# SOUTH ASIA CO-OPERATIVE ENVIRONMENT PROGRAMME.

# **NEWSLETTER**

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# **EDITORIAL**

Certain far reaching, perhaps, irreversible processes were unfolding around the world in the year gone by. The earth's population reached 5.3 billion with an increase of 87.5 million, maintaining a growth rate which could double the human population by the year 2025.

Deforestation and burning fossil fuels resulted in the release of at least 19 billion tons of Carbon-dioxide into the atmosphere, which could result the average world wide temperature to rise as much as 4.5° c within the next 60 years. Another 28 million acres of tropical forest were destroyed. Whilst ozone holes over the Antartica, remained alarmingly large, scientists have reported evidence that a second hole was developing over the Arctic.

Only time could tell whether these predictions will come to pass, but the message is loud and clear that the Planet Earth is in "Big Trouble". If all nations do not take drastic actions, we would be leaving for the generations to come, a planet unfit for human habitation.

It is however heartening to note that people all over the world were getting the message. Elections to the European Parliament saw 'Green Parties,' securing impressive gains. Local environmentalists in Hungary led to Government cancelling a controversial multi-billion Dollar Hydro-electric Dam Project, and closer home in Sri Lanka, the Government is taking a closer look at a Coal-Fired Thermal Power Plant in the South before granting its approval.

In addition, internationally in Basel in March 1989, 105 nations tentatively agreed to place strict curbs on international shipments of hazardous wastes. In Helsinki, in May 1989, Representatives of 86 countries declared their intention to phase out their production and use of ozone destroying Chlorofluoro-carbons (CFC's), by the year 2000.

Many are of the opinion, that the next few years are the most crucial. It could determine whether the Planet Earth could turn the corner and go off the bend.

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# ESCAP/World Bank/UNDP Regional Workshop on 'Strengthening Conservation and Management of Critical Ecosystems.'

The first ESCAP/World Bank/UNDP Regional Workshop on Strengthening and Management of Critical Ecosystems was held in Bangkok and Khao Yai National Park in Thailand, from 27 November to 2 December 1989. The event was organized in co-operation with the US World Wildlife Fund. The primary objective of the Workshop was to develop a region-wide strategy and overall agenda for training in conservation and environmental management of critical ecosystems. The participants were informed about the ESCAP/World Bank/UNDP project in this field in Asia and the Pacific. Guidance was sought from the participants on the strategy and implementation of the Project.

The Meeting was attended by representatives from Bhutan, India, Indonesia, Japan, Malaysia, Nepal, Norway, Papua New Guinea, Philippines, Solomon Islands, Sri Lanka and Thailand. Institutions present at the Meeting included the World Bank, United Nations Development Programme, United Nations Environment Programme, The World Wildlife Fund, The United States Agency for International Development and South Asia Co-operative Environment Programme.

The opening address was delivered by Mr S.Nagai, Deputy Executive Secretary of ESCAP. All presentations made by the country representatives highlighted the threats to major ecosystems in the region, especially wetlands, montane ecosystems and mangrove forests, and emphasised on the need for training opportunities at the regional level, both in Asia and the Pacific.

Three types of training in the Field of Management of Critical ecosystems were identified as crucially important.

- In-service training for staff involved in protected area management at all levels (policy makers, managers of environmental agencies, mid-level staff, guards and rangers);
- Extension education for policy makers, professionals, students and youth, women, as well as the general public;
- Graduate-level training to strengthen the cadre of protected area management professionals.

The Workshop also identified the Course Curricula, Institutional arrangements and Logistics for these types of training.

It was recommended that on the basis of the findings of this Meeting, the need to prepare National as well as Regional Project Proposals by the WWF in consultation with ESCAP and the World Bank. It was also agreed that whereas inservice and extensive training will be stressed at National level, the emphasis at the Regional level, will be graduate training.



A section of the participants of the World Bank ESCAP Workshop, held in Bangkok during 27th November to 3rd December 1989, on National Resources Conservation. SACEP Director, Mr. A.M.S.Hoque (2nd from left-front row) participated in the Workshop, and he also made a Statement on SACEP in South Asia, on request by Dr. K.F.Jalal.

# PROGRAMME NEWS

# ENVIRONMENTAL CLEARING HOUSE SERVICES PROJECT

A SACEP Project named "Environmental Clearing House Services" which is one of the 12 Projects approved by the First Governing Council of SACEP in 1983, has now been adopted by the ASIAN DEVELOPMENT BANK for funding. The revised Project with some modifications was approved by the Consultative Committee of SACEP in 1990 and its new name is 'REGIONAL ENVIRONMENTAL AND NATURAL RESOURCES INFORMATION CENTRE (RENRIC).

The Main Objectives of this Project are:

- Establishment of an Environmental and Natural Resources Clearing House Unit within the SACEP Secretariat;
- ii) Establishment of an Environmental and Natural Resources Information Network within the SACEP Membership utilising the existing Subject Matter Focal Points to the extent possible;
- Provision of an Information Network System including appropriate hardware and software; and
- Provision of advisory support and training for Member Country representatives by presenting a SACEP Workshop.

The International Consultant, Dr. R.D.Deshpande, selected by the Bank for this activity in consultation with the Director SACEP and the Senior Consultant/RENRIC Dr. Leslie Herath have completed the first major item of the Project namely the preparation of the Inception Report. This report has been accepted by the Bank and implementation of the recommendations outlined in the report has commenced. The first phase of this project is 12 months.

# TRAINING COURSE ON COASTAL RESOURCE MANAGEMENT PLANNING

A Training Course organised by SACEP on the Planning and Management of Coastal Resources and Coastal Protected Areas will be held in Colombo, Sri Lanka in December 1990.

The Course will be jointly sponsored by SACEP and ESCAP and the Government of Sri Lanka will be hosting the same. There will be a minimum of 2 participants from each of the Marine Member States of SACEP namely Bangladesh, India, Maldives, Pakistan and Sri Lanka.

The broad objective of this Training Course is to assist the South Asian Coastal States to improve their capa-

bility to conduct multi-disciplinary Planning and Management of the Coastal Environment and its Resources.

The Specific Course objectives are to provide a basic understanding of the following main areas Coastal Environment, Management Planning, Methods used in Management Planning and its Application.

At present a Steering Committee which consists of the Course Director and Officials of CEA, Sri Lanka and SACEP is finalising all arrangements for this activity and Official Communication to the concerned Member States has been sent.

# SOUTH ASIAN REGIONAL SEAS PROGRAMME MEETING OF LEGAL AND TECHNICAL EXPERTS

A Meeting of Legal and Technical Experts to review the proposed Legal Framework of the Action Plan for the South Asian Seas Region was held from 5-8 February 1990 in Bangkok.

On behalf of the Executive Director of United Nations Environment Programme, the Meeting was opened by Mr. Charles Di Leva of Environmental Law and Machinery Unit of UNEP. In his opening address he warmly welcomed the Participants and briefly reviewed the events that lead to this Meeting and invited participants to examine and revise, where necessary, the documents prepared for the Meeting.

Dr. Nay Htun, Director of the United Nations Environment Programme Regional Office for Asia and Pacific also addressed the opening Session. He said that it was three years since the process of adopting a Legal Framework for South Asia had been launched and informed the participants the status of Legal agreements of the 9 other regions of UNEP's global programme. He stressed that the nominees were invited here by UNEP in their own personal capacity as Legal and Technical Experts to focus on the subject of the Meeting. He said that it was UNEP's desire that this Meeting would be the final step in preparing the Legal Framework and Action Plan with a view to its adoption together with the South Asian Seas Action Plan by an Inter governmental Meeting before the end of 1990. He concluded by assuring the participants of UNEP's commitment in assisting the countries of the region in the development and implementation of the South Asian Seas Action Plan.

Mr. S.A.Jinadasa, Chairman, Central Environmental Authority, Sri Lanka was elected as Chairman, whilst Mr L.U. Joshi, Director, Department of Ocean Development, India was elected Vice-Chairman. Mr S.H.N. Rizvi, Principal Scientific Officer, NIO, Karachi served as the Rapporteur for the Meeting.

The Meeting after reviewing the International Arrangements got down to discuss the proposed Draft Convention for the Protection and Management of the Marine and Coastal Environment of the South Asian Seas Region.

At the outset, several of the Experts offered their opinions on the merits of adopting a Regional Convention. Some Experts expressed their reservations as to the adoption of the regional conventions on the basis that the existing international conventions on the subject provide sufficient basis to achieve this object. Others stated that a Legal framework could serve to strengthen environmental protection in the area. It was also pointed out that of the nine other regional seas programme, 8 have adopted a Legal Framework at the same time as the Action Plan whilst the other adopted an Action Plan and will soon be meeting to review a proposed Legal Framework for their Action Plan.

After much discussion the Meeting agreed on the draft text for the convention for Protection and Management of the Marine and Coastal Environment of the South Asian Seas Region Subject to certain reservations expressed. It was also noted that the Draft Convention and Protocols emanating from this Meeting would not be binding on any country.

The Meeting also reviewed the draft protocols concerning co-operation in combating Marine Pollution of Maritime Emergencies in the South Asian Seas Region and also Draft Protocol for the Prevention of Pollution of the South Asian Seas Region by dumping from ships and aircrafts.

The review of the Draft Protocol concerning Protected Areas and Wild Fauna and Flora in the South Asian Seas Region was not done as the Meet-

ing agreed that the definition of the South Asian Seas Region in this protocol was unacceptable because if regulated, internal waters among other areas.

The discussion on the draft document on Institutional and Financial arrangements was not done as the participants agreed that consideration of the document was not within their purview. It was however agreed that this document be taken by the experts to their countries for review by the concerned authorities so that an Inter-governmental Meeting could discuss this matter.

The Meeting concluded with Mr. Di Leva thanking the Office Bearers and the participants for their hard work and professional conduct while the Chairman thanked the Secretarial for its support and stated that the deliberations of this Meeting should help to lead towards a successful Inter-governmental Meeting.

# SACEP COUNTRY NEWS

# **AFGHANISTAN**

# SOLAR ENERGY DEVELOPMENT IN REPUBLIC OF AFGHANISTAN

Republic of Afghanistan is one of the regions of the world where wide-spread use of solar energy is possible. Solar energy can play a very significant role in the economic development of the country, because of the scarcity of wood and other conventional fuels as also the problems in delivering them to the centres of utilization.

Afghanistan has a favourable climatic actinometric condition. Duration of synshine is very long. In the northern parts of the country, it is more than 2500 hours, in central Afghanistan it exceeds more than 3000 hours. In the autumn months of October and November, the number of cloudy days varies from 68-85% in Kabul about 40-50% in the North and 60-70% in the South.

Measurement of solar radiation is being done in Durulaman, Ghazibad, Sardhe Ghazni and Baghlan. The annual total solar radiation incident to the horizontal surface at Kabul is 1,70

G cal/m². The corresponding diffuse figures of solar radiation are 0.414 G cal/m². This compares very favourably with the total solar radiation of Tashkand (USSR) Feosno (USA) and Jerusalem which are 1.33, 1.63 and 1.86 G cal/m²

Respectively, thus Kabul is one of the sunniest regions of the world. The analysis of the available data indicate that in the whole of the Republic of Afghanistan, solar energy could be applied to heating of buildings in winter and water for household needs, for cooking food etc. All seasons are good. Studies have been made by the New and Renewable Energy Research and Development Centres to assess the efficiency of solar energy in heating water for household needs, by using flat place collectors storage tank and transfer of heat through the natural circulation of heat transfer agent, the circulation showed that assuming a system consisting 20 collectors, the system is capable of producing 2000 litres of water daily at the temperature 50-60° C.

The amount of firewood which would be needed to provide the equivalent amount of heat is about 25895 kg. The cost of firewood at the rate of 11 Afs a kg would be 254559 Afs. As against this, the cost of solar system amounts to 292000 Afs. Thus the cost of the solar water heating system can be recovered in about one year.

The use of active solar heating systems along with the passive systems of the "Tromb Wall" type can be extensively used with great advantage in the Republic of Afghanistan because of their minimal requirement for maintenance and simplic operation and repair.

Action has been taken for popularization of the above solar hot water system in public sector and at first phase, the development of hot water system with 200 solar flat plate piped collectors and its required number of storage tanks has planned in the Child training centre.

The first plant which consists of eight collectors and one storage tank, is capable of providing 1400 litres of hot water per day, has been installed at Loundry. The plant is working very successfully and the Department of Child Training Centre is conveying the proper works for the plant. The second plant which has been put into operation consists of 40 collectors and one storage tank with a capacity of 2500 litres of hot water/day.

In Afghanistan, the principle fuel used for cooking of food are firewood, twigs, brushwood, and dried manure etc. Considering the limited area under forest and the advisability of using timber in various sectors of the economy, the use of solar energy for cooking must be regarded as very timely and of practical value.

The Republic of Afghanistan is the home of high quality fruits and vegetables. Solar energy can be used for drying of grapes, apricots, figs, onions, tomatoes etc. Presently the grapes are being dried in the natural way. The use of chamber type and other types of solar driers will make it possible to reduce drying time to a fraction and ensure high quality preservation. Thus action is in hand to progress, identify and explore the economic justification and practical areas of other application of solar energy. To this end the UNDP has sanctioned 1.213 million US dollars for a project of development of solar energy and possible other renewable sources of energy in the Republic of Afghanistan.

Extract from the paper presented by the Afghan Delegation at the 4th Governing Council Meeting of SACEP- April 1988 -



Mr. Zafar Imran, Bir Bikram, Minister of Environment and Forest, Bangladesh.

MESSAGE OF THE MINISTER FOR ENVIRONMENT AND FORESTS, BANGLADESH, ON THE WORLD ENVIRONMENT DAY (5 JUNE, 1990)

Today is the World Environment Day. This is being observed in Bangladesh and other countries of the world to mark the 18th anniversary of the historic Stockholm Declaration of 1972 on human environment. On this day we review our past efforts and take new pledge to intensify our present endeavours for the protection and preservation of a healthier environment for our people.

'Children and Environment' has been chosen as the theme of the World Environment Day this year. This theme carries a special significance for all of us, because Bangladesh is committed to create a secure environment for the children of today as well as of tomorrow. Under the able guidance of our great leader Hon'ble President Hussain Mohammad Ershad we are stepping forward to such a strategy.

Our survival and existence is dependent on the quality of environment. Present environmental issues in Bangladesh are intermingled with population explosion, poverty and illiteracy. We, therefore, need comprehensive developmental programmes for protection of environment in the spirit of sustainable development.

Let us join together with the promise of a better future for our children and preserve a yet healthier environment for the children of tomorrow.

Zafar Imam, Bir Bikram Minister, Ministry of Environment & Forest, Bangladesh

# BANGLADESH

# OBSERVANCE OF ENVIRONMENT WEEK

The Department of Environment under the Ministry of Environment and Forest observed the Environment Week in Bangladesh during 23rd July to 30th July 1990 and during the week one Press Conference was called on 23rd July in the Press Club by the Hon. Minister of Environment and Forest, Mr. Jafar Imam, Bir Birkram.

On the 23rd of July, 1990, a big procession consisting of Boy Scouts, Girl Guides, Children Academy, Environmental Journalists Association, Association of Development Agencies of Bangladesh and many other NGOs passed from President's Pathkali Trust and ended at the gate of the President's Secretariat. Many officials of the Ministry of Environment and Forest and Department of Environment and Department of Forest took part in the procession.

In presence of the Hon. President and First Lady, a campaign of Control of Black Smoke emitting vehicles was started. Afterwards, in presence of the Hon. Minister of Environment and Forest, High Volume Air Samplers were installed in front of the Press Club, Ramna, Dhaka. After that, Environmental Pollution Control publicity cassettes, Radio Jingles including the one prepared by South Asia Co-operative Environment Programme (SACEP) on tree planting was played throughout the city of Dhaka, with the help of trucks and other vehicles.

The Dhaka Municipal Corporation also organised a cleanliness campaign in the city area and its suburbs. Water samples were collected from the different parts of the city area and analysis was conducted to determine the quality standards of the drinking water of the city.

The Forest Department also took part in the week- long programme. They distributed seedlings and saplings of trees in millions to the citizens of Dhaka City and other places.

During the entire days of the week, the Ministry of Information and Broadcasting organised publicity of the week by slogans for Natural Conservation and Documentary films were also shown.

# MASSIVE TREE PLANTATION PLAN IN BANGLADESH

The Government of Bangladesh, on April 25th 1990, took up a massive tree plantation programme to be implemented all over the country, in observance of the World Environment Day on June 5th, reports BSS.

The tree plantation programme was approved at a high level meeting with the Forest and Environment Minister, Mr Zafar Imam, in the chair. The Secretary, Ministry of Forest and Environment, Mr Azizul Haq, the Chief Conservator of Forests and the Divisional Forest Officers attended the meeting.

Under the programme, the Ministry decided to distribute 67 lakh saplings of different varieties of trees among the people from 91 nurseries of the Forest Department between June 1 and June 7.

Besides arrangement would be made to distribute saplings through mobile centres in all upazilas and districts so that interested people can procure them directly and easily.

Speaking on the occasion, the Forest and Environment Minister explained the importance of the observance of the World Environment Day in the backdrop of deteriorating environmental situation in different parts of the world.

Mr. Zafar Imam said the Government was busy executing the Taka 44.83 crore forest development programmes during the current fiscal year.

Of them he pointed out, Taka 27.30 crore was being spent for social afforestation programme and the rest Taka 17.53 crore for coastal afforestation and industrial plantation programmes.

(Courtesy Bangladesh Observer)

# ENVIRONMENT POLICY SOON

Environment and Forest Minister Jafar Imam, said in Dhaka on Sunday, 22nd April 1990 that the National Environment Policy was in the final stage of formulation, and would be announced soon, reports BSS. He was speaking as the Chief Guest at the inaugural function of the Observance of 'Earth Day 1990' at the National Museum of Science and Techonlogy at Agargaon, Dhaka.

The Minister said the government would give importance on the policy for an overall and co-ordinated effort by all concerned to protect and improve the environment. He said priority would also be given on environmental education and creation of public awareness of environment.

Presided over by Prof. M. Innas Ali, President, Society for Conservation of Nature and Environment (SCONE), the inaugural session was also addressed by the Director of the Depart ment of Environment, S. H. M Abdul Bashar, Secretary General of SCONE, F. Karim and Director of the Museum, Dr. K.M. Sirajul Islam.

The function was jointly organised by 12 organisations, including SCONE, science museum, environment department and nature conservation movements.

Referring to the pollution of the environment caused by different man-made activities, the Minister said anti-pollution laws would be strengthened to arrest further deterioration of environment, now none can establish an industry without clearance from the Department of Environment, he said.

He said a massive afforestation programme had been undertaken by the Government to maintain ecological balance and reduce the Greenhouse effect. Importance was given on development of Social Forestry, for which one nursery was set up in each upazila to raise and distribute saplings to the people free of cost.

Later, the Minister hoisted the Earth Day flag at the premises of the Museum. Prof. M. Innas Ali said a mass awareness and political awareness should be created to safeguard the environment and protect the earth.

He said students community created a movement 20 years back on the first Earth Day for making the planet a place of safe living. Pointing to the pollution of city environment by reconditioned cars, he said the Government should take a policy decision on it.

Mr F. Karim said they would continue the Earth Day programme for about two months through different activities.

The inaugural session was followed by technical session chaired by Dr. Sirajul Islam. Vice President of SCONE, Dr. A. Baten Khan, Director of Sparrso, M.A.H. Pramanik, and President of Nature Conservation Movement, Anisuzzaman Khan, participated in the deliberations of the session.

(Courtesy The Bangladesh Observer)

# BHUTAN ENVIRONMENTAL CONSERVATION STRATEGY

The Royal Government of Bhutan with assistance from WWF, has undertaken an Environmental Conservation strategy, based on the following factors:

- Bhutan is one of the most biologically important countries of its size in Asia;
- The recent increase in development activity and the trend toward modernising certain facets of Bhutan's economic and resource base increase the potential for future environmental problems;
- There is a need to consolidate and augment the existing system of protected areas in Bhutan;
- Although extremely supportive of conservation, the Bhutanese government lacks the trained manpower to design and implement national environmental programs;



Dr.M.K.Tolba, Executive Director of UNEP paying a courtesy call on the Honourable Prime Minister of Bangladesh Mr. Kazi Zafar Ahmed at Gana Bhavan on 30thMay 1990.

\* The country's strong cultural and ethical basis for conservation, relatively pristine environment, and conservation-minded government present an exceptional opportunity for the development of a co-operative WWF/RGOD Environmental Conservation Program.

With these factors in mind, the strategy has been devised to address WWF's programme objective in Priority Countries, which include:-

- developing self-sufficient government and non-government conservation institutions,
- training a cadre of skilled conservationists,

awareness in Bhutan. The country has already initiated the systematic conservation of important biological resources, through the establishment of protected areas, and WWF will work to strengthen management of these areas through infrastructure development, provision of equipment, and personnel training. WWF will also work with the government, as needed, to make the system more representative by including habitat types not currently protected.

WWF will seek over the next five years to create or encourage, where appropriate, small-scale community development projects that are compatible with conservation needs in Bhutan. In the immediate future, WWF will work to help the Bhutanese produce and

administering Bhutan's system of protected areas and assist with making it a fully operational agency as its responsibilities increase to include the overseeing of environmental quality and natural resource utilisation, as outlined in the Institutional Support for the Department of Forests Project. These institution building projects, include training components to help build staff capabilities within the government and conservation community.

In order to develop a cadre of skilled conservationists working on environmental conservation, WWF will support activities that recruit and train staff for the Forest Department as part of the institution building project noted above. WWF will also provide support for Bhutanese scientists to attend technical training programs and for students to pursue graduate studies through an Environmental Conservation Fellowship Program.

Since Bhutan has a strong culturally appropriate conservation ethic in place, it seems appropriate to assess and communicate how the country could be an example or model for other developing countries. WWF will assist with publications and projects to promote international and national awareness of Bhutan's leadership in environmental conservation.

WWF and The Department of Education in Bhutan have initiated an environmental education program that has trained environmental educators from the department and assisted with developing an environmental education program in Bhutan's school system. A mobile conservation unit is being provided for the educator through the Royal Society for the Protection of Nature to travel to rural areas. Course materials are to be included in the curricula of the country's education program over the next several years to promote environmental education. Bhutan's only higher level education institution, Sherubtse College will also receive WWF support this year to assist with developing an Environmental Studies Program at the college and to start a natural history and conservation section in their library for books as well as videos.

Developing an adequate ecological information base to permit informed decisions concerning development and conservation, will require considerable time in Bhutan, since there is very little information available and few Bhutanese are currently trained to do the



Bhutan "Monkeys"

- promoting environmental education,
- developing a culturally appropriate conservation ethic,
- building an ecological information base,
- encouraging the systematic conservation of important biological resources, and
- integrating development processes that are consistent with sustainable use of natural resources.

The WWF/RGOB Environmental Conservation Strategy focuses primarily on institution building, development of a cadre of skilled conservationists and environmental education and public implement environmental legislation, ecologically compatible land use policies, and other guidelines that shape ongoing development activities.

Systematic surveys of Bhutan's tremendous biological diversity, although a priority, will be initiated slowly as Bhutan develops its research expertise because the Bhutanese rightfully want to use their own scientists as principal investigators in such efforts.

# **Program Analysis**

WWF will work to promote institutional self sufficiency through continuing direct institutional support for the Royal Society for the Protection of Nature and the Department of Forests Wildlife Division. WWF will assist with improving the capability of the Wildlife Division in necessary research. WWF will promote professional training, as mentioned above, and continue to support status surveys of critical endangered species.

The basic groundwork for encouraging the systematic conservation of important biological resources has been done through the establishment of protected areas. Making this system more representative of the full range of ecosystems and species found within the country, will require additional surveys, particularly in central and northern Bhutan. This is the main objective of the project. Identification of Critical Habitats and Conservation Areas in Bhutan, Phase One of which, was supported by UNDP/FAO. WWF will work closely with UNDP/FAO and assist the Forestry Department with implementation once surveys are completed. Since the existing protected area system must also be consolidated and the management improved, WWF support for Royal Manas National Park will continue and expand. Manas, Bhutan's first national park, is an area of considerable biological importance and has been rated by some experts as the most important conservation area in the Indian sub-continent. Manas has been given top priority in the MacKinnon Review of Protected Areas System in the Indo-Malayan Realm.

In order to integrate a development process that is consistent with sustainable use of natural resources. Bhutan will formalise its conservation policies, by implementing new forestry and conservation legislation which was drafted with technical assistance from WWF. New initiatives to develop a master forestry plan with funding provided by the Asian Development Bank, a national conservation plan with financial assistance from DANIDA and an Action Plan for the Conservation of Biological Diversity with funding from the World Bank, are under consideration. Over the next year, WWF will provide advice as requested, on implementation strategies for Bhutan's new forestry and conservation legislation as well as the several new initiatives mentioned above.

Extracted from 'TigerPaper' - (October-December 1989)

# INDIA TAKES NEW INITIATIVES

The Ministry of Environment and Forest of India has recently taken several new initiatives to steer the country towards the basic premises of sustainable development and towards providing ecological security for the future generations. The thrust of these initiatives has been on providing a policy framework to realise conservations, a regulatory framework to make the polluters pay, an institutional framework to place power in the hands of the people to make the polluters pay us their liabilities and an organisational framework to better achieve goals.

# NEW SYSTEMS FOR ENVIRONMENTAL PROTECTION

# Civil Liability and Environmental Courts

The legal and organisational structures created so far for protection of environment have yielded only partial results. The modalities of protection have been to enforce environmental regulations through criminal courts of law but the



Ms Maneka Gandhi, India's Minister for Environment and Forests, plants a sapling at the Tata Energy Research Institute on the occasion of Earth Day.

long delays in the courts and inertia of the prosecuting agencies have led to the polluters escaping the full penalties and to exposing the people and the environment to the adverse effects of pollution. One method of promoting environmental protection therefore is to empower people to make polluters pay due compensation for the damage caused by them and to create judicial structures to ensure prompt payment of such compensation. The certainty of having to pay for the damage will ensure that the polluters invest in pollution control devices and will refrain from causing damage to the environment or to the people. A legislation to incorporate civil liability in case of environmental damage and a system of environmental courts to give quick disposal of cases claiming compensation has been initiated.

# Environment Friendly Products

A large number of products come into the market which may affect the environment or people adversely. Enough attention has not been paid to scrutinise products from an environmental point of view. It is proposed to introduce a system of making environment friendly products so that people can use such products rather than products which harm the environment.

# River Action Plan

The protection of environmental status of the rivers is at present not given the importance it deserves. The actions taken are fragmented and are not viewed from a wholistic viewpoint. Such protection involves a comprehensive river management including steps for catchment area treatment, prevention of sedimentation and pollution control. It is proposed to prepare a national river action plan, which will take an integrated view of the river management.

# Statutory Environmental Clearance

The environmental clearance of projects is at present done through administrative orders and a large number of private sector projects escape the process of impact assessment, it is proposed to plug these loopholes by making the impact assessment for large projects statutory.

# Continuous Review of Pesticides

Under a suggestion from this Ministry, an inter-ministerial committee has been set up to continuously review the use of pesticides and in suitable cases, to ban the use of these pesticides whose adverse environmental impact has been amply established.

# Waste Management

Conservation of our resources is possible only if waste is minimised and wealth is created from the waste generated. The attempts in our country in this direction have been sporadic and half hearted. In order to create a focal point to our efforts and to provide an impetus, the Government have created a National Waste Management Council consisting of all of the relevant interests.

# CONSERVATION

# Study on Sustainable Use of Marine Resources

The exploitation of natural resources for development, must be on a sustainable pattern. India's large coastline and marine resources offer us a unique chance to develop on sound lines, but only if the resources are exploited on a sustainable basis.

It is proposed to study this aspect thoroughly and prepare a policy for such sustainable use.

# Review of Export Policy of Natural Resource Products

The export policy of the country for specific natural resources has been reviewed. The Ministry of Commerce has incorporated a ban on export of wild birds, fruit bats, sea shells and sea weeds in the new export policy. In view of the ecological importance of frogs, export of frog legs, has already been banned. However, the frog legs are now smuggled through Bangladesh and this issue will be taken up with the Government of Bangladesh for effective prevention of smuggling. In view of the large scale killing of the National Bird of India, i.e. Peacock, for export of its tail feathers, the quota on export of peacock feathers has been reduced from 60 lakhs to 20 lakhs.

# Prevention of Sandalwood Smuggling

In view of the large scale smuggling of sandalwood in the southern states, it has been proposed to assist these states to strengthen their infrastructure for arresting this smuggling.

# Electric Crematoria and Wood Efficient Pyres

The Fuel wood scarcity is aggravated by use of large quantities of fuel wood for cremation. It is proposed to encourage electric crematoria and wood efficient burning pyres for the conservation of wood.

# New Technologies for Substitution of Fuelwood

New technologies are now available in India for pelletising garbage as well as leaves of trees to be used as fuel bothfordomestic and industrial purposes. It is proposed to encourage the use of these technologies in major municipal bodies.

# AFFORESTATION

# Greening of Haryana

A large mode programme has been taken up in Haryana to green about three lakhs over the next three - four years, with the co-operation of the Government Departments, industries, panchayats and farmers in the State.

# Review of Forest Policy in Relation to Protection of Tribal Interests

In order to protect the interests of tribals and integrate forest conservation strategies with the tribal welfare, the Government have reviewed the policies and steps are being taken to integrate tribal development, with the principles of long-run sustainable management of forest resources.

# National Fund for Afforestation

The Government have already announced for concessions to promote afforestation. Taking advantage of this, a National Fund for Afforestation is being created to step up the pace of afforestation and development of wastelands.

# WILDLIFE

# **Burning of Seized Products**

In order to wean the Indian public from use of wildlife products, it is proposed that all seized stocks such as rhino horns, ivory etc., should be burnt at public places. The ivory trade in India will be completely banned shortly. The international trade is already banned.

# Improvement of Zoos

The Zoos in India are ill-organised at present, and the animals in these zoos are not provided a proper environment. It is proposed to bring the zoos within the ambit of the Wildlife Protection Act and to constitute a Zoo Authority of India to provide for an improvd management orientation.

# Indo-Bhutan Elephant Corridor

The natural habitats of elephants including their migration corridors have been disturbed through human intervention particularly in the North East. This is specially true of the corridor in the Indo-Bhutan border. It is proposed to recreate this corridor in co-operation with Bhutan

# Buxa Tiger Reserve

The Buxa Tiger Reserve has been affected because of dolomite mining. It is proposed to extend the area of the reserve to compensate for the area lost due to mining.

# ANIMAL WELFARE

# Prevention of Cruelty to Animals

The subject of Prevention of Cruelty to Animals has been transferred
from the Ministry of Agriculture to the
Ministry of Environment and Forests, in
view of the need to take a wholistic
approach towards animals in the context of their importance to environment,
It is proposed to revamp the Animal
Welfare Board and activise the structure
of Welfare Inspectors throghout the
country to prevent cruelty to animals.
The concept of a Veterinary Council on
the pattern of a Medical Council will be

pursued to ensure that the only qualified veterinarians treat the animals.

# Rehabilitation of Bears

A number of animals, particularly bears, are used by itinerant entertainers to amuse the people. In the process, these animals are subjected to extreme cruelty. It is proposed to liberate the bears from the clutches of these entertainers and rehabilitate them in sanctuaries, where a proper environment will be built up. Land for one such sanctuary has been selected at Manesar, Haryana. It is proposed to set up another such sanctuary near Jamshedpur.

# POLLUTION CONTROL

# Campaign Against Highly Polluting Industries

A special drive has been launched against distilleries, sugar mills, tanneries and pulp and paper units which are the worst polluters in India.

# Utilisation of Fly Ash

India's power industry generates nearly 30 millions tonnes of fly ash annually through the use of coal. This fly ash pollute both water and air and could pose a major problem, unless solved promptly. The fly ash has got several productive uses in agriculture and house building. It is proposed to launch a special drive and give incentives for better use of this fly ash.

# Customs Duty Relaxation on Pollution Control Equipment

Ten items have been added to the list of pollution control equipment for which the custom duties have been reduced to encourage industrial units to take up pollution control measures.

# Provision of More Resources to Pollution Control Boards

The Water (Prevention & Control of Pollution) Cess Act, 1977, is proposed to be amended to provide for more revenue to the State Pollution Control Boards.

# Amendments to the Environment (Protection) Act - 1986

Several suggestions have been made to amend the Environment (Protection) Act, 1986, to promote public participation. It is proposed to take up these amendments quickly.

# Common Effluent Treatment Plant to Kanpu Tanneries

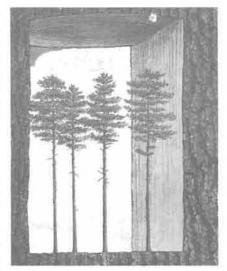
The tanneries in Kanpur create significant pollution in the river Ganga. A common effluent treatment system has been approved at a cost of Rs. 7 crores for these tanneries. In order to promote co-operation by the tanneries in the scheme, the Ministry has issued notices under the Environment (Protection) Act, 1986, to the tanneries. Such notices have made the tanneries more responsive to the scheme.

# **AWARENESS**

The media, particularly the television and the radio, can help greatly in increasing environmental awareness. A high level committee has been constituted to promote use of media for this purpose systematically.

(Courtesy Ministry of Environment, India).

# IRAN



Balance of Ecosystem Iran

# **MALDIVES**

# PEOPLE RISE TO SEA LEVEL THREAT

Thousands of schoolchildren and citizens of the tiny Indian Ocean archipelago country of the Maldives rallied recently in its capital, Male, to speak out, sing and peacefully demonstrate their concern about the threat of a rise in sea level to their homeland, reports Nalaka Gunawardene from Male.

The demonstration was held to coincide with a government meeting called to debate what action the world needs to take to protect small low-lying states from being engulfed by projected rising waters resulting from global warming. The rally was organised by several environmental and community-related organisations and reflects a coming of age of such citizens' groups in this nation of 200,000 people.

"As for my country, the Maldives, a mean sea level rise of 2 metres would suffice to virtually submerge the entire country of 1,190 small islands."

# Small States Conference on Sea Level Rise



President Maumoon Abdul Gayoom, in an address to the U.N. General Assembly (19 October 1987)

They are right to be concerned. If predictions are correct and the world's sea levels rise in the next decades, the Maldives and several other small island nations will be among the first to be affected: they are low-lying land masses where the highest point is less than six feet (two metres) above sea level. In the next century, the Republic's 1,190 islands could be submerged or dramatically reduced in land area.

At the end of the conference, the environment ministers of 15 small island nations, from the Indian and Pacific oceans and the Caribbean and Mediterranean seas, called on the industrialised nations - mainly responsible for the problem - to make available resources and technology to the most vulnerable small states to help them meet the challenge of climate change.

Courtesy Panascope, July 1990

# SRI LANKA

# THE CONTROL OF THE HAPHAZARD IMPORT OF TOXIC CHEMICALS TO SRI LANKA

On a recommendation made by the Central Environmental Authority, a Special Technical Advisory Committee has been appointed by the government, for the purpose of controlling and monitoring chemicals widely imported to Sri Lanka for various industrial purposes. At present, chemicals other than pesticides, fertilizers and pharmaceuticals are not controlled in a systematic manner. As a result a large number of chemicals used in industries are not evaluated for toxicity and environmental effects before they are imported. The Special Advisory Committee will identify the loopholes in the present system of chemical control and draw up a systematic plan in order to streamline chemical imports and minimise the hazards caused by the haphazard use and disposal of toxic chemicals.

The first step taken by the Committee has been to inventorise all chemical imports into Sri Lanka. This is being done by the Central Environmental Authority at the present time. Once a complete inventory of the chemicals is made, the chemicals will be categorised as either hazardous or non-hazardous. In future, the chemicals classified as hazardous, will not be allowed to be imported into the country without prior approval from the above Committee.

# ENVIRONMENTAL EDUCA-TION TO BE STRENGTH-ENED

The Working Committee on Environmental Education Convened by the Central Environmental Authority met recently and discussed several new proposals for the enhancement of Environmental Education at the Pre-School, School and Tertiary Levels. Associated with the meeting was Ms Ingunn Fjoertoft, Senior Programme Officer of the NORAD office in Sri Lanka and her views on the proposals were solicited in view of the fact that assistance from NORAD was expected for the implementation of the proposal.

It was agreed to formulate proposals on the introduction of core-course at tertiary level on environment and separate proposals on strengthening environmental education at pre-school, primary and secondary levels. Committees were appointed to work on these aspects. The proposals are expected to be implemented over the period July 1990 to December 1992.

Mr S. A Jinadasa, Chairman, Central Environmental Authority, explaining these new proposals said that these new proposals will only complement the work that is being done by the other institutions including the non-governmental organisations working in the field of Environmental Education and the total programme would be prepared by the Committee on Environmental Education at the Central Environmental Authority.

# LICENSING PROCEDURE TO PROHIBIT THE DIS-CHARGE OF WASTE INTO THE ENVIRONMENT

The National Environmental Amendment Act No. 56 of 1988 (under the Section 23(A) prohibits the discharge, emission or deposition of waste into the environment except under the authority of a license issued by the Central Environmental Authority (CEA) and in accordance with standards and criteria prescribed under the Act.

In accordance with this Section, His Excellencey the President has appointed the 1st of July 1990, as the relevant date for the purposes of the Act

Therefore, from 1st of July 1990, all state sector and private industrial establishments will comply with the requirement of the environmental license issued by the CEA.

In order to implement the Licensing procedure, the CEA has categorised all industrial establishments in the island, according to the type of industry/pollution load, scale of operation etc.

For all existing industries the authority may a grant the applicant a transition period indicating a time bound programme to treat the pollutants so as to bring them to prescribed standards.

For new industries, the CEA will exercise a control by a site approval procedure and ensure that certain criteria issued by the Authority are incorporated at the design stage.

# EIA FOR THERMAL POWER PLANT

The Central Environmental Authority (CEA) of Sri Lanka, has constituted a Technical Working Group to prepare the Terms of Reference and Guidelines for the Environmental Impact Assessment study of the proposed Thermal Power Plant at Mawella, Matara, South Sri Lanka.

This EIA study is expected to cover all the environmental implications of the proposed Thermal Power Plant. Since this proposed project is of National importance and equally environmentally sensitive, the CEA is ensuring that the EIA Report will be well compiled and researched and without any inadequacies. A consortium of local institutions will be commissioned to undertake the EIA studies and in the areas where there is a lack of local expertise, foreign assistance will be called for.

The Terms of Reference and the Guidelines for the EIA study have been completed in June this year, and has been forwarded to the Working Group to commence their EIA study.

A significant feature of the proposed EIA studies, is that provision has been made in the Terms of Reference and Guidelines to invite views from the public. These could be discussed at the Meeting of the Technical Working Group.



Mr Vincent Perera, Honourable Minister of Environment and Parliamentary Affairs, Sri Lanka



Mr Vincent Perera, Hon. Minister of Environment and Parliamentary Affairs making his inaugural address.

# WORLD ENVIRONMENT DAY ACTIVITIES - 1990

This year too, the Central Environmental Authority arranged several programmes in collaboration with District Environmental Agencies, Non-Governmental Organisations, Environmental Pioneer Brigades, Schools and other private and public organisations to mark the World Environment Day.

Mr. M. Vincent Perera, Hon. Minister of Environment and Parliamentary Affairs, Dr. Wimal Wickramasinghe, Hon. Minister of State for Environment, Mr. S. A. Jinadasa Chairman, Central Environmental Authority and Mr. K. A. H. Ranaweera, Director - General of CEA, issued special messages to the general public on the theme of World Environment Day. Newspaper supplements were published with these messages and other articles.

The Central Environmental Authority initiated action to involve all the schools in tree planting programmes throughout the island, as it is very necessary for children to be enlightened on the importance of environment at the very early stages of their lives so that they will fulfil their obligations for environmental conservation and enhancement as citizens of our country in the future. With this objective, the Central Environmental Authority has designed this programme which can be adopted by schools.

All school children and the members of the staff were requested to ensure their participation in this programme. The school environmental programme was carried out by the staff and the students of the school according to the given specimen programme by the CEA. In addition to this, with the objectives of renewal of the commitment of all people to respond to the challenges of development without degrading the environment, several programmes such as tree planting campaigns, seminars, workshops, rallies, school seminars clean up campaigns, were organised by District Environmental Agencies, public and private organisations.

Tree planting in school gardens, plant nurseries, Shramadana Campaigns to clean up the school gardens, cleaning all the main water canals, seminars and lectures on 'Children and Environment' were some of the programmes carried out by the members of Environmental Pioneer Brigades at Siri Vajiragna Maha Vidyalaya, Nuwara Eliya, Suman Balika, Seevali Maha Vidyalaya.

Islandwide short stage-plays, competitions, poster and painting competitions, essay and oratorical competitions, 'Do you know' contests, tree planting programmes, plants distributing campaigns, programmes for soil conservation, nature protection and mosquito control, exhibitions and seminars on environment, rallies were organised by the Central Environmental Authority in collaboration with Nature Conservation and other Non-Governmental organisations.

All events carried out to mark the World Environment day, received extensive media publicity. Special radio coverage in which the Chairman and Director-General, CEA participated was broadcast. The Environmental pledge was broadcast over the radio on the 5th and 6th of June, 1990 for the benefit of school children of the Dharpa garbage dump in Calcutta.

# PAINTING COMPETITION ON TECHNOLOGY AND ENVIRONMENT IN SRI LANKA

With a view to submitting entries for the Painting Competition organised by ESCAP at the Regional Level on the theme 'Technology and Environment,' the CEA has organised a National Level Painting Competition for students between the ages of 13 and 17 years of age.



The judges hard at work

The three winning entries from the National Level will be forwarded to the Regional Level competition. They will receive US\$ 50 and a certificate for participation.

ESCAP will award cash prizes of US\$ 300, US\$ 250 and US\$ 200 to the first, second and third regional winners. The Regional Level winning entries will be exhibited to the delegates and observers at the Ministerial Level Conference on the Environment in Asia and the Pacific, to be held in Bangkok, Thailand from the 10th to the 16th October 1990.

# PAKISTAN

# PAKISTAN LOOKS AT GARBAGE FUELLED DESALTERS

Two power/desalination projects, together totalling US\$ 250 Million, have been submitted for government approval by a US/Pakistani joint venture, which intends to power them using garbage imported from the Arabian Gulf.

A joint venture of KTI Resource Services of the USA and Pakistan's Energy Resources has submitted proposals to establish the two plants in the Gwadur Export Processing Zone in Baluchistan province. The first, costing US\$ 110 Million, would involve a 47.5 MW power plant with 22.5 MW ear marked for desalting 20 MGD (77,500 m3/d.)

# INSTITUTIONAL STRUC-TURE IN THE ENVIRON-MENTAL FIELD

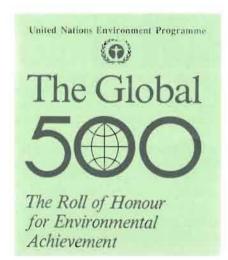
The development of Environmental Institutions and legislation is a reflection of the consciousness of nations towards its environment. It is a well documented fact that economic development must incorporate environmental considerations if the quality of life in its broadest sense is to be improved. An administrative and political recognition of this reality has been expressed in two different ways (a) The development of Government and non-Government institutions (b) The enactment of legislation. Whereas the development of environmental organisations indicates a general concern about environmental quality, environmental legislation is a concrete methodology through which environmental policies can be implemented. Legislation is also a measure of political power that environmental institutions can wield in their efforts to protect the environment. Indeed environmental institutions and legislation reinforce each other and in the process each becomes more effective.

The important national, institutions in Pakistan which play a significant role in safeguarding the environment can be broadly classified into three categories. a) Government organisations, b) The Political institutions such as local bodies, c) The non-Government Organisations (NGO'S). Internationally, Pakistan is a member of a number of inter-Governmental Organisations that have been established to safeguard regional and global environment such as UNEP, SACEP ESCAP etc.

Extract from Environmental Profile of Pakistan

# **MYANMAR**

The Government of the Union of Myanmar established the National Commission for Environmental Affairs in March 1990, and the same will be headed by H. E. U Ohn Gyaw, Deputy Minister for Foreign Affairs. This High Level Commission includes representatives of various Ministries concerned with Environmental Affairs. Nationally, the Commission will have competency overall environmental matters and will be directly responsible to the cabinet. Internationally, it will be the Environmental Focal Point for Governments and International Organisations.



# SOUTH ASIAN RECIPIENTS

1987

# Anil Agarwal

An Indian national who is an environmental consultant and writer, and Chairman of the Board of Directors of the Environment Liaison Centre, the international networking umbrella organisation for environment and development NGO's.

# Chandi Prasad Bhatt

Leader of India's famous "Chipko" movement to protect and replant forests in the Himalayas.

# Mr. G.V. & Mrs. K. Karlekar

The Karlekars through the Calcutta Special Project, have worked for many years in degraded urban environments. They run a non-formal school teaching basic skills to the scavenger children of the Dharpa garbage dump in Calcutta.

# King Mahendra Trust for Nature Conservation

The Trust, the first non-governmental environmental organisation in the Kingdom of Nepal, campaigned for the establishment of Nepal's protected areas, including two tiger reserves. It promotes sustainable utilisation of natural resources.

#### Ben Soans

The leader of a grassroots movement which has planted millions of trees in two Indian states, Karnataka and Tamil Nadu. He has established five tree nurseries and training centres for farmers and school children. He received India's highest environmental award in 1985.

# 1988

# Mohammad Ilyas Burney

Dr. Burney's research and preventive field work in Pakistan on the guinea worm disease which is spread by contaminated water and threatened 360,000 people in 400 villages has eliminated the disease in pilot area villages and provided strategies for eradication of the disease in Pakistan by 1988.

# Centre for Science and Environment, India

The Centre for Science and Environment has published outstanding reports on the state of India's environment in 1982 and 1985. These "citizens reports" based on grassroots information, serve as examples of national environment reports.

# Paljor Dorje

Mr. Dorje, who is Chief Justice of Bhutan, established the Royal Society for the Protection of Nature, the first NGO in Bhutan concerned with environmental awareness and conservation of endangered species and migratory birds. he successfully campaigned for the protection of wintering sites for the endangered black necked crane.

#### Maumoon Abdul Gayoom

President Maumoon Abdul Gayoom has encouraged research on the increase of atmospheric carbon dioxide and sea level rise. He has publicised the climate change issue locally and internationally, culminating in his address on the subject to the UN General Assembly in 1987.

# Krishna Kumar Pandey

Professor Pandey is author of a book on fodder crops of Nepal and founder of "Jara-Juri", a grassroots organisation involving thousands of farmers in the Himalayas. The movement has carried out extensive afforestation in Nepalese villages.

### 1989

# Friends of Trees of Living Beings

An Indian village movement which has promoted sustainable rural development for 20 years.

#### Thilo Hoffman

A Swiss national, long resident in Sri Lanka where for 30 years he has been a leader in forest and wildlife conservation.

#### Shoalb Khan

General Manager of an Aga Khan foundation Programme in Northern Pakistan, which emphasizes environmental aspects of rural development.

# Harekala Moideen

An Indian rural leader, long active in major tree planting programmes.

# G. Radhamohan

An Indian social scientist who has encouraged students and rural youth in thousands of villages to conserve forests and to 'green' arid areas.

# Felex Ryan

From Madras, India, who for 30 years has developed and promoted low cost rural waste recycling, particularly as energy sources.

# Sawroop Sharma

Who founded in 1976 the Environmental Society of Chandigarh, India, to raise public awareness of environmental issues and actions.

# Krisna Tamrakar

A Nepalese radio journalist who presents programmes on the environment.

# Venerable K. Pannasekera

A Sri Lankan Buddhist monk who since 1981 has led conservation work by villagers in the Ramboda district.

#### Ram Prit Yadav

Who conducted the surveys leadling to the establishment in 1973 of Nepal's first National Park and of other protected areas.

#### Parbati Baruah

Helps protect elephants in the Himalayan foothills in cooperation with the West Bengal Forestry Department.

# Maitraye Devi

Who directs an orphanage in Calcutta, India teaches conservation to her wards and the community, and campaigns against indiscriminate logging and land use.

# 1990

# Bombay Natural History Society

For its crucial role in protecting India's wildlife.

### Hussain Muhammad Ershad

President of Bangladesh, for strong environmental leadership and his campaign for protection and conservation of climate.

# Dhrubajyoti Ghosh

For work on the conservation of wetlands east of Calcutta, India.

#### Kazi Zakar Hussain

For many achievements as pioneer of wildlife conservation in Bangladesh.

#### Kerala Sastra Sahitya Parishad

An Indian NGO active since 1962 in environmental protection and rational use of natural resources.

# Gunavantrai Oza

An Indian botanist who was instrumental in protecting the hangul. (Kashmir deer) from extinction.

# W.M.U. Wanigasundara

A Sri Lankan journalist specialising in environmental issues.

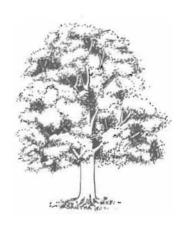
#### Mohamed Zahir

A journalist and writer in the Maldives whose influential weekly the page on the environment in the daily Haveeru, has been published for four years.

> "Clearly, environment is becoming recognized as an essential factor in all sectors of development"



S.A.M.S.Kibria, Under-Secretary-General of the United Nations and Excecutive Secretary of ESCAP in his opening statement to the first session of the ESCAP Committee on Agriculture, Rural Development and Environment, held 13-17 November 1989 in Bankgkok.



# Greening Development press conference at FCCT



connection with the "Greening Development" meeting, a press conference was held at the Foreign Correspondents Club of Thailand on October 11. The panelists included (from left to right) Ms. Helen Hughes, New Zealand's Parliamentary Commissioner for the Environment and Chairperson of the meeting, Mr.S.A.M.S. Kibria, Executive Secretary of ESCAP, Mr. Michael Gucovsky, Deputy Assistant Administrator and Director of UNDP's Technical Advisory Division in New York, and Mr.C.Suriyakumaran, a distinguished economist and writer on development economics and the environment.

# CALENDAR OF FORTHCOMING EVENTS

Title	Time Frame	Venue
* 5th Governing Council Meeting of SACEP	Early 1991	Tentatively Thimphu
* SACEP Conference on Sub-Regional Policy and strategty towards deterring Greenhouse Effect, Global Warming, Sea Level Rise and Ozone Layer Depletion	Early 1991	Tentatively Thimphu
* SACEP/ESCAP/Government of Sri Lanka Workshop on Coastal Resources Management Planning	10-14 December 1990	Colombo
Mid-Term Review Meeting of SACEP RENRIC Project	December 1990/ January 1991	Colombo
* ESCAP preparatory Meeting of Senior Officials for the Ministerial*Level Conference on Environment and Development	10 - 13 October 1990	Bangkok
<ul> <li>ESCAP Ministerial-Level Conference on Environment and Development in Asia and the Pacific</li> </ul>	15 - 16 October 1990	Bangkok
<ul> <li>ESCAP Cleantech '90, Exhibition of Environmentally Benign Technologies and Products</li> </ul>	10 - 16-October 1990	Bangkok
* Pacific Basin Conference on Hazardous Waste	12-16 November 1990	East-West Centre, Honolulu
* 18th General Assembly of International Union for Conservation of Nature and Natural Resources (IUCN)	28 November 5 December	Perth
* ESCAP/UNDP Regional Seminar-Cum- Study Tour on Degradation of Forests, Lands and Reforestation in the Humid Tropics to combat Desertification	10-20 December 1990	Hanoi, Hochimin City