over their genetic resources and that the authority to determine access to these resources rests with the national Governments and is subject to national legislation. Each Contracting Party is to create conditions to facilitate access to genetic resources for environmentally sound uses by other Contracting Parties and not to impose restrictions that run counter to the objectives of the Convention. Such access, shall be subject to prior informed consent by the Party providing such resources and shall be on mutually agreed terms. The Convention provides the basis for the measures to be taken with the aim of sharing in a fair and equitable way the results of research and development and the benefits arising

from the commercial and other utilisation of genetic resources with the party providing such resources. Such sharing is also provided on mutually agreed terms.

Biosafety Protocol

Despite the considerable benefits which biotechnology may bring, the technology does also have the potential to cause harm to the environment and human health. Mindful of these dangers the CBD has established an Ad Hoc Working Group of Experts on Biosafety to develop an internationally legally binding protocol, specifically focusing on the transboundary movement of any living modified organism resulting from biotechnology that may have an adverse impact on the conservation and sustainable use of biodiversity. The Group's first meeting was held in July 1996. The ad-hoc working group will meet twice in 1997 and a sufficient number of meetings in 1998 is requested in order for it to complete its work that same year. GEF has been requested to support capacity-building in Biosafety, including for the implementation by developing countries of the UNEP International Technical Guidelines on Safety in Biotechnology. GEF is to support human and institutional capacity-building programmes for appropriate bodies to promote the successful development and implementation of legislative, administrative and policy measures and guidelines on access to genetic resources, including scientific, technical, business, legal and management skills and capacities.

Technical and Scientific Co-operation

It is axiomatic that implementing the aims of the CBD requires a quantum leap in the available scientific understanding of biodiversity. Indeed, even basic information such as the number of species which currently exist or are threatened is not adequately known. Consequently, significant importance is placed on the promotion of the relevant sciences within the CBD. The importance placed on the issue is indicated by the fact that the purpose of the first and as yet only, subsidiary body of the COP is to provide scientific advice for the COP. Article 25 of the CBD provides for the establishment of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA). SBSTTA is composed of experts representing governments competent in the relevant field of expertise. It shall provide the COP and, as appropriate, its other subsidiary bodies with timely advice relating to the implementation of the Convention. The relevance of the SBSTTA's advice is demonstrated by the heavy reliance of the COP on this advice. The CBD process has also been active developing scientific capacity in developing countries. For example, the most recent COP requested the financial mechanism to support a Global Taxonomic Initiative which is designed to build not only our knowledge about the nature and number of species throughout the world, but also to develop taxonomic capacity in the developing world and encourage its development in the developed world. Another activity which is designed to promote scientific capacity in developing countries is the clearing-house mechanism. Although this mechanism has not yet had any demonstrable impact on scientific understanding it is expected when fully operational to make significant contribution to understanding biodiversity at regional and global levels. To date, the SBSTTA has met twice and the third meeting will be held in Montreal in September 1997.

Also, a clearing-house mechanism has been established to promote and facilitate technical and scientific co-operation, as required by Article 18. A pilot phase was initiated for 1996-1997 during which the clearing-house mechanism should make full use of existing facilities so as to avoid duplication or overlap of activities and allow for early implementation of the mechanism. The second meeting of the Conference of the Parties requested GEF to explore the modalities of providing support through the financial mechanism to developing country Parties for capacity-building in relation to the operation of the clearing-house mechanism and report to the Conference of the Parties at its third meeting. The third meeting of the Conference of the Parties decided that GEF should implement its revised operational criteria for enabling activities in relation to the clearing-house mechanism as quickly as possible in order to support the following activities as critical components in the implementation of the clearing-house mechanism at the national, subregional and regional levels, including in the pilot phase: (i) capacity-building for the purpose of the clearing-house mechanism, including training in information systems technologies that will allow developing countries to take advantage of the recent developments in electronic communication including the Internet; (ii) country-driven pilot projects, focused on priority areas identified by the Conference of the Parties which would enable developing countries to begin to implement the main features of the pilot-phase of the clearing-house mechanism. The rapid development and enthusiasm for the clearinghouse mechanism illustrates the widely recognised need for reliable and accurate information to ensure effective implementation of the CBD. The exercise has also demonstrated the complexity of establishing an effective and accessible global clearinghouse mechanism. It has also shown the importance of establishing the system from the ground up and developing it in an organic and flexible manner as opposed to a highly engineered and structured system.

Sources of funding for the CBD

The Convention has three main categories of sources of financial support: sources provided through the financial mechanism; sources provided through bilateral and multilateral institutions; and sources provided at the national level.

(1) The financial mechanism

The Global Environment Facility (GEF) has been entrusted with the operation of the financial mechanism of, i. e., the CBD, on an interim basis. It is a mechanism for international co-operation for the purpose of providing new, and additional, grant and concessional funding to meet the agreed incremental costs of measures to achieve agreed global environmental benefits in the areas of biodiversity, climate change, international waters and ozone layer depletion.

The three implementing agencies of the GEF are the United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP) and the World Bank.

GEF functions under the authority and guidance of, and is accountable to, the Conference of the Parties. The GEF Operational Strategy, which fully incorporates the guidance of the Conference of the Parties, was developed to guide the GEF in the preparation of country-driven initiatives in its four focal areas. The GEF's objectives in biological diversity derive from the objectives of the CBD. In accordance with the guidance from the COP of the CBD, the GEF Operational Strategy provides for three categories of activities: 1) operational programmes encompassing long-term measures; 2) enabling activities; and 30 short term response measures.

The resources provided through the GEF are used to fund agreed incremental costs of developing country parties to the Convention. These financial resources that are provided though the financial mechanism may play a significant role if they are able to be used as a catalyst so as to mobilise other financial resources and set examples in using biological resources in a sustainable manner.

By November 1996, the GEF had approved 49 biodiversity related projects for inclusion in its work programme. These include 2 projects in Bhutan 1.62 million US dollars, an ecodevelopment project in India US$ 20 million. Most of the projects approved are enabling activities.

The concept of "enabling activitie" has not been formally adopted by the COP of the CBD, although many enabling activities are of direct relevance to biodiversity and are recognised as priority activities by the CBD. Enabling activities in biodiversity prepare the foundation for design and implementation of effective response measures required to achieve Convention objectives. They will assist recipient countries to develop national strategies, plans, or programs referred to in Article 6 of the CBD, and to identify components of biodiversity together with processes and activities likely to have significant adverse impacts on conservation and sustainable use of biodiversity pursuant to Article 7 of the CBD. They will normally involve the review and assessment of information and will assist a recipient country to gain a better understanding of the nature and scope of its biodiversity assets and issues as well as a clearer sense of the options for the sustainable management and conservation of biodiversity. Enabling activities cover: inventorying existing biodiversity by relying on national programmes and studies, without new primary research, through national strategies, identifying options and establishing priorities to conserve and rationally use biodiversity, improve biodiversity planning. preparation of national action plans to conserve and enhance biodiversity; and disseminating information through national reports to the CBD.

(2) Bi- and multilateral funding

Developed country Parties are also entitled to fulfil their commitment to provide new and additional financial resources through their own bilateral aid programmes. Further financial support for developing country Parties is also made available through the aid programmes of multilateral organisations. Monitoring these commitments has proved problematic, due to lack of standardisation in reporting procedures of funding institutions. The second and third meetings of the COP instructed the Secretariat to consider how these commitment might be monitored and urged funding institutions to standardise information on their financial support for the CBD and to provide such information to the Secretariat. As a result the Secretariat has begun discussions with the World Bank and the OECD's Development Assistance Committee with a view to developing a system of reporting which will enable a monitoring of such commitments. The Secretariat to the CBD has also begun to explore with the DPCSD how it might usefully contribute such information to the DPCSD's work regarding financial commitments for Agenda 21. The COP also urged funding institutions to review their activities in order to make them more supportive of the CBD, specifically requesting them to consider how they might incorporate principles of best practise into their programmes.

(3) National funding

The COP has also instructed the Secretariat to explore the possibilities to identify additional financial resources to support the objectives of the Convention. An area which the Secretariat has actively pursued in this respects is developing the level of private investment in activities which support the aims of the CBD. In support of this work the third meeting of the COP

invited Parties to share experiences on measures which encourage private sector investment and requested the Secretariat to facilitate this exchange through the clearing-house mechanism and regional workshops.

Reporting, monitoring and settlement of disputes

Article 26 provides a mechanism to monitor the implementation of the Convention. Each Contracting Party is obliged to report regularly on the measures taken to implement the Convention. The report must also consider the measures' effectiveness which means a Party may have to draw on information derived from Article 7 (Identification and Monitoring) to fulfil its reporting obligations. The first national reports are to be submitted 31 December 1997, and will be reviewed at the fourth meeting of the Conference of the Parties to be held in Bratislava in May 1998.

Article 27 provides for the means of conflict resolution. Any conflict arising under the CBD has to be settled according to its provisions. The means provided include binding and non-binding procedures, with a clear priority given to non-binding procedures (negotiations, good offices, mediation or conciliation).

The dispute settlement rules apply, in general, to both the Convention and any protocols to be concluded under the Convention. However, since the protocols will be international agreements in their own right, subject to the general provision of Article 32 (Relationship between this Convention and its protocols), they may provide their own rules for dispute settlement.

Role of the Conference of the Parties

The Conference of the Parties (COP) is the governing body of the Convention and consists of representatives of governments. According to Article 23 of the CBD, ordinary meetings shall be held at regular intervals to be determined by the Conference at is first meeting. COP has held three meetings up to date, the first session was held 28 November - 9 December 1994 in the Bahamas, the second 6-17 November 1995 in Jakarta and the third in Buenos Aires 4-15 November 1996. The next Conference of the Parties will be held in Bratislava in May 1998.

The COP is the decision making organ and may adopt amendments, annexes, and protocols to the Convention in accordance with the procedure set forth in the Convention. The Parties shall make every effort to reach agreement on any proposed amendment or annex to the Convention by consensus. If all efforts at consensus have been exhausted, the amendment shall, be adopted by a two-thirds majority vote of the parties present and voting at the meeting. Any body or agency, whether national or international, intergovernmental or non-governmental , which is qualified in matters relating to conservation or sustainable use of biological diversity, may be represented at meetings of the COP as an observer.

PART 3 - COSTS AND BENEFITS OF BIODIVERSITY CONSERVATION

Costs

Agenda 21, chapter 15.8, estimates the cost of biodiversity conservation to around US$ 3,5 billion per year between 1993 and 2000. This is the sum that is needed to fund the activities outlined for biodiversity conservation. The Global Biodiversity Strategy developed by IUCN, UNEP and WRI estimates the world-wide costs for conserving biodiversity at approximately US$ 17 billion per year. These figures are not, however, to be interpreted as unrecoverable expenditures, but as investments in the future ecological, economic and social security of each country.

The Trust Fund

The Trust Fund for the CBD, as established in decision 1/6 of the first meeting of the Conference of the Parties, is used for funding the administration of the Convention including the Functions of the secretariat. The Trust Fund is financed from: contributions made by the Parties to the CBD based on the United Scales of Assessment for the apportionment of the expenses of the United Nations; additional contributions made by such Parties; and contributions from States not Parties to the Convention, as well as governmental, intergovernmental and non-governmental organisations, and other sources.

Benefits

The benefits of biodiversity conservation stem from the safeguarding of biodiversity's functions and services upon which humanity relies. These services and functions encompass, *inter ale:* biodiversity facilitates ecosystem functions that are vital for continued habitability of the planet (such as carbon exchange, watershed flows of surface and ground-water, the

protection and enrichment of soils, the regulation of surface temperature and local climate, etc.); it offers aesthetic, scientific, cultural and other values which are intangible and non-monetary, but which are nonetheless almost universally recognised; biodiversity is the source of many of the world's products, including foodstuffs, fibres, pharmaceutical products, and chemicals, and is a fundamental source of information for and input to biotechnology; biodiversity forms the basis for crop and livestock varieties, the improvement of existing varieties, and the development of new ones; the uniqueness and beauty of diverse ecological systems has value for a wide range of recreational uses and eco-tourism.

GEF-funding

Countries which are Parties to the CBD and are eligible to receive GEF assistance, may contact any of the GEF implementing agencies. A formal request for assistance to undertake enabling activities or other biodiversity related activities should come from national GEF focal points, wherever so established.

PART 4 - PRINCIPAL ELEMENTS OF A NATIONAL LEGAL AND INSTITUTIONAL ARRANGEMENT THAT WOULD BE REQUIRED TO EFFECTIVELY IMPLEMENT THE CONVENTION

Ordinarily, a domestic law is required to implement an international treaty or convention. But as the CBD is a framework Convention, many of its provisions, technically speaking do not require legislation for their implementation. For example, Contracting Parties that have developed and adopted national conservation strategies, programmes and plans, and that have incorporated the objectives of the CBD, would be considered as having met the obligations of Article 6. Similarly, Parties may want to alleviate environmental hazards, such as deforestation, by providing fiscal incentives to this end. National implementation of the CBD objectives during the first stage after the adoption of the Convention has essentially focused on the establishments of biodiversity management capacities such as national biodiversity strategies and plans, biodiversity committees or task forces, and biodiversity focal points. Implementation of the requirements of in-situ conservation include the establishment of protected areas, the protection of threatened species, restoration and rehabilitation of degraded habitats and ecosystems.

However, since the provisions of the Convention are largely ones of result, State action and practice on implementation, including legislative options, are important. Countries need not necessarily apply a model statute to this respect, as the region is so diverse but many benefits are to be gained from regional harmonisation and co-operation regarding transboundary aspects. A national law to implement the CBD might include objectives, territorial jurisdiction, subject-matter jurisdiction, integration of biodiversity considerations into sectoral policies, planning and land-use, research and training, incentives, financial support, and institutions.

Environmental Impact Assessment

Environmental Impact Assessments have become a critical tool in integrating environmental concerns into decisions about development. Asia-Pacific countries fall into four broad categories regarding their EIA legislation: 1) countries with specific legislation on EIA; 2) countries with no specific legislation on EIA but with general legislation on environmental protection which empowers a government agency to require EIA for particular projects; 3) countries without formal EIA requirement but with informal procedures to incorporate environmental considerations into specific types of projects; and 4) countries without formal requirement for EIA. While each specific piece of national legislation is different, there are several common elements which must be considered: a) a threshold for considering when an EIA is required; b) a methodology for conducting the EIA; and c) a requirement that the results of the EIA be taken into account in the final decision regarding the approval of the project.

Access to genetic resources

All Parties are required to take legislative, administrative or policy measures which "aim" for benefit-sharing, whether they are developed or developing countries. The provisions on access to genetic resources of the Convention have been implemented in a variety of ways by at least 13 Parties, with a further 13 announcing at the last COP that they were developing such controls. A variety of strategies have emerged in those countries which have begun the process of establishing controls over access to their genetic resources in order to implementing equitable sharing of the benefits of their use. In some countries, the route to introducing access measures is to produce specific legislation on access and benefit-sharing. The measures already introduced in the Philippines and the Andean Pact fall into this category, as do drafts under consideration in Brazil and India. Others have developed provisions within new legislation designed to implement a much broader set of objectives such as establishing a basic framework to implement the Convention or to ensure sustainable

development generally. Fiji is pursuing this approach. Other Parties have simply modified existing legislation, such as conservation, wildlife or forestry laws, to incorporate access provisions. Western Australia has already introduced amendments to its Conservation and Land Management Act. A fourth category of measures are those intended primarily for other purposes, but touching on access and benefit-sharing. An example is the Government of Indonesia's Regulation on Plant Seed Management, the objective of which is to ensure the quality of seeds, but whose provisions on plant seed management contain clauses concerning the introduction and supply of seeds and propagating material to and from the country, and within it.

Access to and transfer of technology

Considering that technology is essential for the attainment of the objectives of the CBD, countries should submit to GEF projects which promote access to, and transfer of, and co-operation for joint development of technology. Countries should determine which foreign technologies are relevant and appropriate to their conditions, and avoid technologies which may be harmful in the long term and avoid displacing indigenous technologies which may be more sustainable.

Role of the Secretariat with respect to participating countries and institutional co-operation

Article 24 of the CBD establishes the Convention Secretariat and lists its functions in a non-imitative manner. The Secretariat is to arrange and service meetings of the Conference of the Parties, to perform the functions assigned to it by any protocol; and to prepare reports on the execution of its functions under the CBD and present them to the COP. Among the functions mentioned in this paragraph, a particularly important one, is co-ordination 'with other relevant international bodies, including the secretariats of other Conventions. As a legal instrument which is entirely dependant upon Parties and other organisations to develop and implement its provisions, the need to develop co-operative relationships with other bodies and hence mechanisms for co-ordinating these relationship, is fundamental to the implementation of the CBD. Each COP has reaffirmed the importance it attaches to co-operation and co-ordination between the CBD and other conventions, institutions and processes of relevance. Not only is the matter is a standing item on the COP's agenda, but one of the key organs of the CBD, the financial mechanism, is operated by another institution, the Global Environment Facility. The extent that the CBD as a process relies upon co-operative arrangements with other institutions and process is evident by the repeated references in the preceding paragraphs of this report to other organisations. Relying upon this approach to develop and implement the CBD has played a significant part in the rapid development of the Convention and the success that it has enjoyed so far in implementing its principles.

The COP has repeatedly emphasised its commitment to continue to explore effective mechanisms to co-operate with other conventions, institutions and processes of relevance, and in particular the Commission on Sustainable Development, to promote efficient use of resources in implementing its objectives and objectives contained in Agenda 21. In response the Secretariat of the CBD has actively participated in the Inter-Agency Task Force of the Intergovernmental Panel on Forests. Furthermore, the Secretariat has also contributed to the work of the Inter-Agency Committee on Sustainable Development (IACSD) of the United Nations. Other areas of co-operation under investigation between the DPCSD and the CBD include the development of indicators for measuring the status of relevant environmental factors and the effectiveness of measures taken by both processes within the UN system-wide effort toward the development of sustainable development indicators.

Co-operation between the CBD and the UN has not been restricted to the administrative level, but has also included the legislative or policy making bodies of both processes. Co-operation has also been pursued with many other organisations, with agreements of co-operation being concluded between the Secretariat of the CBD and the Secretariats of the Ramsar Convention; CITES; and CMS. Discussions are also under way with the Intergovernmental Oceanographic Commission, the World Bank, the FAO and the World Heritage Convention. Paragraph 1(e) indicates that the Secretariat may be entrusted with additional functions by decision of the COP.

Problems encountered in the countries' implementation of the Convention

At this stage, when emphasis is shifting towards national implementation, its is too early to comprehensively identify and address the problems encountered by Parties in the implementation of the CBD. The ability of the Conference of the Parties to monitor the implementation of the Convention will be enhanced through its analysis of national reports to be submitted by Parties by the end of 1997 and which are to be reviewed at the fourth meeting of the Conference of the Parties to be held in Bratislava in May 1998.

Some general trends, however, may be addressed. Lack of financial resources is by many countries considered a major constraint to the implementation of the CBD. Inadequate financing of research and field work, consultations and inadequate provisions of counterpart funds which affect IDA-financing are the factors seriously hampering implementation.

Another problem encountered is relatively weak national capacities and capabilities due to qualitative and quantitative lack of human resources, lack of modern technology, and limited experience of NGO and community conservation activities. Despite wide spread support within the CBD process for capacity-building, a lack of capacity in developing country Parties remains perhaps the single biggest constraint on development of the principles of the CBD and their implementation. Consequently, much remains to be done in this respect and more support from the international community is vital if this constraint is to be properly overcome.

Countries have also severe shortages of suitable trained staff to establish and manage their biodiversity and protected areas. Staff shortage is largely a reflection of the inadequate national budget allocations for conservation but are also a result of lack of training facilities or suitable course development.

Another consequence of the CBD being a country-driven process is the premium this places on the generation and availability of reliable and accurate information to guide decision-makers. The important role for information identified is further emphasised by the fact that the only compliance technique provided for in the CBD is Parties duty to provide national reports. Sharing of experiences has also become a major element of all the activities and development which have taken place within the CBD so far. The production of a comprehensive overview of the information contained in the national reports of Parties, the Global Biodiversity outlook, is expected to be the single most important pre-session document for decision-makers at the next COP.

Problems encountered with *ex-situ* conservation involve poor standards of captive breeding facilities and zoos. The motivation behind captive containment of wildlife is quite often commercial gain rather than conservation. *Ex-situ* conservation of plants seems to be better conducted.

Countries are also faced with difficult socio-economic situations, characterised by unsustainable agricultural methods, population movements, wars and heavy debt burden. There may also be a lack of political will or awareness and lack of incentives as well as inadequate integration of sectoral policies

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7.2 BIOLOGICAL DIVERSITY: ISSUES PAPER

(1) PRINCIPAL AREAS TO BE COVERED IN NATIONAL LEGISLATION

A	National Planning	-Identification and Monitoring Activities -Collection/ Evaluation of Data -Processes and Activities Negatively Impacting on BD -National Strategy preparation -Consultative approach -Application of Action Plans prepared from Strategy
B	Protected Areas:	-Establishment of Areas -Regulatory regime in Areas -Management Plan for each Area -Power to Include Privately Owned Land/ Public Acquisition -Restrictions on Activities in Buffer Zones Adjacent to Areas -Establish Corridors for Linking Areas for Wildlife/User Groups
C	Species Conservation	-Permit System for Commercial Exploitation and International Trade -Management Plans for Species -Biotechnology, Access to/ Transfer of Technology -Exotic Species Eradication -Ex-Situ: organisation, licences, funding, administration -Access to Genetic Resources: applications, consent, restrictions -Benefit sharing, equitable sharing with local/indigenous communities
D	Conservation Tools	-Public/ Community GP Participation in conservation and utilisation of BD -EIA procedures -Incentive Measures -Biodiversity Trust Fund establishment -Research, Training, Education and Awareness

(2) NATIONAL INSTITUTIONS NORMALLY ENGAGED

Environment, Agriculture, Customs, Trade, Forestry/ Flora, Fisheries, Wildlife/Zoos, Coast and Marine, Land/Soil, Finance, Health, Drugs, Education, Research/ Academic, Indigenous Communities, Police/Enforcement, Attorney-Generals

A GUIDE TO UNDERTAKING NATIONAL BIODIVERSITY LEGAL AND INSTITUTIONAL PROFILES

IUCN Environmental Law Centre (March 1997)

Introduction

The Convention on Biological Diversity is a global treaty premised on its Parties fulfilling three objectives:

-conserving biological diversity;
-sustainably using the components of biological diversity; and
-fairly and equitably sharing the benefits arising from using genetic resources.

The Convention provides overall goals and policies for its Parties to implement. Individual Parties determine how the majority of the Convention's provisions will be implemented. In other words, the focus of action is at the national level and, because every Party's situation is different each Party will tailor the Convention's implementation to its own unique situation. Fulfilling almost every substantive obligation in the Convention on Biological Diversity requires national planning, the primary theme of Article 6 (General Conservation Measures).

Many Convention Parties will fulfil Article 6 by initiating national biodiversity planning processes: completing biodiversity country studies; undertaking biodiversity strategies and implementing them through biodiversity action plans. In so doing, the Parties will organise and implement their approach to attaining the Convention's three objectives.

Biodiversity-related law and institutions will be key mechanisms for attaining the Convention's objectives. As part of the national biodiversity planning profiles, legal and institutional profiles must be undertaken to ascertain which laws apply to and affect biodiversity and which institutions oversee legislation and portfolios which intersect with biodiversity conservation, sustainable use and genetic resource benefit-sharing. Biodiversity-related international obligations, constitutional provisions. Written governmental policies, as well as relevant customary or religious norms, should also be identified.

Inception of the Analytical Format to Undertake National Biodiversity Legal and Institutional Profiles

In 1996 an analytical format to undertake national biodiversity legal and institutional profiles was created by the IUCN Environmental Law Centre (IUCN-ELC) during the third year of a four year project to provide technical legal assistance to Implement the Convention on Biological Diversity. The overall project has been funded by the German (BMU).

During 1996 the governments of Bangladesh, Cuba and Mm Gambia requested IUCN technical legal assistance in preparing national biodiversity legal and institutional profiles. An analytical format was created to assist three consultants chosen by IUCN to undertake the work.

The primary purpose of the project was to describe each country's legal and institutional system as it relates to the issues raised by the Convention on Biological Diversity. The scope of the work included the terrestrial, aquatic and marine realms. The Convention's obligations were used as the broad framework for analysis.

The second purpose of the project was to test the possibility of developing the analytical format into a more generally applicable set of guidance for Parties to the Convention on Biological Diversity which could be used as they undertake country studies, biodiversity strategies or action plans.

The analytical format was created in consultation with the project's time consultants and reflects discussions held at the IUCN Environmental Law Centre on 23 March 1996 during the First Consultative Meeting for the Elaboration of the National Biodiversity Legal and Institutional Profiles of Bangladesh (Dr. Mohiuddin Farooque. Secretary General, Bangladesh Environmental Lawyers Association, Dhaka), Cuba (Dr. Orlando Ernesto Rey Santos. Agencia de Medio Ambiente de Cuba Havana) and The Gambia (Dr. Lothar Gundling).

The participants met for a second time on 19 October 1996. in Montreal, during IUCN's fun World Conservation Congress. The purpose of the Second Consultative Meeting was to comment on the draft reports, sham experiences on each consultants undertaking and draw lessons learned. To facilitate this discussion and determine the technical feasibility of developing the analytical format into a set of guidelines to assist others, a set of questions was developed for the consultants by the IUCN-ELC.

The consultants were asked to consider: (1) what a guidelines document on this issue should say; (2) whether the analytical format was useful and how specifically it might be improved; (3) what problems each encountered under the profile, in particular, difficulties obtaining materials or even creating/organising the report; (4) what turned out to be easier dm each expected; (5) what each would recommend to others if they wanted to under a profile especially in terms of organising their approach, research, compilation and/or analysis of the materials; (6) what the qualitative and quantitative advantages and disadvantages are for a government employee, an NGO and an outside consultant in undertaking a profile; (7) what the value of undertaking a profile is; and (8) any other points each thought might be important.

Lessons learned have been integrated throughout this publication.

How to Use This Guide

The purpose of A *Guide to Undertaking National Biodiversity Legal and Institutional Profiles* is to provide national biodiversity planners and legal practitioners with a general understanding of the scope of undertaking a national biodiversity legal and institutional profile. A framework for undertaking a profile is provided. It could provide a possible report format. In addition. background information on subjects relevant to the profile process as well as possible considerations for the practitioner undertaking a profile are provided.

Practitioners should analyse whether the country's policies, laws and institutions are adequate to implement the Convention on Biological Diversity and, where appropriate. suggest concrete options for adapting legislation and institutions to resolve ft issues raised. IUCN's A *Guide to the Convention on Biological Diversity (Glowka et al.,* 1994) and *Biological Diversity Conservation and the Law: Legal Mechanisms for Conserving Species and Ecosystem* (de Klemm, 1993) am useful background information sources. Both books are available from IUCN Publications Services Unit, 219c Huntingdon Road, Cambridge CB3 ODL, UK; TEL: 44.1.223.277894; FAX: 44.1.233.277175; email: iucnpsu@wcmc.org.uk; WWW: http://www.iucn.org.

WHO SHOULD UNDERTAKE A LEGAL AND INSTITUTIONAL PROFILE?

1.Careful thought must be given to who will undertake a national biodiversity legal and institutional profile. Ideally in-country environmental lawyers should be relied upon whenever possible; in most cases, they are best placed to obtain a country's laws and analyse their effectiveness in context.

1. In general, in-country lawyers could be expected to have a better sense of the country's particular situation and are better placed to discover whether a particular law has been effective in practice.

(a)They may speak the local language better than an outside consultant thereby expanding the possibilities for in-depth analysis and communication.

(b) In addition, the legal and institutional profile exercise can help develop new, or mobilise existing, legal expertise in-country. This expertise may then later be drawn upon, for example, to draft new legislation in to a subsequent biodiversity action plan.

2. IUCN's biodiversity legal and institutional profiles project relied on consultants with different backgrounds: a public interest litigator working for a national non-governmental environmental organisation; a lawyer working within a national environmental ministry., and an outside international legal consultant with extensive knowledge of the country who worked with an in-country lawyer.

a. The environmental advocate, found the experience very worthwhile because the project taught him new analytical research and skills different than those required in his advocacy work. In addition he found that his reputation as a public interest litigator, enabled him to obtain information that might not normally be obtainable, although he acknowledged that could also work to a practitioner's detriment.

b. The ministerial lawyer found that being an "insider" gave him excellent access to documents and the expertise of his colleagues within his ministry. This was especially useful for gaining feedback on easy drafts of his work.

c. By teaming with and establishing a strong working relationship with a young justice ministry lawyer who did not have any formal environmental legal training, the international consultant was able to build a significant, low cost training component Into his profile work. By collaborating with an in-country

lawyer, the international consultant demonstrated that meaningful work could be undertaken even if one was not based In the country.

3. The preceding assumes that a lawyer or lawyers will be retained to do a single comprehensive profile. Naturally, national biodiversity legal and institutional profiles can be undertaken in many different ways. For example, each ministry in a country could be asked to examine their policies and legislation which intersect with biodiversity conservation and sustainable use. Information could then be compiled by an interagency working group of lawyers.

NATIONAL BIODIVERSITY PLANNING: THE CONTEXT FOR BIODIVERSITY LEGAL AND INSTITUTIONAL PROFITS

A. Biodiversity planning is a participatory, adaptive process composed of 7 steps: (1) getting organised; (2) assessment; (3) developing a strategy; (4) developing a plan of action: (5) implementation; (6) monitoring and evaluation and (7) reporting (Miller and Lanou. 1995). Law and institutions are an important cross-cutting component of each step, and should not be seen as mere secondary considerations.

B. In addition to incorporating law as a consideration in a national biodiversity planning process, in other words something to be analysed, law may also be used to facilitate the process itself. For example, a new national biodiversity planning law may be needed to clarify institutional competencies in the process (e.g. which ministry or agency is to lead; which ministries should participate), to create the legal basis for implementing a strategy or action plan or to institutionalise the national biodiversity planning process as a legally required cycle of activities (Glowka *et al,* 1994).

C. National biodiversity legal and institutional profiles and, therefore, this *Guide,* are designed for the organisational and assessment stages in the biodiversity planning process. As a first step at the organisational stage, information on the country's existing biodiversity-related constitutional provisions. statutory laws, written policies, institutions and relevant customary and religious norms must be collected.The Convention on Biological Diversity provides a broad framework for initial information gathering and subsequent analysis.

D. Ideally, the organisational stage would collect legal and institutional information on all threats to biological diversity in the country, but the scope of the undertaking will likely depend on the financial resources and time available. The scope is potentially overwhelming

a. In general the profile should at least go beyond the traditional areas of nature conservation, to include, such areas as agriculture, energy, finance, fifties, forestry, planning. trade and transport.

b. International obligations should also be collected.

E. The biodiversity legal and institutional profile may combine the organisational and assessment stages to provide not only a description of the current situation, but an analysis of identified gaps and inconsistencies in legal and institutional coverage as well. Written policies, laws and institutions could be compared to the various threats to biodiversity within the country to better understand how the legal and institutional system currently addresses them. This would uncover gaps and inconsistencies in legal capacity and institutional competencies.

F. The strategy stage is a priority setting, stage. Here the responses to particular threats, including those related to policy, laws and Institutions, will be prioritised according to die need as well as the resources available

G. The plan of action should then identify which institutions will take action and when including revising or drafting new legislation and when.

H. For law, the implementation as well as monitoring and evaluation stages might respectively launch the legal components action plan activities. and ascertain the "on the ground" success of implementation. Monitoring and evaluation provide the basis for a "feed-back loop" where on the ground success then is

used to fine tune the actions implemented.

I. Reporting may be undertaken daring any of the six preceding stages.

ORGANISING, UNDERTAKING AND PRESENTING THE LEGAL PROFILE IN A REPORT

A. Profile

1. The profile or actual analytical work could follow, but should not necessarily be limited to issues raised by the Convention on Biological Diversity. .

2. It is not an exhaustive list of issues especially since a country may be party to other biodiversity-related instruments such as Ramsar, CITES, CMS and World Heritage whose implementation require more detailed actions.

a. Instead. the issues raised by the CBD should be viewed as a minimum set or "floor" for comparative purposes. The format is presented as a "road map" for practitioners and is not intended to limit the flexibility to explore related relevant areas.

b. The profile should also describe:

the form of government in and administrative framework of the country (e.g. how is legislation formed; role of sub-national entities; source of national conservation policies);

the county's legal system (e.g. what legal instruments are relied upon; other types of law; role of the judiciary);

how environmental management matters are dealt with in the country;

collected and collated applicable written policies, statutory law. including relevant constitutional provisions, international obligations, and institutions in relation to the biodiversity related issues set out below; and

applicable non-statutory legal sources (e.g. customary law and religious principles or norms) which play a role in any of areas being considered.

B. Report

1. Organising and Presenting a legal profile in a report has direct bearing on profile's usefulness in the national biodiversity planning process.

Two of the IUCN consultants found that organising and the presenting the information they collected was difficult, particularly for cross-cutting issues. This was because their countries each had a great deal of overlapping law. One consultant was surprised to find that there was a lot of relevant law already in place; the other was surprised how confused the legal situation in his country was.

2. Ultimately the practitioner mug decide how to organise and present the information collected but can take some cues from the Convention on Biological Diversity itself.

a. For example, with the exception of its cross-cutting obligations, the obligations of the Convention on Biological Diversity can be organised into four broad categories:

(1)species-based measures; (2)area-based measures;
(3)processes and activities; and (4)equity (access to genetic resources).

b. The analytical format coincides with these four categories.

c. For each issue addressed, the report could systematically address: international obligations, constitutional provisions, statutory laws. written policies, institutions and customary or religions norms as appropriate.

3. The format, and therefore its table of contents, could follow but should not necessarily be limited to, the general analytical framework of issues.

Ideally, the report would include a table or list of citations as an appendix. In addition, a table could be created to list the various issues (or threats to biodiversity) on the vertical axis and have headings across the horizontal access for statutory law, institutions, policies and customary or religious norms. Laws collected and collated, including Intentional instruments, could be presented as an appendix to the report

4. An executive summary might be provided summarising (1) major findings and (2) key recommendation

5. An introduction might describe the purpose of the project. The introduction could also describe the project's relevancy to the country studied including existing or proposed national biodiversity measures (legal and non-legal), including national biodiversity planning processes.

SOURCES OF LAW

A. The source of law for a national biodiversity legal and institutional profile are both statutory and non-statutory. They include constitutional provisions, statutory laws, administrative law, case law (ground breaking cases), customary law, religious norms and written policies. Administrative regulations am also a source of law and may be the ultimate reflection of a law's effectiveness, aside from measuring actual on the ground impact.

B. Policy documents are a potential source of fundamental principles upon which legislation can be based. Depending on the country, policy may even be enforceable in the courts.

DESCRIPTION OF THE FORM OF GOVERNMENT, LAW MAKING PROCESS AND ADMINISTRATIVE FRAMEWORK

DESCRIPTION OF THE COUNTRY'S LEGAL SYSTEM

The country's legal system has a direct bearing on how environmental law can be enforced. A description might include, for example, an overview of the country's court system, the legal status of treaties in national law, legal status of policy and standing to sue.

DESCRIPTION OF THE COUNTRY'S ENVIRONMENT AND DEVELOPMENT SITUATION, THE STATE OF BIODIVERSITY AND THE COUNTRY'S ENVIRONMENTAL MANAGEMENT SYSTEM

A. The country's biodiversity-related activities will be implemented within its broader environmental management framework. While describing the country's environment management system, the profile could also address the major principles that are embodied in the national environmental management system. For example. does the country's system reflect the principles of public participation. access to environmental information, polluter pays, prevention or precaution? The preamble of the Convention on Biological Diversity and the Rio Declaration are sources of principles against which to compare the principles embodied in the county's environmental management system.

B. Actors affecting environmental management. A variety of actors, both national and foreign, operate within the country and their actions positively or negatively affect the country's environment. The profile should describe who the primary actors affecting environmental management are and what their effects are.

CROSS-CUTTING ISSUES RELATED TO BIODIVERSITY CONSERVATION AND SUSTAINABLE USE

A. Generally

1. Cross-cutting issues are those typically common to all the sectoral issues which need to be considered in the profile. Cross-cutting issues can be considered as a whole or as appropriate in the relevant sections.

2. In some cases, the cross-cutting issues listed in the analytical framework may be addressed in framework enabling or stand alone environmental laws. Biodiversity-related legislation may either refer back to the more detailed provisions found in other laws or may expand upon those provisions found in other laws.

3. It will be up to the practitioner to decide how best to organise the presentation of cross-cutting issues, keeping in mind that it may be appropriate to minimise redundancy in the report

B. Planning processes and integration (cross sectoral and sectoral) (Articles 6(a) and (b)and 10(a))

1. National planning is at the heart of implementing the Convention on Biological Diversity (Article 6(a)). The Convention also requires Parties to integrate biodiversity considerations into other sectoral and cross-sectoral plans, programmes and policies (Article 6(b)). Furthermore Conservation and sustainable use of biological diversity is to be, into national decision-making (Article 10(a)).

2. Written polices and legislation are likely to be central to all of these issue areas. In addition, opportunities for inter-agency co-operation and obstacles to it, are things that the practitioner should be watching for and recording, especially when there may be a variety of policies, laws and institutions dealing with environmental management and natural resource management.

C. Identification and monitoring (Article 7). The Convention's identification and monitoring (Article 7) requirements can be interpreted as self-executing. However, there may be existing laws in the country which already require identification and monitoring and even identify a particular agency to undertake this.

D. Public participation. Public participation is recognised as an essential element of any approach to conservation and sustainable use decision making. The CBD highlight public participation only in article 14(1)(a) (environmental impact assessment). However, public participation is relevant to many aspects of the CBD's implementation.

(a) This is particularly so in the context of national biodiversity planning (Article 6). protected areas creation and management (Article 8(a) and (b)), restoration efforts (articles 8(f) and article 10(d)). Any measures taken to conserve biodiversity and sustainably use its components developing incentive measures (Article 11) and access to genetic resources (Article 15).

For public participation to be effective it should be provided for in written policies and grounded in national legislation. To ensure meaningful participation national legislation could specify to what extent decision makers are to take the views of the public into consideration in their decision-making.

E. Indigenous and local communities

1. *Generally*

a. Some of the options a Party may choose to undertake its CBD obligations with respect to indigenous and local communities may need to be, implemented in conjunction with policies or legislation which provide individuals or communities cretin rights rider the law (Glowka, et al., 1994). These could be associated with land, natural resources, culture. intellectual property. legal recognition, legal personality and the right to associate.
The national biodiversity legal and institutional profile should address these areas where relevant.

b. In addition the profile may need to highlight the interface between statutory law and customary law and cultural or religious norms. This is particularly relevant where a country has plans to decentralise biological resource management to the local. National law can either encourage or discourage these

arrangements, while customary law may provide useful alternatives to formal legislation.

c. Many counties are decentralising biological resource management to the local level by entering into collaborative management arrangements.

2. ***Knowledge innovations and practices (Article 8(j))***

The knowledge, innovations and practices of indigenous and local communities relevant to conservation and sustainable use of biological diversity are subject to national legislation, to be preserved, respected and maintained by Parties to the Convention on Biological Diversity (Article 10(c)). Their wider application is to be promoted and die equitable sharing of benefits with the holders of knowledge, innovations and practices is to be encouraged. The profile should reflect what legal mechanisms are in place to ensure these three points.

3. ***Customary use (Article 10(c))***

Customary use consistent with biological diversity conservation and sustainable use objectives is to be encouraged by Parties to the Convention on Biological Diversity. Modern laws institutions and biological resource management practices rarely recognise customary uses and, in many cases, conflict with indigenous and local community norms such as communal ownership and community dispute settlement

(a) The profile should highlight which governmental policies, legislation and institutions create such conflicts over control and management of biological resources.

4. ***Exchange of indigenous and local knowledge (Article 17(2)) and co-operation to develop and use traditional and indigenous technologies (Article 18(4))***

Exchange of indigenous and local knowledge, the development and use of their technologies and notions of benefit-sharing imply that the availability of information not already in the public domain is subject to the prior informed consent of the community at issue. The profile should examine statutory and customary legal mechanisms to ensure prior informed consent and equity, including the availability of traditional and non-traditional forms intellectual property rights and contractual mechanisms.

F. Research and training (Article 12)

The convention's research and training obligations (article 12) may be interpreted as self-executing. However, national research and training policies and enabling legislation may still be relevant, especially in establishing national research priorities. the creation of public research and training institutions and programmes as well as the allocation of public funding.

G. Public education and awareness (Article 13)

The Convention's public education and awareness obligations (Article 13) may be interpreted as self-executing. However a country's national educational policies, especially for environmental curricula, may be anchored in national legislation. These should be highlighted in the profile.

H.Technology transfer (Articles 16 and 19)

1. *Generally*

Technology transfer is potentially a very broad area for the profile to address. The practitioner must take care not to lose focus.

The Convention focuses on (1) technologies relevant to the conservation of biological diversity; (2) technologies relevant to sustainable use of the components of biological diversity; and (3) technologies that make use of genetic resources (Article 16).

2. *Proving or facilitating access to environmentally sound technologies relevant to the conservation and sustainable use of biological diversity (Article 16(1))*

Measures for facilitating transfer of technologies as a recipient country and, if relevant, especially after projecting into the future, as a supplier should be addressed by the profile. There are many different ways to facilitate access to and transfer of technology.

(a) As a first step to understanding a country's particular approach, the profile should review existing policies and practices, especially in the areas of biodiversity research and technical and scientific co-operation (between States).

(b) There are also indirect intersections with such areas as taxation and other economic actives; foreign investment rules; trade assistance; intellectual property rights protection; and collaborative research and development arrangements; and

(c) It is particularly relevant to ascertain what bi- or multi-lateral agreements the country has entered into.

3. *Rules to assess transferred technology's environmental soundness (Article 16(1))*

a. Technology transfer is not necessarily a benign process or activity, technologies transferred can have adverse effects on biological diversity. The profile should highlight whether the country has any legally-based mechanism such as environmental Impact assessment. for ascertaining the environmental soundness of technology both before and after it is transferred and used.

b. Rules on technology transfer by transnational corporations and overseas development agencies

(1) Trans-national corporations operate in most countries and overseas development agencies operate in developing countries. Both are involved in technology transfer and their activities can have great impact on a country's biological diversity.

(2) profile could highlight whether the country has policies and legislation to ensure that the operations of tans-national corporations and overseas development agencies involving technology transfer are subject to the same environmental rules as other organisations located within the country.

4. *Adequate and effective protection of intellects property rights for formal and informal technologies (Article 16(2))*

a. Intellectual property rights are private legal rights which apply to the intangible human contribution that goes into producing a particular technology (Glowka, *et al*, 1994). Legislation and case-law create the legal right and define its scope. Three types of intellectual property particularly relevant to the Convention on Biological Diversity are patents, trade secrets and plant variety protection. New forms of intellectual property may need to be created for the knowledge, innovations and practices of indigenous and local communities.
b. Although most technology relevant to the conservation of biological diversity is in the public domain (Mugabe and Clark, 1996), including biotechnology, the profile should still briefly describe the country's intellectual property system.

5. *Access to and transfer of technology using genetic resources with countries of origin of genetic resources (Articles 16(3) and 19(2)).*

Access to and transfer of technology using genetic resources with the countries providing genetic resources is a sub-set of ft more general Convention technology transfer obligations. The people should ascertain whether the country has any particular written policies or legislation in place to ensure that these technologies are shred. This could also be addressed in a profile analysis of access to genetic resources.

6. *Private sector facilitation of access to, joint development and transfer of technology (Articles 10(e), 16(4) and 19(3))*

The private sector is an important primary source of technology, especially biotechnology's using genetic resources (article 17).The profile should highlight whether there are policies or legislation in place to ensure that private developed technologies are transferred.

I. Information and Information Exchange (Article 17)

1. Parties to the Convention on Biological Diversity are required to facilitate information exchange from all publicly available sources.The obligation focuses on information exchange between Parties. However, information exchange within a coup-try is also Important.

2.The obligation to "facilitate" information exchange implies removing obstacles which prevent or impede it from happening. Some obstacles could be have a legal and institutional basis and the profile should highlight what these are. For example, legislation may impede access to biodiversity related information. Institutions may lack clear competence to disseminate information or competencies may overlay.

J. Economic Issues (incentive measures (Article 11))

1. *General*

Economics is a driving force behind fix loss of biological diversity, it may also be the key to stemming it. Convention on Biological Diversity does not mention economics directly. Instead the theme is picked up in the context of incentive measures (Article 11). Though not defined in the Convention, in practice the term "incentive measures" includes incentives, disincentives and perverse incentives.

a) All have a legislative basis: legislation is typically necessary to implement

b) Legislation and institutional conflicts can also impede reform efforts.

2. Incentives encourage particular behaviour which should lead to biological diversity's conservation and sustainable use. Disincentives discourage behaviour which results in biological diversity's loss. A good example of the former is subsidies. A good example of the latter is making the "polluter pay." A more relevant corollary is creating fee structures for using particular biological resources, land or sea areas or ecosystem services and functions which fully reflect their values.

3. Perverse incentives are incentives which encourage the loss of biological diversity. Many perverse incentives are very often Instituted for perfectly valid political or social reasons such as the provision of subsidies to clear land for agriculture or over-capitalise a fishery. Eliminating or minimising perverse incentives may be the single most important step a country can take to stem the loss of biological diversity. Eliminating or minimising perverse incentives is an important prerequisite to implementing effective biodiversity-friendly incentive and disincentive measures.

4. The profile should briefly describe the political, legislative and institutional basis for incentives disincentive and perverse incentives in the country. Possible areas for review include:

(1) Agriculture, fisheries, forestry, pollution control, tourism and transport policies and legislation, particularly in the area of concessions
(2) Tax law
(3) Foreign investment law
(4) Import/Export law

K. Tenure and usufruct (sea and land)

1. Tenure is the rights which individuals and communities have in and sea areas, as well as the natural resource found there. Usufruct describes individual and community rights to use particular areas or resources.The profile should describe the system operating in the country.

L. Financial Resources (Article 20(1))

1. Each Contracting Party to the Convention on Biological Diversity, whether a developed or developing country, undertakes to provide financial support and incentives for national activities intended to achieve the Convention's objectives (Article 20(1)). Because the obligation refers to both money and incentives there are natural overlaps with the section on incentive measures.

2. A primary goal of a national biodiversity planning process should be to examine how existing national conservation funds are spent and whether they can be spent more wisely, whether more cost effectively or on higher priority conservation issues (Glowka, *et al.*, 1994). The examination should take into consideration other government expenditures, which directly or indirectly impact biological diversity. How these expenditures could promote biodiversity conservation and the development of innovative funding mechanisms should be identified.

3. The allocation of national financial resources to biodiversity conservation intersects with national policies, legislation and institutional mandates and is therefore relevant to national biodiversity legal and institutional Profiles. The practitioner, however. must exercise discretion in addressing this issue as it may be very easy to lose focus. Governmental policies and legislation related to placing a value or price on biological resources national accounting could be described.

(a) Related areas include the legal or policy basis for levying conservation taxes on extractive industries and on the use of ecosystem services., directing benefits back to local communities; linkages between development projects and conservation and accurately valuing concessionary agreements.

(b) It may also be relevant to determine whether national environmental funds can be established and what laws are related to this.

M. Co-operation (Articles 5, 9(m), 9(e), 10(c), 12(c), 13(b) and 18(2)(4)(5))

1. *Generally*

a. The Convention on Biological Diversity uses the term "co-operation" to mean between States (traditional sense) and within the Party itself.

b. The profile could address co-operation generally in a separate section. Co-operation in the context of particular thematic areas such as species or ecosystem-based measures could be addressed under the appropriate topic. For example, the section on species based measures could highlight the international agreements the country is party to and what specific measures, including implementation legislation, have been undertaking since the agreement was ratified.

2. *International co-operation between States and international organisations*

International co-operation usually takes place on a bi-lateral or multi-lateral basis between States and may be manifested in a legal instrument or agreement between the State and other States or institutions. States can also corporate multi-laterally by participating in international organisations. International co-operation at the national level may implementing or enabling legislation.
The Convention on Biological Diversity requires Parties to corporate in:
(1) Areas beyond the limits of national jurisdiction and in matters of mutual interest (Article 5)

(2) Financial and other support for *in-situ* (Article 8(m)) and *ex-situ* (Article 9(c)) conservation

(3) Use of scientific advances in biological diversity research (Article 12(c))

(4) Developing educational and public awareness programmes (Article 13(b))

*(5)*Technical and scientific matters (Article 18).

3. *"Intra-national co-operation" between government and private sector (Article 10(e))*

The role of the private sector in biodiversity conservation and sustainable use is increasingly recognised. A threshold question is defining "private sector" (Glowka, *et al, 1994).* Business and industry come to mind immediately but the term might also include non-governmental organisations and individuals. The Convention encourages Parties to develop co-operation between governmental authorities and the private sector to develop sustainable use methods.

Intra-national co-operation can take many legal forms including the elaboration of contractual agreements, voluntary agreements codes of conduct, the creation of incentive measures and the elaboration of legislation. The profile might identify which private sector co-operative efforts exist and which governmental institutions are involved.

N. National reporting to intergovernmental bodies (Article 26)

1. States party to different multilateral environmental agreements may be faced with a bewildering army of reporting requirements to the agreements' respective conferences.

2. Clear institutional competencies for reporting, elaborated in national legislation. may be required when more than one agency in a country deals with natural resource management issues. Legislation or memoranda of understanding may also specify mechanisms for inter-agency co-ordination. Highlighting the existence of these in the profile will also contribute to integrating biological diversity's conservation and sustainable use into sectoral and cross-sectoral plans, programmes and policies (Article 6(b)). It could also contribute to more integrated decision making (Article 10(a))

O. Sanctions, remedies and enforcement

1. Generally
Sanctions, remedies and enforcement are essential components of conservation and sustainable use regimes. A related matter is access to the court system. The Convention on Biological Diversity leaves it up to Parties to decide what sanctions, remedies and enforcement measures a Contracting Party should create for biodiversity related legislation.

2. As they pertain to biological diversity conservation, sustainable use and the fair and equitable sharing of benefits from genetic resources, a profile should briefly review the country's:

a. Criminal code and relevant significant court decisions
b. Civil code and relevant significant court decisions
c. Procedural aspects

SPECIES-BASED LEGISLATION AND INSTITUTIONS

A. Generally , species-based measures have been the traditional technique used by governments to conserve biological diversity. Legislation usually prohibits or restricts certain acts to protect wild species (de Klemm, 1993). Species-based measures are usually embodied in game oriented hunting and fishing legislation. Non-game species are usually covered by nature conservation legislation; in other words legislation specifically geared to species protection (de Klemm 1993. Protected species are usually indicated in lists.

B. Legal basis for Legislation for State to conserve and sustainably use species in-situ and ex-situ (Articles 1, 8 and 9) (e.g. ownership or police power)

The State's power to enact legislation to conserve and sustainably use species *in in-situ and ex-situ* conditions can be premised on its ownership of the organisms in question or the exercise of the State's police powers to preserve the public's interest (dc Klemm, 1993). The profile should assess the legal status of wildlife, in particular who owns wild animals, wild plants and wild micro-organisms (e.g., bacteria, fungi and viruses). Because the Convention on Biological Diversity also applies to domesticated animals, cultivated plants and cultured micro-organisms, their legal status should also be addressed by the profile.The profile's discussion of the legal status of species (more correctly organisms)

naturally intersects with a country's rules on tenure and usufruct

C. Institutional jurisdiction over in-situ and ex-situ species

1. *Generally*
Institutional jurisdiction refers to an institution's power to designate and protect species. Institutional jurisdiction is therefore an allocation of power to an institution to carry out particular actions with regard to the species It is ensured to oversee. The allocation of power is typically through legislation and can be premised on the type of environment or the legal status of species (de Klemm, 1993). It may also depend on territoriality and the allocation of powers between national and sub-national governments.

Because it is directly relevant to measures to conserve and sustainably use species, institutional jurisdiction should be addressed in a profile. In particular, the profile should identify institutional responsibilities. The profile should also highlight where jurisdictional matters have fragmented institutional responsibilities at the national level or, where relevant, between the national and sub-ational levels. Formulating and implementing species-based measures, particularly legislation, can be affected by such fragmentation.
Jurisdictional issues also have direct relevance to innovative species-based conservation and sustainable use measure such as community based management

There are two broad categories of jurisdiction: (1) subject-matter and (2)territorial. Where appropriate, the profile should address both.

2. *Subject-matter jurisdiction*

Subject-matter jurisdiction refers to an institution's power to address a particular subject. The subject could be, for example, game or non-game species; jurisdiction based on environment (e.g. terrestrial aquatic or marine) or activities (e.g. hunting, fishing or forestry).

The profile should describe which institutions have subject-matter jurisdiction over species, their environment or activities which affect them. The definition of species in national legislation is an important issue for a profile to address. Another relevant issue which could be addressed is jurisdictional splits based on species' movements between terrestrial aquatic and marine environments. Finally, the profile should indicate which institutions have jurisdiction over wild plants and micro-organisms, subject matter often neglected by legislation (de Klemm, 1993).

3. Territorial jurisdiction

Territorial jurisdiction refers to the territory over which an institution has authority. Issues of territorial jurisdiction arise in both unitary and federated or regionalised States (de Klemm, 1993). A State's constitution may be the primary source of law to ascertain the situation.
Territorial jurisdiction is especially relevant for marine species and the jurisdictional situation varies greatly from country to country (de Klemm, 1993).

D. In-situ Actions Involving Species (conservation and sustainable use)

1. *Generally*, The heart of the Convention on Biological Diversity is its provisions on *in-situ* conservation (Article 8) and sustainable use (Article 10).The Convention recognises *in-situ* conservation as the primary approach for biodiversity conservation. A profile should address three broad areas of *in-itu* species-based measures.

2. ***Maintain viable populations of species (wild, domesticated or cultivated) in natural surroundings (Article 8(d))***

The Convention actually groups maintaining viable populations of species in natural surroundings with the protection of ecosystems and natural habitats.

(1) Maintaining viable species populations is another way of describing species protection. Many States have legislation to protect vertebrate animal species but legislation to protect

invertebrates, plants or micro-organisms is less common. In addition, legislation to protect domesticated animals or cultivated plants is also not very common.

(2) By grouping a requirement to protected viable species populations with those for habitat and ecosystem protection, the Convention recognises the inter-relationship between species-ased measures and area-based measures, something which national legislation frequently does not do. National legislation also does not typically recognise the additional connection between species population, habitat and sustainable use. While a profile should ascertain whether a State has species-based legislation, it should also identify the measures used to determine when species need to be protected. For example, who determines when a species should be protected, how is this undertaken and how are protected species identified in legislation

Furthermore, linkages should be identified between a species' protection, its sustainable use and the protection of its habitat from destruction or alteration.

(3) Species protection should not simply be a static prohibitory measure. Affirmative actions on the part of the State and landholders are also required. Therefore, the profile could also indicate whether there are any existing linkages between species protection measures and the regulation of processes or activities which impact them (Article 8(1)), incentive measures (Article 11) or environmental impact assessment (Article 14(1)(a)). Intersections with local and indigenous communities issues may also be highlighted.

3.*Protect and restore threatened or endangered species and populations (Articles 8k), 8(f) and 9(c))*

Articles 8(k), 8(f) and 9(c) deal with different aspects of threatened or endangered species and populations and their protection or recovery. A profile can identify a country's legal and institutional approaches to threatened and endangered species conservation and their deficiencies. The profile could also indicate what international co-perative efforts the country is involved with for species conservation and any consequent legal or institutional actions. One focus area could be migratory species, especially if the country is party to the Convention on Migratory Species of Wild Animals or its accessory agreements.

Many States already have legislation to address threatened and endangered species, but may have trouble implementing it for a variety of different reasons.

(1) Administrative regulations for identification and monitoring or allocating agency responsibility may be non-existent or incomplete; a simple lack of capacity or financial resources may also be a problem.

(2) One of the fundamental deficiencies in this type of legislation is the failure to link species protection to habitat protection, which is the primary driving force, behind species loss. In addition habitat protection is rarely set within the larger context of ecosystem management.

(3) Another problem is the reactionary nature of many species based legislative approaches. What is often missing are proactive affirmative means to ensure that species do not become threatened or endangered in the first place. This largely derives from a lack of information, lack of capacity and a failure to identify and mitigate potentially threatening processes and activities before they become a problem.

In addition to the legal and institutional aspects of threatened species protection, there are also legal and institutional implications for species recovery efforts. A profile should note whether the country's laws provide for active institutional measures to promote the recovery and management of threatened or endangered species (de Klemm. 1993).

(a) The profile should describe what the designated agency is required to do to promote a species' recovery. For example recovery plans may be required and these may need to combined with legislation or incentives to remove, or minimise the pressures which led to the species' decline in the first place (Glowka, *et al.*, 1994).

(b) Protecting reintroduced or re-established species from new threats may require new legislation. Legislation may be needed to ensure that reintroduced or re-established species do not harm existing

populations, or other species and ecosystems. This implies some assessment of environmental impact and, at minimum, the application of quarantine measures, both of which have legislative bases.

4. *Regulate or manage biological resources important for biological diversity conservation to assure their conservation and sustainable use (Article 8(c)) and adopt measures for biological resource use to avoid or minimise impacts on biological diversity (Article 10(b))*

Articles 8(b) and 10(c) have significant overlap between themselves and the other species-based measures in the Convention. In many respects they are cross-cutting in nature.

Article 10(b) focuses on the harm which occurs to biological diversity, in general. when biological resources are used; Article 8(c) focuses on harm to the resource itself when it is used.

(1) Both Articles 8(c) and 10(b) apply inside and outside protected areas. although only Article 8(c) makes this explicit. In addition. the implementation of both obligations will require (1) information; (2) management plans; (3) legislation; and (4) incentive measures.

(2) In theory, therefore, a Party's legal and institutional approaches to species-burn measures need to account for harm to the species used, as well as harm to biological diversity when the species is used.

(a) The reflects that organisms are one of the tangible manifestations of biological diversity.

(b) Therefore, a threshold question for a country's legal and institutional profile to address is whether species based legislation takes into consideration the conservation of biological diversity in its broader sense, not just in the context of a particular listed species. For example, if a law establishes a regulatory programme to regulate hunting of a particular predator do die regulations provide mechanisms for considering the Impact of the take not only on the predator but other components of biological diversity and therefore biodiversity as well?

(3) Agriculture, hunting, fishing and forestry laws should be specifically reviewed by the profile, especially to ascertain whether they include biodiversity conservation principles.

E. Ex-situ actions involving species (conservation and sustainable use)

1. *Generally*, the Convention on Biological Diversity's *ex-situ* conservation measures are meant to complement its *in-situ* conservation measures. *Ex-situ* conservation is defined in the Convention as 'the conservation of components of biological diversity outside their natural habitats" (Article 2). While *ex-itu* conservation is largely a scientific activity, there are relevant intersections with law.

2. *Ex-situ species conservation measures (Article 9(a))*. The primary areas *where ex-situ* conservation intersects with law are collection and research, the import and export of biological materials. Ownership of the collected specimens is an issue, as well as who has access to the materials stored, especially in the context of access to genetic resources (Article 15). Species reintroduction or re-establishment also has legal implications (Article 9(c))

3. *Establish and maintain ex-situ conservation facilities addressed (Article 9(b))* Establishing and maintaining an *ex-situ* conservation facility likely requires securing a number of regulatory approvals from government officials. While what is required probably should not be specifically addressed in a national biodiversity legal and institutional profile, any significant legal or institutional barriers to establishing such facilities could be highlighted, especially if they ultimately impact on the country's ability to fulfil the Convention's obligation. The profile could describe what incentive measures are provided to establish or maintain such facilities and what the current legal and-institutional obstacles there are to maintaining them.

4. *Regulate or manage biological resource collecting from natural habitats ex-situ conservation purposes so as not to threaten ecosystems and in-situ Populations of species (Article 9(d))*

Collecting biological resources for *ex-situ* conservation purposes is a sub-set of the larger issue of collecting.

(1) Collecting, even if undertaken for what appear to be valid scientific reasons, may threaten biological diversity. The problem is perhaps more acute for animals than for plans in terms of threat. But even collecting for micro-organisms in unique environments may pose risks to the organism's environment without proper precautions.

(2) Requiring a permit to collect all organisms under a State's jurisdiction could be a first step towards implementing Article 9(d)). A legal and institutional profile, should examine existing legislation for licensing-type provisions and highlight which institutions are involved.

i)Permit requirements for research and exportation could be reviewed

ii)Work on this provision is also relevant to the Convention's provisions on access to genetic resources

F. Trade

1.*Generally*

Trade in organisms and their parts is an activity which greatly impacts biological diversity. It is a US$ 5-10 billion dollar a year global activity, some of which is legal and illegal
Trade as an issue can be addressed by the profile in the context of species-based measures to regulate or control it, or under the section on processes and activities.

The profile should also examine the legal and institutional situation in the country with regard to implementing the Convention on Trade in Endangered Species of Wild Fauna and Flora (Washington, 1973) (CITES). An evaluation of the effectiveness of measures taken pursuant to CITES could also be provided.

2. *Regulation or control of domestic or international trade*

Regulating or controlling trade has direct links with a country's species protection and "takings" legislation. Furthermore, new trading activities which will be licensed by the government have clear linkages with environmental impact assessment. In addition if the organism or their derivatives move internationally, an export and import license may be required from customs or other management authorities, especially in the context of threatened and endangered species lasted in CITES appendices.

The profile should describe the legal and institutional situation with regard to the species trade. Implicated are such biological resources as game, fish, timber, medicinal plants and genetic resources. Targeted species may already be threatened or endangered or trade pressures may lead to a compromised conservation status.

ECOSYSTEM OR AREA-BASED LEGISLATION AND INSTITUTIONS ("WILD OR NATURAL" AND HUMAN ALTERED AREAS)

A. Generally

1. The Convention on Biological Diversity generally requires each party to promote the protection of ecosystems and natural habitats (Article 8(d)), both inside and outside protected areas. This obligation can be broadly interpreted to require the sustainable use of ecosystems as a necessary prerequisite. Although the Convention does not explicitly require this, wise use of wetlands concept under the Ramsar Convention does embody it. Under Ramsar, wetlands broadly include, such areas as swamps, marshes, peat bogs, mangroves and associated ecosystems such as water bodies up to 6 meters deep and coral reefs.

2. The legal and Institutional aspects of ecosystem or area-based conservation involve establishing specific use restrictions and oversight over land and sea areas for particular purposes (de Klemm. 1993). The areas conserved can encompass entire representative or unique ecosystems, a composite of ecosystems or smaller portions such as species habitat. Site specific and non-site specific measures are relied upon. Examples respectively include creating protected areas and protecting certain types of natural or seminatural habitat or landscape features (de Klemm. 1993).

3. Area-based restrictions can be negative (preventing the owner or holder from doing something) or positive (requiring or encouraging the owner or holder to do something) or both.

4. In addition to providing a general overview of site specific and non-site specific legal and institutional measures used in a country, a legal and institutional profile could aim provide background material on the interrelationship of the following six areas, some or all of which may determine a country's ability to undertaking ecosystem or area-based conservation:

a. ownership over land and sea areas (public, private or common);
b. exercise of the State's regulatory or police powers over particular areas, including institutional subject matter or territorial jurisdiction;
c. the Persons affected by the restrictions;
d. the constitutional rights of persons affected; and
e. The availability of self imposed or voluntary measures (de Klemm 1993).

5. For example, the profile might describe which land or sea area are or can be owned by the State and whether public agencies have the legal capacity to acquire areas for conservation. Basic tools available to public agencies to acquire areas for conservation purposes might be described including the right of pre-emption, the availability tax incentives, compulsory purchase and special financial measures. Furthermore, where public ownership is not possible, the profile could describe the power to create regulatory limitations on land use activities and any related limits. Finally, the availability of easements or servitude's to apply to particular areas might be explored.

B. Actions-involving ecosystems (conservation and sustainable use of eastern)

1.Site specific measures (Articles 8(a), (b) and (d))

Site specific measures are most closely associated with the creation and management of protected areas. In addition to applying to traditional protected areas, Articles 8(a) and (b) also apply to "areas where special measures need to be taken". The team is not identified but could refer to non-site specific measures, for example, to protect habitat.

Most countries have protected areas legislation but the Convention on Biological Diversity as a subset of its general requirement to protect ecosystems and natural habitat (Article 8(c)), requires each Contractiong Party to establish a protected area system (Article 8(a)) and adopt guidelines to select, establish and manage them (Article 8(b)). Implementing these provisions requires a strong legal base under which government can establish and manage protected areas. The legal and institutional profile should analyse the country's legislation with regard to:

(a) the conditions and procedures required for a protected area's creation, accurate delineation and. in exceptional circumstances, elimination;
(b) prohibitions or restrictions on activities inside protected areas to maintain their integrity; particularly through a management plan;
(c) Enforcement measures and penalties to ensure the protected area's integrity; and
(d) provisions for management bodies and the allocation of their powers and tasks (de Klemm, 1993).

The profile should also highlight the legal and institutional obstacles for effective protected area management in the country. These could include, for example failure to provide for public participation. In the creation or management of a protected area, the management authority's lack of jurisdiction outside the protected area or the protected area's inadequate integration with the country's overall physical planning system.

It may also be appropriate for the profile to describe a county's designation and management of protected areas pursuant to other international obligations such as the World Heritage Convention and the Ramsar Convention. In particular, what legal and institutional measures have been taken or written policies put forward to fulfil the country's international obligations with respect to protected areas should be determined.

Environmentally sound and suitable development in areas adjacent to protected areas (Article 8(e))

(1)Buffer zones

(a) In many cases, the integrity of a protected area and, therefore, its success is dependent on

the types of activities which occur adjacent to its border. For example, sometimes a protected area can disenfranchise local communities who have lost access to an area and the use of its resources. Alternatively, development projects can present threats to a protected area.

(b)To ensure environmentally sound and sustainable use buffer or transition zones around a core protected zone could be created, subject to a legal regime requiring land use planning. This is the basic idea behind UNESCO's Biosphere Reserve concept.

(c)The profile could examine the legal and institutional aspects of creating buffer zones around protected areas in the country. The legal and institutional aspects of representative examples could be described. Points examined could include the existence of land use or coastal area development plans. the application of environmental impact assessment for activities designated within the buffer zone, oversight, public participation and the application of incentive measures.

(2)Beyond Buffer Zones

In instances where a country does not create buffer zones for its protected areas, or in areas beyond buffer zones, it may be possible to regulate potentially threatening activities by implementing physical or land use planning rules for adjacent areas within a certain radius of the protected area (de Klemm. 1993). This would need to be linked with an environmental impact assessment requirement to determine the impacts of particular activities within an area

The profile should examine what measures the country has in place to control activities beyond protected area perimeters.

2. *Non-site specific measures for areas outside protected areas (Article 8(d))*

Generally

(1) Non-site specific ecosystem or area-based measures to conserve biological diversity are applied to protect particular ecosystem or habitat types. Ecosystems or habitats protected by non-site specific measures are not protected areas *per se* because there is no site specific designation (Glowka, *et al*, 1994).

(2) Examples include special legal and institutional measures applicable to certain forests, agricultural lands, wetlands, mountain areas, rivers and lakes, coastal areas, coral reefs, caves [and native vegetation].

(3) Legislation to protect individual ecosystems and habitat types is not common. Where it does exist, legislatively based planning controls are typically premised on the prohibition of certain harm activities without a permit. For example, filling or draining wetlands may be prohibited without a permit.
a)The permit's issuance might be linked to a finding of no adverse impact as determined by an environmental impact assessment.
b) The permit might be issued with conditions.
c) Monitoring and enforcement activities may need to be implemented to ensure permit compliance

(4) The profile should describe what non-site specific legal and institutional mechanisms exist in the country. Particular issues to highlight might be existence of clear definitions of habitat types to be protected, the availability of exceptions where a regulatory programme exists, the requirements for environmental impact assessment, designation and existence of regulatory agencies, the need to compensate a landowner when a permit is denied and the existence of incentive measures to promote conservation and sustainable use.

C. *Actions involving degraded ecosystem rehabilitation and restoration (Article 8(1))*

1. *Generally*

The Convention on Biological Diversity may be, the first global treaty to require its Parties to rehabilitate and restore degraded ecosystems (Article 8(f)). While not immediately apparent, rehabilitation and recovery measures do have their legal and institutional aspects. Some of these are variations on the same themes highlighted in earlier sections on ecosystem or area-based measures such as issues of ownership and institutional competence. In other ways this issue has unique legal and institutional implications.

(a) For example, a threshold issue may be the implementation of existing or new laws aimed at ceasing or mitigating the process or activity which degraded an area in the first place. Therefore the availability for retroactive application of environmental impact assessment could be indicated in the profile.

(b)In addition, because ecosystem or habitat rehabilitation or recovery efforts may have their own environmental impacts. the profile might highlight whether these activities are prohibited subject to a permit after an environmental impact assessment is undertaken.

2. *Development and implementation of remedial action plans by local populations and institutions in biodiversity degraded areas (Article 10(d))*

Article 10(d) of the Convention on Biological Diversity recognises that remedial action in degraded areas where biological diversity has been reduced may be best developed and implemented at the local level. This is primary thrust of the UNCCD.
The primary task of the government should be to provide a framework which encourages remedial action and assists local populations in carrying it out (Glowka, *et al.*, 1994).The framework could have its basis in legislation and provide for an allocation of responsibilities, the development of an action plan and the provision of financial resources and other support. And because local problems may have their origins in national policies, the processes or activities which caused an area to became degraded should be identified, eliminated or mitigated.

A profile could determine whether existing laws and institutions facilitate or impede the ability of local populations to develop and implement remedial action plans. The problems may be analogous to those faced in the areas of community-based management of natural resources. A threshold issue may be whether institutional jurisdiction over degraded areas can be delegated to the local level. The ability to enter into and enforce community management agreements could also be described in the profile.

LEGAL AND INSTITUTIONAL MEASURES ADDRESSING PROCESSES AND ACTIVITIES AFFECTING BIOLOGICAL DIVERSITY

A. Regulating activities and controlling/mitigate processes (Article 8(1))

1. The Convention on Biological Diversity is innovative for requiring Parties to identify processes and activities which have or are likely to have significant adverse impacts on biological diversity conservation and sustainable use (Article 7(c)). It then requires Parties to regulate or manage those identified (Article 8(1)). The obligations apply to existing and future processes and activities and are therefore quite broad.

2. Fundamental to limiting the negative impacts of damaging or potentially damaging activities is establishing effective legislatively based regulatory or management programmes. Regulatory or management programmes must be over seen by appropriate institutions. For processes, which themselves cannot be regulated because they are not activities *per se*, but are the result of human activities, incentive and disincentive measures could be created and applaud, provided perverse incentives which encourage them am removed.

3. Area-based and activity-specific planning controls, such as land use controls and environmental impact assessment, will likely be the primary means for assessing, preventing, eliminating or mitigating potential and existing threats to biological diversity. A prerequisite is first identifying the threatening processes or activities (Article 7(c)).

B. Institutional jurisdiction over processes and activities

1. Questions of institutional subject matter and territorial jurisdiction over processes and activities in the country should be addressed by the profile, highlighting institutional competencies overlaps and gaps. This will need to be closely associated to the particular threat or threats posed to biodiversity. Which institution responds to a particular threat may be determined by the species or area concerned, the environment, the type of threat and where they are located. For example, threats to biodiversity posed by water pollution may need to be addressed by a country's water or environmental ministry.

C. Identification and regulation of processes and activities (Articles 7(c) and 8(1))

1. The identification of harmful or potentially harmful activities is a prerequisite to their ultimate regulation or management. Many potentially threatening processes or activities come to mind including tourism pollution land use (agriculture, forestry, urbanisation and mining) and hunting.

2. The Convention on Biological Diversity itself only specifically mentions activities: the use and release of living modified organisms alien species and collecting for ex-situ conservation purposes. But there are potentially many more and their identification should be legislatively required with responsible institutions identified to regulate or manage them. A profile should indicate which tools for identifying threatening processes and activities are provided for in legislation, such as environmental impact assessment.

3. Environmental implicit assessment procedures for projects, programmes and policies (Dole 14(1)(a) and (b))

a) The Convention on Biological Diversity requires each Party to introduce procedures requiring Environmental impact assessment of its proposed projects likely to have significant adverse effects on biological diversity (Article 14(1)(a)). The aim is to avoid or minimise adverse effects before a project is undertaken. Public participation is to be allowed as appropriate. In addition, a Party is to introduce appropriate arrangements to ensure that the environmental consequences of it programmes and policies which are likely to have significant adverse impacts on biological diversity are duly taken into account (Article 14(1)(b)).

b) In most instances implementation of these provisions will require legislation.

(1) But while the scope of the paragraphs clearly apply to a Party's programmes or policies, a Party has wide discretion in determining which projects-whether public, private or both require EIA (Glowka, *et al.*, 1996). In relation to biological diversity, three purposes of EIA could be to identify in advance:

i) What aspects of the project are likely to have significant adverse effects on biological diversity at the genetic, species and ecosystem levels;

ii) what steps could be taken to avoid or minimise significant adverse effects; and

iii) whether the proposed project complies with existing environmental legislation.

(2) A profile should identify whether a country has introduced EIA policies or legislation and whether biological diversity considerations are factored into the determination process.

(3) The profile should also highlight whether public participation in the entire EIA process is provided for in existing policies or legislation. The profile should also describe whether a right of action or legal standing are available to ensure governmental compliance with the EIA.

(4) In the area of institutions, the profile should describe which agencies oversee the EIA process.

c) Compatibility between present uses and conservation as well as sustainable use of biological diversity (Article 8(i)). "Retroactive EIA" for existing or completed projects, programmes and policies.

4. Living Modified Organisms

Use and release (Article 8(g))

The Convention on Biological Diversity identifies the use and release of living modified organisms (LMOs) as activities which could have adverse environmental impact consequently affecting the conservation and sustainable use of biological diversity. It therefore requires Parties to establish or maintain the means to regulate, manage or control the risks associated with LMO use and release (Article 8(g)). The profile should identify what legal and institutional measures the country has put in place to implement Article 8(g)), including whether permits are required to use and release LM0s, whether risk and environmental assessment are required and which institutions oversee the procedure. In addition, controls on the import of LMOs could be identified by the profile.

Information about use and release (Article l9(4))

(1) Article 19(4) of theCBD creates a bilateral obligation between Parties to provide information on an LMO prior to providing it to another Contracting Party. A Contracting Party's government or its nationals, either of who could provide the LMO, must supply the information.

(2) Two categories of information are to be provided:

(a) Any available information on the regulatory measures taken by the exporting Party concerning the use and safety of LMOs in general; and

(b) Any available information on the potential adverse impact of a particular LMO.

(3) Fulfilling the requirement will likely require complementary legislation in both importing and exporting countries. Among other things, the profile should examine whether any legislation exists, what institutions provide oversight and what legal possibilities for recourse exist if the information provided is either fraudulent, incorrect or is provided after an LMO's import.

5. Alien Species (Article 8(h))

a.Invasive alien species represent an enormous threat to biological diversity and sustainable development. Article 8(h) of the Convention on Biological Diversity requires Parties to prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species.

b.Preventing alien species introductions implies the implementation of policies legislation and institutions which are geared toward intentional and unintentional introductions. For intentional introductions, the profile should identify the existing regulatory programmes focusing not only on alien species importation into the country, but also on the availability of controls for introductions between one part of the country to another. The application of risk and environmental assessment tools should be identified.

c.Unintentional introductions are more difficult to directly prevent through a regulatory programme, because particularly risky pathways must first be identified. They also tend to be closely associated with trade. Important pathways will vary according to the country concerned, but generally include shipping, ground and air transport, ballast water discharge, agriculture, tourism, forestry, fisheries (including aquaculture), horticulture and captive breeding operations. The profile should examine whether alien species policies, legislation or institutions have been developed with regard to these sectors.

d.Controlling or eradicating invasive species also has legal and institutional aspects, which a profile should address. Legislation should designate which institutions are to respond when an outbreak is identified and whether they have adequate jurisdictional power to for example, enter private land, to control an introduction before it spreads and whether they have access to emergency funding when the need to take action arises.

D. Tram-frontier Co-operative Actions

1.The Convention on Biological Diversity requires Parties to promote a number of Trans-frontier co-operative

actions. For example, information exchange, notification and remedial procedures when activities threaten biological diversity of other States or beyond any national jurisdiction are all required by the Convention on Biological Diversity (Articles 14(1)(c) and (d)). Parties are also to promote national arrangements for emergency responses to activities or events threatening biological diversity (Article 14(1)(e)).

2. The profile should indicate what measures a country has taken in these areas as many of these will likely intersect with a country's particular internal policies, laws and institutions as well as bilateral, regional or multilateral arrangements.

ACCESS TO GENETIC RESOURCES AND BENEFIT-SHARING FROM USE OF GENETIC RESOURCES

A. Generally

Article 15 of the Convention on Biological Diversity defines the rights and obligations between its parties regarding access to genetic resources: access to genetic resources in exchange for a share of benefits derived from their use. The convention on Biological Diversity's access and benefit sharing provisions technically only apply to genetic resources or genetic material (Article 2). However, in practice, States will likely regulate access to the biochemical derivatives found within the biological resources located within a national jurisdiction as well.

The details of Article 15's practical implementation will be primarily defined at the national level through the adaptation or creation of policies, legislation and institutions. Ideally, a legal and institutional profile would analyse a country's situation both as a provider and user of genetic resources. The profile should address *in-situ and ex-situ* sources.

B. Provider of genetic resources

1. Legal Status of genetic material from animals plants and micro-organisms in *in-situ and ex-situ* conditions (Article 15(1))

Article 15(1) reaffirms that States have sovereign rights over the genetic resources found within their jurisdiction but it does not grant the State a property right over these resources (Glowka. *et al.*, 1994). But who owns genetic material is a fundamental question which the Convention does not answer. This is typically determined by national law. Therefore, the profile should identify who owns animal, plant and microbial genetic resource found in *in-situ and ex-situ* conditions. The legal status may be similar to that of wild, domesticated or cultivated animals, plants or micro-organisms.

2. Facilitate access to genetic resources (Article 15(2))

Article 15(2) requires each Party to create conditions to facilitate access to genetic resources. There are a variety of ways to implement this provision, but a profile could determine whether a country has a uniform policy on genetic resources access and benefit-sharing issues or whether a legislative framework exists to uniformly process requests for access. The legislative framework could be something newly introduced or could be based around existing measures on for example research collecting or export of biological resources.

3 Negotiating mutually agreed terms (Article 15(4))

This implies a negotiation between the providers and potential users of genetic resources. A successful negotiation could result in the creation of an access agreement. Access agreements (or contracts) are likely to become the primary means for Party's to not only authorise access, but they will likely also embody benefit sharing provisions.

Legislation will likely determine who is entitled to negotiate and enter into access agreements - whether the State or others. Rules on ownership will likely be key determining factors.

The profile should examine the current situation in the country on these issues. Some countries have specific rules on contracting for natural resources, especially when public agencies are involved. It could also highlight whether the State, has entered into any bilateral agreements with other States

involving scientific co-operation which may have an impact on attaining mutually agreed terms.

4. Prior informed consent (Article 15(5))

Reaching mutually agreed terms with a potential user would be the condition precedent for prior informed consent of the Contracting Party providing genetic resources. In fact mutually agreed terms could be reached within a procedure to gain consent.

Where a country does not already have a specific policy or procedure for access to genetic resources, a profile could examine existing mechanisms for obtaining consent to access biological resources for research, collecting or export - both in terms of legislation and institutions. In addition, penalties for failure to comply with the law should be indicated.

5. Research participation (Article 15(6))

Article 15(6) aims to involve Contracting Parties providing genetic resources in the research undertaken by Contracting Parties using the genetic resources. As a first step, implementing obligation will require steps to ensure that governmental agencies involved in scientific research on genetic resources work towards developing joint research programmes with and, if possible, in those Parties providing genetic resources. A profile might review which research institutions are involved in such currently undertake such practices and what the legal administrative or policy bases for this action is. The profile might also determine what bilateral scientific co-operation agreements have a bearing on implementing the obligation.

6. Sharing of benefits (Article 15(7))

Article 15(7) of the Convention on Biological Diversity requires each Contracting Party to take legislative, administrative or policy measures whose goal is the fair and equitable sharing of benefits with the Party providing genetic resources. From the point of view of a provider of genetic resources, Article 15(7) does little more than amplify Article 15's earlier provisions. Article 15(7) is in fact more interesting and has potentially far-reaching consequences for a Party as a user of genetic resources.

C. User of genetic resources

1.Although not explicit in the Convention, an obligation for Parties using genetic resources can be read into Article 15(7). By this reading, a Contracting Party is obliged to take legal, administrative or policy measures aimed at fair and equitable benefit sharing.

2.Some of the implications for countries as users of genetic resources might include requiring importers of genetic resources to demonstrate export has been pursuant to the prior informed consent of the exporting Party. A profile could identify what new or existing mechanisms exist in the country to facilitate this. They might coincide with other Import controls on quarantine for example. Because monitoring imports may simply be too difficult, controls to ensure prior informed consent might also coincide with applications for intellectual property rights or product licenses. Existing mechanisms could also be explored by the profile.

MAJOR FINDINGS AND RECOMMENDATIONS

A section should be included in the profile report.

APPENDICES

A. Collation of written policies and legislation
B. Citation chart.

7.3 ANALYSIS OF QUESTIONNAIRE

CONVENTION ON BIOLOGICAL DIVERSITY

GENERAL and RESOURCES TO BE MANAGED

1. What are the (major) animal and plant species found in your country?(a)Endemic species? (b)Threatened species? (c)Species in a critical situation?

BHU	BANGL	M	NEPAL	SRI LANKA
Have species in all 3 categories	see attachment	-	(a) 370 plant, 151 animal (b) 49 plant and all orchidaceae, 14 plant,(c) Rhino, deer, dolphine, tiger. Major animals also include leopard panda and major plantssal, sissoo,pine,castanopsis,chart,toni, rhododendhon, rawolfra.Protected species : 27 mammals, 9 bird, 3 reptiles.	(a) Animals: mammals 16%, birds 5%, reptiles43%, amphib 52%,fish fresh 44%, Plants: lichen 35%, ferns 18%, angiospern 23% (b)&(c) IUCN Red Book, Major plants: Algae, fungi,lichen, moses, liversorts, femms, gymnosperm

2. What are the (major) ecosystem types found in your country?Consider e.g. wetlands, arid lands, desert lands, forests, marine and coastal ecosystems mangroves.

BH	BANGLADESH	MALD	NEPAL	SRI LANKA
-	Mangrove-coastal, freshwater-wetland, Barind tracts, sal forest and charland	Coastal	forest/aquatic /wetland	Forest, Grassland, Coastal/Marine,Inland wetland

3. Are there, in your country, ecosystems important to migratory species ?

BHUTAN	BANGLADESH	MALD	NEPAL	SRI LANKA
yes, BNC	yes,wetland, coastal-charland	-	aquatic/forests	yes

4. What is the potential of genetic resources in your country?

BHUTAN	BANGLADESH	MALD	NEPAL	SRI LANKA
tremendous	argricultural, medicinal,orchids	many	rich, in medicinal plants, trees crops(wheat),yak & tahr	Agr genetic resources and medicinal plants

5. To what extent are biological resources, species and ecosystems utilized in your country? Consider all relevant aspects, including: agricultural uses, other economic uses, genetic value, recreational uses, educational and scientific uses, cultural value.

BHU	BANG	M	NEPAL	SL
pre-paring	optimal use	-	Fulfil basic need: firewood, fodder, fruits, vegetable; in agriculture as fertilizer, pesticides genetic value; animals and wild plants; recreational uses; ecosystems: parks, zoos, B.Gdns, reserves; educational uses; cultural:medicinal plants, mushrooms,rearing & domestication of animals, pipal plants, erosion control	mainly agric

6. What are the losses of biodiversity in your country? Consider again ecosystems, species and genetic resources. What are the major causes of losses of /threats to biodiversity? i.e. deforestation, exploitation for medicinal/health purposes, urban development, pollution, transportation policies, hunting, wars/national security issues

BH	BANGLADESH	M	NEPAL	SRI LANKA
pre-paring	destruction of habitat, deforestation, unplanned urbanisation, population explosion, over utilization of Bio Resources, salt water intrusion, shrimp culture, land use conflicts	-	Species: 3 mammals, 11 birds. Causes: habitat destruction, deforestation, land degradation, illegal trade of species, unplanned settlement, pollution	deforestation for Ag and also industrial activities (aquaculture)

7 In your country, what is the status of scientific research and training with regard to conservation and sustainable use of biodiversity?

BH	BANGLADESH	M	NEPAL	SRI LANKA
pre-paring	limited in Uni, some NGOs and research orgs; DOE,DOF,DOEF & some NGOs train.	-	Forest Research Centre DOWildlife, DOPlant Resources work on inventory of biospecies,in Park and People project. NGO, Uni, Govt institutions train officers, junior technicians and local people.	Conservation of Flora EG, Plant Genetic Res Institution at Gannoruwa, National Herbarium and Royal Botanical Gdn, Peradeniya- for conservation and use of floral BD

8 In your country, what is the status of technologies relevant to the conservation and sustainable use of biodiversity? Consider that the term "technology" in the Convention includes biotechnology.

BH	BANGLADESH	M	NEPAL	SL
N/avail-able	primary stage, within laboratories only	-	At infant stage. Unde- utilized in the caseof propogation of plants(potato), fuelwood and trees	very poor

9 What foreign agencies have interests in or have Agreements with your government regarding biological diversity? Give details.

BH	BANGL	MALDIVES	NEPAL	SRI LANKA
UNDP/ GEF	SIDA, IUCN, NORAD, also GEF Coastal and Wetland BD Managment proj	GEF enabling project, AusAID project to identify,establish and manage protected systems	Gov of Netherlands/HMGN BD Profile project, World Bank/HMGN People and Park Project.	GEF Rs400mill project for medicinal plants, World Bk for BD skill enhancement, Netherlands on small cetaceans, GEF on wildlide protected area man't, Finida for Forest sector dev't.

10 What access does your country currently have to biodiversity databases and information?

BH	BANGL	MALD	NEPAL	SRI LANKA
-	none yet	-	-	Infoterra national Data Base on BD (developing)

EXISTING ARRANGEMENTS FOR IMPLEMENTATION of CONVENTION

National Biodiversity Strategy

11 Are there, in your country, overall strategies, plans and programmes for the conservation and sustainable use of biodiversity?

BH	BANGL	M	NEPAL	SRI LANKA
pre-paring	pre-paring	-	Not comprehensive plan, but long term plan to incorporate into sectoral policies ie Env Policy & Action Plan, Biodiversity Profile, drafting BD Action Plan.	Yes (strategies for dev of Action Plans)

12&13.

Are there any sectoral strategies, plans and programmes? Consider sectors such as: wildlife, forests, fisheries,protected areas, coastal and marine areas, soil conservation.(b)Are there national,regional,subregional,local strategies and plans?

BHUT	BANGLADESH	M	NEPAL	SRI LANKA
prep-aring (b) national	some plans at national level in wildlife, foreatry, fisheries, soil and protected areas but not detailed	-	yes, 25yr Forestry Master Plan, 20 yr Agriculture Perspective Plan, Soil conservation and watershed man't, Park management, aquaculture, conservation areas b)yes, national	yes b) only at national level

14 &15 Is there a legal or administrative provision requiring the development/creation and review of a National Biodiversity Strategy? List the provisions.(b) What is the relationship between conservation strategies, plans and programmes on the one hand, and the development plans, programmes and policies on the other? Have they been harmonised? How?

BHUTAN	BANGLADESH	M	NEPAL	SRI LANKA
Yes, Nature Cons'n Act (b) yes all prog's requireEIA	Are provisions in various Acts but they need to be reviewed (b) yes prior clearanceof plans etc required by DOE and EIA/IEE required to address CBD	-	no (b) yes conservation policies integrated with long term development plans	No overall National law, specific laws provide for conservation measures b)EIA initial screening considers effect, Public Inv P, BD ActionPLan appropriate agencies requested to allocate funds for BD conservation requirements

16.
Is there a provision establishing an institution for coordinating development and implementation of the National Biodiversity Strategy? What is its name

BHUTAN	BANGLADESH	MALD	NEPAL	SRI LANKA
UNDP/GEF on Instit capacity Blg within line ministries and Dzongkhag level	DOE & DOF under MOEF coordinate	MPHRE	No, through Env Protection Council is highest body for coordinating	MOTEWA, BD Unit

17.
What institutional arrangement exists for the development and regular review/modification of this Strategy? (ie multi disciplinary committees, local government, private sector, NGO involvement)

BH	BANGLADESH	MALDIVES	NEPAL	SRI LANKA
N/A	Multi-disciplinary committeein MOEF involving DOF,DOE DoFisheries, NGOs	MPHRE, yes task force can review	DOWildlife, DOPlant Resources, DOAg, Local people, NGOs	Inter Agency Coordination Gp on BD, meet once in 4mths, also NEAP Update Committee (BD & Forestry sectors)

Identification and Monitoring
18.
What are the legal or administrative arrangements for identifying components of Biodiversity (such as requirements for Inventories of distinctiveness, richness, representativeness, economic and cultural importance of, extent to which threatened)

BHUTAN	BANGL	MALDIVES	NEPAL	SRI LANKA
preparing Env Prot'n Act	none, DOE,DOF responsible	Env Act 4/93, Fisheries law	Environment Protection Bill and Wildlife Regs mention	Forest Ord, Fauna and Flora Prot Ord, Felling of Trees Act, Soil Conservation Act Nat Heritage Wilderness Act

19. What measures are taken to monitor the status of biodiversity in your country? Are there any problems and difficulties with monitoring the status of biodiversity?

BHUTAN	BANGLADESH	MALD	NEPAL	SRI LANKA
protected areas, inventories	problem is funding and institutional limits	-	problem is funding, uniform methods and equipment	Preparing BD Status Report

20. What are the financial arrangements for funding data collection and the purchase of appropriate equipment?

BHUTAN	BANGL	MALD	NEPAL	SRI LANKA
UNDP/GEF grant	donor funds	GEF/ AusAID	HMGN and donor	GEF/UNEP proposed Project Rs18mill, Prep of 1st Report to COP3 on BD and prepare National ata Book on BD

21. What are the legal or administrative arrangements for monitoring data (sample taking) to identify :
(i)priorities for components of biological diversity that require urgent conservation measures and those which offer the greatest potential for sustainable use or
(ii) activities that have significant adverse impacts on the sustainable use of biological diversity?

BH	BANGLADESH	MALDIVES	NEPAL	SRI LANKA
-	none, casual monitoring done by biological resource sectorof country	under Env Act 4/93	mentioned in Act/regs of Wildlife, Plant Resources and Quarantine	none (no access to agencies)

22.
What institutional arrangements exist for identifying, monitoring and organising any data? Does the institution arrangement involve coordination with other data collecting agencies (NGOs, sectoral, private)? How?

B	BANGL	MALD	NEPAL	SRI LANKA
-	none	MPHRE, Fisheries	Dept NP&W, Ag,Uni exists for monitoring	NGO Network developing (125 members at present), Gov sector network (75 members) to assess use of gps, Natural Resource Directory on BD

In Situ Conservation
23&24.
Has your country established protected areas? (b) Does your country protect specific types of ecosystems and habitats?

BH	BANGL	MALS	NEPAL	SRI LANKA
yes(10)26 % of land, yes	yes (b) yes	yes b) yes 15 Marine Protected areas, most islands are bird sanctuaries	yes , 8 Nat Pks, 7 Wildlife Reserves, 1 Hunting Reserve,17.1% land under protected areas(b) yes, tropical forest, wetland, Rhino, tiger,crocodile habitiats	yes, 14 % prrotected area b)yes

25. What are the legal or administrative(guidelines) arrangements for the selection, establishment and management of protected areas to conserve biological diversity?

BHU	BANGLADESH	MALDIVES	NEPAL	SRI LANKA
ISDP-NC Act	Env Act, Fishery Act Forestry Act, but specific arrangements needed	Env Act 4/93 Fisheries Law	NPWildlife Conser Act 1973. Also Forest Act 1993,Aquatic Anim P Act 61, Plant Conse Act	Forest Ord, F&F Pord, Nat Heritage Wilderness Act, preparing National Conservation Review, 32 Forests ranked

26.
Has your country taken measures to protect threatened plant and animal species? If so, describe the legal and institutional arrangements

BH	BANGLADESH	MALDIVES	NEPAL	SRI LANKA
yes	Wildlife Preserv Act, but integrated institution needed	yes Fisheries law, cutting trees requires permit	Some measures: in-situ, ex-situ, germ-plasma collection	yes, CEA-wetlands, DOF-forests, DOW- Wildlife (F&Fauna)

27.
What are the legal or administrative arrangements to protect ecosystems and species **outside** protected areas or on areas adjacent to protected areas?

BH	BANGL	M	NEPAL	SRI LANKA
yes	no, but limited steps taken by DOE,DOF	-	none specific but Forest law protects forests outside Protected Areas	EIA, Env Protection Licence, NGO - turtle conservation, Botanical Gdns and Elephant orphanage

28. Has your country taken measures to rehabilitate and restore degraded ecosystems and to promote the recovery of threatened species? (legal or administrative arrangements)

B	BANGL	MALDIVES	NEPAL	SRI LANKA
-	yes	yes, 1Billion Tree prog on 1/1/96, now 2Billion	Yes, areas with flora and fauna	Hikkaduwa Marine Sanctuary good example also NCR notes areas for protection

29. What are the legal or administrative arrangements to control risks to biodiversity resulting from pollution, the use and release of modified living organisms, or the introduction of alien species?(ie quarantine regulations, shipping regulations to control ballast discharges in port areas harvesting controls, trade controls and tourism controls)

B	BANGLADESH	M	NEPAL	SRI LANKA
-	Forest, Fishery, Env Acts, Shipping regs, moratorium on forest extraction, Wild P AmAct, quantitative regs	-	Trade controls and Quarantine	Pollution-EIA/ELP procedure, LMO/GMO -none

Conservation of biodiversity "ex-situ"

30.
Is your country taking measures for ex-situ conservation? Are these in-country measures? Is there any cooperation with other countries and/or international institutions?

B	BANGLADESH	M	NEPAL	SRI LANKA
yes	yes, Botanical gdn, Zoos, germ plasm bank, yes in-country	-	yes,incountry being zoos, crocodile farm, Botanical Gdns	yes, in country,cooperate with Philippines Plant Genetic Res Inst and Int Rice Research Inst and with agric BD agencies

31. Does your country maintain facilities for ex-situ conservation of and research on plants, animals and microorganisms?

BH	BANGL	M	NEPAL	SRI LANKA
not yet	limited scale only	-	yes,but not micro-organisms	yes, Pinnawala Elephant Orphanage, Turtle Hatcheries in Kosgoda, Balangoda,Hikkaduwa

32. Has your country adopted measures for the recovery and rehabilitation of threatened species and for their reintroduction into their natural habitats?

BH	BANGLADESH	M	NEPAL	SRI LANKA
not yet	yes, release of wild animals to coastal aforestation divisions	-	yes, for crocodile,Ghndiyal and Rhino	see above

33. Does your country regulate and control the collection of biological resources from natural habitats for ex-situ conservation?

BHU	BANGLADESH	MALD	NEPAL	SRI LANKA
-	yes, mostly within protected areas	-	no	to some extent (50%)

Sustainable Development

34. Has your country established policies and/or legislation on sustainable use of components of biodiversity. Are these comprehensive natural resource policies/regulations? Do they concern sectors (wildlife, fisheries) ?

BHUTAN	B	MALDIVES	NEPAL	SRI LANKA
yes, under sustainable devel policies,Paro Resol'n on E&SD, reciprocity with sectors	no	yes, dolphin friendly fisheries, no trawlling in EEZ	Have national/sector policies on use of BD, but do not have Specific policies such as Wildlife.	Yes, yes Forest Policy on sustainable use, yes sectors of Fisheries, Agric, NEAP Policy Prog, F&F ProtOrd

35.
What are the legal or administrative arrangements to integrate consideration of the conservation and sustainable use of biological resources into every aspect of national decision making? Are conservation strategies etc. binding in decision - making? Are they "to be considered" in decision-making?

B	BANGL	MALDIVES	NEPAL	SRI LANKA
-	yes, in EIAs	Env Act 4/93, EIA	EIA Guideline for Forestry	considering, ie BD not in current national accounting system and GDP forest sector is only 1.7(should be more)

36.
Are policies/regulations on sustainable use taken into account in decision-making at all levels of government?

BHU	BANGLADESH	M	NEPAL	SRI LANKA
yes	attempting to	-	yes	no,only national to some degree, provincial -none

37.
What are the institutional arrangements to encourage cooperation between governmental authorities and the private sector in developing methods for sustainable use of biological resources?

BHUTAN	BANGL	MALD	NEPAL	SRI LANKA
mandatory EIA, integrated programme	attempting to involve public	MPHRE & task force	Public participation given emphasis in Community forestry development, conservation area manag't	With NGOs Network developing

38. Are there in your country, customary uses of biological resources? Are these uses compatible with the requirements of sustainable use of biodiversity?

BH	BANGL	M	NEPAL	SRI LANKA
-	yes, not exactly compatible	-	yes, no because rural people fulfilling basic need so over-exploitation and adverse affect on life-support system	yes, no because traditional uses deteriorated due to commercialism and population increase

39. What institutional arrangements exist for the preservation of knowledge of indigenous and local communities relevant for the conservation and sustainable use of biological diversity? What is the extent of their involvement in decision making on any equitable sharing of benefits of such knowledge?

BHUTAN	BANGL	M	NEPAL	SRI LANKA
Community Forest Prog, local methodology on preserving Flora/Fauna	yet to be made		DOW,DOAg working on preservation	Medicinal Plant Project-Data base developed on indigenous knowledge, nil sharing of benefits

40. Is there in your country, a need for remedial action in degraded areas where biological diversity has been reduced? Has remedial action been taken? If so, at what level? Is there a need to support local populations to develop and implement remedial action?

BHUTAN	BANGLADESH	M	NEPAL	SRI LANKA
reforestation	yes,some action taken through biological sector, yes must involve local communities	-	yes, afforestation and soil conservation both include local people	yes, some action at national level, yes need for support to local pop's

Incentive Measures

41.

Are there any incentives or disincentives used in your country? Consider subsidies, tax exemptions, tax reductions or awards the purpose of which is to promote conservation and sustainable use of biodiversity. Consider also charges, taxes or any other financial burden the purpose of which is to discourage degradation of ecosystems (details of legal or administrative arrangements)

B	BANGLADESH	M	NEPAL	SRI LANKA
-	yes, limited scale participatory forest programme, but need to make tax incentives	-	Development of Community Forestry	Participatory approach- relocation in vicinity of reserve, World Food Prog- rations given and permission to gather traditional forest products

42. Are there any incentives which may result in degrading / biodiversity? Consider e.g. subsidies or tax reductions for activities which destroy or damage ecosystems.

B	BANGL	M	NEPAL	SRI LANKA
-	no	-	5/94	EDB promotes export of ornamental fish, Tea Small Holdings Dept incentives result in adjacent forests used for tea as well as home gdns

Impact Assessment

43&44.

Has your country introduced EIA procedures? What activities are subject to EIA? Are conservation and sustainable use of biodiversity considered in EIA procedures?(b) If EIA procedures are not yet introduced, are there intentions to introduce such procedures? Are there major obstacles to introducing such procedures?

BHUTAN	BANGL	M	NEPAL	SRI LANKA
all activities need EIA	yes b) N/A	yes	yes, used in major wildlife,soil and forestry activities, b) N/A	yes b)N/A

45.

Are programmes and plans subject to formal EIA procedures? If not, are environmental considerations to be taken into account in planning and policy-making procedures? Are there any difficulties or obstacles to taking such considerations into account?

BHUTAN	BANGLADESH	MALDIVES	NEPAL	SRI LANKA
yes	yes formal EIA/IEE	yes	yes	yes

46.

What are the legal or administrative arrangements requiring impact assessment of projects that are likely to have a significant adverse effect on biological diversity? (public/private projects, assessment criteria, review, level of public participation, penalties)

BHUTAN	BANGLADESH	MALDIVES	NEPAL	SRI LANKA
EPAct	Env Conserv Act 1995	Env Act 4/93	EIA Guideline for Forestry	as mentioned,comprehensive EIA procedures

Access to genetic resources

47 & 48. Has your country introduced national legislation on access to genetic resources? If not, is there a need to introduce such legislation and is the country considering introducing such legislation?(b) Is access to genetic resources allowed to foreigners?

BH	BANGLADESH	M	NEPAL	SRI LANKA
- (b) no	no b)yes, special permission for research purposes	-	no, but essentially needed, to integrate into Env P Regs b)no	no, yes a need though sectoral laws such as Forests, F&FPOrd have provisions on acess.b) only at research level

49. What are the conditions for providing access to genetic resources? Do these conditions include prior informed consent and the requirements to allow for participation in research and development and to share the results and benefits from research and development?

B	BANGLADESH	M	NEPAL	SRI LANKA
-	yet to be formulated	-	-	only for research eg. Prior Informed Consent and Mutually Agreed terms developing by NARESA

50 &51. Are there any agreements on access to genetic resources between your government and other governments, or between your government and foreign private institutions or companies? (b) Are there any agreements between your country and other countries / foreign institutions / foreign companies on the sharing of results and benefits from research on and development of genetic resources provided by your country?

BH	BANGL	M	NEPAL	SRI LANKA
no b) no	no b) no	-	no b) no	yes see Q30, yes as will increase yield over time

Access to and transfer of technology

52 &53. Does your country provide or facilitate access to and transfer of technology? Are technologies provided to developing countries, including developing countries providing genetic resources? (b) Does your country need technologies relevant to the conservation and sustainable use of biodiversity?

BHUTAN	BANGLADESH	MALD	NEPAL	SRI LANKA
N/A (b) yes	yes b) yes great need	-	- b)yes in Genetic Resources and Sustainable use of BD	to some extent b) yes

54 Has your country.introduced legislation or any regulatory scheme on biotechnology?Does it allow for participation in biotechnological research activities by other countries, particularly those countries which provide the genetic resources for such research? Does it provide access to the results and benefits from biotechnological research?

BHUTAN	BANGLADESH	MALDIVES	NEPAL	SRI LANKA
not yet	no	-	no	no, a priority

55 Is your country interested in access to and participation in biotechnological research activities?

BHUTAN	BANGLADESH	MALDIVES	NEPAL	SRI LANKA
yes	may be in future	-	yes	yes i.e. Effective Micro org fm Japan to compost garbage

Research, Training Public Education and Awareness

56 & 57 Has your country established and does it maintain programmes for research and technical education and training in conservation and sustainable use of biodiversity? (b)Are there any difficulties, limitations and constraints to establishing such programmes?

B	BANGL	M	NEPAL	SRI LANKA
yes (b)-	yes, b) yes	-	Govt Institutions /NGO research, BD included in school curriculum b)lack of priority area identification, funding, manpower, BD Action Plan	yes b)yes, funding capacity bld and knowledge gap

58. What measures has your country taken to educate the public about the importance of conservation and sustainable use of biodiversity?

B	BANGL	M	NEPAL	SRI LANKA
is a priority	training, introduce courses in syllabuses	-	Training, Seminar, Gp meeting in the protected areas	school prog-O/L, A/L, NGO Workshops, All ministries W/S include BD component, BD Newsletter in Sinhala

59. What are the institutional arrangements for research and training (Research Centres, educational establishments, private institutions)?

BHUTAN	BANGL	MALD	NEPAL	SRI LANKA
Nature Cons'n Section under Forestry Services Div, MOA	research orgs, Uni, some NGOs, training by DOE,DOF MOEF, M of Fisheries	1 centre	DeptNPW, DOPlant Resources, DOA, National Council of Ag Research, NGOs likeKing Mahendre Trust for Nature Conservation, Uni's	Plant Resource Centre, Gannoruwa

Transboundary and international cooperation for the conservation and sustainable use of biodiversity

60 Has your country taken measures to ensure that activities carried out within areas of national jurisdiction and control do not cause damage to the environment, particularly the biodiversity of other States or of areas outside national jurisdiction?Are such measures legally binding (provided in laws and/or regulations)?

BHUTAN	BANGLADESH	MALDIVES	NEPAL	SRI LANKA
yes	not jeopardizing other states	-	yes	-

61 & 62 Has your country established mechanisms of transboundary information and consultation with regard to activities which may affect the biodiversity of other States?(b)Are there any mechanisms of transboundary emergency cooperation?

BHUTAN	BANGLADESH	MALDIVES	NEPAL	SRI LANKA
yes	N/A b) -	-	no,no	-

63 & 64. Has your country concluded any agreements on transboundary cooperation (bilateral, multilateral)? Which regional and global agreements on the conservation and sustainable use of biodiversity have been ratified by your country? Are there any difficulties with ratifying or acceding to International agreements?

BHUTAN	BANGLADESH	MALDIVES	NEPAL	SRI LANKA
-	-	-	no, CBD	-

65. What information relevant to the conservation and sustainable use of biodiversity is needed in your country? Does your country participate in the international exchange of information?

BH	BANGLADESH	M	NEPAL	SL
-	For coastal/marine species and ecosystem, GIS for BD loss monitoring, remote sensing for assessing BD/ecosystem, BD action plan, no	-	status of BD including threatened & endangered species to develop Action Plan	-

66. In your country, what is the status of scientific and technical research in the field of conservation and sustainable use of biodiversity? Are there any needs to develop and strengthen national capabilities? Does your country participate in international technical and scientific cooperation? (i.e. in natural and social sciences, EIA, computers, laboratory and field activities, staff exchange programmes)?

BH	BANGL	MA	NEPAL	SL
-	limited prog, yes in conservation and management	-	Not satisfactory, gaps in knowledge, need to develop and strengthen national capabilities	-

Financial matters

67. What are the capabilities of your country to support national actions to conserve and sustainably use biodiversity? What are the relevant national plans, priorities and programmes?Are there any considerations to further develop these plans, priorities and programmes?

BHUTAN	BANGLADESH	M	NEPAL	SRI LANKA
institutional capacity bld in process, yes	-, need to further develop/review plans, under consideration	-	Still need further knowledge on recent technical 'know-how', info for the Action Plan	funding needed

68. Does your country support international activities or mechanisms relevant to the conservation and sustainable use of biodiversity?

BH	BANGL	M	NEPAL	SRI LANKA
-	yes	-	yes, provided supports Nepals framework, Law and needs	-

STRENGTHENING EXISTING ARRANGEMENTS

69-70. What are the major problems /barriers to the effective implementation of the Convention?Priorities? Why?

BH	BANGL	MALD	NEPAL	SRI LANKA
-	integrated institutional arrangements, funding	trained personel	Review of existing laws, completion of Action Plan, institutional strengthening and capacity bld	funding , capacity building, gaps in knowledge

72. List the steps that you would need to take in order to strengthen the existing arrangement. What would be the methods to achieve this goal?

BH	BANGLADESH	MALD	NEPAL	SL
-	develop multisectoral integrated institution	-	Form technical gps under Env Prot Council to support this policy body	-

73. Generally, how can institutional arrangements be strengthened in your country to make implementation of the Convention more effective and enhance the integration of relevant sectors

BH	BANGLADESH	M	NEPAL	SL
-	specific field oriented framework,with regional and global cooperation	-	as above	-

Attachment for Bangladesh

List of wildlife species whose survival is threatened at the national level:

A. Reptiles:

River terappin, Threekecled land tortoise, Malyan Box Turtle, Yellow Turtle, Burmese Brown Tortoise, Elongated Tortoise, Spotted Flapshell, Ganges soft shell, Peacock Soft shell, Bostami turtle, Asiatic softshell, Green turtle, Olive Redley turtle, Howksaw bill turtle, Rock Python, Reticulated Python, Rat Snake, Common Krait, banded krait, Cobra, king Cobra, Estuarine Crocodile, Gharial

B. Birds

Greater Adjudant, Lesser Adjudant, Openbill Stork, Whitewinged Wood Duck (49 species), Predatory birds (49 species), Common Peafowl, Burmes peafowl, Water cock, Masked Finfoot.

C. Mammals

Slow Loris, Pigtailed Macaque, Longtailed Macaque, Rhesus Macaque, Common Langur, Leaf Monkey, Capped langur, Hoclock Gibbon, Chineses Pangolin, Malayan Pangolin, Wild dog, Sloth Bear, Himalayan Black Bear, Malayan Sun Bear, Common Otter Smoth Indian Otter, Clawless Otter, Bengal Tiger, Leopard, Clouded Leopard, Marbled Cat, Golden Cat, Leopard Cat, Fishing Cat, Jungle Cat, Asian Elephant, Serow, Ganges Dolphin, Finless Porpoise.

National Parks(NS), Wildlife Sanctuary (WS), Game Reserve(GR)

Sundarbans East (WS), Sundarbans South (WS), Sundarbans South (WS), Rema-Kalenga (WS), Char Kukri-Mukri (WS), Pablkhali (WS), Himchari (NP), Bhawal (NP), Modhupur (NP), Teknaf (GR-elephant), Chunati (WS), Rampahar-Sitapahar (WS), Hazarikhil (WS), Lawachera (NP)

Total forested area of Bangladesh: 225,363,495 Ha. Total protected areas: 223,413,495 Ha

7.4 COUNTRY PRESENTATION - INDIA

CONSERVATION OF BIODIVERSITY IN INDIA

1. India is one of the 12 mega biodiversity centres in the world, representing two of the major realms and three basic biomes of the world. The country is divided into 10 bio-geographic regions: Trans-Himalayan, Himalayan, Indian Desert, Semi-Arid, Western ghats, Deccan Peninsula, Genetic Plains, north-east India, Islands and Coasts.

2 The diversity of the country's-biological resources is yet to be fully known. Approximately 65% of the total geographical area has been surveyed so far. Based on this, over 47,000 species of plants and 81,000 species of animals have been recorded. This list is being constantly upgraded, specially in respect of lower plants and invertebrate animals.

3. Conservation and sustainable use of biological resources based on the local knowledge systems and practices is ingrained in Indian ethos and way of life. Formal policies and programmes for conservation and sustainable utilisation of biodiversity resources date back to several decades. The concept of environmental protection enshrined in the Indian constitution in Article 48a and 51a(g). Major central acts relevant to biodiversity are:

- Forest Act, 1927
- Wildlife (Protection) Act, 1972
- Forest (Conservation) Act, 1980
- Environment (Protection) Act, 1986.

The various central acts are supported by a number of state laws and statutes concerning forests and other natural resources.

4. Policies and strategies directly relevant to biodiversity include:

- National Forest Policy amended in 1988
- National Conservation Strategy and Policy Statement for Environment and Sustainable development
- National Agricultural Policy
- National Land Use Policy
- National Fisheries Policy (under preparation)
- National biodiversity Policy (under preparation)
- National Wildlife Action Plan
- Environmental Action Plan

5. Surveys of the floral and faunal resource in the country are carried out by the Botanical survey of India established in 1690 and the Zoological survey of India established in 1916- The National Institute of Oceanography and several other specialised institutions and universities further strengthen the taxonomic data base.

6. Approximately 4.2% of the total geographical area of country has been earmarked for extensive in-situ conservation of habitats and ecosystems through protection area network of 80 National Parks and 44% Wildlife Sanctuaries. The results of this network have been significant in restoring viable populations of large mammals such as tiger, lion, rhinoceros, crocodiles, elephants etc.

7. A programme captioned "Eco-development" through World Bank's assistance for in-situ conservation of biological diversity involving local communities has been initiated in recent years. The concept of Eco-development integrates the ecological and economic parameters for sustained conservation of ecosystems by involving the local Communities with the maintenance of earmarked regions surrounding protected areas.

8. To conserve the representative ecosystems, a Biosphere Reserve programme is being implemented. Eight biodiversity rich areas of the country have been designated as Biosphere Reserves applying the UNESCO MAB criteria.

9. Programmes have also been launched for scientific management and wise use of fragile ecosystems. Specific programmes for management and conservation of wetlands, mangroves, and coral reef systems are also being implemented. National and sub-national level committees oversee and guide these programmes to ensure strong policy and strategic support.

10. Attention has beech paid to ex-situ conservation measures also as they complement the in-situ conservation and are even otherwise important. According to currently available survey, Central Government and State Governments together run and manage 33 Botanical Gardens. Universities have their own Botanical Gardens. There are 275 centres of ex-situ wildlife preservation in the form of zoos, deer parks, safari parks, aquarium etc. The Government of India have set up a Central Zoo Authority for overseeing, monitoring co-ordinating the management and the development of zoos in the country.

11. Collection and preservation of genetic resources is done through the National Bureau of Plant Genetic Resource for wildlife relatives of crop plants; the National Bureau of Animal Genetic Resources for domesticated animals; and the National Bureau of Fish Genetic Resources for economically valuable fish species. These Bureau's are assigned the task of collecting germplasm and also supplying these on request to Indian and foreign agencies for research purposes.

12. Pursuant to the ratification of the Convention by India on 18 February, 1994, several steps have been initiated to meet the commitments under the Convention as also to bring the legislative, administrative and policy regime regarding biological diversity in tune with the Articles of the Convention.

A comprehensive status report on biological diversity in India is also under preparation. The Status Report would cover the various facets of biodiversity conservation.

A National Action Plan on Biological Diversity is under finalisation. While consolidating the on-going efforts of conservation and sustainable use of biological diversity, the draft Action Plan aims at establishing a policy and programme regime which brings the National Action on various aspects of the subject including capacity building and biosafety measures in tone with the Article of the Convention.

In addition, the following activities are being undertaken:

- Biosafety protocol
- Biodiversity information network
- Capacity building in taxonomy
- Consultations with the State Govts
- Traditional knowledge and benefit sharing
- Legislation

13. India believes that national action regarding conservation and sustainable use of biodiversity and equitable sharing of benefits arising out of the utilisation of genetic resources demands appropriate actions on the part of international community. Some key issues in this regard are as follows:

(i) Development of suitable enabling environment by the other parties, particularly the developed country parties, to ensure benefits to countries of origin. These benefits should not only include measures like royalty payment or monetary compensation but also location of research and technologies in the countries of origin in accordance with tile provisions of the Convention.

(ii) Development of an internationally recognised regime for recognising the property rights - both intellectual and physical of the local communities. Development of such a regime may take time. Pending which all patent applications should be required to disclose. (a) the source and origin of the genetic material used; (b) knowledge and practices about the use of the said genetic resources by the local communities and identification of such communities; and (c) give a declaration that laws, practices on guidelines for the use of such material and knowledge systems in the country of origin have been followed.

(iii) Capacities of biodiversity rich countries should be built to enable them to do bio-prospecting and products developed from genetic resources.

(iv) Introduction of transgenics, alien species should be only with requisite safeguards.

CONVENTION AND INDIA

Conservation and sustainable use of biological resources based on local knowledge systems and practices is ingrained in Indian ethos and way of life. Applications and practices for use of biodiversity in the country have developed over the years in a traditional scientific process. India has a strong system of alternative medicine, namely, Ayurveda, Unani, Siddha and Homeopathic systems, which are predominantly based on Plant-based raw materials in most of their preparations and

formulations. As per the assessment of the Department of Indian system and medicines, about 1100 medical plans are regularly used in Indian systems of medicines. Herbal preparation for various purposes, including pharmaceutical and cosmetic purposes, form part of the biodiversity uses tradition in India.

The bio-resources of the country have been shared freely with other countries treating biodiversity as a common human heritage in the past. Also the knowledge systems and practices of the local and indigenous communities have been accessed freely by outsiders in the past. But in the post-CBD era, things have changed as bio-resources have become the sovereign property of the States. Parallely, it has further necessitated a serious look at the systems of sharing resources and knowledge with others. This development refers to the Final Agreement of the Uruguay round negotiations of GATT and the establishment of the World Trade Organisation. The new intellectual property rights regimes have made knowledge systems, practices and innovations a competitive commercial commodity which needs to be preserved and shared, subject to well worked out systems so as not to lose the economic benefit due to the country or its local communities.

In this changed global scenario, the Convention thus creates both obligations and opportunities for the country.

Pursuant to the ratification of the Convention on Biological Diversity by India on 18 February, 1994, several steps have been initiated to meet the commitments the opportunities under the Convention, and realise the opportunities offered by the Convention. These efforts aim to bring the legislative, administrative and policy regime in tune with the three-fold objectives of the Convention.

A National Action Plan on biological diversity is under finalisation. This Plan aims at consolidating the. on-going efforts of conservation and sustainable use of biological diversity and establishing a policy and programme regime for this purpose.

In addition, the following activities are being undertaken:

Biosafety protocol

Pursuant to the decision of the second Conference of the Parties to the Convention on Biological Diversity, an inter-ministerial Task Force on Biosafety was constituted to work on the elements of the protocol. The Task Force is working on the issues.

Biodiversity information network

An exercise has been initiated to develop a distributed biodiversity Information network. The existing infrastructure and systems available in various organisations is being assessed for this purpose. Work has also been initiated to standardise the data formats.

Capacity building in taxonomy

Taxonomic capacity of the country is under study and a perspective plan for taxonomic capacity building is being considered. For this purpose, a conference was held in January on 15 & 16 March, 1997.

Consultations with the State Govts.

In order to Involve the States fully in the issues of biodiversity and encourage State-level consultations, a detailed paper bringing out the various issues of relevance to the States on the subject of biodiversity has been prepared and communicated to the Chief Secretaries. They have been requested to hold State level inter-departmental meetings to formulate State's views regarding the policy and strategy. Some States have already organised meetings for this purpose.

Traditional Knowledge and benefit sharing

Consultations have been organised involving concerned Ministries experts, NG0s and lawyers to deliberate on these issues. A workshop was also being planned on these subject involving the industry, experts, NG0s on March 10, 1997.

In the second and the third meetings of Conference of the Parties to the CBD, India emphasised inoculation of additional obligation for patent applications to disclose the country of origin for biological material and information pertaining to knowledge, innovations and practices of indigenous and local communities; statement that Material Transfer Agreement or Information Transfer Agreement with the country of origin have been entered into upon mutually agreed terms.

Legislation

Work pertaining to legislation on biodiversity was continued during the year. An internal workshop was held to identify the elements for specific proposals. The current acts and regulations have been studied. Following discussions/consultations with lawyers, academicians, Government officials and others, further clarity has emerged on the scope of this legislation. The scope could be as follows:

- Legal status of conservation areas/species including ex-situ collections.
- Access regime for biological diversity.
- Protection of indigenous knowledge, practices, innovations and benefit sharing with communities.
- Systems to ensure benefits to the country, as country of origin.
- Biosafety
- Any other matter.
- Further work on the subject is continuing.

(Legislation)

MINISTRY OF ENVIRONMENT AND FORESTS
NOTIFICATION ON ENVIRONMENTAL IMPACT ASSESSMENT OF DEVELOPMENT PROJECTS
New Delhi, the 27th January, 1994
(As amended on 04/05/1994)

1. *S.O.* 60 (E) Whereas a notification under clause (a) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986 inviting objections from the public within sixty days from the date of publication of the said notification, against the intention of the Central Government to impose restrictions and prohibitions on the expansion and modernisation of any activity or new projects being undertaken in any part of India unless environmental clearance has been accorded by the Central Government or the State Government in accordance with the procedure specified in that notification was published as SO No. 80(E) dated 28th January 1993;

And whereas all objections received have been duly considered,

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby directs that on and from the date of publication of this notification in the Official Gazette expansion or modernisation of any activity (if pollution load is to exceed the existing one) or a new project listed in Schedule I to this notification, shall not be undertaken in any part of India unless it has been accorded environmental clearance by the Central Government in accordance with the procedure hereinafter specified in this notification,

2. Requirements and procedure for seeking environmental clearance of projects:-

I (a) Any person who desires to undertake any new project or the expansion or modernisation of any existing industry or project listed in the Schedule 1 shall submit an application to the Secretary, Ministry of Environment and Forests, New Delhi.
The application shall be made in the proforma specified in Schedule II of this notification and shall be accompanied by a project report which shall, *inter alia*, include an Environmental Impact Assessment Report/Environment Management Plan prepared in accordance with the guidelines issued by the Central Government in the Ministry of Environment and Forests from time to time.

(b) Cases rejected due to submission of insufficient or inadequate data and plans may be reviewed as and when submitted with complete data and plans. Submission of incomplete data or plans for the second time would itself be a sufficient reason for the Impact Assessment Agency to reject the case summarily.

II In case of the following site specific projects
(a) Mining;
(b) pit-head thermal power stations;
(c) hydro-power, major irrigation projects and/or their combination including flood control;
(d) ports and harbours (excluding minor ports);
(e) prospecting and exploration of major minerals in areas above 500 ha.

The project authorities will intimate the location of the project site to the Central Government in the Ministry of Environment and Forests while initiating any investigation and surveys. The Central Government in the Ministry of Environment & Forests will convey a decision regarding suitability or otherwise of the proposed site within a maximum period of thirty days. The said site clearance shall be granted for a sanctioned capacity and shall be valid for a period of five years for commencing the construction, operation or mining.

III (a) The reports submitted with the application shall be evaluated and assessed by the Impact Assessment Agency, and if deemed necessary it may consult a committee of Experts, having a composition as specified in Schedule-111 of this Notification. The Impact Assessment Agency (IAA) would be the Union Ministry of Environment and Forests. The committee of experts mentioned above shall be constituted by the IAA or such other body under the Central Government authorised by the IAA in this regard.

(b) The said Committee of experts shall have full right of entry and inspection of the site or, as the case may be, factory premises at any time prior to, during or after the commencement of the operations relating to the project.

(c) The Impact Assessment Agency shall prepare a set of recommendations based on technical assessment of documents and data, furnished by the project authorities, supplemented by data collected during visits to sites or factories if undertaken, and interaction with affected population and environmental groups, if necessary, Summary of the reports, the recommendation and the conditions, subject to which environmental clearance is given, shall be made available subject to the public interest to the concerned parties or environmental groups on request. Comments of the public may be solicited, if so decided by Impact Assessment Agency, within thirty days of receipt of proposal, in public hearings arranged for the purpose after giving thirty days notice of such hearings in at least two newspapers. Public shall be provided access, subject to the public interest, to the summary of the reports/Environmental Management Plans at the Headquarters of the Impact Assessment Agency.

The assessment shall be completed within a period of ninety days from receipt of the requisite documents and data from the project authorities and completion of public hearing, where required, and decision conveyed within thirty days thereafter.

The clearance granted shall be valid for a period of five years for commencement of the construction or operation.

No construction work, preliminary or otherwise, relating to the setting up of the project may not be undertaken till the environmental and/or site clearance is obtained.

IV In order to enable the Impact Assessment Agency to monitor effectively the implementation of the recommendations and conditions subject to which the environmental clearance has been given, the project authorities. concerned shall submit a half-yearly report to the Impact Assessment Agency. Subject to the public interest, the Impact Assessment Agency, shall make compliance reports publicly available.

V. If no comments from the Impact Assessment Agency are received within the time limit, the project would be deemed to have been approved as proposed by project authorities.

3. Nothing contained in this Notification shall apply to:

(a) any item failing under entry No's 3, 18 and 20 of the Schedule-I to be located or proposed to be located in the areas covered by the Notifications S. 0. No. 102 (E) dated 1st February 1989; S. 0. 114 (E) dated 20th February, 1991; S. 0. No 416(E) dated 20th June, 1991 and S.O. No.319 (E) dated 7th May, 1992.

(b) any item failing under entry Nos. 1, 2, 3, 4, 5, 7, 9, 10, 12, 13, 14, 16, 17, 19, 21, 25 and 27 of Schedule-I if the investment is less than Rs.50 crores.

(c) any item reserved for Small Scale Industrial Sector with investments less than Rs. 1 crore.

4. Concealing factual data or submission of false, misleading data/reports, decisions or recommendations would lead to the project being rejected. Approval if granted earlier on the basis of false data, would also be revoked. Misleading and wrong information will cover the following:

- False information
- False data
- Engineered reports

- Concealing of factual data
- False recommendations or decisions.

[No. Z- 12013/4/89-IA-I]
R. RAJAMANI, Secy. (E & F)

SCHEDULE-I
(See paragraph 1 and 2)

LIST OF PROJECTS REQUIRING ENVIRONMENTAL CLEARANCE FROM THE CENTRAL GOVERNMENT

1. Nuclear Power and related projects such as Heavy Water Plants, Nuclear Fuel Complex, Rare Earths.

2. River Valley projects including hydel power, major Irrigation and their combination including flood control.

3. Ports, Harbours, Airports (except minor ports and harbours).

4. Petroleum Refineries including crude and product pipelines.

5. Chemical Fertilisers (Nitrogenous and Phosphatic other than single phosphate).

6. Pesticides (Technical).

7. Petrochemical complexes (Both Olefinic and Aromatic) and Petro-chemical intermediates such as DMT, Caprolactam LAB etc. and production of basic plastics such as LLDPE, HDPE, PP, PVC.

8. Bulk drugs and pharmaceuticals.

9. Exploration for oil and gas and their production, transportation and storage.

10. Synthetic Rubber.

11. Asbestos and Asbestos products.

12. Hydrocyanic acid and its derivatives.

13(a) Primary metallurgical industries (such as production of Iron and Steel, Aluminium, Copper Zinc, Lead and Ferro Alloys).

(b) Electric arc furnaces (Mini Steel Plants).

14. Chlor alkali industry.

15. Integrated paint complex including manufacture of resins and basic raw materials required in the manufacture of paints.

16. Viscose Staple fibre and filament yarn.

17. Storage batteries integrated with manufacture of oxides of lead and lead antimony alloys.

18. All tourism projects between 200m -- 500 meters of High Water Line and at locations with an elevation of more than 1 000 meters with investment of more than Rs.5 crores.

19. Thermal Power Plants.

20. Mining projects (major minerals) with leases more than 5 hectares.

21. Highway Projects.

22. Tarred Roads in Himalayan and or Forest areas.

23. Distilleries.

24. Raw Skins and Hides.

25. Pulp, paper and newsprint.

26. Dyes.

27. Cement.

28. Foundries (individual).

29. Electroplating.

SCHEDULE-II

(See Sub-para I(a) of Para 2)

APPLICATION FORM

1. (a) Name and Address of the project proposed:

(b) Location of the project
Name of the place:
District, Tehsil:
Latitude/Longitude:
Nearest Airport/ Railway Station:

(c) Alternate sites examined and the reasons for selecting the proposed site

(d) Does the site conform to stipulated land use as pet local land use plan

2. Objectives of the project:

3. (a) Land Requirement:
Agriculture Land:
Forest land and Density of vegetation.
other (specify):

(b) (i) Land use in the Catchment/within 10 Km's. radius of the proposed site:
(ii) Topography of the area indicating gradient, aspects and altitude
(iii) Erodibility classification of the proposed land

(c) Pollution sources existing in 1 0 km radius and their impact on quality of air, water and land

(d) Distance-of the nearest National Park/Sanctuary/Biosphere Reserve/ Monuments/heritage site/Reserve Forest:

(e) Rehabilitation plan for quarries/borrow areas:

(f) Green belt plan:

(g) Compensatory afforestation plan:

4. Climate and Air Quality:

(a) Windrose at site:

(b) Max/Min/Mean annual temperature:

(c) Frequency of inversion:

(d) Frequency of cyclones/tornadoes/cloud burst:

(e) Ambient air quality data:

(f) Nature & concentration of emission of SPM, Gas (CO, CO_2 NOx, CH_n etc.) from the project:

5. Water balance

(a) Water balance at site:

(b) Lean season water, availability; Water Requirement:

(c) Source to be tapped with competing users (River, Lake, Ground, Public supply):

(d) Water quality:

(e) Changes observed in quality and quantity of ground water in the last 15 years and present charging & extraction details:

(f) (i) Quantum of waste water to be released with treatment details:

(ii) Quantum of quality of water in the receiving body before and after disposal of solid wastes:

(iii) Quantum of waste water to be released on land and type of land:

(g) (i) Details of reservoir water quality with necessary Catchment Treatment Plan:

(ii) Command Area Development Plan:

6. Solid wastes:

(a) Nature and quantity of solid wastes generated

(b) Solid waste disposal method:

7. Noise and Vibrations:

(a) Sources of Noise and Vibrations:

(b) Ambient noise level:

(c) Noise and Vibration control measures proposed:

(d) Subsidence problem if any with control measures:

8. Power requirement indicating source of supply: Complete environmental details to be furnished separately, if captive power unit proposed:

9. Peak labour force to be deployed giving details of :

- Endemic health problems in the area due to waste water/air/soil borne diseases:
- Health care system existing and proposed:

10. (a) Number of villages and population to be displaced:
(b) Rehabilitation Master Plan:

11. Risk Assessment Report and Disaster Management Plan

12. (a) Environmental Impact Assessment

(b) Environment Management Plan

(c) Detailed Feasibility Report

(d) Duly filled in questionnaire

Report prepared as per guidelines issued by the Central Government in the MOEF from time to time

13. Details of Environmental Management Cell

I hereby give an undertaking that the data and information given above are true to the best of my knowledge and belief and I am aware that if any part of the data/information submitted is found to be false or misleading at any stage, the project be rejected and the clearance given, if any, to the project is likely to be revoked at- our risk and cost.

Signature of the applicant
With name and full address
Given under the seal of
Organisation on behalf of
Whom the applicant is signing.

Date:
Place:

In respect to item for which data are not required or is not available as per the declaration of project proponent, the project would be considered on that basis.

SCHEDULE III

(See sub para III(A) of Para 21)

COMPOSITION OF THE EXPERT COMMITTEES FOR ENVIRONMENTAL IMPACT ASSESSMENT

1. The Committees will consist of experts in the following disciplines:

(i) Eco-System Management
(ii) Air/Water Pollution Control
(iii) Water Resource Management
(iv) Flora/Fauna conservation and management
(v) Land Use Planning
(vi) Social Sciences/Rehabilitation
(vii) Project Appraisal
(viii) Ecology
(ix) Environmental Health
(x) Subject Area Specialists
(xi) Representatives of NGOs/persons concerned with environmental issues.

2. The Chairman will be an outstanding and experienced ecologist or environmentalist or technical professional with wide managerial experience in the relevant development sector.

3. The representative of Impact Assessment Agency will act as a Member-Secretary.

4. Chairman and Members will serve in their individual capacities except those specifically nominated as representatives.

5. The Membership of a Committee shall not exceed 15.

MINISTRY OF ENVIRONMENT & FORESTS
COASTAL REGULATION ZONE NOTIFICATION

Notification under section 3(1) and section 3(2)(v) of the Environment (Protection) Act, 1986 and the Rule 5(3)(d) of Environment (Protection) Rules, 1986 declaring coastal stretches as Coastal Regulation Zone (CRZ) and regulating activities in the CRZ.
New Delhi, the 19th February, 1991

S.O. 114(E). -Whereas a Notification under Section 3(1) and Section 3(2)(v) of the Environment (Protection) Act, 1986, inviting objections against the declaration of Coastal Stretches as Coastal Regulation Zone (CRZ) and imposing restrictions on industries, operations and processes in the CRZ was published vied S.O. No. 944(E) dated 15th December, 1990.

And whereas all objections received have been duly considered by the Central Government;

Now, therefore, in exercise of the powers conferred by clause (d) of sub-rule (3) of Rule 5 of the Environment (Protection) Rules, 1986, and all other powers vesting in its behalf, the Central Government hereby declares the coastal stretches of seas, bays, estuaries, creeks, rivers and backwaters which are influenced by tidal action (in the landward side) up to 500 meters from the High Tide Line (HTL) and the land between the Low Tide Line (LTL) and the HTL as Coastal Regulation Zone; and imposes with effect from the date of this Notification, the following restrictions on the setting up and expansion of industries, operations or processes etc. in the said Coastal Regulation Zone (CRZ). For purposes of this Notification, the High Tide Line (HTL) will be defined as the line up to which the highest high tide reaches at spring tides.

Note:- The distance from the High Tide Line (HTL) to which the proposed regulations will apply in the case of rivers, creeks and backwaters may be modified on a case by case basis for reasons to be recorded while preparing the Coastal Zone Management Plans (referred to below), however, this distance shall not be less than 100 metre or the width of the creek, river or backwater whichever is less.

2. Prohibited Activities:

The following activities are declared as prohibited within the Coastal Regulation Zone, namely:

i) Setting up of new industries and expansion of existing industries, except those directly related to water front or directly needing foreshore facilities;

ii) manufacture or handling or storage or disposal of hazardous substances as specified in the Notifications of the Government of India in the Ministry of Environment & Forests, No. S.O. 594(E) dated 28th July, 1989, S.O. 966(E) dated 27th November, 1989 and GSR 1037(E) dated 5th December 1989;

iii) Setting up and expansion of fish processing units including warehousing (excluding hatchery and natural fish drying in permitted areas);

iv) Setting up and expansion of units/mechanisms for disposal of waste and effluents, except facilities required for discharging treated effluents, into the water course with approval under the Water (Prevention and Control of Pollution) Act, 1974; and except for storm water drains.;

v) Discharge of untreated wastes and effluents from industries, cities or towns and other human settlements. Schemes shall be implemented by the concerned authorities for phasing out the existing practices, if any, within a reasonable time period not exceeding three years from the date of this Notification;

vi) Dumping of city or town waste for the purposes of land filling or otherwise; the existing practice, if any, shall be phased out within a reasonable time not exceeding three years from the date of this Notification;

vii) dumping of ash or any wastes from thermal power stations;

viii) Land reclamation, bunding or disturbing the natural course of sea water with similar obstructions, except those required for control of coastal erosion and maintenance or cleaning of waterways, channels and ports and for prevention of sandbars and also except for tidal regulators, storm water drains and structures for prevention of salinity ingress and for sweet water recharge.

ix) Mining of sands, rocks and other substrata materials, except those rare minerals not available outside the CRZ areas;

x) harvesting of drawal of ground water and construction of mechanisms therefor within 200 m of HTL, in the 200m to 500 m zone it shall be permitted only when done manually through ordinary wells for drinking, horticulture, agriculture and fisheries;

xi) construction activities in ecologically sensitive areas as specified in Annexure-I of this Notification;

xii) any construction activity between the Low Tide Line and High Tide Line except facilities for carrying treated effluents and waste water discharges into the sea, facilities for carrying sea water for cooling purposes, oil, gas and similar pipelines and facilities essential for activities permitted under this Notification; and

xiii) dressing or altering of sand dunes, hills, natural features including landscape changes for beautification, recreational and other such purpose, except as permissible under this Notification;

3. Regulation of Permissible Activities

All other activities, except those prohibited in para 2 above, will be regulated as under:

(1) Clearance shall be given for any activity within the Coastal Regulation Zone only if it requires water front and foreshore facilities.

(2) The following activities will require environmental clearance from the Ministry of Environment & Forests, Government of India, namely:

(i) Construction activities related to Defence requirements for which foreshore facilities are essential (e.g. slipways, jetties etc.); except for classified operational component of defence projects for which a separate procedure shall be followed. (Residential buildings, office buildings, hospital complexes, workshops shall not come within the definition of operational requirements except in very special cases and hence shall not normally be permitted in the CRZ);

(ii) Operational constructions for ports and harbours and light houses requiring water frontage. jetties wharves, quays, sleepways etc. (Residential buildings & office buildings shall not come within the definition of operational activities except in very special cases and hence shall not normally be permitted in the CRZ);

(iii) Thermal power plants (only foreshore facilities for transport of raw materials facilities for intake of cooling water and outfall for discharge of treated waste water/cooling water); and

(iv) All other activities with investment exceeding rupees five crores.

(3) (i) The coastal States and Union Territory Administrations shall prepare, within a period of one year from the date of this Notification Coastal Zone Management Plans identifying and classifying the CRZ areas within their respective territories in accordance with the guidelines given in Annexures-I and II of the Notification and obtain approval (with or without modifications) of the Central Government in the Ministry of Environment & Forests;

(ii) Within the framework of such approved plans, all development and activities within the CRZ other than those covered in para 2 and para 3(2) above shall be regulated by the State Government, Union Territory Administration or the local authority as the case may be in accordance with the guidelines given in Annexures I and II of the Notification; and

(iii) In the interim period till the Coastal Zone Management Plans mentioned in para 3(3)(i) above are prepared and approved, all developments and activities within the CRZ shall not violate the provisions of this Notification. State Governments and Union Territory Administrations shall ensure adherence to these regulations and violations, if any, shall be subject to the provisions of the Environment (Protection) Act, 1986.

4. Procedure for monitoring and enforcement

The Ministry of Environment & Forests and the Government of State or Union Territory and such other authorities at the State or Union Territory levels, as may be designated for this purpose, shall be responsible for monitoring and

enforcement of the provisions of this notification within their respective jurisdictions.

[N.K.-15019/1/84-IA-III (Vol. II)
R. RAJAMANI, Secy.

Annexure-1
COASTAL AREA CLASSIFICATION AND DEVELOPMENT REGULATIONS

Classification of Coastal Regulation Zone:

6(1) For regulating development activities, the coastal stretches within 500 metres of High Tide Line on the landward side are classified into four categories, namely:

Category-I (CRZ-I):

(i) Areas that are ecologically sensitive and important, such as national parks/marine parks, sanctuaries, reserve forests, wildlife habitats, mangroves, coral/coral reefs, areas close to breeding and spawning grounds of fish and other marine life, areas of outstanding natural beauty/historical/heritage areas, areas rich in genetic diversity, areas likely to be inundated due to rise in sea level consequent upon global warming and such other areas as may be declared by the Central Government or the concerned authorities at the State/Union Territory level from time to time.

(ii) Area between the Low Tide Line and the High Tide Line.

Category-II (CRZ-II):

The area that have already been developed up to or close to the shore-line. For this purpose, "developed area" is referred to as that area within the municipal limits or in other legally designated urban areas which is already substantially built up and which has been provided with drainage and approach roads and other infrastructural facilities, such as water supply and sewerage mains.

Category-III (CRZ-III):

Areas that are relatively undisturbed and those which do not belong to either category I or II. These will include coastal zone in the rural areas (developed and undeveloped) and also areas within Municipal limits or in other legally designated urban areas which are not substantially built up.

Category-IV (CRZ-IV):

Coastal stretches in the Andaman & Nicobar, Lakshadweep and small islands except those designated as CRZ-I, CRZ-II or CRZ-III.

Norms for Regulation of Activities.

6(2) The development or construction activities in different categories of CRZ areas shall be regulated by the concerned authorities at the State/Union Territory level, in accordance with the following norms

CRZ-I

No new construction shall be permitted within 500 metres of the High Tide Line. No construction activity, except as listed under 2(xii), will be permitted between the Low Tide Line and the High Tide Line.

CRZ-II

(i) Buildings shall be permitted neither on the seaward side of the existing road (or roads proposed in the approved Coastal Zone Management Plan of the area) nor on seaward side of existing authorised structures. Buildings permitted on the landward side of the existing and proposed roads/existing authorised structures shall be subject to the existing local Town and Country Planning Regulations including the existing norms of FSI/FAR.

(ii) Reconstruction of the authorised buildings to be permitted subject with the existing FSI/FAR norms and without change in the existing use.

(iii) The design and construction of buildings shall be consistent with the surrounding landscape and local architectural style.

CRZ-III

(i) The area up to 200 metres from the High Tide Line is to be earmarked as "No Development Zone." No construction shall be permitted within this zone except for repairs of existing authorised structures not exceeding existing FSI, existing plinth area and existing density. However, the following uses may be permissible in this zone– agriculture, horticulture, gardens , pastures, parks, playfields, forestry and salt manufacture from sea water.

(ii) Development of vacant plots between 200 and 500 metres of High Tide Line in designated areas of CRZ-III with prior approval of Ministry of Environment & Forests (MEF) permitted for construction of hotels/beach resorts for temporary occupation of tourists/visitors subject to the conditions as stipulated in the guidelines at Annexure-II.

(iii) Construction/reconstruction of dwelling units between 200 and 500 metres of the High Tide Line permitted so long it is within the ambit of traditional rights and customary uses such as existing fishing villages and goathans. Building permission for such construction/reconstruction will be subject to the conditions that the total number of dwelling units shall not be more than twice the number of existing units; total covered area on all floors shall not exceed 33 percent of the plot size; the overall height of construction shall not exceed 9 metres and construction shall not be more than 2 floors (Ground floor plus one floor).

(iv) Reconstruction/alterations of an existing authorised building permitted subject to (i) to (iii) above.

CRZ-IV

Andaman & Nicobar Islands:

(i) No, new construction of buildings shall be permitted within 200 metres of HTL;

(ii) The buildings between 200 and 500 metres from the High Tide Line shall not have more than 2 floors (ground floor and 1 st floor), the total covered area on all floors shall not be more than 50- percent of the plot size and the total height of construction shall not exceed 9 metres;

(iii) The design and construction of buildings shall be consistent with the surrounding landscape and local architectural style;

(iv) Corals and sand from the beaches and coastal waters shall not be used for construction and other purposes;

(v) Dredging and underwater blasting in and around coral formations shall not be permitted; and

(vi) However, in some of the islands, coastal stretches may also be classified into categories CRZ-I or II or III, with the prior approval of Ministry of Environment & Forests and in such designated stretches, the appropriate regulations given for respective Categories shall apply.

Lakshadweep and small Islands:

(i) For permitting construction of buildings, the distance from the High Tide Line shall be decided depending on the size of the islands. This shall be laid down for each island, in consultation with the experts and with approval of the Ministry of Environment & Forests, keeping in view the land use requirements for specific purposes vis-a-vis local conditions including hydrological aspects, erosion and ecological sensitivity;

(ii) The buildings within 500 metres from HTL shall not have more than 2 floors (ground floor and 1st floor), the total covered area on all floors shall not be more than 50 percent of the plot size and the total height of construction shall not exceed 9 metres;

(iii) The design and construction of buildings shall be consistent with the surrounding landscape and local architectural style.

(iv) Corals and sand from the beaches and coastal waters shall not be used for construction and other purposes;

(v) Dredging and underwater blasting in and around coral formations shall not be permitted; and

(vi) However, in some of the islands coastal stretches may also be classified into categories CRZ-I or II or III, with the prior approval of Ministry of Environment & Forests and in, such designated stretches, the appropriate regulations given for respective Categories shall apply.

Annexure-II

GUIDELINES FOR DEVELOPMENT OF BEACH RESORTS/HOTELS IN THE DESIGNATED AREAS OF CRZ-III FOR TEMPORARY OCCUPATION OF TOURIST/ VISITORS, WITH PRIOR APPROVAL OF THE MINISTRY OF ENVIRONMENT & FORESTS

7(1) Construction of beach resorts/hotels with prior approval of MEF in the designated areas of CRZ-III for temporary occupation of tourists/visitors shall be subject to the following conditions:

(i) The project proponents shall not undertake any construction (including temporary constructions and fencing or such other barriers) within 200 metres (in the landward side) from the High Tide Line and within the area between the Low Tide and High Tide Line;

(ii) The total plot size shall not be less than 0.4 hectares and the total covered area on all floors shall not exceed 33 percent of the plot size i.e. the FSI shall not exceed 0.33. The open area shall be suitably landscaped with appropriate vegetal cover;

(iii) The construction shall be consistent with the surrounding landscape and local architectural style;

(iv) The overall height of construction up to the highest ridge of the roof, shall not exceed 9 metres and the construction shall not be more than 2 floors (ground floor plus one upper floor);

(v) Ground water shall not be tapped within 200 m of the HTL; within the 200 metre-500 metre zone it can be tapped only with the concurrence of the Central/State Ground Water Board;

(vi) Extraction of sand, levelling or digging of sandy stretches except for structural foundation of building, swimming pool shall not be permitted within 500 metres of the High Tide Line;

(vii) The quality of treated effluents, solid wastes, emissions and noise levels etc. from the project area must conform to the standards laid down by the competent authorities including the Central/State Pollution Control Board and under the Environment (Protection) Act, 1986;

(viii) Necessary arrangements for the treatment of the effluents and solid wastes must be made. It must be ensured that the untreated effluents and solid wastes are not discharged into the water or on the beach; and no effluent/solid waste shall be discharged on the beach;

(ix) To allow public access to the beach, at least a gap of 20 metres width shall be provided between any two hotels/beach resorts; and in no case shall gaps be less than 500 metres apart;

(x) If the project involves diversion of forest land for non-forest purposes, clearance as required under the Forest (Conservation) Act, 1980 shall be obtained. The requirements of other Central and State laws as applicable to the project shall be met with; and

(xi) Approval of the State/Union Territory Tourism Department shall be obtained..

7(2) In ecologically sensitive areas (such as marine parks, mangroves, coral reefs, breeding and spawning grounds of fish, wildlife habitats and such other areas as may be notified by the Central/State Government/Union Territories) construction of beach resorts/hotels shall not be permitted.

8.CONVENTION ON MIGRATORY SPECIES

8.1 TECHNICAL PRESENTATION

CONVENTION ON MIGRATORY SPECIES

Mr Manjit Iqbal, Legal Officer
ELI/PAC

BACKGROUND

The United Nations Conference on the Human Environment held in Stockholm in 1972 in its recommendation 32 urged Governments to consider the need to enact international conventions and treaties for the protection of species which inhabit international waters or migrate from one territory to another. Migration is a universal phenomenon, which relates to the periodic movements of animals from one area to another often in a cyclic and predictable manner. A wide variety of animals inhabiting the land, sea and air migrate. These include antelopes, dolphins, marine turtles, bats and many species of birds.

Many animals migrate in response to biological necessities such as the need to find favourable locations for breeding and for raising young ones and to find suitable areas for feeding during the other months of the year. These locations are sometimes separated by distances of thousands of Millimetres. Migratory species are, therefore, vulnerable to a wide range of threats, including disappearing habitats in breeding areas, excessive hunting along migration routes and degradation of feeding sites. The need for an international convention to co-ordinate an effective response to these threats led to the development of the Convention on the Conservation of Migratory Species of Wild Animals also know as the Bonn Convention.

Recommendation 32 arose out of the realisation that failure to protect a migratory species throughout the stages of its migration can severely damage efforts to maintain or restore its population. The endangered Siberian crane (Grus Lencogeranus) for example, is relatively secure in its Russian breeding sites and Indian wintering grounds, but its numbers have steadily declined in recent years primarily because it is hunted on its migratory route through Pakistan and Afghanistan. Passerines breeding in Northern Europe run a biannual gauntlet through the Mediterranean region where they are shot and trapped in their thousands as they make their way to and from their African wintering areas.

It was also felt that the provisions of existing agreements for the conservation and management of migratory animals lacked uniformity and covered only a position of migratory species, which could benefit from international treaties. The Bonn Convention was intended to provide such uniformity and covers the whole spectrum of migratory animals.

NEGOTIATING PROCESS

The United Nations Conference on the Human Environment recognised the need for countries to co-operate in the conservation of animals that migrate across national boundaries. The Convention was negotiated when the States realised that conservation and effective protection and management of migratory species of wild animals require serious action by all States within the national jurisdictional boundaries on which such species spend a part of their life cycle.

The Federal Republic of Germany in 1974 agreed to take the initiative in preparing a draft Convention for the conservation of migratory animals. After several years of negotiation, the Convention on the Conservation of Migratory Species of Wild Animals (The Bonn Convention) was finally concluded on 23 June 1979. Twenty eight States signed, but the Convention did not enter into force until 1 November 1983, being the first day of the third month after the Depository (the government of the Federal Republic of Germany) had received the fifteenth instrument of ratification, approval, acceptance or accession.

Active participation in the negotiating process of international environmental conventions takes care of the interests of countries participating in these instruments. UNEP has over the years assisted in this process by providing financial assistance to delegates of governments negotiating international conventions.

DEFINITIONS

Some of the important definitions appearing in the Convention are:

"Migration" means regular and predictable migration through national jurisdictional boundaries.

"Migratory Species" means the entire population or any geographically separate part of the population of any species or lower taxon of wild animals, a significant proportion of whose members cyclically and predictably cross one or more national jurisdictional boundaries.

"Range" means all the areas of land or water that a Migratory Species inhabits, stays in temporarily, crosses or overlies at any time on its normal migration route.

"Range State" means any State that exercises jurisdiction over any part of the range of a Migratory Species, or a State, flag vessels of which are engaged outside national jurisdictional limits in taking that Migratory Species.

"Taking" means taking, hunting, fishing, capturing, harassing, deliberate killing, or attempting to engage in any such conduct.

"Agreement" means an international agreement relating to the conservation of one or more migratory species as provided for in Articles IV and V of the Convention.

INSTITUTION OF THE CONVENTION

Conference of Parties

The Conference of the Parties (COP) is the supreme and decision-making organ of the Convention. The first meeting of the Conference of Parties was called within two years after the entry into force of the Convention on 1 November 1983. Thereafter the ordinary meetings of the Parties are called once every three years. The Conference of Parties can however convene extra-ordinary meetings at any time at the written request of at least one-third of the Parties.

At each of its ordinary meetings the Conference of Parties adopts its budget for the next financial period to which each party contributes according to a scale agreed to it by Parties. The Conference of Parties reviews the implementation of the Convention at its each ordinary meeting and in particular:

- reviews and assesses the conservation status of the migratory species;
- reviews the progress made towards the conservation of migratory species, especially those listed in Appendices I and II of the Convention;
- provides the necessary guidance to the Scientific Council and the Secretariat to carry out their duties;
- makes recommendations to Parties for improving the conservation status of migratory species and reviews the progress being made under agreements;
- in cases where an agreement does not exist, makes recommendations for the convening of meetings of Parties that are Range States of a migratory species or group of migratory species to discuss measures to improve the conservation status of the species; and
- makes recommendations to the Parties for improving the effectiveness of the Convention.

Decisions at the meetings of the Conference of Parties shall require a two-thirds majority of the Parties present and voting except as otherwise provided for by the Convention.

Scientific Council

The Conference of Parties establishes a Scientific Council to provide advice on scientific matters. Any party to the Convention may appoint an expert as a member of the Scientific Council. The Council also includes as members selected and appointed by the Conference of Parties. The number of these experts, the criteria for their selection and the terms of their appointment are determined by the Conference of Parties. The Scientific Council meetings are convened at the request of the Secretariat as required by the Conference of Parties. The function of the Scientific Council as determined by the Conference of Parties may include:

- providing scientific advice to the Conference of Parties;
- making recommendation on research and evaluating such research on migratory species;
- making recommendations to the Conference of Parties as to the migratory species to be included in Appendices I or II, together with an indication of the range of such migratory species;
- recommending to the Conference of the Parties, specific conservation and management measures to be included in agreements on migratory species; and
- recommending to the Conference of Parties solutions to problems relating to the scientific aspects of the implementation of the Convention in particular with regard to the habitats of migratory species.

The Secretariat

The Secretariat to the Convention is provided by the United Nations Environment Programme. The functions of the Secretariat include:

- to arrange for and service meetings of the Conference of Parties and the Scientific Council;
- to maintain and promote liaison between the Parties, the standing bodies set up under agreements and other international organisations concerned with migratory species;
- to maintain and publish a list of Range States of all migratory species included in Appendices I and II;
- to promote, under the direction of the Conference of Parties, the conclusion of agreements; and
- to provide for the general public, information covering the Convention.

The Secretariat has a very important role to play in focusing attention on the Conservation needs of the endangered species particularly those appearing in Appendix I which currently includes more than 50 species.

OBLIGATIONS

Main Obligations

The Parties to the Convention have the duty to conserve migratory species and their habitats by providing strict protection to migratory species that have been categorised as endangered.

The principal obligations provided under the Convention are to protect certain endangered species listed in Appendix I of the Convention (Article III) and to:

"endeavour to conclude agreements for the protection and management of migratory species whose conservation status is unfavourable and of those whose conservation status would substantially benefit from the international co-operation deriving from an agreement. " (such species are listed in Annex II)

Article III(4) states that Parties which are Range States of Appendix I species shall endeavour:

a) to conserve and, where feasible and appropriate, restore those habitats of the species which are of importance in removing the species from danger of extinction;

b) to prevent, remove, compensate for or minimise, as appropriate, the adverse effects of activities or obstacles that seriously impede or prevent the migration of the species; and

c) to the extent feasible and appropriate, to prevent, reduce or control factors that are endangering or are likely to further endanger the species, including strictly controlling the introduction of, or controlling or eliminating, already introduced species.

Article III(4) of the Convention qualifies the obligations it imposes by requiring Parties to "endeavour" to protect habitats and control the introduction of exotic species etc. The legal implications of the word "endeavour" however seem to be somewhat not clear.

In a case concerning the World Heritage Convention brought before the High Court of Australia, *The Commonwealth of Australia v. The State of Tasmania,* very similar issues were argued, and the Court held by a majority of 4-3 that Australia was under a legal obligation to comply with the Conservation provisions of the Convention notwithstanding that they are prefaced by qualifying words such as "endeavour". Article 5 of the World Heritage Convention requires Parties to "endeavour, in so far as possible, and as appropriate for each country" to do certain things to protect sites that are part of the world's cultural and natural heritage. Referring to the word "endeavour" and the other qualifying words in Article 5, Mason J., one of the four Judges who formed the majority in *The Commonwealth of Australia v. The State of Tasmania,* stated that:

"Article 5 cannot be read as a mere statement of intention. It is expressed in the form of a command requiring each party to endeavour to bring about the matters dealt with in the lettered paragraphs. Neither of these qualifications nor the existence of an element of discretion and value judgement in par.(d) is inconsistent with the existence of an obligation. There is a distinction between a discretion as to the manner of performance and discretion as to performance or non-performance. The latter, but not the former, is inconsistent with a binding obligation to perform *(see Thorby v. Goldberg* (1964) 112 C.L.R.597, at pp.604-605, 613, 614-615). And it is only natural that in framing a command to States to take measures of the kind described in par.(d) in relation to their heritage the command will be expressed in terms of endeavour, subject to the

qualifications mentioned."

Brennan J. agreed with Mason J. that Australia was under a legal obligation to perform the measures laid down in Article 5 but looked at the issue in a rather different light. In considering whether Australian relations with other nations would be affected if Australia failed to carry out its duty to endeavour to comply with the Convention, he said

"unless Australia were to attribute hypocrisy and cynicism to the international community, only an affirmative answer is possible. There is a clear obligation upon Australia to act under Arts. 4 and 5, though the extent of that obligation may be affected by decisions taken by Australia in good faith."

Neither the Australian decision, nor the comments of individual judges in that case, are in any way binding on other Parties to the Bonn Convention, and an obligation to endeavour to perform an act is clearly less strict than a straight undertaking to do it. Nevertheless, the views of Brennan J. and Mason J. do lend some weight to the view that an undertaking to endeavour to perform does impose an obligation to perform with the understanding that there may be circumstances in which non-performance is excusable provided that the State concerned has made a genuine attempt.

Obligations under Appendix I

The obligations of Range States towards Appendix I are very direct. Parties must prohibit the taking of animals listed in Appendix I, whether or not such species are also listed on Appendix II and are covered by agreements concluded under the Convention for their conservation and management. Exceptions may be made in certain cases, such as for scientific purposes or for the needs of traditional subsistence hunting, provided that they are precise as to content, limited in space and time and do not operate to the disadvantage of the species concerned (Article III-5).

Parties should also endeavour to conserve and, where feasible, restore the important habitats of Appendix I species; to prevent, remove, compensate for or minimise the adverse effects of activities or obstacles that seriously impede or prevent migration; and finally to prevent, reduce or control factors which endanger or are likely to endanger these species, including strictly controlling the introduction of exotic species and controlling, limiting or eliminating those exotic species which have already been introduced (Article III-4).

Obligations under Appendix II

The only obligation imposed under the Convention in respect of Appendix II species is to endeavour to conclude Agreements.

Article V of the Convention sets out very detailed guidelines on the contents of such Agreements. Although these are obviously not binding, they provide a very full catalogue of the type of measures which should be taken to ensure the conservation and management of these migratory species concerned.

Such measures include the periodic review of the conservation status of the species covered by an Agreement; co-ordinated conservation and management plans; research into the ecology and population dynamics of these species, conservation and, where necessary and feasible, restoration of important habitats; control of exotic species; maintenance of a network of suitable habitats appropriately located in relation to the migration routes; elimination of activities and obstacles which hinder or impede migration; prevention, reduction or control of the release of polluting substances into the habitats of the species concerned; and measures based on ecological principles to manage the taking of the species.

HOW DOES THE CMS SYSTEM WORK

All migratory species are not automatically covered by the Convention. There is a certain procedure to be followed for species to be included in one of the Appendices or in both. Any Party who wishes that a certain species should be included in the Appendices may make a proposal to that effect to the Conference of Parties. The Scientific Council shall then consider the proposal and make a recommendation to the Conference of Parties who shall then decide by a two thirds majority. The Scientific Council provides incentives for development of proposals for inclusion of new species in the Appendices.

COSTS AND BENEFITS

The Convention offers several advantages. CMS plays a unique role in focusing attention to the Conservation needs of the endangered species. Many of them are not dealt with adequately by other global wildlife conventions due to limitation in their scope or taxonomic coverage. The Convention provides the possibility of co-operation with other Parties and organisations to enhance the conservation of species concerned. It provides the opportunity of representation in meetings of the Conference

of Parties and the Scientific Council. International co-operation within the framework of the Convention provides incentives for national work like research, monitoring, and enforcement. It also enhances the public awareness which in turn provides more attention to conservation issues. Other benefits include funding of small projects by the Trust Funds created for the Convention and Agreements.

Regarding Appendix II species, Agreements are readily adaptable to regional needs as they could be designed to suit different taxonomic groups and regional variations. Unlike bilateral arrangements between two countries, multilateral agreements allow for better co-ordination of conservation efforts and pooling of expertise, thereby reducing duplication of effort. They are also cost-effective as significant cost savings can be realised because conservation plans for many species can be incorporated into a single Agreement with common administrative arrangements.

SPECIES COVERED BY CMS

The Convention defines migratory species as those which cyclically and periodically cross one or more jurisdictional boundaries. The definition therefore includes marine species which migrate between adjacent EEZs or between an area under the jurisdiction of a coastal State and the high seas. In the latter case, States exploiting a migratory species on the high seas are considered by the Convention to be Range States of the species concerned. The definition obviously excludes species, which are found exclusively in the high seas.

At present, Appendix I only includes 51 severely threatened species. The list is comprised of 18 mammals, including four species of whale, the monk seal, several antelopes and the mountain gorilla; 24 birds; 8 reptiles, including 6 of the 7 species of marine turtle; and one fish.

The Appendix does not claim to be a- exhaustive list of all endangered migratory species, but rather a representative sample of the most threatened species. The list may be progressively amended by the Conference of the Parties, in the light of new scientific data. The first meeting of the Conference in 1985 added a further eleven species to the Appendix, including four of those species of marine turtle.

In contrast, Appendix II lists many species, including some 2,000 species of birds or nearly a quarter of existing species. Whole families of bird species are included, such as the Anatidae (geese and ducks), all the wading birds belonging to the Charadriidae and Scolopacidae families, the entire Muscicapidae family of passerines, and all the diurnal raptors apart from the non-migratory secretary-bird. The Appendix also lists some mammals such as certain populations of seals and several species of small catacean, the African elephant, the dugong, the vicuna, two African antelopes, all the marine turtles, two other reptiles, a fish and the Monarch butterfly.

The Conference of the Parties has already amended Appendix II twice to include the European populations of bats, small cetaceans, certain populations of seals and most cranes. Some Appendix I species, such as the monk seal, several species of crane and four marine turtles, also feature in Appendix II.

The two Appendices also list some species which only migrate locally, albeit across borders, and whose conservation status is precarious. Appendix I species in this category include the mountain gorilla, which is only found on the border between Rwanda and Zaire; Grevvy's zebra (Ethiopia and Kenya) and the Barbary stag (Algeria and Tunisia)

AGREEMENTS

Agreements under the Convention should be formal and comprehensive and developed under the guidelines provided by the Convention. They should among other things:

deal preferably with more than one species (Art V, para 3);
cover the whole of the range of the species concerned (Art V, para 2);
include all necessary instruments to make the AGREEMENTS operative and effective (Art V,para 4 and 5); substantially, AGREEMENTS should provide for:
co-ordinated species conservation and management plans;
conservation and restoration of habitats;
control of factors impending migration;
co-operative research and monitoring; and
exchange of information and public education.

Several CMS Agreements have already been concluded.

- **The ASEAN Agreement on the Conservation of Nature and Natural Resources** concluded on 9 July 1985 recognised that international co-operation is essential for the conservation and management of natural resources including all species and their habitats.

- **The Agreement on the Conservation of Seals in the Wadden Sea** came into force in 1991. It provides for the development of a conservation and management plan for common seals, habitat protection, measures to reduce pollution, co-ordination of research and monitoring, prohibition of most taking, and public awareness initiatives.

- **The Agreement on the Conservation of Bats in Europe** aims to address threats to bats arising from habitat degradation, disturbance of roosting sites and harmful pesticides.

- **The Bonn Convention** is playing an increasing role in international efforts to conserve small cetaceans, including dolphins, porpoises and certain whales.

- **The Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas (ASCOBANS)** encourages co-operation among Range States with respect to habitat conservation and management, surveys and research, and public information.

A number of States concluded a Memorandum of Understanding in 1993 with the aim of ensuring the survival of the West and Central Asian populations of the Siberian crane, which are on the brink of extinction.

A memorandum of understanding emphasising the co-operation between the Secretariats of CMS and the Convention of Biological Diversity was signed on 13 June 1996. CMS has initiated steps to develop and conclude a similar agreement with the Ramsar Bureau. A memorandum of understanding with the IUCN Environmental Law Centre, concerning the provision of legal advice, is at an advanced stage of development.

For each of these Agreements, fully operational or interim secretariats have been established and are working actively to facilitate their implementation.

A proposal for a comprehensive **Agreement on the Conservation of African-Eurasian Migratory Waterbirds** was circulated in late 1993 to the governments of 116 countries. This Agreement, so far the largest of its kind, aims to conserve over 200 migratory bird species throughout Africa, Europe and parts of Asia.

MEASURES TO BE TAKEN BY PARTIES TO CMS

In order to implement the Convention Parties have to take the following measures:

- nomination of a "Focal Point";
- nomination of a "Scientific Councillor";
- participation in the meetings of the Convention Parties;
- participation in the meetings of the Scientific Council;
- payment of annual contributions to the CMS Trust Fund administered by UNEP;
- protection of Appendix I species in accordance with the provisions of the Convention;
- keep the Secretariat of the Convention informed in regard to which of the migratory species listed in Appendices I and II, they consider themselves to be Range States;
- if Range States for Appendices I and II species, they should inform the Conference of Parties through the Secretariat on steps taken to implement the provisions of the Convention for these species;
- if Range States of Appendix I species, they must prohibit the taking of animals belonging to such species;
- promote and co-operate in and support research relating to migratory species;
- if Range States of Appendix II species, they shall endeavour to develop and conclude regional AGREEMENTS for species listed on Appendix II where these would benefit the species and should give priority to those species with an unfavourable conservation status; and
- develop national legislation and enforcement measures to conserve the species and their habitats particularly covering both the above mentioned and the following areas:
    - measures and procedures for conservation and restoration of habitats;
    - measures to prevent, remove, compensate for or minimise adverse effects of activities

or obstacles which impede or prevent migration of species;
- measures to prevent or control factors endangering the species by introduction of exotic species and reduction of disturbance of the animals by human activities; and
- measures and procedures prohibiting the taking of any animal of the species.

DIFFICULTIES OF ENFORCEMENT

Legislation for conservation of species is difficult to enforce for several reasons. Long lists of species are of little use if few people can recognise the species concerned. An element of intention is also required for an offence to have been committed which is difficult to prove. The hunting proficiency test is particularly valuable. Hunters who have passed the test have learned about protected species and would therefore have greater difficulty in pleading ignorance of the specimens they may have taken or damaged unlawfully.

Reversing the burden of proof could contribute significantly to effective enforcement. The effect of such a reversal is that possession of a specimen of given species is deemed to be unlawful, unless the possessor can prove otherwise. The training of enforcement officials is also an important element in the enforcement process. Also important is to educate the public at large. This could reduce to a large extent the need of criminal proceedings and imposition of sentences of imprisonment and fines. Teaching school children about protected and migratory species is now become a requirement in many countries. Education supported by public awareness campaigns and use of posters and pamphlets could be very helpful.

In many countries, the legislation provides for the possibility of appointing honorary or voluntary wardens on the basis of their skills and interest in the matter. Such appointments are often made from amongst the members of naturalist societies or conservation NGOs. There are honorary game wardens in many African countries. Austria, Germany, Italy, Switzerland and other countries such as Bulgaria and Czech Republic have nature conservation wardens or Nature Guards. Similar systems are used in Australia and some American States. Wardens are officially appointed as auxiliary police officers and have the same powers as the police, except that they are usually not authorised to make arrests. Their role consists of providing information and giving warnings.

PENALTIES FOR OFFENCES UNDER CONSERVATION LEGISLATION

Penalties could greatly vary from one country to another, which is a reflection of the way in which different societies review the seriousness of offences committed against species. Some countries rely on fines only. Others make use of prison sentences of short periods.

Under the Endangered Species Act of the United States, a sentence of one year may be imposed for the taking of an endangered species. In Australia it is even harsher. China allows capital punishment for some offences in respect of wildlife.

In addition, to fines or imprisonment, the legislation could also provide for the confiscation of specimens which have been taken illegally. Confiscation of means used in the breach of legislation like vehicles, equipment and coupons could also be included.

Settlement of Disputes

The procedures of the Convention for the settlement of disputes require that disputes be settled by negotiation or if negotiation fails and the disputing Parties consent, by arbitration.

PRESENT STATUS OF THE CONVENTION

Since the Convention came into force on 1 November 1983, the membership has steadily grown to 49 Parties from Asia, Europe, America and the Caribbean. A complete list of countries, Parties to the Convention appears at Annex I to this paper. However, many countries of major importance for majority birds are still outside the Convention, which means that there are insufficient Parties to cover the majority of species included in the Appendices and their migration routes. As a result, the inclusion of many species to Appendix I is large symbolic since their Range States are not Parties to the Convention.

AMENDMENT OF APPENDICES

Procedures for amending the Appendices are provided by the Convention itself. Proposals for amendments may be made by any Party and submitted to the Secretariat for circulation to the Parties at least 150 days before the meeting of the Conference of Parties at which the amendments will be considered. The amendments could be adopted on a decision taken by a two-

thirds majority of Parties present and voting and will enter into force ninety days after the meeting for all Parties except those that notify the Depository in writing that they are making a reservation. Proposed amendments to other parts of the Convention must undergo similar procedures except that they will only enter into force for those Parties only who specifically accept them. the Convention does not allow Parties to make general reservations to its provisions. However, Parties may make a specific reservation with respect to the inclusion of a species in Appendix I or II , provided that the reservation is made at the time of the Party's ratification, acceptance, approval or accession or within ninety days of the species being added to or deleted from either Appendix. Reservation may be withdrawn by written notice to the Depository at any time.

CONCLUSION

The CMS Convention is particularly interesting for three reasons. It covers a broad range of threats to the survival of Appendix I species. Its provisions are quite rigorous in their restrictions on the taking of Appendix I species. There is no precedent in international wildlife Law for the system of Agreements set up to protect migratory species which would benefit from international co-operation in their conservation and management. The Convention will undoubtedly benefit a large number of species not covered by other international instruments. Sea turtles are just one example of migratory species which are gravely threatened by over-exploitation and disturbance in their nesting sites, which receive only limited protection from other wildlife treaties and which could benefit significantly through an Agreement in this regard.

The growing membership and the Agreements in force show encouraging results. For the future it will be important to link the implementation of Agreements to GEF funding and develop mechanisms for co-operation with other related global and regional conventions such as Biodiversity, Ramsar, Bern etc.

8.2 MIGRATORY SPECIES: ISSUES PAPER

(1) PRINCIPAL AREAS TO BE COVERED IN NATIONAL LEGISLATION

A Identification and Monitoring of Habitats

B Collection/ Evaluation of Data about Species

C Establishment of Conservation Areas

D Regulatory regime in Areas

E Permit System for Taking and Exceptions (scientific, traditional)

F Management Plan for each Species

G Agreements under Appendix II, involvement of Non-Range States

H Offences

I Emergency Action

J Institutions (reporting etc.)

K Dispute Resolution

(2) NATIONAL INSTITUTIONS NORMALLY ENGAGED

Environment, Customs, Foreign Affairs, Fisheries, Wildlife/Zoos, Education, Research/ Academic, Police/Enforcement, National Parks

(3) FACILITIES ESSENTIAL FOR EFFECTIVE IMPLEMENTATION

8.3 ANALYSIS OF QUESTIONNAIRE

CONVENTION ON MIGRATORY SPECIES

GENERAL and RESOURCES TO BE MANAGED

1

Have you ratified Convention? If no, what factors inhibit your governments ratification?

BANGLADESH	INDIA	SRI LANKA
no, lack of initiative and insufficient institutional coordination	yes	yes

2-3 What species of wild animals that are in danger of extinction or are in need of conservation regularly cross(migrate) into your countries jurisdiction? (Ie Siberian Crane for India and Pakistan)(b)What is the range of that species and current population of each species in the range?

BANGLADESH	INDIA	SRI LANKA
Reptiles: green turtle, Howksbill turtle, Olive Ridley turtle;Birds: Waterfowls,ducks,geese, birds of prey, Waders; Mammals:Cetaeceans, Blue Whale (b) all species are declining, Sea Turtles breed in Bay of Bengal beaches, Cox's Bazar area, St Martins and Sundarban Mangrove Forests	Siberian Crane (b) only 4 birds at present	Flamingos in Seast Sri Lanka, Marsh birds in Muthurajawda, Bundala, Yala and all wetlands, Siberian Crane, 5 types of turtles, dolphins, Dugong, Blue Whale

4 What are the threats to each species in your country?(a)Human activities (including traditional subsistence users of the species),(b) Natural predators,(c) loss of habitat, (d) loss of its food source, (e) introduction of exotic species into habitat
(f) reduction of range of species

BANGLADESH	INDIA	SRI LANKA
(a) Sea fishing (c)and degradation of pristine habitats	Threats are outside of country during migration, (a)-(f) no	(a),(c),(d), (b) not very significant and (f) mostly confined to protected areas

5 Is there a conservation strategy/policy for each species? If yes, is the strategy in harmony with any development plan or integrated into a national conservation strategy (such as under the Biodiversity Convention)?

BANGLADESH	INDIA	SRI LANKA
No, but have National Conservation Strategy and Study under this may result in policy at species level ,have 14 Protected areas	yes, is an Agreement under CMS	No

EXISTING ARRANGEMENTS FOR IMPLEMENTATION of CONVENTION

6 What legal (laws, regulations, orders) and administrative (guidelines, directives) currently exist concerning

a) Collection of data about wild animal species b) monitoring of habitats and exchange of information with other Parties and within your country c)the ability to designate conservation areas/protected areas that contain migratory species d)development of coordinated plans of management e)restrictions on the taking of wild animal species (licences) f) offences of taking wild animal species (including penalty amounts) and destruction of their habitats g)implementation of Agreements signed under Appendix II of Convention h) Setting out exceptions to the prohibition of taking species (scientific purposes, propagation, traditional users and special circumstances)
i) Reporting to the Secretariat on measures taken to implement the Convention j)involvement of Non-Range States in conserving wild migratory species k) dispute resolution within the country l)emergency action for protection of

species and their habitat.

BANGLADESH	INDIA	SRI LANKA
(a)Wildlife Circle, Forest Dept, MOEF; NCS project; biology depts of Universities; NGOs (b)would beWildlife Circle, MOEF, (c)&(e) (h) (k)WPAmAct allows wildlife sanctuary, NP and Game Reserves, allows taking for national interest purpose(d) MOEF ie NEMAP (f)can compound offences, Tk250-1000, Compensation Tk1000-2000incl confiscation/cancellation of licence, 6mth-2yrs impris (g)-(j) N/A, (l) yes taken to zoos/breeding centres	(a), (e) (f) Wildlife (Protection) Act 1972, (b) research institutions (c) Forest Dept (g)-(j) administrative measures are in place	(a), (c),(d), (e) Flora &Fauna Protection Ord 1937, (d) also Coast Conservation Act, (b)to certain degree under research prrogrammes,(f) between Rs10000-150,000 and 2-5yrs (h) only for scientific research and non-commercial propagation (i)yes (j)-(k) N/A (l) no

7 &8 What is (or would be if you were a party) the designated national authority responsible for implementation of the Convention and any Agreement under the Convention?(b) What are its functions (research, training, licences, development of management plans, information dissemination etc)

BANGLADESH	INDIA	SRI LANKA
Chief Conservator of Forests or any other Dept appointed by MOEF(b)management, research and dissemination of info	MOEF (b) all those listed	Dept Wildlife Conservation (b) mainly issuing licences

9. What agencies are involved in coordinating action to suppress illegal taking (NGOs, National Park Authorities, customs, police military etc)?

BANGLADESH	INDIA	SRI LANKA
Forest Dept, Police, Bangladesh Rifles, NGO, Universities	All those listed	Dept WC, Police, Customs, NGO as informants

STRENGTHENING EXISTING ARRANGEMENTS

10-12 What are the major problems /barriers to the effective implementation of the Convention?Priorities?Why?

BANGLADESH	INDIA	SRI LANKA
(a) lack of research and monitoring institutions (b)training of officials (c)public awareness	no problems, priority would be better protection and management measures in protected areas	Financial resources, trained personnel and equipment. No voted funds .

13 List the steps that you would need to take in order to strengthen the existing arrangement. What would be the methods to achieve this goal?

BANGLADESH	INDIA	SRI LANKA
(a) create institution for CMS,CITES, CBD,Ramsar) (b)implement continuous research/monitoring (c)Develop Management Plan (species) (d) legal arrangement (e) implement through local/national agencies, public participation	Through State Govt's	Train officers of Dept Wildlife

14 Generally, how can institutional arrangements be strengthened in your country to make implementation of the Convention more effective and enhance the integration of relevant sectors.

BANGLADESH	INDIA	SL
Independent institute under MOEF and decentralized responsibilities to small scientific gps	Through State Govt's	-

9 TRADE IN ENDANGERED SPECIES(CITES)

9.1 TECHNICAL PRESENTATION

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA (CITES)

D.B. Ogolla
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INTRODUCTION

There are over 13,000 known species of animals and birds, as well as thousands of reptiles, amphibians and fish, millions of invertebrates and come 250,000 flowering plants. Extinction is a natural feature of the evolution of life on earth. But in recent times, humans have been responsible for the loss of most of the animals and plants that have disappeared. Gone forever, for example, are 17 species or subspecies of bears, 5 of wolves and foxes, 4 of cats, 10 of cattle, sheep, goats or antelopes, 5 of horses, zebras and asses, 3 of deer, and an indeterminable number of plants, including at least one slipper orchid. The last dodo, a large flightless bird, was killed in Mauritius in 1681, while the passenger pigeon, whose huge flocks darkened the skies of North America barely a hundred years ago, was also wiped out for food early this century.

The two major factors in the decline in numbers of species of wild plants and animals are the loss of habitat and increased exploitation for trade. Trade has become a major factor, as improvement in transport facilities has made it possible to ship live animals and plants and their products anywhere in the world. A dramatic example is the vicuna, a gazelle-like relative of the camels which lives in the high Andes. Because of its exceptionally fine and warm wool, which has been in great demand in North America and Europe, nearly a half million ware slaughtered after the Second World War before Peru pioneered protection in the 1960s to save the species.

The international trade in endangered species is a highly lucrative business, estimated as third in dollar value, after illegal traffic in arms and drugs. It involves a wide variety of species, both as live specimens and as products, and concerns millions of animals and plants every year. As the commercial trade in pets, clothing, medicine and other uses was leading to the over-exploitation of many species, threatening their survival, a legal instrument was deemed necessary.

MAJOR COMPONENTS OF CITES

The Negotiation of CITES

In 1963 the General Assembly of the International Union for Conservation of Nature and Natural Resources, the IUCN, adopted a resolution calling for an international convention for the protection of endangered species of wild fauna and flora, the primary focus of which should be on the regulation of export, transit and import of specimens of rare or threatened wildlife species, rather than the protection of habitats, wildlife management or control of wildlife capture and killing methods.

Discussions on a draft convention were held at the conference of plenipotentiaries hold in Washington D.C. in February-March 1973. On 3 March 1973, 21 countries signed the *Convention on International Trade in Endangered Species of Wild Fauna and Flora*, which entered into force on 1 July 1975. As of 1 May 1997, there were 135 Parties to CITES.

Objective of CITES

The objective of CITES is to prevent international trade from threatening the survival of wild fauna and flora.
To achieve the above objective, CITES has established an international network for the control of international trade in live and dead animals and plants and of parts and derivatives thereof.[5] Control of international trade in endangered species is

[5]Parts include skins or parts of skins, skeleton or bones, shells, horns, tusks, teeth, feathers, eggs, meat and wood. Derivatives include, i.e., blood, urine, musk, objects made from parts (pianos with ivory keys, musical instruments made of rosewood, furniture with sea turtle scales, handbags, fur coats, belts, watch straps, shoes, gloves, etc...) medicines containing CITES species, perfume made from CITES species, and preparation from meat.

primarily done through government permits/certificates required for such trade. Monitoring international trade is based on Trade Records.

The above network is made up of correspondents designated by the Parties at national level. Each Party must designate one or more Management Authorities to issue permits/certificates on behalf of the Party, as well as one or more Scientific Authorities to be consulted in certain cases before permits/certificates are issued.

Any international trade, meaning any export, re-export, and introduction from the sea, of species included in the appendices to the Convention, requires the issue of a permit or certificate, depending on the individual case, issued by a Management Authority.

Specific control procedures have been developed under CITES for each of the following three categories of threatened species.

A. those threatened with extinction that are or could be affected by trade (Appendix I);

B. those not necessarily in danger of extinction but which could become so if trade in them were not strictly regulated (Appendix II);

C. those which individual Parties to the Convention choose to make subject to regulations and which require the co-operation of the other Parties in controlling trade (Appendix III).

Furthermore, control procedures for species listed in these Appendices vary depending on the type of international trade export, re-exports[1] and introduction from the sea.

Appendix 1: Species threatened with extinction

Appendix 1 lists approximately 800 species threatened with extinction which are or may be affected by trade (Art 11, para 1). Among those listed are all apes, lemurs, the giant panda, many South American monkeys, great whales, cheetah, leopards, tiger, all rhinoceros, the African elephant, many birds of prey, cranes, pheasants and parrots, all sea turtles, some crocodiles, tortoises and lizards, giant salamanders, the coelacanth and some mussels, orchids, cycads and cacti.

Trade in these species is subject to particularly strict regulation in order not to further endanger their survival (Art III). Regulation is achieved by requiring export and import permits for the trade in Appendix I: species, or any derivative thereof (Art III).

Regarding the export of specimens, there are four basic conditions (Art III, para 2)which must be met before an export permit will be granted for species listed at Appendix 1:

-a Scientific Authority of the State of export has advised that such export will not be detrimental to the survival of that species;

-a Management Authority of the State of export is satisfied that the specimen was not obtained in contravention of the laws of that State for the protection of fauna and flora;

-a Management Authority of the State of export is satisfied that any living specimen will be so prepared and shipped as to minimise the risk of injury, damage to health or cruel treatment; and

-a Management Authority of the State of export is satisfied that an import permit has been granted for the specimen.

This condition which is specific to species listed in Appendix I, is very important in order to meet this condition, an import permit must be granted by a Management Authority of the State of import, which may only be done once the following conditions (Art III, para 3) have been met:

-a Scientific Authority of the State of import has advised that the import will be for purposes which are not detrimental to the survival of the species involved;

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[1] "Re-export" means export of any specimen that has previously been imported.

-a Scientific Authority of the State of import is satisfied that the proposed recipient of a living specimen is suitably equipped to house and care for it; and

-a Management Authority of the State of import is satisfied that the specimen is not to be used for or primarily used for commercial purposes.

As such, both exporting and importing States, in other words, both producer and consumer counties, a joint responsibility in controlling trade in endangered species of wild fauna and flora. Furthermore, an import permit may be issued only when the specimen is not primarily used for commercial purposes. Export and Import for commercial purposes in species listed at Appendix 1 is prohibited.

Appendix II: Species at serious risk

Appendix II lists thousands of species which, although not currently threatened with extinction, may become threatened without strict regulation of trade in such species (Art III). The list includes, among others, all species in the following group which are not already in Appendix I: primates, cats, otters, whales, dolphins and porpoises, birds of prey, tortoises, crocodiles, cacti and orchids, as well as many other species, such as fur seals, the, black stork, flamingos, cranes, birds of paradise, some snails, butterflies, corals and some species of trees. Furthermore, to prevent threatened species from being traded under the, guise of non-threatened species similar in appearance, sonic of the latter arc also included in this Appendix.

Regulation is not as strict as for species listed in Appendix I. Regarding the export of specimen, the Convention requires export permits for trade in Appendix II species, or any derivative thereof. Nevertheless, no import permits are required.

Like international trade in Appendix I species, the export permit may be issued once a Scientific Authority of the state of export has advised that such export will not he detrimental to the survival of that species and a Management Authority of the State of export is satiated that the specimen was not obtained in contravention of the laws of that State for the protection of fauna and flora and is satisfied that any living specimen will be so prepared and shipped as to

Nevertheless, unlike the position regarding Appendix I species, no import permit needs to be granted. Thus, only the State of export is responsible for controlling international trade in Appendix II species. Further, commercial trade in Appendix II species is allowed.

Appendix III: Species listed for protection at a national level

Appendix III lists species which any Party may identify as being subject to regulation within its jurisdiction for the purpose of preventing or restricting exploitation and needing the on of other Parties in the control of trade (Art II Para.3).

Regulation is not as strict as for species listed in Appendix II. Regarding the export of Specimens of Appendix III species 3, export permits are only required from the Party which included the species in Appendix III (Art V).

Like international trade in Appendix II species, the export permit may be issued once a Management Authority of the State of export is satisfied that the specimen was not obtained in contravention of the laws of that State for the protection of fauna and flora and is defied that any living specimen will be so prepared and shipped as to minimise the risk of injury, damage to health or cruel treatment.

Nevertheless, unlike the position regarding Appendix II species, it is not necessary for a Scientific Authority of the State of export to advise that such export will not be detrimental to the survival of that species.

Control of international trade with non-Parties

CITES allows trade with non-parties, provided that the non-party has comparable documentation as required under the Convention (Art X). After abuses of this provision and in order to prevent States Party from circumventing the Convention through trade with non-parties, the Conference of the Parties to CITES decided in its Resolution 8.8 to:

-direct the Secretariat to request and compile details and changes regarding authorities competent to issue comparable documentation, and scientific institutions capable of advising on the, detrimental effect of export should be communicated to the Secretariat; and

-recommend Parties only to accept documentation from a non-party if its competent authorities and scientific institutions are included on the most recent updated list of the Secretariat, or after consultation with the Secretariat.

Monitoring of international trade

Under CITES, records of trade must be kept by all parties and be reported to the Secretariat of the Convention on an annual basis. The annual reports of all Parties together should provide statistical information on the total volume of world trade under CITES which is invaluable for assessing the conservation status of species, spotting problems and prompting remedial action.

In this process the, CITES Secretariat is assisted by the Wildlife Trade Monitoring Unity[3] and the IUCN/WWF TRAFFIC[4] network in collecting and analysing data on world trade in wildlife.

Bodies established under CITES

In order to facilitate the implementation of the objectives of CITES, several bodies have been established under the Convention.

Conference of the Parties (CoP)

The CoP, which is the plenary non-standing body of CITES, meets every two to three years in order to review the progress made towards the restoration and conservation of Appendices I, II and III Varies, to consider any reports presented by the Secretariat or any Party and to make recommendations for improving the effectiveness of the Convention (Art XI, para 3). The CoP also considers and adopts amendments to Appendices I and II in accordance with Article XV. In order to assist in performing its functions, the CoP has established four committees: the Animals committee, the Plants Committee, the Nomenclature Committee. and the Identification Manual Committee.

Standing Committee

This Committee, which is the non-plenary standing body meets to provide guidance and follow-up between meetings of the Conference of the Parties. The Committee reviews areas such as information submitted to the Secretariat concerning non-compliance of a Party.

Secretariat

In addition to the performance of its functions listed in Article XII para 2, the Secretariat provides permanent assistance, to Parties through:

-provision of regular information on recent developments which have under the Convention;
-publication of technical documents;
-training of personnel responsible for implementation of the Convention.

COSTS AND BENEFITS OF BECOMING A PARTY

CITES is the only global convention which aims at controlling intentional in endangered species of wild fauna and flora. Such control is a necessity since international trade is the second major threat to the survival of species of wild animals and plants.

In order to achieve effective control, the CITES Secretariat is providing permanent technical support to the Parties by among other things:

-providing advice to Parties on numerous matters, such as the drafting of national legislation for the implementation of the Convention or the validity of a permit or certificate;

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[3] Wildlife Trade Monitoring Unit is a part of the World Conservation Monitoring Centre in Cambridge, England.

[4] Trade Records Analysis of Flora and Fauna in Commerce.

-training personnel responsible for the implementation of the Convention, especially in the field of enforcement, i.e., Management Authorities, Scientific Authorities, police and customs officials;

-publishing a technical book on the Convention in several languages which includes among other things, consolidation of resolutions adopted by the Conference of the Parties and an identification Manual; and

-organising information and public awareness campaign.

For Parties in whose, territory the survival at the national level of a species is threatened by international trade. CITES provides that such species may be added to Appendix III. Once listed at Appendix III, the import by any Party of any specimen of that species requires the presentation of a certificate of origin or an export permit where the Import is from the party which has included that species in Appendix III. As such the Party, which includes a species in Appendix III, can benefit from the co-operation of other Parties in the control of international trade in that species.

MEASURES TO BE TAKEN BY THE PARTIES TO CITES

Enforcement of CITES is the responsibility of the Parties. Each Party to CITES shall take appropriate measures to enforce the provisions of CITES and prohibit trade in specimens in violation thereof. To this end, Parties shall:

-penalise trade in, or possession of such specimens, or both (Art VIII, para 1(a));

-provide for the confiscation or return to the State of export of such specimen (Art VIII, para 1(b)). A Management Authority shall be entrusted with the confiscated specimen, and shall, after consultation with the State of export return them to that State, or to a rescue centre (Art VIII, para 4) designated by the Management Authority to look after the welfare of living specimens (Art VIII, para 5);

-maintain records of trade in specimens of Appendices I, II and species (Art VIII (c) para 6); and

-transmit to the Secretariat an annual report on trade records and a biennial report on legislative, regulatory and administrative measures to enforce the Convention (Art VIII (7)).

Regarding management and institutional arrangements, Parties should:

-designate one or more Management Authorities competent to grant permits or certificates on behalf of that Party, as well as one or more Scientific Authorities (Art IX, para 1);

-inform the Depository, when depositing its instruments of ratification, acceptance, approval or accession, of the details of the Management Authority authorised to communicate with other parties or the Secretariat (Art IX, para 2); and

-inform the Secretariat of any change regarding any Management Authorities and Scientific Authorities, and upon request, provide the Secretariat with the impression of stamps, seals or other devices used to authenticate permits or certificates(Art IX para 3 and 4).

9.2 CITES: ISSUES PAPER

(1) NATIONAL LEGISLATION TO EFFECTIVELY IMPLEMENT CITES

D.B. Ogolla, Legal Officer, ELI/PAC

National legislation is essential for the effective implementation of the provisions of CITES. In developing such legislation, particular consideration should be given to the main problems encountered in implementing CITES:
-lack of, or insufficient national legislation, particularly regarding penalties;
-issuance of irregular documents;
-lack of or insufficient border control;
-lack of. or insufficient co-ordination with enforcement agencies, including customs and police;
-insufficient communication with CITES Secretariat; and
-lack of, or insufficient control of internal trade.

In accordance with the provisions of the Convention and the recommendations adopted by the Conference of the Parties to CITES, such legislation should deal with several issues, as noted below.

The legislation should:
-apply to all species listed in the three Appendices to CITES (except for those on which the Party concerned has entered a reservation). It should refer to three lists corresponding to the three CITES Appendices. These lists should be capable of being amended by regulations;
-define specimen, export, re-export, import and introduction from the sea' as the same way in Art I of CITES.

Management and Scientific Authorities
The legislation should designate one or more Management and Scientific Authorities, and define their mode of appointment, functions, powers and duties, including the:
-power to amend or revoke permits or certificates in some circumstances and to refuse foreign permits in particular cases;
-power to mark, or cause to be marked, any Linen to assist in its identification; and
-duty to submit to the Secretariat the reports called for by Article VIII, pare 7.

Permit and certificates
The legislation should:
-set the conditions required for the issuing of permits;
-include provisions on the form and validity of permits and certificates;
-require valid CITES documentation for specimens in transit;
-require comparable documentation from non-parties;
-not allow other exceptions to permit requirements than those allowed by the Convention.

Controls and enforcement
The legislation should:
-identify any competent authority to which permits and certificate must be presented as well as providing the identified authority with the appropriate competence;
-prohibit the possession, transport, sale, offering for side, and purchase of any specimen of CITES-listed species without the required permits;
-designate all the agencies and classes of officers that are responsible for the enforcement of the legislation, as well as specify their powers;
-spell out actions or omissions which constitute offences against the legislation, and require, appropriate penalties, including administrative penalties;
- provide for confiscation return or disposal of illegally traded specimens.

Miscellaneous
The legislation should provide for appropriate financial arrangements to support the administrative and legal infrastructure necessary for the implementation of the legislation.

(2) NATIONAL INSTITUTIONS NORMALLY ENGAGED

Environment, Research , Customs, Police, Finance, Trade, Zoos, Fashion/Cosmetic Industries.

9.3 ANALYSIS OF QUESTIONNAIRE

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES (CITES)

GENERAL and RESOURCES TO BE MANAGED

1.

When did you ratify the Convention ? Or what are the steps you are taking to determine whether to ratify?

BANGLADESH	INDIA	NEPAL	SRI LANKA
20/11/81	1976	18/6/75	3/79

2.

List the flora and fauna species threatened with extinction or at serious risk globally that are Imported/exported or transited through your country (ie flowering plants, birds, reptiles, fish, invertebrates)

BANGLADESH	INDIA	NEPAL	SRI LANKA
none known	App 1- 46 Families,116 Genera; App 2- 52 Families,119 Genera; App 3- 7 Families,30 Genera	some 30 species	Flora and Fauna Protection Ordinance prohibits commercial trade, but suspect trade in ornamental fish and reptiles

3.

List those species whose survival is threatened at the national level only?

BANGLADESH	INDIA	NEPAL	SRI LANKA
Reptiles-23 families birds- 8 families mammals-29 families	See Sch 1, Wildlife Pr Act 1972	-	IUCN Red Data Book

4.

List the reasons for trade/transit and the threats for each species listed above (ie trade in live species for pets, trade in products for clothing, trade for medicinal purposes, loss of habitat)

BANGLADESH	INDIA	NEPAL	SRI LANKA
loss of habitats, disturbances through activities and natural resources harvest	export trade banned, internal trade prohibited	-	N/A Trading prohibited

5.

What is the current government policy on protection of endangered species? Is it part of the National Biodiversity Strategy and if not is it in harmony with it?

BANGLADESH	INDIA	NEPAL	SRI LANKA
manage BD at species level for sustainable dev't & protected areas, yes	yes, Wildlife Protection Act	yes, WP Act 1973. Gov has incorporated into national &sectoral policies	Policy is conservation in perpetuity, BD Strategy being formulated

6.

What priority does your government place on the regulation of trade in these species compared to other illegal activities (ie drugs trade, arms trade, terrorism, money laundering, corruption, fraud)?

BANGLADESH	INDIA	NEPAL	SRI LANKA
topmost	very high	high, legislation stricter than other illegal activities	No trade, quantity available is limited

7. Are there existing regional arrangements (formal or informal) to cooperate in the regulation of trade and information sharing/training (ie at non-government level, private associations)?
Most participants said yes, from Asian Regional Meeting of CITES and CITES Secretariat.

8-10.
List the official entry points into your country and indicate whether they are for all nationalities or neighboring State nationals only. (-land, -sea, -air, -postal (for goods)). (b) describe the infrastructure at each, customs inspection procedures and means to control illegal crossings

BANGLADESH	INDIA	NEPAL	SRI LANKA
land-Benapol, Jessore with India; Sea- Chittagong Sea Port, Chittagong, Mongla Sea Port,Khulna; Air- Dhaka b)direct checking by airport staff and Bangladesh Rifles checks border posts.	Bombay, Delhi, Madras Calcutta. (b) staff available who work with Customs authorities and enforcement agencies, also use DRI, CBI, State Police, Forest Dept, Coast Guards	Have open border with India, over 40 Customs Check Points (b)All have trained personnel, police and there is equipment.	Sea and air b) -

11. What measures are in place for control of internal trade (markets,shops, at truck weighing stations, domestic airports, train stations etc) ?

BANGLADESH	INDIA	NEPAL	SRI LANKA
Wildlife P (Am) Act 74, Forest Officials, field staff at different levels, Police and local agencies obligations to control	State F&W Depts &Regional offices of MOEF	Strict control mechanism to prohibit trade	Enforcement of Fauna &Flora Protection Ordinance

EXISTING ARRANGEMENTS FOR IMPLEMENTATION of CONVENTION
12 What is, or would be if you were a party, the designated Management Authority for trade in species?

BANGLADESH	INDIA	NEPAL	SRI LANKA
Chief Conservation of Forests	Inspector General of Forests and Director Wildlife Preservation	Dept Natural Resources &Wildlife Conservation	Dept of Wildlife

13. What is, or would be if you were a party, the designated Scientific Authority for assessing detrimental effects in trade?

BANGLADESH	INDIA	NEPAL	SRI LANKA
Wildlife Advisory Bd	ZSI, BSI, CMFRI	DNRWC, Dept Ag and King Mahendra Nature Conservation Fund	Dept of Wildlife

14& 15 Identify the other government agencies relevant to the management of trade in species in your country (Research Institutes, transportation agencies, federal/local government plant and wildlife bodies, enforcement; agencies such as quarantine/customs, police etc). (b) describe staff numbers , their technical skills as well as training opportunities and financial resources allocated for each agency

BANGLADESH	INDIA	NEPAL	SRI LANKA
Herbarium(BNH)Forest Research Institute, Fisheries Directorate, Livestock, Airline, Customs, BDR, Police,Export Promotion Bureau, Controller of Imports/Exports (b)all over B	state wildlife agencies and (b) not available	National Park, Wildlife Reserves, Customs Offices, District Administration, Police, Dept Ag (b) agencies mobilized on case bases when need arises in specific district.	Sri Lanka Customs b) Dept of Wildlife 1-2 P/T officers, in Customs there is no specially designated officer

16. What arrangements exist for collaboration and coordination of the relevant agencies listed above (ie are there wildlife experts available at entry points to identify species and is information on permits forwarded to enforcement agencies)?

BANGLADESH	INDIA	NEPAL	SRI LANKA
Forest Dept coordinates under MOEF	National Coordinating Committee in MOEF, incl all relevant enforcement agencies	Wildlife expert can be mobilised at any entry point. All Agencies consult	none specifically though Customs has been trained

17.
What arrangements exist for involvement of other non-government stakeholders in the management of illegal trade (NGOs, plant and hunting associations, schools, medical associations, clothing and cosmetic industries etc)?

BANGLADESH	INDIA	NEPAL	SRI LANKA
No permanent arrangement but involved in training courses and on expert Committee for farming in private sector and wildlife trade	all relevant NGOs associated ie TRAFFIC office in Delhi, WWF	None	Members of public can be informants and they are rewarded

18.
What legal, institutional and administrative arrangements exist for the confiscation and return of specimens to the exporting country (Rescue Centres, transport, clearances)?

BANGLADESH	INDIA	NEPAL	SRI LANKA
WP(Am)Act 74 covers, kept in zoos or breeding centres but not utilized frequently	yes	No	covered in Fauna and Flora Protection Ord, Customs Regulations

19.
What are the legal(laws, decrees, regulations) or administrative(guidelines, directives) arrangements for the issuing of permits to possess, transport, purchase or sell endangered specimens? What are the procedures? Is there a requirement that comparable documentation be provided by Non-Parties to the Convention? Is there provision to amend revoke and refuse permits?

BANGLADESH	INDIA	NEPAL	SRI LANKA
WPAmAct, Forest Act 1927, East Bengal P & C of Fish Act 1950, official gazette notification. Need licence from Ministry of Commerce, Collection Permit and No Objection Certificate before issue CITES permit	Wildlife P Act, Export/Import control orders and Customs Act 1962, State Chief Wildlife Wardens can issue licences and Legal Procurement Certificates	No	Flora and Fauna Prrotection Ord- only CITES permits for export issued for scientific purposes.

20. Have the 3 Appendices to the Convention been incorporated into national legislation?

BANGLADESH	INDIA	NEPAL	SRI LANKA
No, but Sch 3 of WPAmAct lists 804 species that need MOEF permit to catch, only 36 species in Sch 1	yes	No	Covered under F&FP Ord

21.
What are the legal or administrative arrangements for keeping records of trade and permits issued?

BANGLADESH	INDIA	NEPAL	SRI LANKA
well kept and circulated to Depts and subordinate offices	W Regional Offices of MOEF	None	Register maintained only for official reference

22. What are the legal or administrative arrangements for notifications to the Secretariat (who prepares them, annual

and biannual reports)

BANGLADESH	INDIA	NEPAL	SRI LANKA
Chief Conservator of Forests notifies	MOEF	None	Animal reports from Dept of Wildlife used to compile reports

23.
What are the legal or administrative provisions regarding offences and penalties? Are offences and penalties displayed/distributed at entry points and if so are they in more than 1 language?

BANGLADESH	INDIA	NEPAL	SRI LANKA
compensation, fines and imprisionment, 2 languages used displayed on Airport Rd Dhaka	yes	displayed in more than 1 language	SL Customs display posters/ pamphlets in more than 1 language

24.
What are the legal or administrative arrangements for enforcement (power to enter premises, inspect goods, confiscate property and use of evidentiary certificates for ease of proof of specimens in court cases)? If more than one agency can take action with respect to illegal trade, what arrangements exist to determine preferences/priorities and coordinate charges?

BANGLADESH	INDIA	NEPAL	SRI LANKA
Police used outside forest juris, Forest Dept submit suits and takes preference	yes	Agencies have authority to inspect and confiscate	F&FP Ord, Section 66 enter without search warrant

25.
What are the legal or administrative arrangements for review/appeal of any decisions as to permits and to rights of access to information by the public?

BANGLADESH	INDIA	NEPAL	SRI LANKA
Can be initiated under civil laws	yes	Appellate Courts can review decision of Authority	Appeals under F&FP Ord to Minister's in charge

STRENGTHENING EXISTING ARRANGEMENTS

26-28 What are the major problems /barriers to the effective implementation of the Convention? Priority Why?

BANGLADESH	INDIA	NEPAL	SRI LANKA
Lack of proper institution incl institution network for information collection, preservation, presentation & publication	staff shortages	smuggling, hunting, population pressure and inefficient management of Gov agencies. Priorities are Policy formulation, funding,manpower development	Trained personnel in Dept of Wildlife and Customs. Place Wildlife officer in Customs

29. List the steps that you would need to take in order to strengthen the existing arrangement. What would be the methods to achieve this goal?

BANGLADESH	INDIA	NEPAL	SRI LANKA
Create independent institution/office under MOEF	more training	identify problems,develop alternatives, action plan, funding, implement plan	-

30. Generally, how can institutional arrangements be strengthened in your country to make implementation of the Convention more effective and enhance the integration of relevant sectors.

BANGL	INDIA	NEPAL	SL
as above	more training	mobilize NGO for awareness promotion,obtain private sector support, HR development, share experiences with other countries	-

9.4 CITES : COUNTRY PRESENTATIONS

NEPAL

(I) Priorities

Nepal has been very active in CITES implementation, since its inception in 1975. There are a number of reasons for our keen interest in CITES. Firstly tourism is one of the most important economic activities in Nepal. Nepal is rich in flora and fauna and an extensive network of protected areas has been established in Nepal. There are a total of 8 National Parks and four Wildlife reserves, 1 Hunting Reserve and 2 Conservation Areas, compassing an area of 14% of the country.

These protected areas have an extensive geographical coverage extending from north to the south in different ecological zones. Some of our species are already endangered. Tiger, Rhinos and Musk deer are examples. There are approximately 200 tigers and 500 Rhinos still remaining in Nepal. The population of musk deer is not certain. These species are major assets for tourism, their conservation therefore is a high priority.

Nepal is a transit route for export of wild life. Rhino horns, tiger bones and Musk pods are the major export items. They are often smuggled out of the country. In order to prevent this' massive anti poaching measures have to be adopted.

The Govt of Nepal has been giving priority to the conservation of natural resource in its National Development Plan. The 8th plan (1892-1997) envisages a high level environment protection council for the conservation of natural resources and heritage. This council has been formed under the Chairmanship of the Prime Minister, the mandate of the council includes formulation, direction and co-ordination of policies relating to environment.

As part of the institutional arrangement for implementation of the policies, the Ministry of Population and Environmental (MOPE) has been created in November 1995. The Ministry also functions as the Secretariat of the environment protection council. MOPE is also responsible for planning, monitoring, evaluation of environmental projects, development and implementation of EIA guidelines and adoption of measures for emission control.

(II) Legal and institutional arrangement

Environmental considerations have assumed greater importance with the promulgation of the new constitution of the Kingdom of Nepal 1990. It places upon this State a duty to incorporate environmental matters into its policy process. Art.26(4) of the Constitution states "The State shall give priority to the protection of the environment and also to the prevention of its further damage due to physical development activities by increasing the awareness of the general public about environmental cleanliness and the State shall also make arrangement for the special protection of the rare, wild life, the forest and the vegetation".

It is however a part of the Directive Principles and policies of the State and therefore not legally enforceable. Nevertheless it has consideration policy implications.

Nepal enacted the "National Parks and Wild-life Conservation Act 1972" prior to the CITES Convention. This Act contains a list of 38 species in its protected wildlife and HMG can list further species as and when necessary.

The Act takes a strict regulatory approach to the conservation of natural areas and wild species. It describes five categories of protected areas:

(a) National Park.
(b) Wildlife Reserve.
(c) Controlled Nature Reserve
(d) Conservation Area.
(e) Hunting Reserve.

The Government has also promulgated the "National Park and Life Conservation Rules 1974" and some other site-specific rules.

Any person acting in contravention of the Act or its associated rules is liable to summary arrest and heavy sanctions. On the other hand, the persons assisting the law enforcement authority with information about poachers will be rewarded. The reward for information about endangered species amounts to Rs. 50,000.00 and for other protected species amounts to Rs. 25,000.00

The Acts and Rules are administered by the chief (warden) of the Office of National Park and Wildlife Conservation.

Conservation of Plant Species is addressed by the Plant Protection Act with some medicinal plants banned. Conservation of aquatic life is addressed by the "Aquatic Animals Protection Act 1961" which prohibits the use of explosives or poisonous substances in water with the intention of killing or catching the aquatic life. Another important legislation is, the "King Mahendra Trust for Nature conservation Act 1982" (KMTNC) which facilitates public participation in conservation programmes and is responsible for

(a) Conservation, promotion and management of wild life and other natural heritage.
(b) Making necessary arrangement for the development of National Parks and reserves.
(c) Undertaking scientific research into wild life and other natural resources.

The KMTNC operates under the patronage of His Majesty the King and is managed by a B

oard of Director comprising various Government and non-movement officials and representatives of international organisations.

(III) Major Problems

The State legal measures have not been completely effective in the conservation of endangered species. A number of factors could be attributed to this state of affairs.

(a) The smuggling business is very active outside of the protected areas poaching of wild life is rampant. Pelt and furs from endangered leopard cats are openly for sale in the Kathmandu tourist trade. In this situation the department of National Park and Wild Life Conservation does not have its own inspectorate to prosecute offenders because the administration of regulations outside the parks is the responsibility of district forestry personnel.

(b) The emphasis on prohibition of hunting and trade ignores the more important factors contributing to the decline of many endangered species such as activities effecting the habitat and food. For example there are no legal controls on the clearance of wild life habitat on private land. Moreover, even for those animals living safely in the protected areas, the absence of any interconnecting wild life corridors between the parks and reserves means that the various population of species may become isolated and unsustainable.

(c) The National Park and Wild Life Conservation Act does not ensure the implementation of various international obligations on wetlands because only a few wetlands of international significance are located within the national parks. There is no legal mechanism for the identification, protection and management of wetlands. As a result the wetlands outside the national parks are unprotected. The wide range of benefits has made people dependent on the continued health of wetland, but wetlands productivity has decreased from excessive use, population pressure, inefficient management and government policies emphasising food production rather than nature conservation.

(d) The administrative capacity to ensure the smooth functioning of the conservation projects is poor. On the one hand, the country does not have adequate legal bases and on the other there are more than one related Acts. There is also a lack of trained personnel and inter-departmental co-ordination between administrative agencies. The problems are aggravated by the lack of public awareness.

(c) Nepal has no environmental quality standards. There are few laws, which deal with pollution. Consequently, increasing amounts of untreated industrial effluent are being discharged into the rivers posing serious threat to the aquatic life.

Conclusion

An efficient conservation management for the endangered species will have to take into account the above mentioned factors. The Environment Protection Council and MOPE are working together to develop programmes which meet the requirements of environment management.

(Overhead)
Some Medicinal Plants Restricted by the Government for Exprt as Crude Herbs: Nepal Gazette, Part 3, date: 2051.12.20
Common name: Sugandha kokila, Yarsagombu, Panch Aunle, Jhyau, Jatamansi, Sarpgandha, Sugandhawal, Talispatha.

(Overhead) Threatened , Endangered and Rare Animals of Nepal : Source -Aspects of wild life protection in Kakalu Baruu Conservation Area: Report II, Department of NPWC, HMG/Wood Land Institute 1996

Common Name	CITES (Appendix)	HMG	IUCN
Mammals			
Asiatic Black Bear	I	-	-
Asiatic Brown Bear	I	P	-
Grey Wolf	I	P	V
Wild dog	II	-	V
Clouded Leopard	I	P	V
Bengal Tiger	I	P	E
Snow Leopard	I	P	E
Leopard	I	-	T
Tibetan lynx	II	P	-
Leopard Cat	I	P	-
Asiatic Golden Cat	I	-	I
Jungle Cat	II	-	-
Fishing Cat	II	-	-
Pallas Cat	II	-	-
Marbled Cat	II	-	-
Otters	II	-	-
Spotted Linsung	I	P	-
Red Panda	II	P	-
Assamese Monkey	I	P	-
Hunnuman langur	I	-	-
Musk Deer	I	P	V
Mainland Serow	I	P	-
Goral	I	-	-
Tibetan Argali	I	P	I
Wild Yak	I	P	E
Pangolin	II	P	-
Elephant	I	P	E
One Horned Indian Rhino	I	P	E
Tibetan Antelope	-	-	-
Four Horned Antelope	I	P	E
Swamp Deer	I	P	E
Nayan	I	P	E
Pygmi Hog	I	P	E
Hispid Hare	I	P	E
Indian Gangatic Dolphin	I	P	E
Birds			
Impeyan phesant	I	P	-
Crimson horned Phesant	III	P	-
Blood Phesant	II	-	-
Tibetan snow cock	I	-	-
Black Stork	II	P	-
Oriental White Stork	I	P	E
Cranes	II	-	-
Sarus Crane	-	P	-
Black-necked crane	I	-	V
Perogrine crane	I	-	E
Lammergeier	II	-	-
Eurasian friffon vulture	II	-	-
All falconidae	II	-	-
All Psittaciformea	II	-	-
Reptiles			
Python	I	P	V
Golden Monitor	I	P	-
Bengal Monitor	I	-	-

IUCN Categories: E -Endangered, V- Vulnerable, T- Threatened, I- Insufficiently known, P- Protected

(Overhead) Source: HMGN and Government of the Netherlands 1996
Summary of threatened Species by Group included in NRDB

	Total species recorded	Extinct	Endemic	NRDB species	NRDB as% of total	HMG/P	Additional species for protection
Mammals	181	3	1	56#	*31%	27	30
Birds	844	11	**2**	226	*27%	9	88
Reptiles	100		2	25	25%	**3**	22
Amphibian	43		9	9	21%	0	9
Fish	185		**8**	35	19%	0	10
Butterflies	635		29**	142	22%	0	12

Note: # - excludes Sus salvanius;
* - excludes extinct species;
** - includes 4 species and 25 subspecies

SRI LANKA

EXISTING LEGAL AND INSTITUTIONAL ARRANGEMENTS FOR THE IMPLEMENTATION OF THE CITES

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Implementation and enforcement are the most significant issues facing international treaties and the Convention on International Trade in Endangered Species of Wild Fauna and Flora, referred to as CITES, is no exception.

The Conference of Parties has found it necessary to urge the Parties to adopt appropriate measures to implement fully the Convention. Among such measures, an adequate national legislation was highlighted as a vital pre-requisite for the proper functioning of CITES and compliance with its provisions. According to available information, less than 15% of the Parties currently have adequate legislation for implementing the Convention. Thus, a large majority of the Parties have so far enacted no specific legislation to implement the Convention. They have therefore, to rely on their general wildlife legislation and in certain cases on their customs and foreign trade legislation to control trade in CITES specimens.

Sri Lanka too falls into the group of parties with no specific legislation nor regulation to implement CITES and relies upon the national wildlife conservation law with the co-operation of the Sri Lanka Customs to prevent commercial exploitation and regulation of trade of the fauna and flora of Sri Lanka. The CITES came into force in 1975 and Sri Lanka became a party to the convention in March 1979. This paper will be looking at the national law to ascertain the extent to which it meets the needs of the CITES.

EXISTING LEGAL ARRANGEMENTS

The Fauna and Flora Protection Ordinance was passed in 1937 for the protection of the fauna and flora of Sri Lanka when many of the modern day concerns for the protection, conservation and preservation of wildlife were not in existence. The Ordinance was last amended in 1993 and its long title now reads to include the prevention of the commercial exploitation of such fauna and flora. The fact that the 1993 amendment to the Ordinance was made 14 years after becoming a party to the convention is noteworthy.

The objectives of the CITES is to prevent international trade of species of wild fauna and flora from threatening the survival of such species. Control of International trade in endangered species is primarily done through government permits /certificates required for such trade.

As mentioned, the main thrust of the CITES is the regulation of trade in certain species by means of a system of import/export permits. The Fauna and Flora Protection Ordinance too provides for the issue of import and export permits.

Export of Fauna

Section 40 of the Fauna and Flora Protection Ordinance prohibits the export of mammals, birds, reptiles, amphibians, fishes, corals and invertebrates, except under the authority of an "export" permit. This is a blanket cover, which regulates the export of all indigenous species, dead or alive, and applies to the export of the eggs, feathers, horns, skin, hide, or any part of such species. The granting of a permit is limited for the promotion of scientific knowledge, including supplies to foreign museums, foreign zoological gardens in exchange for supplies to local museums or local zoological gardens. An export permit is not required for the export of domestic animals and non-indigenous species. The provisions in section 40 of the Fauna and Flora Protection Ordinance form part of the Customs Ordinance of Sri Lanka.

Under the CITES, an export permit is required-

a) for the export of species threatened with extinction listed in Appendix I;
b) for the export of species at serious risk, although not currently threatened with extinction listed in Appendix II;
c) for the export of species listed for protection at national level listed in Appendix III.

Of the four conditions which must be met before a CITES export permit is granted for species listed in Appendix I and Appendix II, the first condition is the certificate from a Scientific Authority to the effect that such export will not be detrimental to the survival of the species. The important factor here is the criteria to be satisfied in order to grant an export permit. For a CITES permit the criteria is not the "purpose" for which it is exported. What is considered is whether the export of such specimen will be detrimental to the survival of the species. Some study has to be done in order to ascertain the level of protection required for the threatened species. The Fauna and Flora Protection Ordinance looks only at the purpose, and, an export permit is granted only the purposes of scientific knowledge or for mutual exchange between local/foreign zoological gardens or museums. An export permits under the Fauna and Flora Ordinance is not required for the export of any domestic animal or any mammal, bird, reptile, amphibian, fish, coral or invertebrate of a species not indigenous to Sri Lanka. This situation would enable non-indigenous threatened species in transit to go through Sri Lanka without any problem. For example, the Bengal Tiger can go through Sri Lanka without having to obtain a permit. This also makes Sri Lanka an ideal trading point for non-indigenous threatened species. A CITES export permit, however, does not distinguish between indigenous and non-indigenous species and is concerned only with the threatened level of the species.

Prior to granting a CITES export permit a certificate from die Management Authority of the State of export is required stating that the specimen will be shipped in such manner as to minimise the risk of injury, damage to health or cruel treatment. Once the purpose of export is satisfied in terms of the Fauna and Flora Protection Ordinance, a permit is granted and the specimen is shipped. It is not a legal requirement to ascertain the method of shipment.

And finally, a CITES export permit for the species in Appendix I will not be granted unless an import permit has been granted by the State of import. CITES requires tile Scientific Authority of the State of import to certify that the specimen is not to be used for or primarily used for commercial purposes. The Fauna and Flora Protection Ordinance does not require an import permit for the granting of an export permit.

According to the officials of the Department of Wildlife, they are fully aware of the loopholes in the law and are taking every precaution including the training of Customs officials, to prevent and dissuade the export of any species categorised as endangered.

Import of Fauna

Section 37 of the Fauna and Flora. Protection Ordinance prohibits the import of any non-indigenous mammal, bird, reptile, amphibian, fish or invertebrate, or any part of such species, except under the authority of an "import' permit. It is a blanket cover prohibiting the import of non-indigenous species or the eggs, spawn or larva of such species. The requirement of an import permit does not apply for the import of any domestic animal or to any tropical aquarium fishes, meaning any species of fresh water fish specified in Schedule IV to the Ordinance. It was also noted that the import of corals is excluded from the list of species regulated by an import permit.

The CITES requires an import permit for the import of any threatened species listed in Appendix I to the Convention. In addition an export permit or a re-export certificate is required prior to granting an Import permit. There is also another condition to be fulfilled, namely, the Scientific Authority of the State of import should advise that the import will be for purposes which are not detrimental to the survival of the species. Import permits are not required for the import of species listed in Appendix II and Appendix III. For the import of species listed in Appendix II prior presentation of an export permit or a re-export permit is required. For the import of species listed in Appendix III prior presentation of certificate of origin is required, and if import is from a State which has included that species in Appendix III, an export permit as well.

In terms of the relevant provisions in the Fauna and Flora Protection Ordinance, it is clear that the granting of an import permit is not subject to any criteria; only a permit is required. The only requirement to be fulfilled for the granting of an import permit is a certificate from an approved authority that the specimen imported is free from disease or infection, and that the imported specimen will be liberated or released only in specified areas. It is noted that regulations have to be made to give effect to these requirements. Then the question arises as to whether an import is required only for the collection of revenue. If so, certain non-indigenous endangered species can be imported to Sri Lanka and thereafter re-exported without a permit, as the Ordinance does not require a permit for the export of non-indigenous species. The provisions in section 37 prohibiting the import of non-indigenous species form part of the Customs Ordinance of Sri Lanka.

Here too, the officials of the Department of Wildlife co-ordinate with the officers of the Department of Customs to prevent illegal entry of endangered species and possible re-export contrary to the provisions of the CITES.

Proof of Species

For the purpose of granting an export permit under the Fauna and Flora Protection Ordinance, in case of doubt, a certificate from the Director of Museums or the Director of Zoological Gardens or the Director of the National Aquatic Resources Agency (NARA) that any species of any mammal, bird, reptile, fish, amphibian, coral, or invertebrate is a species not indigenous to Sri Lanka is admissible in evidence.

For the purpose of granting an import permit under the Fauna and Flora Protection Ordinance, in case of doubt a certificate from the Director of Wild Life that any fish belongs to a species of tropical aquarium fish or that any species of fish is a species of tropical aquarium fish is admissible in evidence

The provisions of the Ordinance apply to any "part" of a mammal, bird, reptile, etc. regulated under the Ordinance. An interpretation of the term "part" is not in the Ordinance and appears to have caused some confusion recently when the Sri Lanka Customs recently detected a consignment of nests made by the edible-nest Swift, an indigenous bird of Sri Lanka. These birds nests are made of the saliva of the bird, and the nests are a delicacy, highly priced. Follow the detection there was a controversy as to whether the nests formed a part of the bird.

The CITES defines a specimen to mean an animal or plant (dead or alive), any recognisable part or derivative of such animal or plant and any part or derivative specified in relation to the species. The question is whether a derivative of any mammal, bird, fish, etc. is regulated under the Fauna and Flora Protection Ordinance.

Export of Flora

Section 45 prohibits the export of any specified plant listed as a protected plant in Schedule V to the Ordinance. To enforce this provision, regulations have to be made. Even if regulations are made, this provision does not form part of the Customs Ordinance.

EXISTING INSTITUTIONAL ARRANGEMENTS

The Department of Wildlife is the designated Management Authority authorised to communicate with other parties and with the Secretariat. The Customs Department of Sri Lanka has trained officers manning the ports of entry to Sri Lanka in the detection of species and parts of species of protected and endangered species. The Customs has also taken steps to distribute pamphlets and to put up posters detailing applicable regulations for the import and export of species. The official view is that much training is required for wildlife and Customs officers. Ideally there should be an officer of the Department of Wildlife assisting the Customs. However the lack of personnel is a major problem. Lack of sufficient budgetary provisions for the implementation of CITES requirements is the other problem faced by the Department of Wildlife. The Department finds it difficult to release one full time officer to man the CITES focal point in the Department. It is clear that these matters have to be given serious consideration along with any measures to update the law.

CONCLUSION

The extent of trade is measured by the number of permits granted under the Fauna and Flora Protection Ordinance. The official view is that there is no trade in any protected indigenous species and any endangered species. However, the Department of Wildlife is ware that the number of permits granted is no indication that illegal trade is not taking place. According to the Department, there is a lot of illegal trade taking place in ornamental fish, and to an unknown degree, trade in reptiles. Recently two Germans were detected with over 50 specimens of reptiles.

Basically, the CITES is concerned with endangered species in order to protect their survival. The main concern of the Fauna and Flora Protection Ordinance is to protect species indigenous to Sri Lanka. The CITES covers not only specimens of animal and plant dead or alive, it also covers recognisable and specified parts or derivatives of such animals and plants. I am informed that the Department of Wild Life is making every effort to implement the provisions of the CITES through the system of an import/export permit system under the Ordinance, however, the Department acknowledges the need to give legal effect to the CITES in the Fauna and Flora Protection Ordinance. These matters have been considered among others and the Department of Wildlife has initiated action to re-draft the Fauna and Flora Protection Ordinance and also to provide enabling legislation to give effect to the CITES.

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ANNEX 1 AGENDA

UNEP / SACEP / NORAD Joint Environmental Law Project for South Asia
Regional Workshop for Countries in South Asia on Strengthening Legal and Institutional Arrangements for Implementing Major Environmental Conventions

Day 1 **Tuesday, 1st April 1997**

Inauguration & Marine Pollution Management Law

Time / Venue	Content	Resource Persons
08.00 - 09.00 Hrs	Registration	
09.00 - 10.00 Hrs	Inauguration (See separate Programme)	
10.00 - 10.30 Hrs	Coffee / Tea Break	
10.30 - 11.15 Hrs	Presentation: Issues relating to Implementation of Environmental Conventions in South Asian Countries	Mr. K.H.J. Wijayadasa
11.15 - 11.45 Hrs	Overview of Methodology of Workshop	Mr. Lal Kurukulasuriya
11.45 - 12.30 Hrs	Presentation: Implementation of International Agreements on the Protection of the Marine and Coastal Environment in South Asia	Ms. Peigi Wilson
12.30 - 13.30 Hrs	Lunch	
13.30 - 14.15 Hrs	Presentation: Implementation of International Conventions on the Control of Ship-based Marine Pollution.	Mr. R. Beckman
14.15 - 15.30 Hrs	Group Exercise: Elements of Comprehensive National Legal Regime for Management of Marine Pollution Group 1: Pollution from Ships Group 2: Regional Seas Action Plan implementation Group 3: GPA on Land Based Sources of Marine Pollution	Special Resource Persons: (1) Mr R Beckman/ Donald Kaniaru (2) Dr.Dan Ogolla/Clare Cory (3) Ms. Peigi Wilson (with assistance of Principal Resource Persons for the Module)
15.30 - 16.00 Hrs	Coffee / Tea Break	
16.00 - 17.30 Hrs	Plenary: Presentations on the work done in each Group and Evaluation of Workshop Methodology	Co-Chairs: Ms. Peigi Wilson & Mr. R. Beckman Chair: Mr. Donald Kaniaru
20.00 Hrs	Dinner hosted by Mr. Hussain Shihab, Director, SACEP	

Day 2 **Wednesday, 2nd April 1997**

Management of Hazardous Wastes - Basel Convention

Time / Venue	Content	Resource Persons
09.00 - 09.45 Hrs	Presentation: Scope and Content of Basel Convention and Elements of Legal and Institutional Regime for its effective implementation	Mr. Harald Egerer
09.45 - 10.30 Hrs	Country Presentations: Existing Legal / Institutional Arrangements for Implementation of Basel Convention, their adequacy and need for reinforcement (1) India (2) Bangladesh (3) Sri Lanka	Co-Chairs: Mr. Donald Kaniaru and Mr. Harald Egerer
10.30 - 11.00 Hrs	Coffee / Tea Break	
11.00 - 12.30 Hrs	Break out Session : To develop reinforced national legal and institutional arrangements for effective implementation of the Basel Convention	Special Resource Persons: (1) Mr. Manjit Iqbal (2) Dr. Dan Ogolla (3) Ms. Clare Cory (4) Ms. Peigi Wilson (5) Mr. R. Beckman (with assistance of Principal Resource Persons for the Module)
12.30 - 13.30 Hrs	Lunch	
13.30 - 15.30 Hrs	Break out Session (continued)	
15.30 - 16.00 Hrs	Coffee / Tea Break	
16.00 - 17.00 Hrs	Plenary: Presentations on the work done in each Group followed by discussion.	Co-Chairs: Mr. Donald Kaniaru and Mr. Harald Egerer

Day 3 **Thursday, 3rd April 1997**

Climate Change and Ozone Regime

Time / Venue	Content	Resource Persons
09.00 - 09.45 Hrs	Presentation: Scope and Content of Climate Change Convention and Elements of Legal and Institutional Regime for its effective implementation	Mr. Seth Osafo
09.45 - 10.30 Hrs	Country Presentations: Existing Legal / Institutional Arrangements for Implementation of Climate Change Convention, their adequacy and need for reinforcement (1) Bhutan (2) Maldives	
10.30 - 11.00 Hrs	Coffee / Tea Break	
11.00 - 12.30 Hrs	Group Discussion and Country summaries of national legal and institutional arrangements for effective implementation of the Climate Change Convention	Co-Chairs: Mr. Donald Kaniaru and Mr. Seth Osafo
12.30 - 14.00 Hrs	Lunch	
14.00 - 14.45 Hrs	Presentation: Scope and Content of Ozone Convention and Elements of Legal and Institutional Regime for its effective implementation	Mr. K.M.Sarma
14.45 - 15.30 Hrs	Plenary: Country summaries and discussion	Co-Chairs: Mr. Donald Kaniaru and Mr. K.M.Sarma
15.30 - 16.00 Hrs	Coffee / Tea Break	
16.00 - 17.30 Hrs	Break out Session : To develop reinforced national legal and institutional arrangements for effective implementation of the Ozone Regime (2 groups)	Special Resource Persons: 1. Mr.Harald Egerer/ Dr. Dan Ogolla 2. Ms. Peigi Wilson/ Ms. Clare Cory (with assistance of Principal Resource Persons for the Module)

Day 4 Holiday **Friday, 4th April 1997**

Day 5 **Saturday, 5th April 1997**

Ozone, Desertification, Biological Diversity , CMS and CITES

Time / Venue	Content	Resource Persons
09.00 - 10.00 Hrs	Plenary: Presentations on the work done in each Group on the Ozone regime, followed by discussion	Co-Chairs: Mr. Donald Kaniaru and Mr. K.M. Sarma
10.00 -10.45 Hrs	Presentation: Scope and Content of Desertification Convention and Elements of Legal and Institutional Regime for its effective implementation	Dr. Dan Ogolla
10.45 - 11.00 Hrs	Coffee / Tea Break	
11.00 - 12.00 Hrs	Plenary: Development of elements for inclusion in Legal and Institutional Arrangements for implementation of Desertification Convention	
12.00 - 12.45 Hrs	Presentation: Scope and Content of Biodiversity Convention and Elements of Legal and Institutional Arrangements for its effective implementation	Mr. Sam Johnston
12.45 - 14.00 Hrs	Lunch	
14.00 -15.30 Hrs	Group discussion: Country summaries, questions and answers	
15.30 - 16.00 Hrs	Coffee / Tea Break	
16.00 - 16. 45 Hrs	Presentation: Scope and Content of CMS and Elements of Legal and Institutional Regime for its effective implementation	Mr. Manjit Iqbal
16.45 - 17.30 Hrs	Presentation: Scope and Content of CITES and Elements of Legal and Institutional Regime for its effective implementation	Dr. Dan Ogolla
17.30 - 18.00 Hrs	Country Presentations: Existing Legal / Institutional Arrangements for Implementation of CITES, their adequacy and need for reinforcement (1) Nepal (2) Sri Lanka	Co-Chairs: Mr. Donald Kaniaru and Dr. Dan Ogolla
19.30 Hrs	Dinner hosted by Minister for Planning, Human Resources and Environment	

Day 6 **Sunday, 6th April 1997**

CMS & CITES cont and Closing

Time / Venue	Content	Resource Persons
09.00 - 10.00 Hrs	Plenary: Discussion and developing elements for reinforced national legal and institutional arrangements for effective implementation of: I) CITES ii) CMS	Chair: Mr. Donald Kaniaru (I) Dr. Dan Ogolla (ii) Mr. Manjit Iqbal
10.00 - 10.30 Hrs	Minister Planning Human Resources and Environment, Closing Address	
10.30 - 11.00 Hrs	Coffee / Tea Break	
11.00 - 12.00 Hrs	Evaluation of Workshop and finalisation of Evaluation Report	Chair: Mr. Donald Kaniaru and Mr Lal Kurukulasuriya
12.00 - 12.30 Hrs	Closing Session	Mr. Donald Kaniaru and Mr. Prasantha Dias Abeyegunawardene

ANNEX 2 LIST OF PARTICIPANTS AND RESOURCE PERSONS

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ANNEX 3 BACKGROUND OF RESOURCE PERSONS

Assoc. Prof Robert Beckman has been a law lecturer at NUS since 1977 specialising in Public International Law, Law of the Sea and Marine Environmental Law. He is head of the APCEL Legal Database Project on Environmental Law and its Research Project on Environmental Law in the ASEAN countries and has published widely on Maritime law. His degrees include LL.M (Harvard).

Clare Cory has been an Environmental Lawyer with UNEP-ROAP's Regional Environmental Law Programme for 18 months. Prior to joining UNEP, she was the Legal Director of the Department of Environment, Sport and Territories in Canberra, Australia and has spent a further 7 years as a lawyer in Australia; in private practice. Her degrees include LL.B (NSW) and LL.M (Public International Law) from London University.

Harald Egerer Has been the Legal Officer at the Secretariat of the Basel Convention for a year. Previously he has worked in Austrian Justice, as a Lawyer and as an environmental journalist. He has an LL.M (University of Vienna) and a postgraduate degree in International Relations and International Environmental Law (Institute European des Hautes Etudes Internationals (NICE) as well as University of Robert Solueman (Strasbourg).

Manjit Iqbal is a Legal Officer with UNEPs Environmental Law Programme Activity Centre. Prior to joining UNEP, he was the former Deputy Attorney General and the member of the National Commission for Legislation, Somalia. He has a BSc and LL.B from India.

Sam Johnston Has been the Acting Legal Advisor in the Secretariat of the CBD for a year. Prior to the Secretariat he was the Jaques and Lewis Research Fellow at the University of Cambridge, conducting research into environmental legal regimes (principally CBD), was Legal Manager at Societe Generali Australian Ltd and has worked as a solicitor in private practice in Melbourne, Australia. He holds a BSc (Chemistry) and LL.B from the University of Sydney.

Donald Kaniaru is Director of UNEP Environmental Law and Institutions Programme Activity Centre, having served previously as Deputy Regional Representative for Africa, Chief of the Programme Co-ordination Unit, and Chief of the Office of the Executive Director. Prior to joining UNEP, he was attached to the Ministry of Foreign Affairs, Kenya, as head of the Legal Division, participated in several International negotiations and served as a diplomat at the Permanent Mission of Kenya to the United Nations. He has an LL.B (Hons. East Africa) and is an advocate.

Lal Kurukulasuriya is currently Chief of the Regional Environmental Law Programme at UNEP's Regional Office for Asia and Pacific, having been with UNEP for nine years. He has served as a Legal Advisor to the Ministry of Foreign Affairs of Sri Lanka as well as Ambassador of Sri Lanka to Sweden and other Nordic Countries. He was Chairman of the UN Group Of Experts on Legal Aspects of the New International Economic Order. He has taught in the field of international law and international relations. His degrees include an LL.B, (Ceylon) and an M.Phil (JNU, India, International Law).

Bondi Ogolla is a Legal Officer with UNEP's Environmental Law and Institutions Programme Activity Centre. Prior to UNEP he was a Senior Lecturer in Public Law at the University of Nairobi. He has taught environmental law and published several articles in reputed international journals. He has an LL.B. an LL.M. (University of Nairobi, Kenya) a Ph.D. (University of Bordeaux, France)

Seth Osafo was a Programme Officer with UNEP's Environmental Law and Institutions Programme Activity Centre. Currently he is with the Secretariat of the UN Framework Convention on Climate Change in Bonn as a Legal Adviser. He has been the secretary and Legal Adviser to the Environmental Protection Council of Ghana. He holds LL.B. and LL.M. degrees.

Madhava Sarma has been the Executive Secretary for the Ozone Secretariat for 6 years and prior to that Additional Secretary in Ministry of Environment in the Government of India and a member of the Indian Administrative Service for 25years, holding different positions. He holds a degree in Statistics (Indian Statistical Institute, Calcutta).

Mr K.H.J. Wijayadasa works as a consultant to UN/ESCAP and UNEP in Bangkok, ADB in Manila and SACEP in Colombo on environment and development. Prior to that in 1994, he was Secretary to the President of Sri Lanka and worked on important projects such as the formulation of the National Environmental Act in the 1970s, founder Chairman of the Central Environmental Authority to 1989 and the establishment of Legal, Institutional and Organisational Framework for Sustainable Development. He holds a BA Hons.(University of Ceylon), Post-Graduate Diploma in Economic Development(Oxford) and Certificate in Higher Management (Royal Institute of Public Administration, U.K.)

Peigi Wilson is an Associate Legal Officer with UNEP's Environmental Law and Institutions Programme Activity Centre. Previously she worked with a law firm in Bangkok, Thailand, where she assisted in establishing an Environment Practice Group and wrote various publications. She has a BA. (Western Ontario) and an LL.B (Victoria, Canada).

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ANNEX 4 ENVIRONMENTAL LEGISLATION IN SOUTH ASIA

BANGLADESH

- The Environmental Pollution Control Ordinance No. XIII of 6 April 1977 (repealing the Water Pollution Control Ordinance, 1970)
- The Environmental Protection Act, 1995
- The Pesticides Ordinance, 1971, 83 and Pesticide Rules 1985
- Dangerous Drugs Act 1930 (amended 88) and Dangerous Drugs Control Order 1982
- The Drugs Act, 1940
- Drug Control Ordinance 1982 (am 88)
- Opium Act 1930
- The Explosives Act, 1884 (NO.IV of 1884) [or 1984?]
- Poisons Act 1919 [or 1991?]
- The Motor Vehicle Ordinance, 1983 (repealing the Bengal Motor vehicle Act, 1939)
- The Bangladesh Wildlife (Preservation) Order, 1973 (repealing the following: Elephant Preservation Act, 1879, The Wild Birds and Animals Protection Act, 1912; and the Rhinoceros Preservation Act, 1932)
- Rules to Regulate Hunting, Shooting and Fishing within Controlled and Vested Forest, 1959
- The Forest Act, 1927 (Act NO.XVI of 1927) (after repealing Indian Forest Act, 1876 and 1890, mending Acts of 1891, 1901, 1911, 1914 and 1918).
- Forest (Amendment) Ordinance 1989
- The Protection and Conservation of Fish Act, 1950 (as amended by Protection and Conservation of Fish (Amendment) Ordinance 1982, - repealed the Indian Fisheries Act, 1897)
- Bangladesh Fisheries Development Corporation Ordinance 1973
- The Marine Fisheries Ordinance, 1983
- The Territorial Waters and Maritime Zones Act, 1974
- Coast Guard Act 1994
- The Antiquities Act, 1968 as amended by Antiquities (Amendment) Ordinance, 1976 (repealing the Ancient Monuments Preservation Act, 1904 and the Antiquities (export control) Act, 1947)
- The Penal Code, 1860
- The Irrigation Act, 1876 Bengal Act III, 1876
- The Embankment and Drainage Act, 1952 (E.B.Act No.I of 1952)
- Chittagong Hill Tracts Act 1953
- The Pourashava Ordinance, 1977 (on waste management and sanitation).
- Bangladesh Water and Power Development Boards Ordinance 1972
- The Water Supply and Sewerage Authority Ordinance, 1963 (EP Ordinance No.XIX of 1963, amended 89)
- Water Hyacinth Act 1936
- The Town Improvement Act, 1953 (E.B. Act XIII of 1953)
- The Building Construction Act, 1952 (E.B. Act No.II of 1952)
- Municipal Ordinance 1983
- The Factories Act, 1965 (E.P. Act IV of 1965) (repealing, and with certain amendments,re-enacting the Factories Act, 1934)
- The Factories Rules of 17 April 1979 (repealing the Factories Rules 1953).
- Industry Policy 199 1 (revised 1992)
- Shops and Establishments Act, 1965
- The Bangladesh Pure Food Ordinance, 1959 (repealing the Food Adulteration Act, 1919)
- Agriculture and Sanitary Improvements Act 1920
- Petroleum Act 1984
- Tanks Improvement Act 1984
- Mines Act 1927
- Local Government Ordinances 1982 & 1983
- Boilers Act 1923
- Bengal Smoke Nuisances Acts 1905
- Tea Plantation Labour Ordinance 1962 and Rules 1977
- Merchant Shipping (Am) Ordinance 1989
- Bangladesh Merchant Shipping Ordinance 1983
- Inland Shipping (Am) Ordinance 1989
- Import Policy Order 1993-95
- Customs Act 1989

BHUTAN

- The Bhutan Forest Act of 1 November 1969
- National Forest Policy 1974
- Charter establishing the Bhutan Logging Corporation 1984
- The Forest and Nature Conservation Act, 1995
- EIA: National EIA Guidelines, 10 draft EIA Sectoral Guidelines
- The Land Act, 1979
- The Plant Quarantine Act 1993
- Mining Act 1995

INDIA

CENTRAL ENACTMENTS

Water Pollution

- The Environment (Protection) Act 1986
- The Environmental Impact Assessment Notification 1994 (as amended on 4th May 1994)
- The River Boards Act, 1956
- The Merchant Shipping Act 1970, (Amendment Act, 1987)
- The Water (Prevention and Control of Pollution) Act 1974, (Amendment Act, 1988)
- The Water (Prevention and Control of Pollution) Act, 1977
- The Indian Fisheries Act 1897
- The Damodar Valley- Corporation (Prevention of Pollution of Water) Regulation 1948
- The North India Canal and Drainage Act 1873

Air Pollution

- The Air (Prevention and Control of Pollution) Act 1974
- The Air (Prevention and Control of Pollution) Act 1981, amended 1987
- The Indian Boiler's Act, 1923
- The Factories Act, 1948, amended 1987
- The Industries (Development and Regulation) Act, 1951
- The Mines and Minerals (Regulation and Development) Act, 1947
- The Environment (Protection) Act 1986
- The Environmental Impact Assessment Notification 1994 (as amended on 4th May 1994)
- The Oriental Gas Company Act 1857
- The Indian Explosives Act 1884
- The Explosives Substances Act 1908
- The Motor Vehicles Act 1938 amended in 1988 and Rules 1989
- The Inflammable Substances Act 1952
- The Petroleum Act 1934, and Rules 1979

Noise Pollution

- The Environment (Protection) Act 1986
- The Environmental Impact Assessment Notification 1994 (as amended on 4th May 1994)

Marine Pollution

- The Share Nuisance (Bombay and Colaba) Act 1953
- The Obstruction in Fairways Act 1891
- The Indian Fisheries Act 1897
- The Indian Ports Act 1908
- The Major Port Trusts Act 1963
- The Mecrhant Shipping (Amendment)Act 1987
- The Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zone Act 1976
- The Coastguard Act 1978

Radiation

- The Atomic Energy Act, 1962
- Radiation Protection Rules, 1971

Pesticides and Hazardous Substances

- The Insecticides Act, 1968
- The Factories Act, 1948. amended 1987
- The Poison Act, 1919
- The Environment (Protection) Act 1986
- The Environmental Impact Assessment Notification 1994 (as amended on 4th May 1994)
- Dangerous Drugs Act 1930
- The Drugs and Cosmetics Act 1940
- The Prevention and Food Adulteration Act 1954

- The Industries (Development and Regulation) Act 1951
- The Consumer (Protection) Act 1986

Forest and Wildlife Conservation

- The Wildlife (Protection) Act, 1972
- The Indian Forest Act, 1927
- The Forest (Conservation) Act 1980, amended 1988
- The Indian Arms Act 1978

Others

- The Urban Land (Ceiling & Regulation) Act, 1976
- The Prevention of Food Adulteration Act, 1954
- The Ancient Monuments and Archaeological Sites and Remains Act, 1958
- The Slum Areas (Improvement and Clearance Act)1956
- The National Environment Appellate Authority Act, 1997

ENACTMENTS OF THE STATE MEMBERS OF THE FEDERATION OF INDIA

Water

- Orissa River Pollution Prevention Act, 1953
- Maharashtra Prevention of Water Pollution Act, 1969

Smoke

- The Bengal Smoke Nuisance Act, 1905
- The Gujarat Smoke Nuisance Act, 1963
- The Bombay Smoke Nuisance Act, 1912

Pest Control

- The Andhra Pradesh Agricultural Pest and Disease Act (n.d.i.)
- The Assam Agricultural Pests and Disease Act, 1954
- The U.P. Agricultural Disease and Pests Act, 1954
- The Mysore Destructive Insects and Pests Act, 1917
- The Kerala Agricultural Pests and Disease Act, 1958

Land Utilisation and Land Improvement

- The Andhra Pradesh Improvement Schemes Act, 1949
- The Acquisition of Land for Flood Control and Prevention of Erosion Act, 1955
- The Bihar Waste Lands (Reclwnation, Cultivation and Improvement) Act, 1946
- The Delhi Restriction of Uses of Land Act, 1964
- The Madhya Pradesh Gandi Basti Kshetra (Sudhar Tatha Nirmulan) Adhiniyam 1976
- The Madhya Pradesh Town (Periphery) Control Act 1960
- The Madhya Pradesh Regulation of Uses of Land Act 1948

Forest and Wildlife Conservation

- The Madras Elephant Preservation Acts 1873 and 1879
- The Nilgiris Game and Fish Preservation Act 1879
- The Wild Birds and Game Protection Act 1887
- The Wild Birds and Animals Protection Act 1912
- Notification in 1902 under the Sea Customs Act 1912
- The Bengal Rhinoceros Prevention Act 1932
- The Punjab Wild Birds and Wild Animals Protection Act 1933
- Andhra Pradesh Forest Act 1967

MALDIVES

- Environmental Protection and Preservation Act of Maldives No.4/93
- National EIA Guidelines (Cabinet, December 1994)

NEPAL

- Constitution 1990 and 1992 (incorporates environmental concerns as State Directories)
- Agriculture Co-operatives Act 1954
- Agricultural Development Bank Act 1966
- Animal Feed Act 1956, 1975
- Ancient Monuments Protection Act (1956)
- Aquatic Life Protection Act (1 96 1)
- Birta Abolition Act 1959
- Canal, Electricity and Related Water Resource Act 1967
- Civil Aviation Act 1958

- Contagious Diseases Act 1965
- Decentralisation Act 1982(to be amended)
- District Development Board Act 1990
- District, Village and Municipal Act 1992
- Environment Conservation Act 1996 (framework law)
- EIA: National EIA Guidelines 1993;
  EIA Guidelines for Forestry Sector 1995
  EIA Guidelines for Industry Sector
  DRAFT EIA Guidelines for Water Resources, Road Construction, Power and Irrigation Schemes
- Explosives Act 1963
- Food Act 1966
- Forest Protection Act 1956
- Forest Protection (Special Arrangements)Act 1967
- Forest Act 1993
- Forest Rules 1995
- Highway Construction Act 1965
- Irrigation Act 1963
- Industrial Enterprises Act 1962 (revised 1982) New Act 1992
- International Centre for Integrated Mountain Development Act 1983
- Jhora Sector Land Distribution Act 1972
- Kathmandu Valley Department Authority Act 1988
- King Mahendra Trust for Nature Conservation Act 1982 (promoting NGOs)
- Land Acquisition Act 1963
- Land Act 1956 (revised 1965)
- Land Survey Act 1961
- Malaria Eradication Act 1965
- Medicines Act 1976
- Mills Act 1965
- Municipality Act 1990
- Narcotic Drugs Control Act 1976
- National Parks and Wildlife Conservation Act, 1973 (with amdts made in 1975 and 1983)
- Natural Calamities Relief Act 1982
- Nepal Drinking Water Corporation Act, 2046 (1989): Act No. 23 of 27 October 1989
  (made to provide for the establishment and management of Nepal Drinking Water Corporation.)
- Nepal Electricity Act 1964, (New Act 1992)
- Nepal Electricity Authority Act 1983
- Nepal Factory and Factory Workers Act 1958
- Nepal Industrial Development Corporation Act 1958
- Nepal Medical Council Act 1965
- Nepal Mines Act 1956 (New Act 1985)
- Nepal Mountaineering Rules 1979
- Nepal Standard Act 1979
- Nepal Water Supply Corporation Act 1990
- New Civil Code 1962
- Pashupati Area Development Trust Act 1987
- Pasture Land Nationalisation Act 1974
- Patent Design and Trades mark Act 1936 (New Act 1965)
- Pesticides Control Act 1991 (export, import, production, but not yet in force)
- Plants Protection Act 1972
- Public Roads Act 1974
- Rapti Doon Land Development Area (Sales and Distribution) Act 1967
- Royal Academy of Sciences and Technology Act 1988
- Royal Nepal Airlines Act 1956
- Soil Conservation and Watershed Management Act 1982 (establishes protected watershed areas)
- Solid Waste Management and Resource Mobilisation Act 1986
- Solid Waste (Management and Resource Mobilisation) Rules, No. 2046 of 24 July 1989
- Tourism Act 1957
- Tourism Industry Act 1965
- Town Development Plan(Implementation) Act 1970
- Town Development Act 1988
- Town Development Committee Act 1964
- Transport Management Act 1992
- Vehicles Act 1964

- Village Development Act 1990
- Water Resources Act 1992
- Wildlife Protection Act 1958

PAKISTAN

- Agriculture Pesticides Ordinance 1971
- Drugs Act 1976
- Dangerous Drugs Act 1930 as amended
- Environmental Protection Ordinance No. 37 of 31 December 1983
- Exclusive Fishery Zone (Regulation of Fishing) Act No. XXXII of 1 March 1975
- Explosives Act 1884
- Factories Act 1934
- Imports and Exports (Control) Act 1950
- Import Policy Order 1992
- Penal Code 1860
- Pesticide Rules 1973 (amended 1984)
- Poisons Act 1919
- Prevention of Smuggling Act 1977
- The Territorial Waters & Maritime Zones Act of 22 December 1976

SRI LANKA

- The Irrigation Ordinance, 1900 (as amended by Act No..48 of 1968 -includes provisions for the regulation of irrigation water supplies and prevention of wilful damage to irrigation works and water ways)
- The Land Development Ordinance, 1935 (provides for the mapping out of state land for the prevention of erosion of soil, for forest resources and for preservation of catchment and other ecological purposes)
- The Sri Lanka Land Reclamation and Development Corporation Act, No. 15, 1968 (as amended by Law No. 27 of 1976 and Act No. 52 of 1982)
- Crown Lands Ordinance, 1947 provides for Declaration of Crown Lands as reservation for:
  protection of source, course or bed of any public stream;
  protection of springs, tanks, reservoirs, lakes, ponds, creeks, canals;
  protection of foreshore;
  prevention of erosion of soil;
  preservation of water supplies.
- Mines and Minerals Law No. 4, 1973 (Provides for the vesting of absolute ownership of certain minerals in the Republic)
- The Cosmetics, Devices and Drugs Act No. 27, 1980
- Food Act, No. 26 of 1980 (amendments have been made on Part III Section 1 8 related to offences)
- Consumer Protection Act
- Town and Country Planning Ordinance, 1946
- Urban Development Authority Law, No. 41, 1978 (as amended by Act No. 70 of 1979 and Act No. 2 of 1980 as well as Act No. 4 of 1982)
- Housing and Town Improvement Ordinance, 1915 (Chapter 268)
- Forest Ordinance, 1907 (as amended by Act No. 13 of 1966 and Act No. 56 of 1979. (Act No. 13 of 1982 on the same subject prohibits certain acts in a Forest Reserve))
- Felling of Trees Ordinance, 1951
- National Water Supply and Drainage Board Act No. 2, 1974
- Plant Protection Ordinance, 1924
- Fauna and Flora Protection Ordinance, 1937 (as amended by Act No. 44 of 1964 and Act No. 1 of 1970. (Other Amendments under consideration))
- The Control of Pesticides Act, No. 33, 1980 (amending the original Act of 1924 on Plant Protection)
- Fertiliser Act 1941
- Poisons, Opium and Dangerous Drugs Act 1929
- Explosives Act 1956
- Import and Export (Control) Act 1969
- The Soil Conservation Act No. 25, 1951
- Agrarian Services Act, No. 58, 1978
- Agricultural Productivity Law No. 2, 1972
- Agricultural Lands Law No. 42, 1973
- Agrarian Research and Training Institute Act No. 5, 1972
- The Sri Lanka Fruit Board Act
- National Aquatic Resources Research and Development Agency Act No. 54, 1981

- Water Resources Board Act No. 29, 1964
- National Water Supply and Drainage Board Act No. 2, 1974
- The National Science Council Law No. 19, 1968
- The Maritime Zone Law No. 22, 1976
- Wells and Pits Ordinance, 1864
- Water Hyacinth Ordinance, 1909
- The Ceylon Tourist Board Act No. 10, 196
- The Mahaweli Development Board Act No. 14, 1970
- The Coconut Development Act No. 46, 1971
- The Ceylon Electricity Board Act No. 17, 1967
- State Gem Corporation Act No. 13, 1971
- Atomic Energy Authority Act No. 19, 1969
- The Ceylon Tourist Board (Amendment) Act No. 17, 1968
- The Tourist Board Act No. 14, 1968
- The Coast Conservation Act, No. 57, 1981 (Amendments under consideration).
- Fisheries and Aquatic Resources Act No.2 of 1996
- The Chank Fisheries Act, 1956 (revision)
- The Pearl Fisheries Ordinance, 1956 (revision)
- The Marine Pollution Prevention Act, No. 59, 1981
- Factories Ordinance, No. 45, 1942 (as amended by Act No. 54 of 1961, and Factories (Amendment) Law No. 12 of 1976)
- Petroleum Ordinance (CAP 184), 1887
- The Gas Ordinance CAP:206-No. 1, 1869 (as amended by Ordinance No. 29 of 1947)
- National Environmental Act No. 47, 1980 and Act No. 56 of 1988

  (These Acts make provisions for the protection and management of the environment and for the establishment of a Central Environment Authority)) - National Environmental (Protection and Quality) Regulation No. 1, 1990 and No. 56 of 1988
  - Order Under Section 23Y Specifying Project Approving Agencies
  - Order Under Section 232 Specifying Prescribed Projects
  - National Environmental (Procedure for approval of Projects) Regulation No. 1, 1993
  - National Environmental (Appellation Procedure) Regulation, 1994
  - National Environmental (Ambient Air Quality) Regulations, 1994
  - Order Under Section 23W Prohibiting (as of 1 January 2000) Specified Ozone depleting Substances
- National Resources, Energy and Science Authority of Sri Lanka Act No. 78, 1981
- Ayurveda Act No. 31, 1961
- The Thoroughfares Ordinance No. 10, 1861
- The River Valleys D.B. Act No. 6, 1965
- Nuisances Ordinance, 1946
- The Colombo Municipal Council Water Works Ordinance, 1907
- The Penal Code Sec. 271, 1883

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ANNEX 5 OPENING AND CLOSING STATEMENTS

INAUGURAL ADDRESS BY ATTORNEY-GENERAL OF MALDIVES, HONOURABLE MOHAMED MUNAWAR

Mr. Chairman, distinguished Resource Persons and Participants, Ladies and Gentlemen,

It is indeed a great pleasure for me to participate in the Inauguration of the SACEP/NORAD Workshop on Implementation of Environmental Conventions in Countries in South Asia. This subject is of enormous significance and urgency to the countries in our region. I should like to extend warm congratulations on behalf of the Government of Maldives and on my own behalf to the South Asia Co-operative Environment Programme (SACEP) and the United Nations Environment Programme (UNEP) for this very timely initiative that is being taken by them jointly with financial support from the Norwegian Agency for Development Co-operation (NORAD).

International legal instruments, especially global and regional conventions and agreements are the principal means by which the community of nations expresses and implements international consensus on ways of addressing global and regional environmental problems that affect the fives of present and future generations. My own country has been at the forefront of placing on the international agenda the deep and fearful concerns that countries such as Maldives and other Small Island States face in the light of increasing and compelling scientific evidence of global warming and the resulting sea level rise, which threatens the very existence of our countries. International recognition of this threat, and the mobilisation of the co-operation of all countries- especially those that most contribute to this phenomenon, is the only path open to the international community to address this matter in a timely and effective manner.

His Excellency Mr. Maumoon Abdul Gayoom, the President of Maldives has been one of the world leaders who has played a central role in bringing the plight of the Small Island States to the attention of the international community which led to the negotiation and adoption of the UN Framework Convention on Climate Change and the UN Conference of Small Island Developing States held in Barbados. Both these initiatives gave legitimacy to the concerns of Small Island States and helped to develop an international consensus on the ways and means of addressing this critical problem.

International agreements and other legal instruments will remain pious expectations devoid of any real meaning unless they are implemented by all nations and implemented effectively and fully. Many countries in the world, especially developing countries, often lack the required human and other resource capabilities to carry out the tasks of implementing international conventions fully and effectively. Sometimes it is even difficult for those who are dealing with these issues to get hold of a copy of the relevant Conventions and other legal instruments. I am extremely happy that this Workshop is designed to respond to this need.

I have seen the excellent publication that has been developed by SACEP and UNEP with the financial support of NORAD entitled South Asia Handbook of Treaties and Other legal Instruments in the Field of Environmental Law. I would suggest to the sponsors of this Workshop to make sure that this invaluable book is placed in the hands of every person working in the area of environmental law and policy in the South Asian countries. It would surely make a quantitative and qualitative difference to the effort of these countries to promote the effective implementation of these global and regional environmental accords.
I have read the Agenda and training methodology of this Workshop with great interest and admiration. The Workshop will be focussing on the following Conventions:
Biodiversity, CITES and CMS; Basel Convention; Climate Change Convention; Law of the Sea Convention, South Asian Regional Seas Programme, Land-based Sources of Pollution; and Ozone Convention, Montreal Protocol and related Amendments and Adjustments, including decisions of the recent COP.

In view of the very considerable work that has already been done by the Convention Secretariats, SACEP and UNEP to promote effective implementation of these major Conventions, this workshop will focus on the following, so as not to repeat what has already been done, but to build upon previous achievements:

- a review by country participants of the existing national legal and institutional arrangements for the implementation of each convention and their adequacy, (comparative assessment from which Countries in the region could also benefit).

- hands-on training for the national participants to develop national schemes which enhance the effectiveness of the prevailing arrangements, working together with and under the guidance of experts from the Convention Secretariats, UNEP, SACEP and other partner agencies.

- where a country is not a Party to a Convention, the focus for them would be on the cost and benefits of participation and the required national implementation measures.

The participants will work on developing more effective national implementation schemes (legal and institutional) at the Workshop itself, with the assistance of the Resource Persons drawn from the Convention Secretariats, UNEP, SACEP and other relevant Organisations. The schemes so developed will become the tangible outcome of the workshop. They will also serve as a basis for follow-up action in the country programmes of action to be undertaken by UNEP and SACEP under the Joint Project, in collaboration with the respective Convention Secretariats.

For non-parties, this Workshop would serve as a basis for promoting a better understanding of the Conventions and possibly, their participation in the Conventions in the future.

It is clear that very considerable efforts has been made by SACEP, UNEP and the Secretariats of Environmental Conventions to enhance the understanding of the rights and obligations arising from these major international and regional environmental accords, and to assist country representatives who are all senior official from the South Asian Governance, to translate these into legal and institutional arrangements for implementing the agreements at national level. The methodology chosen must be specially commanded as it will help the participants to reinforce existing national arrangements at the Workshop itself, benefiting from the huge reservoir of environmental law expertise and experience that has been gathered in the Maldives for this Workshop.

I should also like to congratulate the Resource Persons from the Environmental Law and Institutions Centre at the UNEP Headquarters in Nairobi, led by its Director Mr. Donald Kaniaru and the very senior experts from the Convention Secretariats and other institutions for their highly focused and useful papers, which will serve well to give this Workshop a very practical orientation.

The collaboration between SACEP and UNEP in the field of Environmental law is specially welcome and fills an important and urgent need for the effective pursuit of the goals of sustainable development in this region. We are indeed very fortunate that we have in Mr. Hussain Shihab, the Director of the - South Asia Co-operative environment programme, one who has served as the Deputy Minister of Environment of the Maldives and has a deep understanding and appreciation of the environmental and developmental problems and priorities in countries in the South Asia region. He has also been actively involved in the progressive development of environmental law through the negotiation of several international agreements. In Mr. Donald Kaniaru, Director of UNEP's ELI/PAC, we have an environmental law expert committed to the goals of strengthening the national capabilities of developing countries to advance along the path of sustainable development, with understanding and appreciation of their special needs and priorities. It is therefore no wonder that this Workshop has all the hallmarks of a carefully crafted initiative.

Mr. Chairman distinguished Participants and Resource Persons, it is now up to you to demand and obtain the maximum benefits that you can derive from this opportunity and take home with you from this workshop your carefully thought out contributions to make the implementation of environmental agreements in your countries even more effective than they now are. You have before you an extremely tight schedule and you surely will be working very hard during the coming days in trying to achieve the goals and objectives of the Workshop. I only hope that you will also somehow find the time to enjoy the idyllic and peaceful surroundings of our country and come to know the culture and values of our people. I wish you all every success in your deliberations.

Thank you

INTRODUCTORY REMARKS
DONALD KANIARU, DIRECTOR, ELI/PAC, 6 APRIL 1997

Chairman, Honourable the Attorney General, Honourable Ministers, Resource Persons, distinguished participant, ladies and gentlemen.

1. For us all this is a great opportunity in an enviable environment befitting the subject we will be addressing. May I therefore express my satisfaction at the tremendous organisational efforts that have been put into this matter to ensure that we all have a fulfilling moment in this beautiful and serene land. For all this time, I extend our deep thanks to Government of the Maldives, and to Dr. Hussain Shihab of SACEP and his colleagues for a job well done.

2. The topic we will be addressing at this Workshop cut across a number of global and regional environmental Conventions and Agreements important to the states represented and constitute the first in a series of activities that UNEP, SACEP and NORAD will be undertaking in the coming days for the SACEP countries. The participants are officials in governments who, in their daily toils, come across impediments and challenges in understanding and applying as per assumed obligations, the conventions in question. In instances the conventions as material tools in the officials functions may not be able to several officials who should have then. From here one of the participants would have this material, would know who, in different organisations or Secretariats deals with the subject and hence to whom to send inquiries, and most important, who in the sub-region in the different governments has similar responsibilities and may daily be facing similar challenges. Together we shall thus be addressing not simply intellectually stimulating or theoretical subjects, but matters of great practical consequences in our professional and official tasks. And if for no other reason, this is an extremely important workshop. In fact we are being requested to replicate such at national level to enable us to train more national officials.

3 We found in the two global training programmes that UNEP has held that we were two limited in the number of participants from the different regions which in fact express interest in Regional and if resources permitted, sub-regional workshops where we could focus on instruments of particular importance to the Region or sub-region.

i. Reach out a lot more participants from the area.
ii. Identify possible resource persons to constitute a core in each region/sub-region to train others.

Consequently we are holding this workshop, as we also prepare for the third UNEP global training programme in September 1997, in Nairobi.

4. It may not be appreciated by some that in this regional activity with SACEP, NORAD and UNEP as the sponsors, we are tackling the issue of an array of conventions on the agenda. Indeed it may be wondered why not other subjects. In our opinion no topic could be of greater consequence to the countries gathered here than the one under consideration stressing, as it will be, practical training and the sharing of pertinent information.

5. The topic addresses an important subject of international environmental law and its application at national level. Environmental law has been the fastest growing subject in this century and only competes well with human rights law, whose genera in the UN goes back to 1948: with the adoption of the UN Declaration on Human Rights. The Stockholm Conference on the Environmental in 1972 and the Rio Conference on Environment & Development in 1992 have given unparalleled momentum to the growth of binding and soft law instruments in the field of the environment. What has come to be increasingly referred to as sustainable development of law in this period is significant in that each of the countries represented here has taken part in the negotiations and conclusion of the conventions and agreements under review, unlike many other convention and agreements that were developed prior to the independence of our countries. Developing countries, of whom you are part, have therefore played their full part in shaping our new world in the field of environmental law. However because of the increase in sheer number of instruments concluded, it is also possible that not only the public at large but many of those concerned in our countries have not been able to digest the implications of becoming a party or otherwise to a particular instrument. It may also be that in a particular case it was not possible to ensure consistent participation in the negotiations, change in portfolios in Government, which are quite frequent, did not permit easy briefing and follow-up desired to translate instruments into actionable documents. This might, in fact then mean that challenged by a superior, an official may not be able to convincingly stand up and win over the superior to the benefits that would accrue to the country if it accepted a given convention. At the end of this workshop each participant would have such knowledge and pertinent material as to enable him to be fully functional in the interests of his nation and in fulfilling the obligation assumed by that nation in solidarity with the international community in becoming a party to a given instrument.

6. Many a developing country, some of those represented not excluded, have accepted, ratified or acceded to many conventions and agreements. At international level therefore, such a country is obliged under international law to, in all respects, observe and carry through obligations, benefits and burdens arising from the particular instrument. But several such countries have not taken action, at the domestic level to enact national law to implement the

convention, which is vital in the countries where a convention calls for enactment or administrative procedures to be done or where fundamental law does not permit self-execution of such agreements. Indeed many conventions in the field of the environment would hardly suitably be "self executing" even in countries where such would be possible. Hence the dilemma of the country that signals solidarity with the international community by accepting an instrument and yet at national level it cannot implement any breaches to the convention whether for or against its interest-because at national level obligations assumed at international level remain pious hope unless domestic law has been effected. In not acting on this, we undermine compliance with a treaty. Thus while at the international level a state cannot plead a lack of national law or infrastructure to evade its obligations, a national court could cause consternation by totally disregarding the convention in the event of no enactment at domestic level that expressly provide for sanctions, incentives etc. as the case may be. In such countries penalties cannot be inflicted on a purportedly guilty party unless the penal law provides for penalties expressly, and it is doubtful if civil courts can adequately, and in a timely manner, mete out damages.

7. To avoid such situation in the countries represented here it will be necessary for each of the participants to ask himself, and answer the question whether each convention accepted by his country can be applied at domestic level or not and compare the results with the situation in the other countries. For Countries where signature, ratification or accession do not automatically become law and even if they do, whether such an instrument is actually implementable at national level, it is important that the end of the workshop an analysis responds to the following:

I. whether a law does exist that covers or encompasses the scope of the instrument and what institutions it brings together in the process.
II. If not whether a relevant law exists that could be amended to provide for the implementation of a particular convention or agreement.
III. Whether a new law is altogether needed to fill this important gap.

In recent years, requests for assistance to ELI/PAC and I believe to Convention Secretariats to help implement Conventions have been on the increase and requests were received from Cameroon, Ghana, Sudan, Bangladesh, Lebanon, Western Samoa, and Vietnam to mention but a few. If we resolve these issues, we shall be showing other countries the way to deal with their own problems.

8. Different countries apply different options. Some with broad framework laws provide for a section to cover implementation of existing accepted conventions, participation, negotiations and implementation of future ones, to be announced in legal notices and provision of detailed regulations to implement a given convention. A number of other states have a specific legislation depending on the subject, necessitating a new legislation with each ratification or accession which often does take time in most countries.

9. In Article 45 on the Law on Environmental Protection which came in to force on 10 January 1994, Vietnam generously provides:-

> "The government of Vietnam shall implement all international treaties and conventions relating to the environmental which it has signed or participated in, honour all international treaties and conventions on environmental protection on the basis of natural respect for each others independence, sovereignty, territorial integrity and interests".

The first pontion of this article is almost too broad to be true, while the qualification in the second part, while its intentions are laudable, introduces some uncertainty in implementation. Normally a signature and participation in negotiations do not by themselves attest to assumption of obligations as a party to any multilateral treaty, and to that extent the Vietnamese article 45 is unusually generous and untypical. In bilateral agreements, it is however common to provide in the agreement that it will be operational upon signature.

10. Participation in negotiations and signature of an instrument evidence the interest of a State, and a delay in ratifying may mean that a country is weighing potential benefits and implications of obligation enshrined in a treaty, its financial and reporting requirements, transfer of technology etc. before finally accepting the instrument. In essence there is neither a right nor a model way to design a law to implement a convention; the important point is that a convention is implemented at the domestic level in a clear law that takes into account the circumstances in each country. Where a model law exist, as in the case for the Basel Convention, this is obviously a useful guide. National Law to implement treaties of such importance as the Law of Sea, Basel Convention, Biodiversity and others is indispensable though not every party has enacted comprehensive legislation in every case. On the Law of the Sea, the Report of the Secretary General to the UN General Assembly on the Law of the Sea (document A/51/645) of 1 November 1996, para 37, under harmonisation with the provisions of the convention, states, in part, the following:

" Much of that legislation (adopted between 1974- 1978 before the convention was adopted) does not confirm to the convention, as finally adopted. It is to be noted also that the rate at which the states are introducing or modifying legislation has not matched the recent rapid increase in the number of parties to the convention". See also generally

paras 37-40 thereof. Recent studies by CITES have also shown problems in national implementation. See CITES documentation for the Harare June 1997 COP, and Peter H. Sand in Green Globe Yearbook 1997 article submitted: "commodity or Taboo? International Regulation of Trade in Endangered Species."

11. An overall benefit common to all is the move toward the harmonisation of laws, regulations and standards as well as approaches in management and sanctions in each of the instruments under consideration. This would be the case in pollution control; anti-dumping measures; prohibition of discharge of hazardous waste and comparable sanctions in case of such discharges; fishing in near waters for traditional artisan fishing and in the economic zones and beyond for distant, more sophisticated trawler fishing.

Approaches to dealing with other particular natural resources in flora and fauna would be similar. The advantage of such harmonised laws among neighbouring countries, or within a region cannot be over emphasised and would certainly avoid abuse and cross-bordered trafficking in essentially prohibited items or matter.

Environment is collectively our concern

12. Environment is in its very nature multidimensional, multi-sectoral and multidisciplinary. In reviewing the laws, one must also examine the institutional setting of its review, implementations and sustenance and in so doing reinforce a culture of consultation, working together and co-operation among all departments, sectors and stakeholders, including the legislators, policy makers, financiers, industry, NG0's and the public. Prevailing culture of strict freedom and going it alone must give way as we increasingly recognise that environment is everybody's business and no-one's exclusive preserve.

True partnershilp

13. Each of the resource persons will analyse obligations, benefits and other attractions and constraints to a given convention. Consequently it is not for me to go into this now. But before including this intervention, I wish to underline the significance of partnership brought to bear in this workshop: The Sponsors, Convention Secretariats and those that have shown an interest. Each one of us have contributed something - be it financial, material or expertise - and these typify each one of the partners. In this joint effort we are all winners, not competitors and duplicators of each other's work. We are thus enhancing rather than that frittering away much needed financial resources. Such collaboration and service, I believe, are the best for the countries represented and is truly what they need. Clearly this sets a positive trend that we should increasingly and consciously emulate in future.

With obvious financial constraints, the government deserve and are entitled to efficient delivery drawing from all the payers, bilateral and multi-lateral, in our countries, sub-region and the region. Such action, rather than pious talk, is contribution to that effort, and we have made a start.
Thank you.

CLOSING REMARKS
DONALD KANIARU, DIRECTOR, ELI/PAC

My Co - Chair, Prasantha, Resource Persons and distinguished participants,

1. Good things do come to an end, and our workshop is no exception.
2. We are at the end of our Workshop, which was addressed by the Attorney General of the Republic of Maldives and received the Honourable Minister's message on 1 April 1997. Today we had the Hon Minister of MPHRE with us, and his Deputy Minister participated several times. In one week, we have addressed important issues affecting our global, regional and particular environment interests. All of us are better informed than we were at the beginning, and have invaluable legal material to assist us in our work.

3. This Workshop touched on four important themes :-
   1) The oceans based Law of the Sea and related global and regional seas instruments.
   2) The Basel Convention on Hazardous Wastes and its implications to each of the States participating.
   3) Atmosphere based instruments in the Climate Change Convention and the Protection of the Ozone layer instruments.
   4) Resource Use and management / ecologically based instruments in the Biodiversity, Desertification, CITES and CMS Conventions.

4. We consciously touched on the manner in which policy, institutional and legislative aspects are, or are not being addressed in each of our countries. We addressed steps to take, or to consider, in preparing legislation to implement particular instruments. Where we could we formed into groups, or worked per country with the support of Resource Persons. We noted the problems, importance attached to the instruments, immediate and longer term

solutions, and in each case we were unanimous in the need for:

(1) technical assistance to build capacity at national level - human resource enhancement, catalytic funds, equipment; technology to manage key issues, e.g. hazardous waste management. extended training and involvement of varied expertise at national level. and investing in public awareness efforts.
(2) further, only in addressing the above would effective harmonisation of laws / regulations / standards be fully appreciated, developed and applied by all sub-regional countries.
(3) specifically identifying the priorities of the tasks devolving on each of the countries before it can fully implement obligations assumed in becoming a party to Conventions. We underlined the benefits and constraints in becoming a party to the Conventions we considered.
(4) streamlining the functioning of many institutions, Ministries and departments involved in environmental matters without full co-ordination. Co-ordination and consultations will need to be promoted and instituted and effectively executed to enable a country to realise full benefits from the different instruments as well as to respond comprehensively to the requirements of the particular instruments.

Inherent in all this is the need to share what you have learnt with your colleagues back home, including information collected and the need to tackle issues in a co-ordinated manner. Be a team player and coach other players to ensure the team improves and wins the game!

5. In a way, given your better appreciation of the issues involved and what can be done without delay, your work at national level - may be with our further assistance - has just begun. How will you discharge that task? What I have heard in your remarks and from your questionnaire evaluating the workshop is impressive, but what is the time frame for you to decide on -

I. possible ratification of the different instruments?
II. to approach Convention Secretariats / GEF to assist ?
III. to complete review of national policy, laws and institutions and to move in a fully co-ordinated manner to appropriate implementation at domestic level the Conventions accepted by your country?
IV. to undertake training of your colleagues - if necessary in your languages translating the material you have obtained so that together you create an informed and committed team?
V. decide on what other ways to tap the Resource Persons that you have met ?

6. I applaud your effective and enthusiastic participation, exchange of views and clear minded appraisal of policies, institutions and laws of your countries. We have leant a lot from each of you, and likewise I have no doubt you have learnt from us. For us it was a pleasure to know you.

7. I thank the Resource Persons for availing themselves; for offering practical advice and for agreeing to continue supporting your countries in every way possible.

8. The SACEP has been excellent host and support, and we thank Hussain Shihab, Prasantha and their colleagues, the seen and the unseen. My colleague Lal, in particular, worked tirelessly with SACEP thanks, and if I may say so, with Prasantha have been full credit to us all in the preparatory process and organisation of this workshop to the end. We hope they will next urgently compile the proceedings and mail them to us.

I acknowledge with gratitude the financial support of our partner, Norway, in this workshop,

9. Then the Government of the Maldives. The participation, of the Honourable Minster; Deputy Minster, the Attorney General; the staff of the Ministry, and please excuse me for singling out Mohamed Khaleel - have all been wonderful. They went beyond the call of duty in courtesy, cooperation and support. We all share the sentiments of Maldives people - their concerns about the survival of this serene land - and their future. For all this I know I speak for all when I express our profound thanks.

Environment as a unifying factor has carried us this far and the journey is certainly not completed. Ours is therefore to resolve to pursue the matter so that we shall bequeath to our children and they in turn their children an environmentally sound and sustainable environment. This is our avowed task individually and together.

10. I cannot conclude colleagues, without thanking the staff of this resort. They have served us well with dedication and courtesy at all times. The decision to host the meeting here was therefore farsighted. We thank them all.

11. As we leave we carry with us happy and indelible memories of our brothers and sisters of the Maldives. We wish the people of Maldives well. Finally as proceed to respective destinations, let us travel safely. When we meet again - wherever we meet - I know we shall, no doubt smile. Otherwise this parting is well made.

Thank you all for giving me an opportunity to be a part of the review and wonderful team this week.

IMPLEMENTATION OF MAJOR ENVIRONMENTAL CONVENTONS: ISSUES, POLICIES AND STRATEGIES: INTRODUCTORY PAPER PRESENTED BY MR. K H J WIJAYADASA , SACEP

Introduction

The 20th Century has brought about revolutionary changes in all spheres of economic and social progress. In particular spectacular progress has been witnessed in science, technology, medicine, transport, communication and information. Even though not well known, similar progress has been made in the field of international law. This is reflected in the growing readiness of States to accept limitations to their sovereignty in the interest of achieving common goals and the emergence of rights of peoples and individuals at the international level. As a result, today, a large number of activities in many different fields are governed by international law. International co-operation has become a fact of life in many areas such as trade, travel, tourism, culture, science and technology.

As a follow up to the Stockholm Conference on the Human Environment of 1972, there has been a marked growth in the number of international environmental conventions. However the scope of such conventions did not venture beyond environmental conservation and protection. But, after the Earth Summit of 1992 the emphasis has shifted in favour of sustainable development. As a rule there are four fundamental principles embodied in international environmental conventions. They are; sovereign rights over resources, partnership, equity and international co-operation. International environmental conventions have repeatedly pronounced that countries have the right to control the exploitation and use of their own resources.

International co-operation is the fundamental premise on which global conventions subsist. Partnership is a further development of the principle of international co-operation. The concept of equity acknowledges the need for a redistribution of both costs and benefits among the contracting parties. The more recent conventions have a clear sustainable development orientation and are therefore inherently intergenerational in character. In fact all environmental conventions must necessarily have the capacity to serve the needs and aspirations of present and future generations. The more recent conventions have acquired considerable flexibility to accommodate advances in scientific knowledge while upholding the precautionary principle. They also acknowledge the fact that, environmental issues are the common concern of mankind and accordingly shared obligations should be more effectively addressed by the parties concerned.

Major Conventions

In this paper attention is focused on the implementation capacities deemed necessary for the implementation of seven major environment conventions. They are:

i. Convention on International Trade in Endangered Species of Wild Fauna and Flora of 1975 (CITES);

ii. Convention on the Conservation of Migratory Species of Wild Animals of 1983;

iii. Vienna Convention on the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer of 1987;

iv. Basel Convention on the Transboundary Movements of Hazardous Wastes and their Disposal of 1989.

v. The Convention on Biological Diversity of 1992.

vi. UN Framework Convention on Climate Change of 1992 and

vii. UN Convention to Combat Desertification of 1994.

The salient features of these conventions, particularly scope and objectives, obligations of the parties, and the implementation capacities required are as follows:-

Convention on International Trade in Endangered Species of Wild Fauna and Flora of 1975 (CITES)

This convention prohibits or regulates commercial trade in some 30,000 wild animals and plant species threatened with extinction. Its scope and objectives include; the protection of wild fauna and flora for present and future generations, the prevention of over exploitation to meet the demands international trade, to control illegal trade and to make provision for international co-operation in the implementation. The Parties to the convention are required to prohibit trade in specimens or possession of same against the penalty of confiscation, maintain records, prepare reports on implementation and designate appropriate management and scientific authorities. The Parties are free to adopt strict domestic measures to prevent trade, transport, possession or extraction of species not covered by the convention. The

implementation responsibilities of the parties include; formulating appropriate policies and strategies, strengthening of legislation, establishing the required institutional framework and providing for awareness, education, training and technology transfer.

Convention on the Conservation of Migratory Species of Wild Animals of 1983

This convention recognises that migratory species of wild animals constitute an irreplaceable part of the earth's natural system, that they are of great value environmentally, ecologically, genetically and scientifically and that mankind should preserve this valuable resources for present and future generations. The migratory species of wild animals are especially vulnerable to a wide range of threats including shrinking habitats in breeding areas, excessive hunting along migration routes and the rapid degradation of feeding sites. The Parties to the convention are required to take steps to prevent migratory species from becoming endangered, promote research, provide protection and conclude agreements with concerned parties covering conservation and management aspects. As for implementation the contracting parties have to conserve the species concerned, restore their natural habitats, remove obstacles to migration and prevent or reduce factors that endanger them. All parties that are range states of the migratory species have to prevent extraction of animals other than for prescribed scientific, breeding, subsistence or other exceptional purposes.

Vienna Convention on the Production of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer of 1987

The emission of ozone depleting substances to the atmosphere is changing the character and composition of the ozone layer with adverse impacts on human health and the environment and potential climatic changes. The scope and objectives of this convention and protocol are; to conduct research into the depletion of the ozone layer and in particular its causes and effects and to control global emissions through co-operation and partnership. The main ozone depleting substances to be controlled are; chlorofluorocarbons (CFC's), halons, other fully halogenated CFC's, carbon tetrachloride, methyl chloroform and methyl bromide. Among the control measures that have been brought into force are allowable limits of consumption and transfer of production permissible within total calculated levels of production for a given group of controlled substances.

Basel Convention on the Transboundary Movements of the Hazardous Wastes and their Disposal of 1989

Most of the hazardous wastes are generated by industrial processes which are indispensable for economic development and social progress such as iron and steel, non ferrous metals, nuclear power and chemical industries. This convention addresses hazardous waste generation their transboundary movements and safe disposal. Its objectives include; proper management of hazardous wastes consistent with the protection of human health and the environment, fixing responsibility on the generator of such wastes to ensure safe disposal, promote the development and adoption of low waste technologies, recycling options, good housekeeping and management techniques. The parties to the convention are obliged to enforce strict control over transboundary movements, conform to the conditions stipulated for import and export, ensure reduction in the generation of such wastes and make available safe disposal facilities. It is also the duty of the parties to the convention to make necessary legal and institutional arrangements and in particular designate focal points and competent authorities as required.

The Convention on Biological Diversity of 1992

The Parties to the convention recognise the intrinsic value of biodiversity for the continuity of the evolutionary process and for maintaining essential life support systems. It also recognises the sovereign rights of states over their own biological resources and the importance of insitu conservation of ecosystems and natural habitats and the relevance of exsitu conservation measures in the country of origin. The scope and objectives of the convention include; conservation of biodiversity, the sustainable use of biological resources and the equitable sharing of the benefits arising out of the utilisation of genetic resources. It is the responsibility of the contracting parties to develop national strategies, plans and programmes for the conservation and sustainable use of biodiversity and integrate conservation and sustainable use into sectoral and cross sectoral policies, plans and programmes. Also each contracting party should identify components of biodiversity important for its conservation purposes and sustainable use and identify areas that require urgent corrective action. Some of the corrective measures envisaged are; establishing protected areas, regulating and managing biological resources, protecting ecosystems and natural habitats and rehabilitating degraded ecosystems.

UN Framework Convention on Climate Change of 1992

This convention was necessitated by the ever increasing concentrations of green house gases in the atmosphere causing the green house effect and accelerating the process of global warming beyond permissible limits. The consequences are; melting of the ice cap. sea level rise, unpredictable weather conditions and climatic changes. Coastal and island ecosystems are liable to inundation and fragile mountain ecosystems liable to rapid degradation. The ultimate objective of the convention is to achieve stabilisation of green house gases in the atmosphere at a level that would prevent

dangerous athropogenic interference with the global climate. It is hoped, that such a level will be achieved within a time frame sufficient to allow ecosystems to adopt naturally to climate change, so that food production is not threatened and economic development takes place within sustainable levels. The green house gases to be regulated are corbondioxide and methane. The Parties to the convention are required to prepare national inventories of authropogenic emissions, address such emissions by sources and removals by sinks.

UN Convention to Combat Desertification of 1994

This convention recognises that desertification is a problem of global concern even though it has at the present time, assumed serious proportions in Africa. Among its scope and objectives are; combating desertification and mitigating the adverse effects of drought, improving agricultural productivity through conservation farming, rehabilitation and sustainable management of land soil, water and plant resources. The Parties to the convention are required to adopt an integrated approach to combating desertification through poverty alleviation, sustainable agriculture and environmental protection measures. It is the responsibility of the parties to the convention to identify factors contributing to desertification formulate and implement programmes and projects, provide for research, development and technology transfer and build the legal and institutional capacities as required.

Implementation, Issues Policies and Strategies

a) *Implementation*

Once a convention is ratified it becomes the duty and the responsibility of each contracting party to implement it within the area of its territorial jurisdiction and authority. Such an implementation strategy should be based on an assessment of the needs such as the policy and planning framework, the legal and institutional infrastructure and the environmental management capacity, especially in relation to human, ecological and financial resources.

The key to environmentally sound development is the management of the environment and its resources on a sustainable basis. Policies, Plans strategies, laws and institutions will be of no practical use in the implementation of conventions unless fully supported by good environmental management. However, environmental management is hampered by inadequate priority setting, inappropriate policies, weak institutions and erratic implementation. Even though there is an overwhelmingly large array of laws, regulations and institutions, their effectiveness in minimising environmental degradation and pollution has been limited.

The colonial model environmental management by regulation, enforcement and application of punitive measures is rapidly giving way to the use of economic instruments and management tools and techniques. Prioritisation, policy reforms and capacity building are the key elements of an effective implementation strategy. There is a growing consensus that human resources development is the most critical factor in achieving sustainable development. Appropriate implementation strategies must be adopted at national regional and local levels. The main thrust of any implementation strategy must be centred round programme content and the means of implementation. Monitoring, reporting and evaluation are the other three critical components of a dynamic implementation strategy.

b) *Ratification of Conventions*

Ratification or accession is the essential first step in the implementation of conventions. The record of developing countries acceding to international environmental conventions has been rather disappointing. There are several reasons for this lethargy. Among them are; lack of awareness and information on the conventions, gaps in national policy and most importantly misplaced priorities. Unfortunately some countries do not have a proper understanding of the relevance and the applicability of at least some of the important conventions, to their country situations. In fact a good understanding of the scope and content, objectives, obligations costs and benefits and the implications of implementation especially legal and institutional is absolutely necessary to go in for ratification. The direct, indirect and recurrent costs of ratification and implementation have been a major concern of the smaller developing countries in particular. On the one hand there are other financial commitments such as for establishing and maintaining administrative structures for implementation, which have a tendency to multiply in mathematical progression via institutional duplication and bureaucratic empire building. The manner in which UNEP, GEF convention secretariats and International Environmental NGO's have rallied round with technical advice and financial to ratify and implement conventions will be discussed under subject specific sessions of this workshop.

c) *Policy and Planning*

An understanding of the overall policy and planning framework for environmental protection and management is an essential prerequisite to the implementation of environmental conventions. Invariably state policy should embody the basic concepts and precepts governing conventions such as the intergenerational character of sustainable development, international co-operation, partnership and the equity consideration. The inter-sectoral and holistic nature of the

environment and the need to integrate environment and development should be duly recognised and respected. National environmental policies should recognise the intrinsic value of the free market mechanism which prevents the under pricing of environmental goods and services. Use of economic instruments such as incentives and disincentives and the use of environmental management tools and techniques such as EIA should be accepted as integral parts of national policy. The State should facilitate access to the transfer of technology devoid of controls and restrictions. Contracting parties should make the best use of the existing and proposed arrangements for regional and international co-operation.

The quality, speed and effectiveness of implementation will be determined by the degree to which environmental concerns have been integrated into the development Planning process through instruments such as National Conservation Strategies, National Environmental Action Plans and National Development Plans. It will be necessary to formulate a National Action Plan for the implementation of each convention in conformity with the relevant national goals, priorities and objectives. Before a national action plan is prepared it will be necessary to collect and analyse all relevant facts and figures and information relating to each convention. Also where there are existing plans and programmes on the subject they should be reviewed with a view to strengthening them.

d) Legislation

Environmental legislation, is one of the most pervasive elements of cross sectoral importance in environmental protection and management. The Commission on Sustainable development at its Fourth Session in 1996 called upon all governments to "review their national legislation in the light of the integrated nature of sustainable development and the need to implement international agreements and conventions." It is a fact that international agreements and conventions can achieve their objectives only when they are adhered to and implemented through legislation at national level. The procedure for implementation involves assessment of legislative needs, review of existing legislation and the enactment of new legislation or strengthening of existing legislation as appropriate. Conventions cover general concepts and principles and for enforcement country specific legislation should be enacted.

An essential first step is needs examination whereby the existing legislative and institutional framework is studied focusing on conventions and their implementation and in the process listing out inadequacies gaps and shortcomings. The second step is to identify priorities for new legislation and the strengthening of existing legislation. The third step is to review sectoral, state or provincial legislation with a view to updating and harmonising such legislation. Legal and technical terms should be clearly defined in line with those in the conventions to avoid confusion. Also legislation should provide for licensing, levies, labelling and penalties specifying standards. procedures and restrictions.

Most developing countries prefer to get their National Task Forces to draft environmental legislation. It has been found that legislation drafted by local legal experts is invariably, more realistic acceptable and implementable than those borrowed from other countries thorough foreign legal experts. In fact it enables the building of local capacities. It is widely acknowledged that implementation is much more difficult than the enactment of legislation. Poor implementation is by and large due to policy changes, reordering of priorities, movement away from command and control; mismanagement and above all, lack of human and financial resources.

e) *Institutions*

The ability of a country to reach the goal of sustainable development will be determined firstly by the capacity of itspeople and secondly by the capacity of its institutions. Institutions are not mere conglomerates of policies, procedures, systems, resources and staff. They are in fact integrated parts of a whole which continuously interact and are interdependent. In developing countries in particular public authorities have a crucial role to play in environmental protection and management. The efficiency of an institution depends on the structure and quality of its staff. Structure relates to flows of information, authority and finances between and within organisations.

Environment being multi sectoral, multi disciplinary and multi faceted, environmental institutions must necessarily adopt an integrated cross sectoral approach vis a vis policy making, programming, executing and monitoring. The existence of an institution at the highest policy making level solely devoted to sustainable development such as a Cabinet Sub-committee or a National Council of Ministers chaired by the Head of State or Government can make a big dent in policy formulation and decision making. All the South Asian countries have recognised the importance of environmentally, sound and sustainable development by creating Ministries of Environment and establishing lead agencies to catalyse, co-ordinate and monitor the health of the environment. At the sectoral and regional levels small units or cells have been set up in critical areas such as forest conservation, power generation and industrial and urban pollution control

However most institutions lack implementation and enforcement capacity. The biggest impediment to environmental protection is the financial constraint. UNEP has partially bridged this gap by providing technical assistance for capacity building and financial assistance to participate in meetings of certain conventions. This can be alleviated to some extent by harnessing the resources of environmental NGOs in particular. Almost all these conventions stipulate the

designation of National Focal Points and in some instances National Competent Authorities. The designation of a national authority as the lead agency for the Co-ordination of the implementation of each convention is of paramount importance. The overall responsibility for key functions should also be assigned to a national authority, namely, inventories, research, licensing co-ordination and monitoring. The creation of new institutions for the implementation of environmental conventions is not necessary. Already developing countries have a multitude of institutions with overlapping functions, which are very costly to maintain and of very little use. Most institutions suffer structural problems, such as over centralisation, lack of inter agency co-ordination and over concentration in the regulatory and information areas. Such co-ordination should be ensured through an Inter-Agency Co-ordinating Committee in respect of related conventions. It has been found that strengthening existing institutions is much more cost effective than duplicating them.

CLOSING REMARKS
MINISTER FOR PLANNING, HUMAN RESOURCES AND ENVIRONMENT
REPUBLIC OF MALDIVES

First of all I would like to say how pleased I am to be present here and be a part of this important exercise.

Distinguished participants. I was attending the SAARC Environment Ministers Meeting last week and we discussed important environmental issues in the South Asia region, such as conservation of biodiversity, climate change, hazardous waste management and protection of the oceans.

Now we have international agreements to address all these issues. Which are global in scope, because the issues are common concerns of all - concerns of humankind.

In the meeting of the ministers, we recognised the importance of addressing these issues at regional level - to respond to these international agreements at the regional level and to have common understanding - to have common procedures.

I have been told the focus of this workshop is related to implementation of international environmental conventions. I am told that all the participants are pleased about the proceedings so far. I am sure you all would have shared your experiences and gained understanding and valuable knowledge here.

This would help all of us - all the countries of the South Asia Region. For that I wish to thank you all. UNEP, SACEP, the Convention Secretariat and NORAD. I thank all the participants as well.
I wish to reassure you that we will welcome such regional initiatives in the Maldives in the future as well.

I hope you had an enjoyable stay here in Bandos. I also wish you a safe journey back home. Thank you.

ANNEX 6 EVALUATION SHEET AND SUMMARY

PARTICIPANTS' OBSERVATIONS ON THE ARRANGEMENTS FOR AND CONDUCT OF THE WORKSHOP AND THEIR RECOMMENDATIONS FOR FOLLOW-UP ACTION

Q1. Focus of workshop

Scale:	**1 (Inadequate)**	2	3	4	**5 (very focus)**
Participants'Assessment					7

Q2. Information/knowledge for effective implementation of the Conventions

Scale:	**1(Inadequate)**	**2**	**3**	**4**	**5 (comprehensive)**
Participants' Assessment:				1	6

Q3. Indicate areas in which further information is required:

One participant stated that available rules and regulations of other member states relating to the implementation of the various Conventions should be made available to the participants.

Q4. Was the Workshop Material adequate for you to get a proper understanding of the scope and content of the Conventions that need to be taken for their effective implementation?

Scale:	**1 (Inadequate)**	2	**3**	4	**5 (Adequate)**
Participants' Assessment				2	5

What further materials would you have liked to receive?
1. Existing rules and regulations of other member states
2. National case studies of success stories

Q 5. Was the time allocated for interactive sessions (presentation by participants, discussions etc.) adequate?

Scale:	**1 (Inadequate)**	2	3	4	**5 (Adequate)**
Participants'Assessment				**2**	5

Q6. If not, how do you suggest the available time be divided between Presentations by Resource Persons and Interactive sessions?

Significant articles of each convention should be highlighted more.

Q7 Were the Presentations by the Resource Persons focused on issues relating to Implementation of Conventions?

Scale:	**1 (Inadequate)**	**2**	3	4	**5 (comprehensive)**
Participants'Assessment			1	2	4

It is preferable if resource persons do not read out their presentations but rather use transparencies to highlight the major points and explain them to the participants giving plenty of concrete examples.

Q8. Suggestions to make presentations more focused?

More attention in explaining each article of the conventions and practical examples of how the conventions have been implemented effectively by other countries.

FOLLOW-UP ACTION

Q 9. Action to be taken by participants upon their return to own country:

1. <u>To strengthen the existing legal and institutional arrangements for the implementation of Conventions</u>

BANGLADESH	Organising meetings and workshops to establish and strengthen legal and institutional linkages Harmonising existing rules and regulations suitable for implementation of Conventions
BHUTAN	Strengthening institutional framework for implementation of major environmental Conventions
INDIA	Dissemination of the issues and decisions taken among the concerned sections and departments to focus the specific concerns in other workshops/seminars within the country to appraise the Government on future actions needed to strengthen the Conventions
MALDIVES	Dissemination of issues and recommendations to Ministry and other relevant agencies Strengthen the legal regime Incorporate the output in the National Environmental Action Plan
NEPAL	Strengthening the organisation task force for legal drafting Institutional strengthening
SRI LANKA	Request government authorities to take action with regard to the follow-up action Prepare papers on each Convention highlighting action needed for strengthening legal and institutional arrangements for implementation and disseminate information. Prepare papers recommending consideration of participation in Conventions to which the country is still not a party and submit to Hon. Minister, and also transmit information to relevant focal points

2. Where country is not a Party to a convention(s) to promote further consideration of the costs and benefits of these, to enable the Government to decide on the question of participation, through ratification or accession?

It was generally agreed that the participation's would prepare memoranda to the relevant Ministry or other governmental agencies on the costs and benefits of participation in environmental Conventions that the respective countries are not yet a party to.

BHUTAN	submits proposal for consideration on relevant Conventions.
BANGLADESH	not applicable
INDIA	not applicable
MALDIVES	not applicable
NEPAL	Convey importance of Convention
SRI LANKA	Studies with regard to desertification Convention will be promoted

Q10. Desirability of convening a National Workshop(s) on the implementation of major environmental Conventions in your country

Yes	**No**	**Percentage**
7	0	100%

Q11. Conventions to be addressed:

Country	South Asia Regional Seas	Ship-based Maritime Pollution	Basel Convention	UNFCCC	Ozone Convention and Montreal	UNCCD
BHUTAN#						
BANGALADESH	*	*	*	*	*	*
INDIA		*	*		*	
MALDIVES		*		*		
NEPAL			*	*	*	*
SRI LANKA	*	*	*	*	*	*

Country	CBD	CITIES	CMS
BHUTAN#			
BANGALADESH	*	*	*
INDIA	*	*	
MALDIVES	*	*	
NEPAL	*	*	
SRI LANKA	*	*	*

all ratified conventions

Q12. Focus of National workshops:

BANGLADESH

To highlight each article of the Conventions in detail to the concerned officials of the Ministries, Departments and NGOs
To learn about the existing rules and regulations which relate to the implementation
To identify the inadequacies in legal framework and institutional arrangnments

BHUTAN

Obligations and commitment/cost and benefits of participation/legal and institutional arrangements for implementation

INDIA

Strengthening technical aspects
Strengthening legal/regulations, mechanisms
Identifying instruments/mechanism to involve regional co-operation
For awareness
Information dissemination
Implementation of Conventions

MALDIVES

Obligations and commitment/costs and benefits of participation/legal and institutional arrangements for implementation
National workshop on CITES

NEPAL

Legal and institutional arrangements for implementation

SRI LANKA

Training for the implementing agencies and the public
Legal and institutional arrangements for implementation
Public awareness, exchange of information and training of relevant officer

Q13. Requirement of external Financial and other resources (expertise, materials etc) for organisation/conduct of these workshops

BHUTAN	-	Yes
BANGLADESH	-	Yes
INDIA	-	Yes
MALDIVES	-	Yes
NEPAL	-	Yes
SRI LANKA	-	Yes

Q14 Contribution of Government

BHUTAN	-	GEF/UNDP fund and related
BANGLADESH	-	Unable to comment without prior consultation. However, local assistance will be provided
INDIA	-	Unable to comment without prior consultation. But, government will take all and appropriate steps

MALDIVES	-	Administrative support
	-	Local logistical support
NEPAL	-	Unable to comment without proper consultation
SRILANKA	-	Local host
	-	Preparation of documentation in national languages
	-	Provision of local resource persons

Q15 Language in which workshops will he conducted

	First Language	Second Language
BHUTAN	Dzongkha	English
BANGLADESH	English	Bengali
SRILANKA	English	Sinhalese and Tamil
NEPAL	Nepali	English
INDIA	English	Hindi
MALDIVES	English	---

Q16 Obtaining services of national experts to serve as Resource Persons

BHUTAN	-	Yes
BANGLADESH	-	Possible to draw local resource persons but formalities need to be observed
INDIA	-	Yes
MALDIVES	-	limited capacity
NEPAL	-	Yes
SRI LANKA	-	Yes

Q17. Capacity to prepare workshop materials and translate into the Workshop language

BHUTAN	-	Yes, and where necessary external resources (UNEP and SACEP) will be sought.
BANGLADESH	-	Yes, with co-operation from SACEP, UNEP
INDIA	-	Yes, with co-operation from SACEP, UNEP etc
MALDIVES	-	Limited capacity/ require support of UNEP and SACEP
NEPAL	-	Limited capacity/ require support of UNEP and SACEP
SRILANKA	-	Yes, with corporation from SACEP, UNEP etc

Q18. Further support that is required from Sponsors, SACEP and UNEP

BANGLADESH	-	Organising this type of Country-specific workshops
BHUTAN	-	Joint implementation, review and resources
INDIA	-	SACEP and UNEP joint workshops on all conventions to monitor the implementation.
MALDIVES	-	Financial Specialised expertise
NEPAL	-	Technical expertise Financial assistance to obtain office material and expenses for various task force
SRILANKA	-	Providing Expertise and funding
	-	SACEP and UNEP should brief the Honourable Minister of Environment and relevant authorities on the need for follow-up action

Other Comments

-SACEP and UNEP have done doing an excellent job in organising the workshop, providing documentation and providing an opportunity for participants to interact with resource persons and among themselves.
- The questionnaire helped us to examine issues relating to implementation of Conventions.
- Following activities should be carried out by SACEP and UNEP:
  - Producing a Directory of resource persons/experts/organisations dealing with such matters
  - Taking a lead role in negotiations between member countries and world bodies in relevant issues.

RESPONSES TO QUESTIONNAIRE ON EFFECTIVE PUBLIC AWARENESS ACTIVITIES IN THE FIELD OF ENVIRONMENTAL CONVENTIONS AND LEGISLATION

QUESTION	RESPONSES					
	BANGALADESH	**BHUTRAN**	**INDIA**	**MALDIVES**	**NEPAL**	**SRI LANKA**
1. Communication means	Media , Seminar, Workshop Environmental Day Observation	Grassroots level and local representatives	Multimedia Workshop	Radio, TV, News paper	Radio, TV, Multi-media workshops	Media, School programmes posters
2. Language of Communication	Bengali , English	Dzongkha, English	Hindi, English	Dhivehi, English	Nepalese, English	English, Sinhala and Tamil
3. Support from UNEP and SACEP	Financial and Technical support	Need Assessments and National Workshop	Financial Assistance, Information Kit, Technical Expertise Publications	Financial Assistance and expertise	Workshop on conservation, published conventions in local languages, training govt. Officials in local languages	Publicity material seed money for translation
4. (a). Target Groups	Relevant officials public	Peoples' representatives, Govt. Officials	Industrialists, General public, govt. Officials and media people	School children, citizens	Villagers, officers students, industrialists and journalists	Schools, local groups and media
4. (b). Types of Activities	Information kit, technical know-how		Workshops, Awareness campaigns, media	Radio Programmes Eco-clubs in corporation in school curricula, Video on tourist planes	Radios, Village meetings, new letter school curricula	Articles in news papers, school programmes, media workshops

MAJOR ENVIRONMENTAL CONVENTIONS

STATUS OF RATIFICATION IN SACEP COUNTRIES - MARCH 1997

COUNTRIES	CITES	CCM.SWA	VCPOL& MPS-DOL	BCTMHW	CBD	UNFCCC	UNCCD
AFGHANISTAN	XX	–	–	–	X	X	XX
BANGLADESH	XX	–	XX	XX	XX	XX	XX
BHUTAN	–	–	–	–	XX	XX	–
INDIA	XX	XX	XX	XX	XX	XX	XX
MALDIVES		–	XX	XX	XX	XX	–
NEPAL	XX	–	XX	XX	XX	XX	XX
PAKISTAN	XX	XX	XX	XX	XX	XX	X
SRILANKA	XX	XX	XX	XX	XX	XX	–

XX	**Ratified**
X	**Signed but Not Ratified**
NA	**Not Available**
CITES	**Convention on International Trade in Endangered Species of wild Fauna and Flora - 1973**
CCMSWA	**Convention of the Convention of Migratory Species of Wild Animals-1979**
VCPOL	**Vienna Convention for the Protection of the Ozone Layer - 1985**
MPSDOL	**Montreal Protocol for Substances Depleting the Ozone Layer - 1987**
BCTMHW	**Basel Convention o n Transboundary Movement of Hazardous Wastes - 1989**
CBD	**Convention on Biological Diversity - 1992**
UNFCCC	**UN Framework Convention on Climate Change - 1992**
UNCCD	**UN Convention to Combat Desertification - 1994**

ISBN - 955 - 8074 - 00 - 4

Printed by M. D. Gunasena & Co. (Printers) Ltd.