

RETA 5359

ASIAN DEVELOPMENT BANK

TECHNICAL ASSISTANCE

TO THE

SOUTH ASIA CO-OPERATIVE ENVIRONMENT PROGRAMME

FOR

REGIONAL ENVIRONMENTAL AND NATURAL RESOURCES INFORMATION CENTRE

INCEPTION - REPORT

**SOUTH ASIA CO-OPERATIVE ENVIRONMENT PROGRAMME
NO. 84, LORENSZ ROAD
COLOMBO 4
SRI LANKA**

JULY 1990



South Asia Co-operative Environment Programme

SACEP

P.O. BOX 1070 NO. 84 LORENSZ ROAD COLOMBO-04 SRI LANKA

03rd July 1990

OUR REF: ECHS/90/14

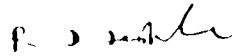
Dear Dr Worcester,

REGIONAL ENVIRONMENTAL & NATURAL RESOURCES
INFORMATION CENTRE. - 'RENIC' -

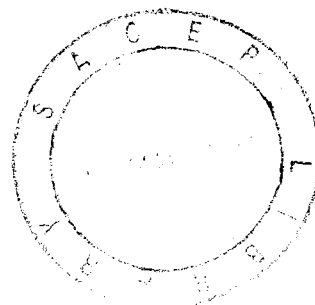
Please find attached the Inception Report for the implementation of the above Project which was prepared in association with the Local Consultant, Dr Leslie Herath.

Director, SACEP had to go to Bangladesh due to urgent personal reasons when the report was being prepared. However, we wish to acknowledge the assistance rendered by him during the two days that he was associated in formulating this report. The valuable services rendered by the SACEP Secretariat Staff is greatly appreciated.

Yours sincerely,


DR R.D. DESHPANDE
International Consultant
RENIC Project.

Dr B.K. Worcester
Environmental Specialist,
Environmental Division,
Asian Development Bank,
P.O. Box 789,
1099 Manila,
PHILIPPINES



TELEX: 21494 GLOBAL CE

CABLE: SACEP

TELEPHONE: 582553

Extra

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CONTENTS

1. INTRODUCTION

1.1 Background

1.1.1 South Asia Co-operative Environment Programme (SACEP)

1.1.2 Recruitment of the International Consultant

1.1.3 Recruitment of the Local Consultant

1.2 The Project

1.2.1 Need for the Project

1.2.2 Objectives

1.2.3 Scope

1.2.4 Project Organisation

1.2.5 RENRIC Cell

1.2.6 Focal Points

1.2.7 Finances

1.3 Purpose of the Inception Report

1.4 Background Information

2. PROJECT IMPLEMENTATION

2.1 Project Administration

2.1.1 International Consultant

2.1.2 Local Consultant

2.1.3 Facilities

2.1.4 Staffing

2.2 *Accounts*

2.3 *Focal Points*

2.4 *Mission of the International Consultant*

2.5 *Country visit of Local Consultant*

2.6 *Equipment Purchase*

2.7 *Information handling*

2.8 *Work Shop*

3. *BUDGET*

3.1 *Background*

3.2 *Remuneration and travel*

3.3 *Focal Point support*

3.4 *Communication and publication*

3.5 *Regional Work shop*

4. *WORK PLAN*

5. *CONCLUSIONS AND RECOMMENDATIONS*

APPENDIXES

- i) *Articles of Association of SACEP;*
- ii) *Bio-data of the International Consultant;*
- iii) *Bio-data of the Local Consultant;*
- iv) *Questionnaire and List of Organisations to which
it has to be sent;*

1. INTRODUCTION

1.1 Background

Environmental and natural resource degradation, increasingly serious problems in the developing countries, threaten long-term development particularly in the countries of South Asian region.

As pointed out by Mrs Indira Gandhi at Stockholm Conference, poverty is a major cause of environmental degradation. Those who are poor and subjected to a marginal existence are forced to exploit their immediate environment in order to survive. They will cut down the trees, overgraze grass and scrublands and overuse marginal lands till they are converted into desolate lands. Impoverished rural people flock to already congested cities in search of employment. Large scale exodus to urban centres is creating serious environmental challenges.

Almost all countries in the region depend heavily on natural resources, agriculture, forestry, fishing and mining. While pollution problems in some have reached alarming proportions, the need for rational long-term management of the resource base is of prime importance particularly in countries that have a large and increasing population. The inter-relationship between population, environment, natural resources and development is being increasingly recognised by decision makers.

South Asia offers a wide spectrum of countries at different

levels of economic and industrial growth including 5 least developed countries. The region which will have population of over 1.6 billion i.e. approximately 27 per cent of global population by the end of the millennium.

The environmental challenges facing countries in the region can be broadly grouped in two types : - those that over exploit and misuse critical natural resources such as tropical forests, soils and water; and the other type that emanates from pollutants discharged from development activities, particularly industrial and transportation. Of increasing concerns are the safe use of toxic chemicals and proper handling and disposal of hazardous wastes. Hence the primary issues facing the countries in the region are deforestation, soil degradation, coastal zone management, depletion and contamination of fresh water supply sources, toxic chemicals and hazardous wastes.

In the tropical countries, soil and water are the most serious factors affecting productivity. To cite one example, 90 per cent of the world's rice is grown and consumed in Asia. About 100 million ha. of potential rice lands which are climatically, physiographically and hydrologically suited to rice culture lie uncultivated because of soil problems such as salinity, alkalinity, strong acidity, soil sulphide conditions and peatiness. By combining such amendments with variable tolerance, these lands can be cultivated at a reasonable cost. If this can be achieved the demographic pattern of South, Southeast Asia may change appreciably. Soil management and rehabilitation of wasted lands is of crucial importance so that the

countries are able to feed the increase in population.

With regards to deforestation, it is well known that tropical forests are vast storehouse of precious genetic resources. Somewhere between 25-40 per cent of the original extent of the world's tropical forests was lost by 1980. In South Asia, Asia's highest rate of deforestation is in Nepal (3.9 per cent) where population size is large relative to the size of the closed forest. The forest area of the Himalayan watershed has declined by 40 per cent over the past 30 years, contributing to shortages of fuel and wood in the uplands and to floods and siltation in the lowlands.

The countries in the region have become increasingly aware of the crucial role of forests in sustaining food production, creating employment and income, providing essential raw materials and goods and generating scarce foreign exchange. Policy changes and increased investments are urgently needed to head off serious deforestation.

Another noteworthy development has been the recent surge of activity among NGO's engaged in the forestry related programmes, those to combat desertification, erosion, siltation, fuelwood shortage and rural hunger.

An important element of the terrestrial ecosystem is water. Agriculture, mainly irrigation accounts for the largest single share of use in countries of South Asia. In this region India has seen the most rapid growth in irrigated land, the gross area under

irrigation extended from 28 million hectares to about 50 million hectares. Despite the extensive use of irrigation to increase crop yields, irrigation efficiencies are rather low. The two major impacts from irrigation have been noticeable in several countries. One of the excessive use of groundwater in relatively dry areas, depleting aquifers and the other salinisation alkalisation and water-logging of fertile agricultural land, due to improper design and management of irrigation systems.

The countries of the region are now facing water pollution problems caused by the discharge of untreated or improperly treated wastewater into rivers, lakes and reservoirs. As industrial wastewater flows increase and become more complex with higher load of inorganic and toxic chemical compounds, new pollution problems emerge. In this region, a growing number of countries are suffering from increased pollution of their freshwater systems. Another water quality problem is the increasing eutrophication of rivers and lakes. This is caused mainly by the run-off of agricultural chemicals from farm land. Data regarding the overall quantity of the water in rivers in most countries are fragmentary. Available data indicate that pollution is a growing problem, for example in India, 70 per cent of its total surface water is polluted.

Managing water demand instead of just increasing supplies will become extremely important over the next two decades. Water efficient technologies in agriculture and industry must be developed and widely practiced. In the industrial sector, water use efficiencies have increased. In Japan, for example, 2/3 of industrial water

is now recycled water as composed to 1/3 in 1965. In the U.S., industry has achieved a water cycling role of 2.2.. This means that water brought into the plant was used on average 2.2. times before it was discharged. Hence the recycling and reuse of water needs to be promoted in the South Asian industrial sector.

The coastal zone represents the transition from terrestrial to marine influence and vice-versa. It comprises of upland watersheds and nearby littoral ecosystems influenced by land-based activities. Coastal zones are areas of high productivity, based primarily on the concentration of cycling of nutrients from adjacent land mass.

Coastal ecosystems play a major role in the life-cycles of economically important finfish and shellfish. Additional functions of coastal ecosystems include the critical role of buffering the joining of land to sea by moderating coastal erosion and salinity changes. Many of the biologically productive coastal communities are in the tropical regions where they are threatened by population and development pressures. The major resources of the coastal tropics are mangroves, seagrass beds and coral reefs. Although pressures on mangrove ecosystems vary from country to country, by far the greatest threats are clear cutting, diversion of freshwater from upland watersheds and reclamation for agriculture and aquaculture. One major consequence of such mangrove degradation is reduced fish yield. Similarly, seagrasses provide habitat for fish and other marine organisms. The primary commercial value of seagrass beds, in fact derives from that importance as forage and critical habitats for fisheries species. The major threat to seagrasses is from water

pollution such as caused by industrial waters, thermal discharges from power plants and the oil spills. The loss of seagrasses decrease the quantity of marine life. An analysis of resource abundance and development activity indicate that the coral reefs, seagrass as well as the mangroves are most threatened in South and Southeast Asia. Rehabilitation of marine coastal ecosystem will continue to pose as a major environmental challenge to maritime countries of the region.

Consistent and accurate environmental data are a prerequisite effective action to protect natural resources and environmental quality. Therefore environmental monitoring should be an integral part of an environmental programme. An extensive and up-to-date data base will not only serve to detect any changes in environment quality, but it will also allow comparisons of environmental parameters in different areas and different countries. Information related to environmental research also is useful for adoption of technologies and evolution of cost-effective solutions of environmental problems. There has been significant progress in the development of environmental monitoring systems over the past several years on the international level. Global Environmental Monitoring Systems (GEMS) an information system promoted by UNEP, WHO and other international organisations collected a wide range of monitoring and assessment data related to climate, oceans, etc. The main activities of GEMS include the assessment of global atmospheric pollution and its impact on climate, the extensive distribution of contaminants in biological systems; environmental processes related to agriculture,

land and water use; the response of terrestrial ecosystems to environmental stresses; ocean pollution and its impact on marine ecosystems; disaster forecasting, etc. Thus, the potential for fostering international co-operation in combating environmental challenges is enormous. During the 1970's the Intergovernmental Oceanographic Commission (IOC) of UNESCO initiated a programme on the International Decade of Ocean Exploration (IDOE). This programme included four broad study areas: (1) ocean research; (2) monitoring and environmental forecasting; (3) the quality of the marine environment; and (4) living and non-living ocean resources. A major project on "Global Investigation of Pollution in the Marine Environment" (GIPME) was launched to prepare periodic reports on five kinds of major marine pollutants: halogenated hydrocarbons, radioactivity, heavy metals, petroleum hydrocarbons and litter. Another project, "Global Atmospheric Research Programme". (GARP has been undertaken to study atmospheric processes.)

At the regional level, South Asian Seas Programmes will be involved in monitoring physical chemical and bacteriological contamination of the oceans. SACEP countries have initiated significant fresh water quality monitoring activities at the national level.

While most of these programmes in their early stages tend to be limited to the use of physical and chemical parameters and to sampling of the water column, there is increasing recognition that to get a competent assessment, the programme must also include biological parameters and sampling of bottom sediments. There is

8.

also increasing recognition of the need for bioassays to measure both gross toxicity and specific toxicities. Systematic water quality monitoring, as practised in the industrialised countries, has not yet been possible in most developing countries, owing to lack of budgetary support. There has been a continuous upsurge in the establishment of monitoring systems in the region.

Ambient concentrations of a number of different air pollutants, e.g., sulphur dioxide, particulate matter, carbon monoxide, hydrocarbons, sulphation rate, nitrogen oxides, etc., are being monitored in some SACEP countries, e.g. India, Sri Lanka and Pakistan. Monitoring activities, however, need to be strengthened in several countries. More importantly, environmental impact monitoring which would demonstrate a clear link between air or water pollution and human health effects needs to be promoted.

UNEP has developed International Referral System (INFOTERRA) and International Register of Potentially Toxic Chemicals (IRPTC) under the overall programme of EARTH WATCH to promote environmental information. INFOTERRA has national focal points in about 20 countries of Asia Pacific and has identified a network of over 2,000 sources of environmental information from these countries. This has proved valuable in eliciting information of important environmental matters. However, there have been some concerns that this network do not provide substantive information, but only sources from which information would be sought. IRPTC has identified several hundred chemicals toxic to human health and environment and has been disseminating useful information about them. FAO and WHO are publishing interesting data on land use, fisheries, forestries, fertilisers and pesticides, health statistic mortality and morbidity rates, etc., on an

annual basis. ESCAP also publishes an annual Statistical Yearbook for Asia and the Pacific, which contains useful environmental data. It also publishes quarterly bulletin of statistics for Asia and the Pacific. UNEP is currently working on a system, which would periodically publish data on a set of environmental indicators.

Several countries of the South Asian region are in the process of developing systems for collection, collation, analysis and retrieval of useful environmental data. India has set up an Environmental Information System (ENVIS), which is presently focussing on water and air quality.

In addition to areas already mentioned there is increased need for disseminating environmental information in the following priority areas.

Desertification control technology (e.g. regeneration of grass lands; sand dune stabilisation; silicone technology; hydroponics technology; drip irrigation; skimming well technology; selective reforestation programmes).

Pollution control technology (e.g. low and nonwaste technology, industrial pollution control from agro-based and small scale industries, control of soil pollution).

Environmental health and sanitation (e.g. technology for safe and low-cost urban and rural water supply and sanitation such as bamboo tube-wells and watersealed latrines, etc.)





Environmental management (e.g. development of simple and practically enforceable legislation, incorporation of EIA in development projects, techniques for promotion of environmental awareness).

In South Asian region some information exchange and International co-operation is already occurring although at a very limited scale through the South Asia Co-operative Environment Programme. Past experience has demonstrated that timely dissemination of information can yield substantial economic and environmental benefits. There is therefore an urgent need for strengthening national capabilities and promoting active exchange of information that the setting up of an information network with SACEP playing the lead role.

1.1.1 SOUTH ASIA CO-OPERATIVE ENVIRONMENT PROGRAMME (SACEP)

The emergence of South Asia Co-operative Environment Programme, was in fact the culmination of two years of deep deliberations, by the ten countries concerned, on the feasibility of regional co-operation on environmental oriented development activities. An official's meeting of the South Asian countries was held in Bangalore, India in March 1980, and this meeting recommended that a high level meeting of Ministerial rank, be held to further examine various aspects of this issue. In accordance with this recommendation, a high-level meeting of Ministerial rank was held from 18th to 25th of February 1981 in Colombo, Sri Lanka, and this meeting approved the Declaration and the Articles of Association for the initiation of the South Asia Co-operative Environment Programme (Appendix I) To date, 7 out of the ten South Asian countries, namely Afghanistan, Bangladesh, Bhutan, India, Maldives, Pakistan and Sri Lanka

have ratified the Articles of Association of SACEP.

The decision to initiate joint action by these South Asian countries - of which five are classified as least developed by the United Nations system - having a total population of over 1000 million people has to be regarded as a very significant event.

The Ministerial Meeting also identified 14 subject matter areas for attention by SACEP.

SACEP became a legal entity on the 7th January 1982, when the minimum required number of countries ratified the Articles of Association.

With the assistance of UNEP and UNDP, three separate Missions were mounted in mid May 1982, to formulate projects in certain selected Priority Subject Areas. These Missions after visiting the Member Countries of SACEP, formulated a number of projects and the following were approved at the First Governing Council Meeting of SACEP in January 1983.

- 1. Integrated energy saving domestic stoves and fuel-wood systems;*
- 2. Environmental Education and Information;*
- 3. Environmental Legislation;*
- 4. Environmental Clearing House Services;*
- 5. Demonstration Plant for the manufacture of "SURKHI" a building material from broken bricks in Nepal;*
- 6. Demonstration Plant for the production of Rice-Husk-Ash Cement in Sri Lanka;*

7. *Demonstration Plant for the manufacture of Feed Blocks from Agricultural Residues in Pakistan;*
8. *Environmental Assessment of Investment Promotion Zones at Katunayake and Biyagama;*
9. *Environmental Assessment of Proposed Bombay High Gas Based Fertiliser Plants at Hazira and Thal-Vaishat, Gujerat and Maharashtra;*
10. *Environmental Assessment of Javedan Cement Ltd., Karachi;*
11. *Environmental Assessment of Sanitation Development in Male;*
12. *Manpower development programme for environmental assessment in the Region.*

SACEP during its short space of existence, has contributed in no small measure towards environmental activities in South Asia. Perhaps its greatest achievement has been its ability to bring to the South Asian Region, what is considered by many as UNEP's Crowning Jewel - The Regional Seas Programme.

For a variety of historical reasons, a regional programme for the South Asian Seas was not initiated. However, the emergence of SACEP saw with it the revival of interests towards the establishment of a Regional Seas Programme for the South Asian Seas. To date, four meetings have taken place in connection with the formulation of the Action Plan, which has now been approved by both the experts and the National Focal Points.

The last Meeting held in February 1990 reviewed the Proposed Legal Framework of the Action Plan, by examining the Draft Convention

for the Protection and Management of the Coastal Environment and also draft protocols concerning co-operation in combating Marine Pollution in case of Maritime Emergencies and Prevention of Pollution of the South Asian Seas Region, by dumping from Ships and Aircrafts. Once concurrence is obtained, there will be a Meeting of Plenipotentiaries to formally approve the implementation of the Action Plan.

It is of significance that both the Experts and Focal Points have recommended that SACEP should be the Secretariat for the execution of the "Action Plan".

Even prior to the formal approval of the "Action Plan", the 6 following Priority Projects have been approved for implementation.

- a) Coastal Environmental Management Plan (CEMP) for Pakistan
(Implementing Agency - ESCAP and the Government of Pakistan)
- b) Development of a System of Protected Areas.
(implementing Agency - IUCN)
- c) Assessment of Levels and Effects of Marine Pollution
in the South Asian Seas Region
(Implementing Agency - IOC)
- d) Development of an Operational Regional Contingency Plan
for Responding to Marine Pollution
(Implementing Agency - IMO)
- e) Survey of Land Based Sources of Marine Pollution and
Formulation of Guidelines and Proposals for Environ-
mentally Sound Waste Management Technologies and

Pollution. (Implementing Agency - SACEP).

- f) Promotion of Public Awareness for South Asian Countries in connection with the South Asian Seas Programme. (Implementing Agency - SACEP)

The Project on the Development of an Operational Regional Contingency Plan for Responding to Marine Pollution, has been completed successfully and the Draft Regional Contingency Plan has been made available to the Marine Member States for their concurrence.

Another significant achievement of SACEP has been the activities undertaken by its Members connected with the Declaration of 1988 as the Year of Trees for South Asia. Taking into consideration the rapid rate of deforestation not only in South Asia but in the whole world, a resolution was unanimously adopted at the first Meeting of the Governing Council, declaring the Year 1988 as the Year of Trees for South Asia.

The 11th Meeting of the Governing Council of UNEP held in Nairobi in May 1983 commended the initiatives taken by the countries of South Asia to overcome deforestation and agreed to assist SACEP in the formulation of projects and programmes in support of this project.

The 8th of March 1988 was observed as the Day of Trees for South Asia, and a number of activities took place in all the Member States of SACEP.

With the assistance of UNEP, the following activities were also undertaken:

- a) Preparation of a Video Cassette on the significance of Trees;
- b) Preparation of a Radio Jingle;
- c) Publishing of a special Issue of the SACEP Newsletter;

Of the numerous activities undertaken by the Member States of SACEP, perhaps the most noteworthy activity was the programme undertaken by the Government of Sri Lanka, whereby they, through a period of 5 years, achieved the target of planting 100 Million Trees by the year 1988.

Another achievement of SACEP were the activities undertaken in connection with the Environment Legislation. With UNDP's assistance, all the Member States of SACEP, based on approved Terms of Reference, selected Country Consultants to prepare a Present Status Report of the Environmental Legislation operative in their respective countries.

Based on these reports, a regional Overview was prepared by a Consultant appointed by UNDP and this report along with the Country Reports were reviewed at a Meeting of Experts held in New Delhi, India, in January 1987. The Meeting also made certain recommendations and follow-up actions to the Member States for their consideration.

In the field of Environmental Management, through the efforts



of SACEP, significant achievements have been made in the area of Environmental Impact Assessment. Many training workshops connected with this subject area have been conducted for the region and in almost all SACEP Countries, EIA has been made mandatory for all development projects.

WHO's Panel of Experts on Environmental Management for Vector Control (PEEM), decided at its 2nd Annual Meeting that SACEP should co-ordinate a WHO sponsored Pilot Study on Vector Borne Disease Problems in small scale water Resources Development Projects in Sri Lanka. As the first phase of this study, SACEP prepared an Inventory of Water Resources Development Projects in Sri Lanka. This was followed by an assessment of the magnitude of Vector Borne disease problems resulting from these projects.

The final report has been sent to WHO for their evaluation. Depending on their report, there is a likelihood that this project could be extended to other Member Countries of SACEP.

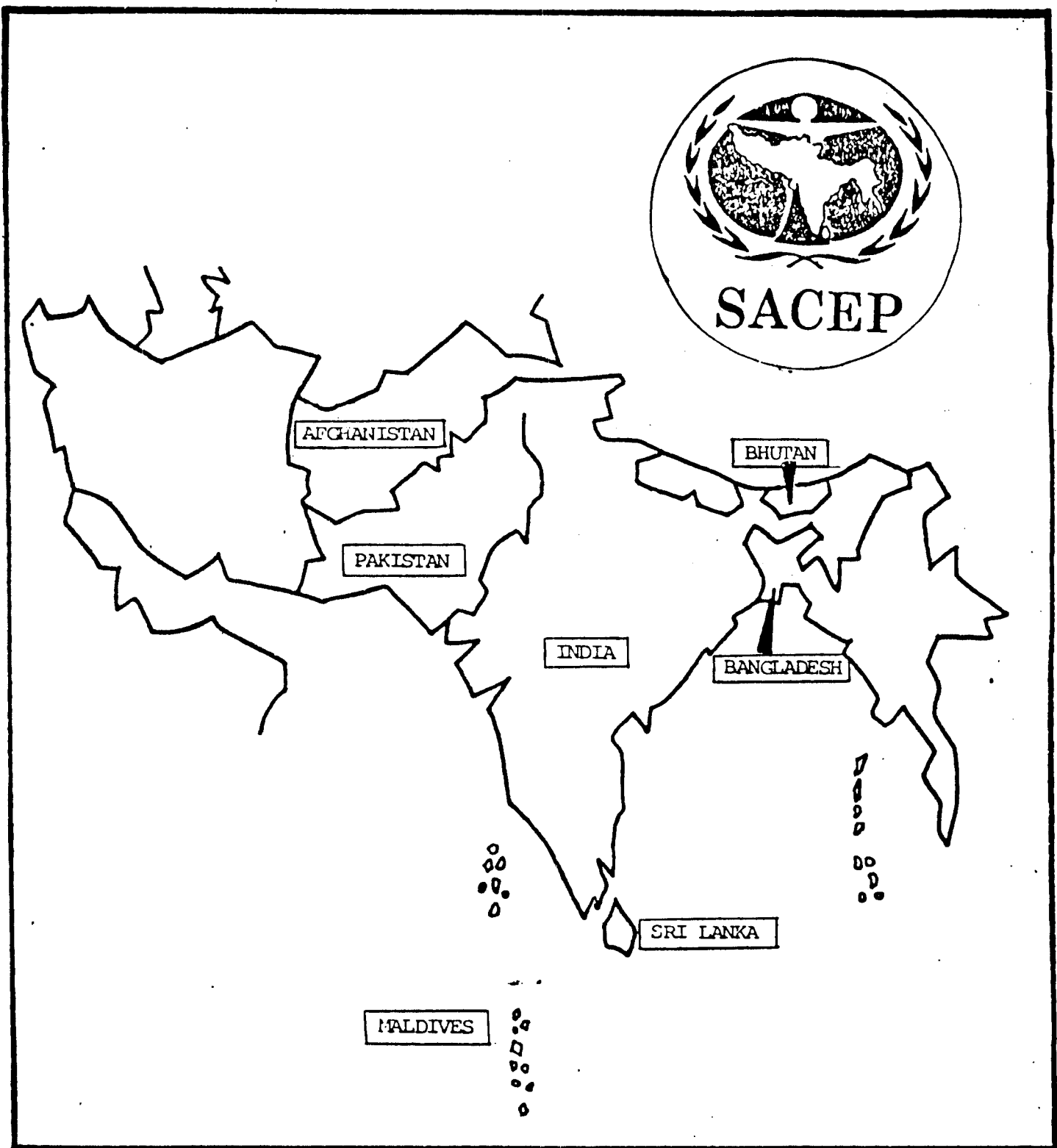
A Project titled "Modern Technologies for the Treatment of Industrial Effluents in South Asian Countries" has been formulated by SACEP, and has been approved by UNIDO for implementation. The Project value is US \$ 2.92 Million and UNIDO has put up this proposal to UNDP for funding. This project envisages the setting up of a Pilot Treatment Plant in Sri Lanka and also a training component, which would benefit all the Member Countries of SACEP. The contribution of the Governments of SACEP Member Countries towards this project would be In Kind.

SACEP with financial assistance from ESCAP would be conducting a Ten Day Training Workshop on Coastal Resources Management Planning in Sri Lanka towards the end of 1990. The broad objectives of this workshop, is to assist South Asian States to improve their capability to conduct integrated multi disciplinary planning and management of the Coastal Environment and its resources.

SACEP has received financial support both in Cash and In Kind from UNIDO, UNEP, ESCAP, IUCN, WHO, FAO, UNESCO, EEC, Technology for the People, Geneva etc. Such external assistance has been predominantly for the Regional Seas Programme of UNEP.

SACEP has regularly attended International Meetings and participated in Workshops of UNEP, ESCAP, UNDP, FAO and other International Bodies. It has also attended the Governing Councils of UNEP during its formative years and have attended all the Meetings of the South Asian Regional Seas Programme, conducted by the Ocean and Coastal Areas Programme Activity Centre (OCA/PAC) of UNEP.

In the light of the above it is felt that SACEP has the necessary capability for playing a pivotal role in the dissemination of environmental data and information to SACEP Countries.



REGIONAL ENVIRONMENTAL & NATURAL RESOURCES INFORMATION CENTRE

" COUNTRIES INVOLVED IN THE PROJECT "



1.1.2 Recruitment of the International Consultant

Provision has been made under the RETA Project for services of an International Consultant with necessary professional background and full familiarity with problems of environment and development in developing countries in Asia. Another important criteria for selection of the International Consultant was that apart from being fully informed about the SACEP and its activities he should have preferably acquired first hand country specific knowledge through his professional involvements and missions to those countries. Keeping these criteria in view the Asian Development Bank from its Roster of Consultants suggested to SACEP the name of an International Consultant. The biodata of the Consultant was circulated by Director, SACEP to the Members of the Consultative Committee of SACEP (Countries of the Member Countries of SACEP which have a diplomatic mission in Colombo). The Director SACEP conveyed to the Asian Development Bank the full endorsement of the Consultative Committee to the appointment of International Consultant. The biodata of the International Consultant is at Appendix II.

Terms of Reference for the International Consultant will include but not limited to :

- (i) Prepare an Inception Report, collaboratively with the Director, SACEP and the Local Consultant presenting organisation, approach and schedule for establishment of the information centre.

- (ii) Review the current institutional arrangements of SACEP and develop a plan for the information centre within this framework including hardware, software, physical, personnel and financial requirements and assist in the procurement of equipment and materials to be financed under the technical assistance project. Included will be a method for determination of relevant data/information needs. Procedures for data screening, analysing, summarising and dissemination will be described. A critical component will be a mechanism to provide feedback from member countries indicating uses being made of the system, information gaps in the system and data needs from the system. These needs and the entire system, will be accommodated by selection, procurement, installation and operation of an appropriate hardware/software system, and consideration of recent technological advances such as remote sensing and geographic information system to supply required data and to provide a data base management system.
- (iii) Organise and present jointly, with the Director, SACEP and the local Consultant, a one week workshop during the final month of the project. The workshop will also include representatives of selected member countries and Bank Staff. Subject matter will include status of current facilities, proper techniques to effectively utilise facilities, identification of future directions and needs and sources of future funding to support the envisaged programme.

(ii) Review the current institutional arrangements of SACEP and develop a plan for the information centre within this framework including hardware, software, physical, personnel and financial requirements and assist in the procurement of equipment and materials to be financed under the technical assistance project. Included will be a method for determination of relevant data/information needs. Procedures for data screening, analysing, summarising and dissemination will be described. A critical component will be a mechanism to provide feedback from member countries indicating uses being made of the system, information gaps in the system and data needs from the system. These needs and the entire system, will be accommodated by selection, procurement, installation and operation of an appropriate hardware/software system, and consideration of recent technological advances such as remote sensing and geographic information system to supply required data and to provide a data base management system.

(iii) Organise and present jointly, with the Director, SACEP and the local Consultant, a one week workshop during the final month of the project. The workshop will also include representatives of selected member countries and Bank Staff. Subject matter will include status of current facilities, proper techniques to effectively utilise facilities, identification of future directions and needs and sources of future funding to support the envisaged programme.

- (iv) Prepare Draft Final Report presenting the product of the tasks described above. This will be in concert with the Director, SACEP and submitted to the Bank at least two (2) weeks prior to the end of the project. Bank review will be returned to Consultant so that discussions may be held during workshop period. The Final Report will be submitted to Bank at the end of the project.

1.1.3. Recruitment of the Local Consultant

During the period of the project formulation and further discussions which ADB Official had with Director, SACEP, the pivotal role of the Local Consultant in ensuring the proper implementation and success of the Project was highlighted. Apart from wide professional experience in environment related fields, the Local Consultant should have intimate knowledge about the Organisation of environmental set ups in SACEP countries and contacts with "Key" decision makers. Keeping those requirements in view, the Director, SACEP along with the International Consultant had discussion with the Chairman, Central Environmental Authority of Sri Lanka. He was requested to send a panel of names of three experts for inclusion in the panel for onward transmission to the Asian Development Bank. The Biodata of the Local Consultant approved by the Bank is at Appendix II.

In addition to assisting the International Consultant and Director, SACEP in efficiently discharging the responsibilities allocated to them under III on page 18, the Local Consultant's Terms

of Reference will be :

- (i) To take a constant stock of the data needs and identify the gaps in the information system
- (ii) To evolve a mechanism to provide feedback from the Member Countries indicating uses being made of the system
- (iii) Liaise with SACEP Member Countries in identifying of present data available and format data gaps and needs and potential uses of the system
- (iv) Assist in implementation of recommendations of the International Consultant addressed under the TOR

1.2 PROJECT

1.2.1 Need for the Project

The High Level Official Meeting and the Ministerial Meeting that was held in February 1981 to establish SACEP emphatically emphasised the need to avoid the re-discovery of the wheel. It is common among the developing countries to work in isolation in water tight compartments spending both scarce financial and technical resources on Subject Areas where advanced work has already been done in a Member Country or countries of the region. It has come to be seen beyond doubt, from the Himalayan ecosystem at one end to the Indian Ocean at the other that the "environment resource development" equation has no option than to work on a co-operative basis. Thus regional co-operative efforts in development has now ceased to be an idle peripheral pre-occupation but the central pith for developing countries. It is with this ideal that many countries and development agencies are deliberately building integrated networks for the dissemination of information within specific geographical areas.

It is indeed relevant to note that in most of the inaugural speeches made by the Hon. Ministers who attended the first Ministerial Meeting held in February 1981, had emphasised the "need for co-operation" within the region. The Hon. Dr R A Ghani, Minister of State for Science and Technology of Bangladesh said :

" On behalf of my delegation, I would call for an improved

other important commonalities like the shared struggle for development, the search for resources, for technology, for methods of planning and of management, etc. collaborate and extend technical assistance to each other in deficient areas.

Viewed in this perspective, the programme such as SACEP would hopefully provide an excellent opportunity to make the best use of each other's skills and experience in dealing with environmental problems."

Therefore, the need of this Project as one of the instruments to accelerate the process of integration in development planning by significantly reducing costly duplication, is fully justified.

and just environmental order so that resources can be optimally utilised without maladjustments, disturbing the ecosystem. This calls for extended co-operation, friendship, goodwill and understanding amongst the member nations of this body.

We can ill afford to waste valuable time. Our common endeavours for the environment cause to ensure sustained development must continue without interruption. The concept of SACEP has truly recognised that environment is a national, regional and international affair and can be handled very effectively if there is awareness of all concerned and effective participation and co-operation of all nations concerned. In this gigantic task of maintaining proper environment which ensures better living condition can be best achieved by mutual co-operation and help."

The Hon. Shri C P N Singh, Minister of State for Science, Technology and Electronics of India, had the following things to say :

" At this juncture, the objectives of the proposed programme - South Asia Co-operative Environment Programme - is most welcome to my country. Through this forum, we expect to receive the benefit of the experience of environmental management strategies from the countries in the region with similar problems. It is through co-operation that we can resolve our common problems and mutually support each others endeav-

ours. In this regard it is important that bilateral links be strengthened and progressively lead to regional co-operation; for, we must remember that a Chain can only be as strong as the weakest link."

In the statement made by Air Marshal Hon. Inamul Haque Khan Minister for Housing & Works, Water & Power of Pakistan, emphasised the vital need for co-operative effort when he said :

" In this context, most of the valuable documented experience of the developing countries, are obtained in an ad hoc manner from institutions in the developed country. This project is a modest attempt to correct this anomaly, at least in the field of environment in the SouthAsian Arena. Further, the developing countries operating independent of each other within the region in the field of environment are somewhat handicapped in effectively facing the challenging situation so created. This is so because many of the developing countries do not have expertise in all the disciplines. We have so far been able to develop only a limited number of appropriate technologies suited to our socio-economic conditions and our means are modest and resources are inadequate. Each of us is thus forced to rely on assistance from the West in this regard which has its own limitations. The management of environment and saving it from further degradation can however, be made more effective if the developing countries in the region, having identical socio-economic pattern and

1.2.2 Objectives

The primary objective of this project is to set up a clearing house mechanism so that the Member States will have ready access to technical and other relevant information to assist in their development effort. The clearing house concept as embodied in the report will form a nuclear set up to promote and profit from mutual co-operation thereby avoiding duplication which indeed was a central theme in the creation of SACEP.

The scope of this project will include but not necessarily be limited to :

- (i) Establishment of an environmental and natural resources clearing-house unit within the SACEP Secretariat;
- (ii) Establishment of environmental and natural resources information network within the SACEP membership utilising the existing subject matter Focal Points to the extent possible;
- (iii) Provision of an information network system including appropriate hardware and software; and
- (iv) Provision of advisory support and training for member country representatives by presenting a SACEP workshop.

1.2.3. Scope

The seven countries which will make use of the clearing house mechanism will be from Afghanistan, Bangladesh, Bhutan, India, Iran, Maldives, Nepal, Pakistan and Sri Lanka. The Focal Points in those countries will concentrate on collection of information dealing with area/topic assigned to it by the clearing house.

The scope of the project covers the following :

- Review the current status of information activities in seven countries and ascertain their information requirements in general and their special interest in selected topics of immediate relevance
- Identify the focal point in each of the seven countries which will interact with the Clearing House Unit in SACEP
- Organise a training Workshop for participants from focal points in computer applications in specialised information centres, information re-packaging and consolidation and selective dissemination of information
- Assist the national focal points to organise national Workshops whenever possible

- Encourage and assist national focal points through providing proper methodology and techniques for collecting and disseminating information on selected topics in their countries and provide it to SACEP
- Advise the national focal points regarding the procurement of hardware, e.g. microcomputer, photocopying machine, FAX out of their own funds and methodology for distribution of outputs
- Act as the Centre for dissemination of information received from seven countries and international organisations, Non-Governmental Organisations etc.



1.2.4 Project Organisation

The project organisation will essentially consist of two tiers viz:

- 1) A small cell in the SACEP Secretariat for the implementation of 'RENRIC' in association with Director, SACEP.

- 2) Focal Points of the selected Member Countries who will liaise with 'RENRIC' cell at SACEP for the assimilation of data in the initial stage and their subsequent dissemination.

1.2.5 'RENRIC Cell'

The SACEP/RENRIC Cell will consist of a Consultant recruited by SACEP in consultation with ADB. He will work at the SACEP Secretariat for a period of 12 months, starting from 01st July 1990. The Consultant will be provided with Secretarial and professional support from existing staff or by new recruitment as deemed necessary.

RENRIC/SACEP Cell will have the services of an International Consultant recruited by the ADB in consultation with SACEP and in accordance with the Bank's Guidelines, on the use of Consultants to serve as an advisor, specifically to assist in the initiation of the Project by liaising with SACEP and the Bank. The International Consultant will :

Review the current institutional arrangements of SACEP and develop a plan for the information center within this framework including hardware,



PROJECT ORGANISATION

AFGHANISTAN

BANGLADESH

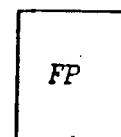
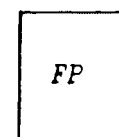
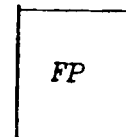
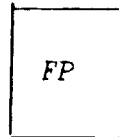
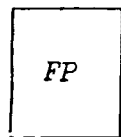
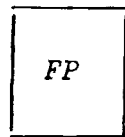
BHUTAN

INDIA

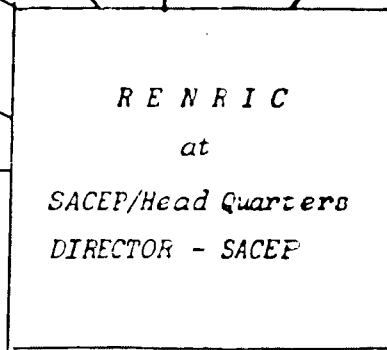
MALDIVES

PAKISTAN

SRI LANKA



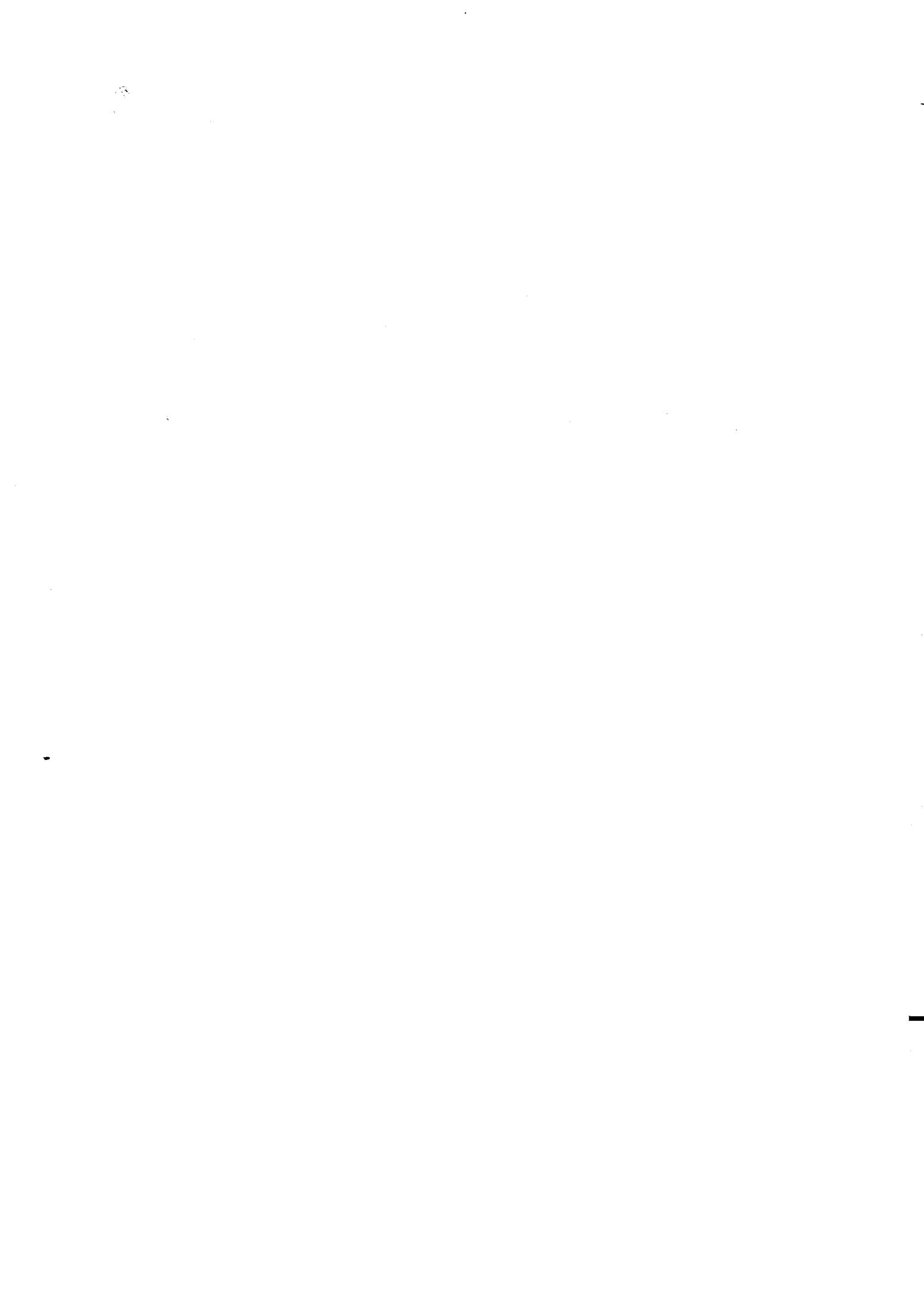
ADB - Bi-yearly
Monitoring



International Consultant — Local Consultant
Assist Director SACEP
Implement RENR IC

REGIONAL ENVIRONMENTAL & NATURAL RESOURCES INFORMATION CENTRE

SOUTH ASIA CO-OPERATIVE ENVIRONMENT PROGRAMME



software, physical, personnel and financial requirements and assist in the procurement of equipment and materials to be financed under the technical assistance project. A critical component will be a mechanism to provide feedback from Member Countries indicating uses being made of the system, information gaps in the system and data needs from the system. These needs, and the entire system, will be accommodated by selection, procurement, installation and operation of an appropriate hardware/software system.

The International Consultant will assist 'RENRIC' Cell in the organisation of the final Workshop and the compilation of the draft final report presenting the outcome of the project.

The International Consultant should visit 'RENRIC' for a period of five working days, six months after the commencement of the Project for a mid term review.

The Local Consultant will be responsible for all day to day operation of the Project. The Director, SACEP will be kept duly informed of the progress of the Project.

1.2.6 Focal Points

Activities of the Country Focal Points will constitute a key component in the implementation of this Project. At the High Level Ministerial Meeting that was held in February 1981, Fifteen Subject Matter Areas were assigned to different Countries and International Institutions. Each Member Country selected an institution having the appropriate linkages to act as the Focal Point to service the Focal Point Subject Matter Area.

The following Institutions are responsible for the Subject Matter in each Country.

Country	Name of Institution	Name of Subject Matter
1) Sri Lanka	Central Environmental Authority.	Environmental Impact Assessment and Cost/Benefit Analysis; Environment & Development.
2) Iran	Department of Environment.	Environmental Quality Standards.
3) ESCAP	ESCAP	* Technology for Development of Renewable and Reusable Resources.
4) India	Ministry of Environment and Forests.	Environmental Legislation.
5) Pakistan	Environment and Urban Affairs Division.	Conservation of Montane Eco-systems and Watersheds.
6) Afghanistan/India	Ministry of Foreign Affairs, Ministry of Environment & Forests.	Social Forestry.
7) Iran	Department of Environment.	Regional Co-operation in Wild Life and Genetic Resources Conservation.
8) & 9) Bangladesh and Maldives	Department of Environment/Ministry of Planning and Environment.	Conservation of Corals, Mangroves, Deltas, Coastal Areas & Island Eco-systems.
10) Nepal	Department of Soil Conservation & Watershed Management.	Tourism and Environment.
11) UNEP	UNEP	Desertification

* Focal Point for this Subject Matter will be relocated.

Country	Name of Institution	Name of Subject Matter
12) UNEP	UNEP	Regional Seas Programme
13) Iran, Pakistan and India	Department of Environment/ Environment & Urban Affairs Division/Ministry of Environment & Forests.	Energy & Environment.
14) India	Ministry of Environment and Forests.	Education & Training.
15) India	Ministry of Environment and Forests.	Training in Wild Life Management.

Each Focal Point will collect and where necessary collate information on a given format and transmit same to RENRIC/SACEP, Colombo. Each Focal Point should assign a senior officer for direct contact in order to service this Project effectively.

1.2.7 Finances

SACEP will receive all the funds from ADB on an agreed schedule. SACEP shall open a separate account for this project and the disbursement of the fund should be strictly for the activity of RENRIC. The Signatories to this account should be any two of the following :

- i) Director, SACEP;
- ii) A Consultative Committee Member;
- iii) Administrative Assistant.

The Administrative Assistant will operate a small (say US\$ 250 equivalent of Rs. 10,000) revolving impress for local purchase and sundries.

The Local Consultant will be paid in Dollars direct to a Sri Lankan Bank, nominated by the Local Consultant.

1.3 Purpose of the Inception Report

The Draft Inception Report has to be submitted by the International Consultant after two weeks of field mission to SACEP for review with the Bank for necessary additions or modifications. The Inception Report will have three principal objectives.

- (i) To plan the project in full detail clearly identifying tasks to be performed during the duration of the project
- (ii) To draw up an Operational Work Plan (OWP) for the implementation of the project
- (iii) To anticipate factors that may impede progress of the project and take appropriate remedial measures for the smooth implementation of the project

The Inception Report will be suitably revised after obtaining Bank's advice and comments.

1.4 Background Information

Although SACEP has been in existence for almost eight years it does not have comprehensive and up to date data on information activities of the Member countries. A questionnaire has been prepared (Appendix IV) and will be sent to the focal points and other institutions/organisations concerned with special topics/areas.

Response for the organisations and institutions will be analysed. Country visits by local consultant will be made during the inception period to establish dialogue with the focal points with a view to understand the operational aspects and policies of the organisations/institutions and to determine the requirements for information support. Furthermore, the adequacy and effectiveness of the focal centres will be constantly reviewed.

PROJECT IMPLEMENTATION

2. PROJECT IMPLEMENTATION

2.1 Project Administration

2.1.1 International Consultant (IC)

The International Consultant Dr R.D. Deshpande was appointed by the ADB in consultation with Director, SACEP in accordance with the ADB guidelines on the recruitment of Consultants. The International Consultant undertook the first visit to SACEP, Colombo on the 10th of May to discuss with the Director, SACEP along with Dr Bruce Worcester of the ADB, the details for the quick commencement of the Project. Dr R.D. Deshpande met with some of the Consultative Committee Members and some Donor Agencies.

2.1.2 Local Consultant (LC)

The ADB concurred with the recommendation of Director, SACEP for the appointment of Dr L. Herath, as the Local Consultant. He was issued a tentative letter of appointment on the 25th of June 1990.

The Local Consultant who will be responsible for the day to day running of this project will be provided the necessary logistic, professional and secretarial facilities including transport. This would entail the provision of :

A professional grade SACEP Officer for 12 months on part-time basis.

Stenographer/Secretary - 12 months on part time basis.

This project will entail a considerable amount of analysis of data, their entry into storage and its easy retrieval. This will require the services of a person qualified and experienced in that particular area. No such person is now available in the SACEP Staff. The local Consultant has agreed to employ such a person. As there is no provision in the budget for such a person the local Consultant has consented to pick up the bill from his emoluments.

2.1.3 Facilities

The Secretariat of SACEP will make available to the International Consultant and the Local Consultant, Office Accomodation, Secretariat assistance, Local transport, and any other facilities required for the efficient functioning of the project activities.

2.1.4 Staffing

International Consultant - 9 weeks

(as against the 8 weeks approved in the original project document)

2.2 Accounts

A separate convertible currency account will operate within the SACEP Secretariat where the funds will be used exclusively without exception for the implementation of RENRIC. The International local consultant will be paid in US Dollars into an account designated by them. The signatories to the RENRIC account shall be any two of the following :

Director of SACEP

Chairman, Consultative Committee / or his nominee

Administrative Assistant

All accounts will be kept by the SACEP Secretariat under the guidance of the Administrative Assistant who will be directly responsible.

2.3 Focal Points

Focal Points have been identified and their details are given in pages 31 and 32.

2.4 Missions of International Consultant

The International Consultant is allocated 8 weeks, which is to be exclusively spent at SACEP and a brief visit to the ADB Headquarters in Manila for presentation of Draft Inception Report.

The International Consultant undertook the first

visit on the 10th of May for a period of one week. The second part of his Mission commenced on the 25th of June for the preparation of the inception report in consultation with Director, SACEP and the Local Consultant. According to the Project, the International Consultant is due to visit SACEP again for the organisation of the Workshop and to assist the drawing up of the Draft of Final Report at the end of the project period.

2.5 Country Visits of Local Consultant

The Country visits of the Local Consultant has necessarily to be kept flexible as the need for his visit will depend on the efficacy of the Focal Points. However, the Local Consultant will have to visit the Focal Points at least twice during the duration of the project.

2.6 Equipment Purchase

A list of equipment required for the implementation of this project was drawn up by the ADB in consultation with the Director, SACEP.

Canon Np 3325 Copier

Canon Ap 6300 Word Processor

Canon 450 FAX

IBM PS/2 Model 30 with accessories

In view of the small budget involved in the purchase of equipment, the Director SACEP and the ADB Personnel agreed on

principle to standardise the equipment. Due to the fact that all the equipment that are now available in SACEP are of CANON make and that CANON supplies all the equipment listed for purchase, it was decided to negotiate with CANON after obtaining quotation from other makers. If CANON could match the over all prices, the purchase would be made from CANON with the concurrence. It is felt that Canon has to be given some weightage because of its efficient after sales service and training programmes.

2.7 Information Handling

The selected Focal Points will collect and where necessary collate and summarise the information gathered and transmit same to the RENRIC/SACEP Cell. The RENRIC Cell will store this information and retrieve same for later dissemination or respond to client request. A Software package has either to be drawn up or provided to the RENRIC/SACEP Cell. A training component will be required for a Secretary at SACEP who is Computer literate to operate this package.

2.8 Work Shop

A one week Workshop will be organised by SACEP during the last month of the project to present the results of the project. It will be attended by the representatives of the selected countries, SACEP and ADB Staff. The Workshop will essentially discuss in depth the experience gained, lessons learned and decide on future plans in the area of information dissemination in the SACEP region.

REVISED RENRIC BUDGET

(As finally approved by Bank on 14th June 1990)

(Conveyed by ADB vide Nil Date 19/6/90.

and accepted by SACEP)

SL.	ITEM	ORIGINAL AMOUNT (US\$)	FINALLY REVISED AMOUNT (US\$)
1.	International Consultant	TOTAL → 29,350	TOTAL → 16,900
	(a) Remuneration	18,750	10,800
	(b) Per diem	3,600	3,600
	(c) International Travel	7,000	2,500
2.	7 Local Consultants	TOTAL → 41,000	TOTAL → 51,800
	(a) Secretariat Senior Consultant (for 12 months)	36,000	18,000
	(b) 6 Focal Point Consultants (for 12 months)		28,800
	(c) SACEP Regional Travel	5,000	5,000
3.	Equipments/Supplies	7,000	15,000
4.	Regional Workshop	7,000	7,000
5.	Presentation Cost (communication/Publication)	3,000	3,000
6.	Contingencies	12,650	6,300
	Total Bank Grant US\$	1,00,000	1,00,000
7.	SACEP Contribution	24,000	24,000
	GRAND TOTAL US\$	1,24,000	1,24,000



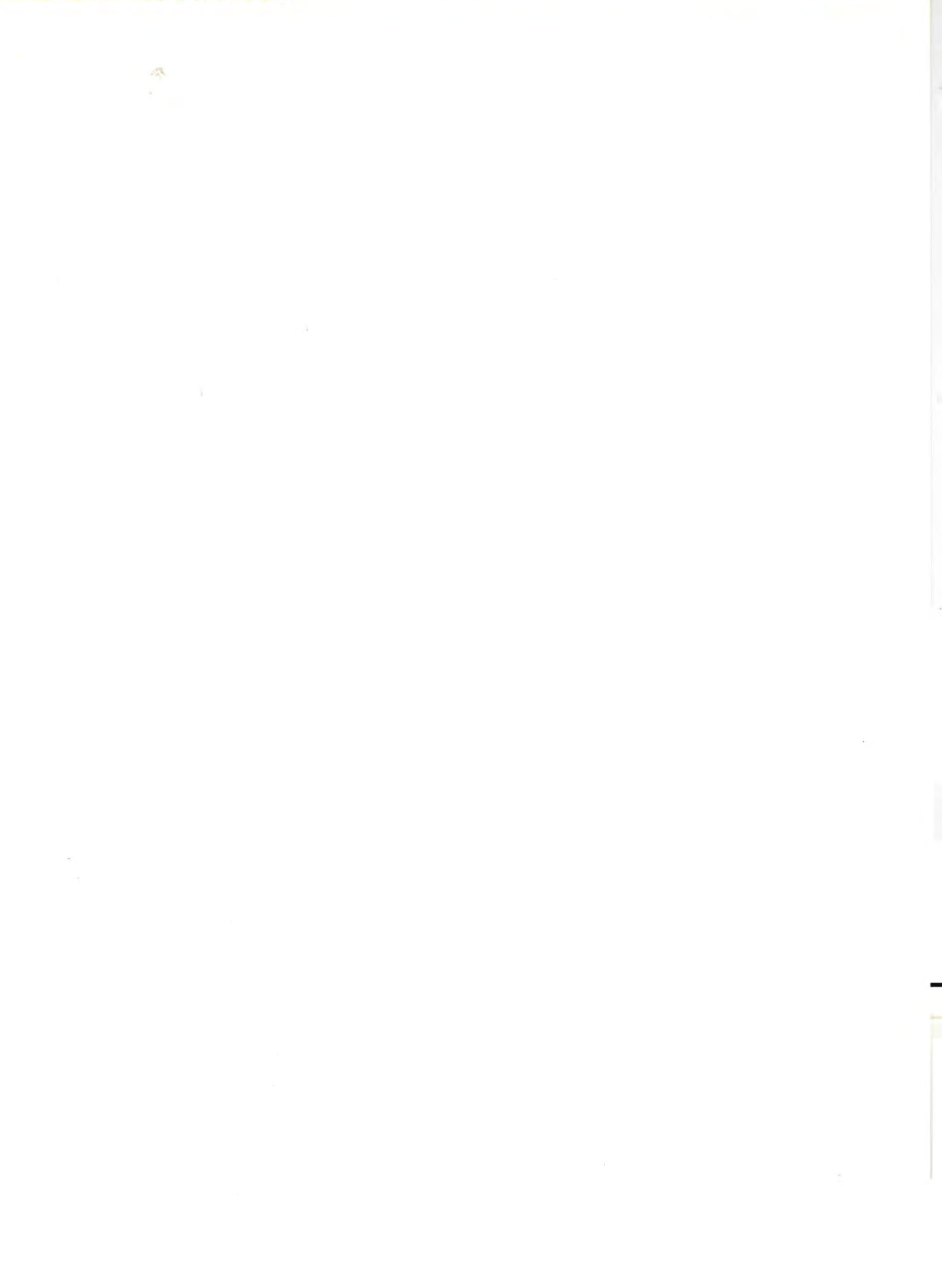
(L S K B HERATH)
Senior Local Consultant
RENRIC Project.

22/8/90



(A M S HOQUE)
Director/SACEP

22/8/90



3. BUDGET3.1 Background

The budget for this Project has undergone considerable amount of change. Given below is the original budget proposed in the ADB document dated 18th December 1989 (Ref No. not legible) and the revised budget. The Consultative Committee was informed by the Director, SACEP that the ADB Bank Mission has specifically prepared the following revised Budget. This is recorded in the Consultative Committee Minutes of 8th May, 1990.

BUDGET IN US \$

	Original Budget of ADB - 18th December 1989.	Revised B approved ADB 11 Ju
International Consultant	29,350	10,800
Remuneration	18,750	3,600
Per-diem	3,600	2,500
International Travel	7,000	
Local Consultant	<u>41,000</u>	<u>51,800</u>
Remuneration	38,000	46,800
Regional Travel	5,000	5,000
6 Focal Point Consultants	NIL	<u>28,900</u>
Equipment & Supplies	<u>7,000</u>	<u>15,000</u>
Regional Workshop	<u>7,000</u>	<u>7,000</u>
Regional Travel	5,000	
Presentation Cost	2,000	
Contingency	12,650	12,650
SACEP Contribution	24,000	24,000



In the light of the discussion with the ADB and our current knowledge of the Project, the following comment could be made regarding the revised Budget.

3.2

Remuneration and Travel

The current cost of the International Consultant is now reduced to US\$ 19,000. He will undertake his assignment as given in the TOR. The International Consultant commenced his assignment on the 10th of May 1990. It is suggested that the International Consultant visit the project for a period of five working days for a mid term review after the completion of six months of the project.

Allocations for regional travel and per diem of Local Consultant is considered adequate. Regional travel is a vital component of this Project. Dr L. Herath was selected as the Local Consultant with concurrence from the ADB. He commenced his assignment from the 25th of June 1990.

SACEP will provide logistic and Secretariat support including local travel as part of their contribution.

3.3 Focal Point Support

The introduction of focal point Consultants without any specific modalities of operation, selection etc., could be counter productive and lead to complication. Instead project proposals will be invited from all focal points outlining in detail, the activities to be undertaken at a cost not exceeding US\$ 4,800. These proposals will be scrutinised by SACEP and funds released on the merit in each case. ADB will be kept duly informed. This will avoid indiscriminate allocation of funds. In the case of those countries not coming up with proposals in time, the actual costs incurred in proposal preparation will be re-imbursed. The amount will be determined by SACEP. US\$ 28,600 has been provided as this is the estimated total cost of this activity.

3.4 Communication & Publication

US\$ 3,000 have been allocated for Communication and Publication during the tenure of the project. The publication will include the final report.

Equipment & Supplies

It is possible to obtain the selected items of equipment within US\$ 15,000 as SACEP enjoys Duty Free facilities.

The list of equipments :

	Canon NP 3325	(Copier)
	Canon AP 3300	(Word Processor)
	Canon 450	(FAX)
IBM	PS/2 Model 30-F31	
	PS/2 Monochrome Display 3503	
	IBM Proprietary XL2-E	
	IBM Printer Cable	
	Word Processor Card 3.1	
	Tray for NP 3325	

3.5. Regional Workshop

The cost of the Regional Workshop would not be reduced. The original US\$ 7,000 is now proposed.

4. WORK PLAN

The International Consultant Dr R D Deshpande visited the SACEP Office in Colombo on the 10th May, 1990, while Dr B Worcester was also on Mission in Colombo. They met the Director SACEP and discussed the content of the project and the schedule of operation. Dr Deshpande was with the SACEP Secretariat for one week during which time he met with some of the Consultative Committee Members and some donor agencies.

Dr R D Deshpande again visited Sri Lanka from the 24th June to the 3rd of July both days inclusive, during which time he prepared the Inception Report in association with the local Consultant.

On obtaining approval from the ADB, SACEP appointed Dr Leslie Herath on the 25th of June to commence work as the local Consultant to this project.

The local Consultant will initiate contacts with the respective Focal Points requesting them to identify senior officials within their organisation as the contact person. When this information is available direct contact will be made with these officials with the concurrence of the Focal Points. Requests will be made from these officers regarding a visit by the local Consultant to meet with the Focal Points to discuss the implementation of the project. Depending on their responses and the perception of the local Consultant, country visits will be undertaken. All efforts will be made to utilise these country visits to clarify

procedure, motivate the relevant officials with a view to reducing the need for country visit.

Focal Points will be requested to collect information pertaining to the fields assigned to them. In addition they will be requested to supply to the SACEP unit a set of their recent publications, research reports, newsletters and monographs. During the period the data base is being built up based on the recent publications, attempts would be made to bring out the following :

- (i) Bibliography of Research in Progress in SACEP countries
- (ii) Directory of Institutions dealing with Environmental Education and Research in SACEP countries
- (iii) Compendium of Environmental Expertise available in SACEP countries
- (iv) Compilation of Environmental legislation in SACEP countries
- (v) Conservation strategies in SACEP countries

Selected publications out of this and relevant extracts of others will be circulated to user institutions/organisations

and also to donor agencies e.g. Asian Development Bank, and UN organisations. Through this the existence of RENRIC would be widely known and would also stimulate institutions/organisations to active interaction with RENRIC.

When approval is obtained from the ADB the equipment will be purchased. A local professional with knowledge of software development and networking will be recruited. This person will assist the local Consultant in the collation, analysis, storage and the retrieval of data. This person will be paid from the emoluments of the local Consultant.

Mid term review will be undertaken after about six months of the commencement of the project. It is felt that the presence of the International Consultant at this meeting will be useful. This meeting should also be used as a forum for any mid field correction of the project if considered necessary. This meeting should specifically examine follow up activities after the completion of this project.

A Workshop is scheduled during the first week of the last month of this project. Selected officers from the Member Countries/ Focal Points along with ADB and SACEP will attend the Workshop. The International Consultant assisted by the local Consultant will be responsible for organising the Workshop and the reports. The Workshop will essentially record the activities undertaken through this project, their impact and future activities to keep the momentum gathered by this project.

5. CONCLUSIONS AND RECOMMENDATIONS

The initiative taken by the ADB in launching RENRIC aimed at enhancing the endogenous capabilities of the SACEP countries have been highly appreciated by the Consultative Committee comprised of the Representatives of the Member Countries of SACEP.

While all out efforts should be made to keep to the work schedule there is a need for some flexibility due to bureaucratic procedural and logistic difficulties inherent in developing countries.

Constant evaluation of this nascent project by SACEP with ADB will greatly enhance the success of this project.

Depending on the progress and the enthusiasm shown by the participating countries, SACEP in association with ADB would seek support from other financial agencies for strengthening the network.

DECLARATION
AND
ARTICLES OF ASSOCIATION
S A C E P

ADOPTED
AT
THE MINISTERIAL MEETING OF
SOUTH ASIAN COUNTRIES
HELD
COLOMBO, SRI LANKA
25 FEBRUARY 1981

THE COLOMBO DECLARATION ON THE SOUTH ASIA CO-OPERATIVE ENVIRONMENT PROGRAMME (SACEP)

The Meeting of Ministers to Initiate the South Asia Co-operative Environment Programme (SACEP)

At Colombo on 25th February, 1981.

Having considered the report of the South Asia Co-operative Environment Programme (SACEP) Intergovernmental Expert Group Meeting convened at Bangalore, March, 1980,

Having further considered the report and recommendations of the Meeting of Officials to Initiate the South Asia Co-operative Environment Programme (SACEP) held at Colombo, 18-21 February 1981,

Noting the possibilities of the occurrence of severe ecological disequilibrium and the threat of environmental degradation in the Region,

Noting also the warm support of their countries in the aims and aspirations of the proposed Programme, as expressed at the foregoing meetings, in contacts among themselves and with UNEP, and the wealth of capability and expertise available within the Region,

Noting in addition the offer of the Government of Sri Lanka to provide the facilities for the Secretariat of SACEP, the offers of the Governments of Afghanistan, Bangladesh, India, Iran, Pakistan and Sri Lanka to serve as Focal Points for Programme development and implementation in selected subject areas, and the interest shown by the Governments of Bhutan, Burma, Maldives and Nepal,

Conscious of the readiness of their countries to co-operate and extend mutual assistance to each other in matters of environmental concern, to contribute through the application of their resources, to the work of the Focal Points and, in the case of Sri Lanka, to the Secretariat of SACEP,

Taking note of the active interest and possibilities of support from various donor countries, international financing institutions, agencies and bodies,

Recognizing the pioneering nature of the proposed co-operative programme and the organizational arrangements thereto,

Commending the significant contribution and imaginative initiative of the Director of the Regional Office of UNEP as noted by the Bangalore Meeting and the Meeting of Officials at Colombo,

Appreciating the firm support and encouragement extended by the Executive Director of UNEP in this regard,

DECLARES:

1. Its *decision* to establish a co-operative programme to be known as the South Asia Co-operative Environment Programme;
2. Its *endorsement* of the agreed institutional arrangements, the over-all programme content, and technical co-operation and the financing arrangements;
3. Its *resolve* to sustain, strengthen, and utilize to the fullest, for the benefit of the peoples of their countries, the agreed programme and the arrangements for its implementation;
4. Its *intention* to foster the Programme as essential for the promotion of human welfare, development and amelioration of poverty in the region;
5. Its *commitment* to work out a harmonious balance between the process of development and resources of nature;
6. Its *conviction* that this Programme and the co-operative arrangements thereto, could provide a valuable basis for mutual co-operation, in the fields of social and economic development;

Calls upon:

1. The interested donor states, international financing institutions, agencies and other bodies to extend their support readily and in imaginative and concrete terms, keeping in mind the importance of maintaining the momentum in implementing a Programme of such far-ranging significance;

2. The United Nations system, UNDP in particular and UNEP, to assist SACEP, as required, with financial support, technical assistance, information, and guidance in the implementation of the Programme;

3. The member states of the SACEP region to see in these a worthy cause with goals and objectives fully capable of attainment through their common perceptions, friendly co-operation and mutual assistance.

ARTICLE 6
FOCAL POINTS

(a) There shall be Subject Area Focal Points which shall co-operate with SACEP Secretariat in programme implementation;

(b) Each country that has accepted responsibility for a particular subject area under this Programme shall identify an office within the country as the designated Focal Point for that subject area;

Where two or more countries are jointly responsible for a subject area, the Focal Point shall be identified in one of the countries concerned by mutual arrangement;

(c) Each Focal Point shall nominate an official to act as the Liaison Officer with the SACEP Secretariat;

(d) The Focal Point shall work towards the implementation of its programme and shall be entitled to assistance in such implementation, in its area of responsibility for the SACEP countries as a whole and will discharge this function in co-operation with the Secretariat;

(e) It shall be entitled to convene working group meetings, if necessary, in any of the co-operating countries to fulfil its obligations.

ARTICLE 7
SECRETARIAT

(a) The Secretariat shall consist of a Director, appointed for a period of three years and who shall be its head and a modest number of other international officers appointed by the Governing Council from among nominees of member Governments, as well as such supporting staff as may be recruited from time to time according to regulations laid down by the Consultative Committee;

(b) The Secretariat shall assist the Council, the Committee and the Focal Points in the discharge of their duties and responsibilities;

(c) The paramount consideration in the employment of the staff shall be the necessity to secure the highest standards of efficiency, competence and integrity. In the case of the international officers, due regard shall be paid to the importance of recruiting them on as wide a geographical basis as possible from among the co-operating countries. The members of the Secretariat staff shall refrain from any action which might reflect on their position as international officials responsible to the SACEP Organization;

(d) The Director shall be the chief executive officer and shall act as Secretary to the meetings of the Council and the Committee and shall be co-ordinator of activities and programmes of SACEP. He shall submit periodic progress reports to the Committee and the Council;

(e) The Director of the Secretariat shall maintain close liaison with the United Nations Environment Programme, as well as with other organizations or countries not members of SACEP which are presently extending assistance within the region, or which may in the future decide to do so.

ARTICLE 8

BUDGET

(a) The Director shall submit for consideration and approval by the Council a budget showing estimated receipts and expenditure for every financial year, with an outline of anticipations for the subsequent year;

(b) Unless otherwise provided, the financial year shall run from 1 January to 31 December of each year;

(c) The draft annual budget shall be submitted by the Director for consideration by the Council at a session not later than October of each year. Supplementary estimates of expenditures, when necessary, shall be submitted for Council approval at any other session;

(d) If by the end of any financial year, the Council shall have failed to pass the budget for the ensuing financial year, the appropriation for the preceding financial year shall be deemed re-voted and shall remain in force and effect until a new budget is adopted by the Council,

(e) The Director shall circulate to Council members a statement of income and expenditure and a balance sheet duly certified by the Council's Auditors as soon as possible after the close of every financial year;

(f) The Council have make appropriate provision for the maintenance and audit of its accounts.

ARTICLE 9

HOST FACILITIES

(a) The host country of the Secretariat shall provide such hosting and support facilities for the Secretariat and the Director of SACEP as are needed, in particular:

- (i) Separate and distinctive offices for the Secretariat, and official residence for the Director; and
- (ii) Such other facilities as may be agreed upon from time to time between the host country and the Council;

(b) The countries assuming responsibility as Focal Points for subject areas shall provide such physical and other facilities as deemed adequate and necessary for the discharge of their functions;

(c) The host country of the Secretariat and the countries responsible for Focal Points, in so far as the latter use the services of international staff, shall accord such status, immunities, exemptions and privileges as are in conformity with accepted practice for such organs and as may specifically be agreed upon between the Council and the Member States.

ARTICLE 10

WORKING LANGUAGE

The working language of SACEP shall be English.

ARTICLE 11

ADOPTION AND AMENDMENTS

(a) These Articles of Association shall be deemed to have come into force once they have been adopted at this meeting and ratified by at least three Member States;

(b) The original of the Articles of Association in a single copy in the English language shall be kept by the host State, who will act as the Depository;

The Depository shall send certified copies of this document to all member countries that have joined in the adoption of the Articles. The Depository shall also have this document registered with the Secretariat of the United Nations;

(c) Amendments to the Articles may be proposed by any member of SACEP. Such amendments shall come into force on being approved by a consensus at a meeting of the Governing Council;

(d) As soon as the Articles of Association have come into force, the Director of SACEP shall convene a meeting of the Committee which shall proceed forthwith to initiate the necessary organizational and programme activities envisaged.

*DONE AT COLOMBO THIS THE TWENTY-FIFTH
DAY OF FEBRUARY ONE THOUSAND NINE
HUNDRED AND EIGHTY ONE.*

*AFGHANISTAN
BANGLADESH
INDIA
IRAN
MALDIVES
PAKISTAN
SRI LANKA*

ARTICLES OF ASSOCIATION
OF THE
SOUTH ASIA CO-OPERATIVE
ENVIRONMENT PROGRAMME

PREAMBLE

The members of the South Asia Co-operative Environment Programme;

In pursuance of the Colombo Declaration on the South Asia Co-operative Environment Programme adopted by them at the Meeting of Ministers held at Colombo, Sri Lanka, from 23-25 February 1981;

Do hereby agree upon and adopt these Articles of Association for the South Asia Co-operative Environment Programme, hereinafter referred to as SACEP.

ARTICLE 1
AIMS AND FUNCTIONS

The aims of SACEP are:

(a) To promote and support the protection, management and enhancement of the environment, both natural and human, of the countries of South Asia, individually, collectively and co-operatively;

(b) To make judicious use of the resources of the environment towards removal of poverty, reduction of socio-economic disparity, improve the quality of life, and prosperity on a continuing basis;

(c) For these purposes, to make the fullest use of the organizational arrangements and facilities for co-operation under SACEP.

The functions of SACEP are:

(d) To promote co-operative activities in priority areas of environment of mutual interest;

(e) To ensure that these activities result in benefit individually or collectively to the Member States of the Region;

(f) To extend support as needed through exchange of knowledge and expertise available among the member countries;

(g) To provide local resources towards implementation of projects and activities; and

(h) To encourage maximum constructive and complementary support from interested donor countries and other sources.

ARTICLE 2

MEMBERSHIP

(a) The members of SACEP shall be those States of the South Asia region who participated at the Meeting referred to in the Preamble hereinbefore;

(b) Membership shall remain open to other States of the South Asia region invited to the Meeting, which have not been able to present, but which at any time later may accept these Articles;

(c) Any application for membership by a State under paragraph (b) above shall be circulated to members of the Governing Council, who shall thereafter notify such State of their admission to membership.

ARTICLE 3

ORGANS

The principal organs of SACEP are:

(a) The Governing Council hereinafter referred to as the Council;

(b) The Consultative Committee, hereinafter referred to as the Committee;



(c) The Secretariat;

(d) Such other subsidiary organs or bodies as may be found necessary at any time in accordance with a decision to such effect of the Governing Council.

ARTICLE 4 GOVERNING COUNCIL

(a) The Council shall consist of all the members of SACEP;

(b) Each member shall have one representative on the Council, who will normally be of Ministerial rank;

(c) UNLESS OTHERWISE AGREED BY MEMBERS, THE COUNCIL SHALL NORMALLY MEET ONCE A YEAR. THE QUORUM FOR A MEETING OF THE GOVERNING COUNCIL SHALL BE A SIMPLE MAJORITY OF THE MEMBERSHIP. THE MEETINGS OF THE GOVERNING COUNCIL SHALL BE HOSTED BY MEMBER STATES IN ALPHABETICAL ORDER AND THE PRESIDENCY OF THE GOVERNING COUNCIL SHALL BE OFFERED TO THE HOST COUNTRY; THE CHAIRMAN SHALL HOLD OFFICE FOR A PERIOD OF ONE YEAR OR TILL SUCH TIME AS A NEW CHAIRMAN TAKES OFFICE IN THAT YEAR.

(d) The Council shall be the principal review and deliberative body of SACEP and shall be responsible for determining policy and programmes;

(e) The Council may discuss any questions or any matters within the scope of its Articles of Association;

(f) The meetings of the Council shall proceed in a co-operative spirit, which is the key note of SACEP, and shall endeavour at all times to reach agreement by consensus;

(g) The Governing Council may formulate its own rules of procedure.

ARTICLE 5 CONSULTATIVE COMMITTEE

(a) The Committee shall consist of representatives of Member States

of SACEP; its headquarters shall be in Colombo where it will normally hold its sessions;

(b) Each Member State shall meet the expenses of its representative for attendance at Committee sessions;

(c) It shall be the responsibility of the Committee to facilitate implementation of the programmes and policies as determined by the Council through close informal co-operation and to promote the dissemination of information on the concepts and the operation of SACEP in general;

(d) At its first session, the Committee will elect a Chairman who will chair its sessions for not more than one term of one year from the date of election. For any period, during which the Chairman is absent from the country, or is otherwise prevented from exercising the functions of Chairman, the Council shall elect an Acting Chairman;

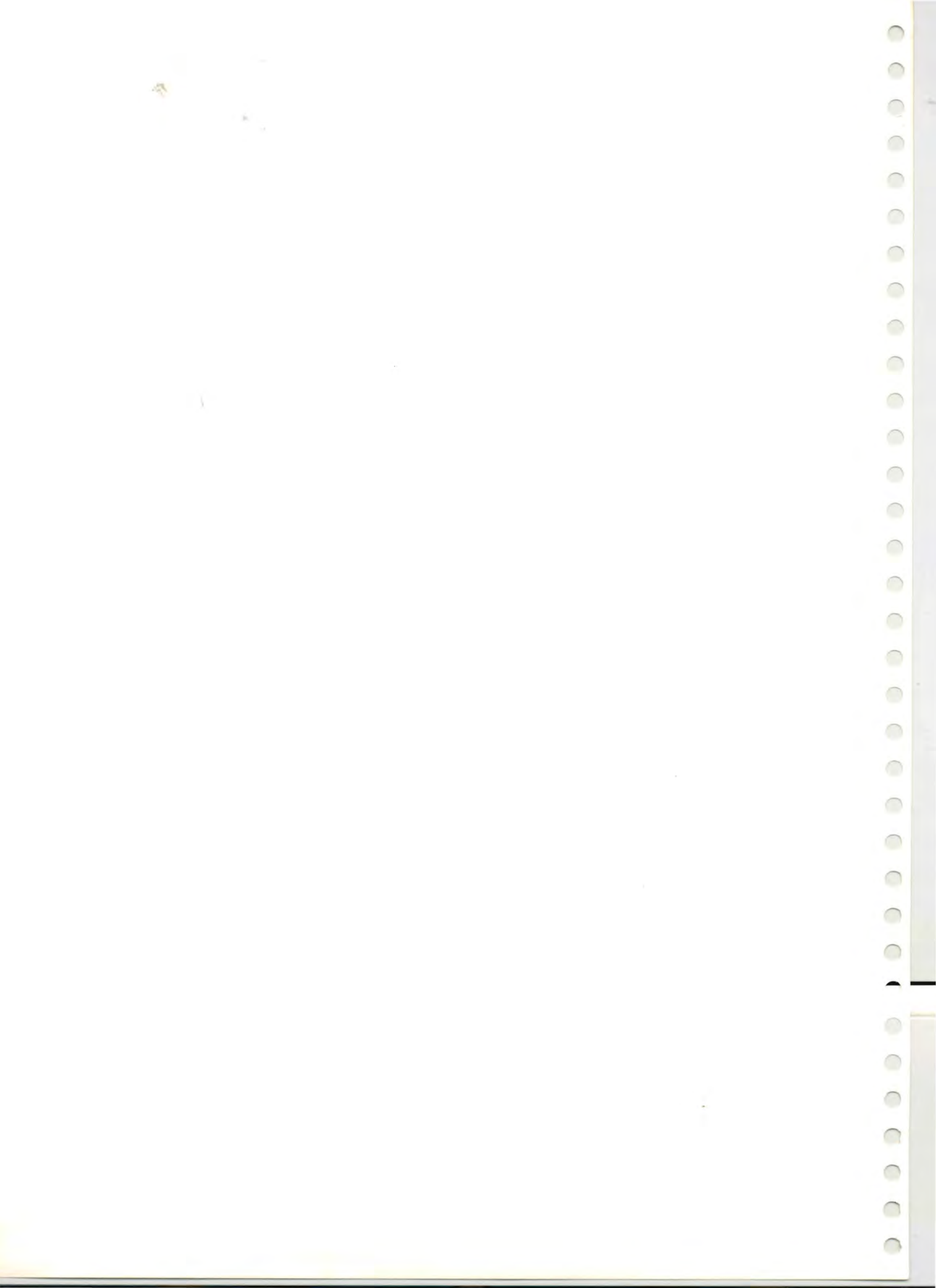
The Committee will submit a report on the action taken by the Committee to the next meeting of the Council;

(e) Six weeks notice shall be given of sessions. The notice shall in every case be accompanied by a provisional agenda. Any documents that may require reference to member Governments before discussion shall be issued not less than six weeks before the date of the session at which they will be discussed;

(f) A simple majority of the membership of SACEP shall constitute a quorum for the purpose of holding a Committee Session;

(g) The Committee shall endeavour to reach agreement by consensus after discussion in a co-operative spirit;

(h) The Committee may make such rules and regulations as it deems necessary in relation to Committee procedures and the operation and administration of the Secretariat, subject to the approval of the Governing Council.



ARTICLE 6
FOCAL POINTS

(a) There shall be Subject Area Focal Points which shall co-operate with SACEP Secretariat in programme implementation;

(b) Each country that has accepted responsibility for a particular subject area under this Programme shall identify an office within the country as the designated Focal Point for that subject area;

Where two or more countries are jointly responsible for a subject area, the Focal Point shall be identified in one of the countries concerned by mutual arrangement;

(c) Each Focal Point shall nominate an official to act as the Liaison Officer with the SACEP Secretariat;

(d) The Focal Point shall work towards the implementation of its programme and shall be entitled to assistance in such implementation, in its area of responsibility for the SACEP countries as a whole and will discharge this function in co-operation with the Secretariat;

(e) It shall be entitled to convene working group meetings, if necessary, in any of the co-operating countries to fulfil its obligations.

ARTICLE 7
SECRETARIAT

(a) The Secretariat shall consist of a Director, appointed for a period of three years and who shall be its head and a modest number of other international officers appointed by the Governing Council from among nominees of member Governments, as well as such supporting staff as may be recruited from time to time according to regulations laid down by the Consultative Committee;

(b) The Secretariat shall assist the Council, the Committee and the Focal Points in the discharge of their duties and responsibilities;

(c) The paramount consideration in the employment of the staff shall be the necessity to secure the highest standards of efficiency, competence and integrity. In the case of the international officers, due regard shall be paid to the importance of recruiting them on as wide a geographical basis as possible from among the co-operating countries. The members of the Secretariat staff shall refrain from any action which might reflect on their position as international officials responsible to the SACEP Organization;

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*AFGHANISTAN
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INDIA
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MALDIVES
PAKISTAN
SRI LANKA*

BIODATA PARTICULARS OF DR R.D.DESHPANDE

Name Ramachandra Damodhar Deshpande

Permanent Home Address Apartment 3, Narhar Prasad,
ITI Road, Aundh,
Pune-411 007
Tel no:(212) 331012

Official Designation and Address Consulting Adviser,
Tata Research Development & Design
Centre,
1 Mangaldas Road,
Pune-411 001
Tel nos: 669808; 665032
Telex no: 0145-464-TCSF IN
Grams : TATARESDEV

Place & Date of Birth Nagpur, Maharashtra (India)
6th January 1931

Marital Status Married. Two children-Daughter(26 years)
Son(24 years)

Academic Background

<u>University</u>	<u>From</u>	<u>To</u>	<u>Degree/Diploma</u>
-Nagpur University, Nagpur	1951	1952	M.Sc Zoology
-University of Southampton, Southampton U.K	1953	1954	Special course in Marine Zoology & Research Training
-University of Reading, U.K	1954	1957	Ph.D/Marine Biology
-Rutgers University, Rutgers, U.S.A	1963		Diploma in BSCS Biology Teaching
-Duke University, North Caroline, U.S.A	1963		Certificate in Marine Sciences

EMPLOYMENT RECORD

<u>Period</u>	<u>Job Title</u>	<u>Nature of Job</u>
1958-Dec.1960	Assistant Education Officer, University Grants Commission	Science Education
Jan.1961 to Aug.1965	Education Officer, University Grants Commission, New Delhi	Scientific and other educational Programmes
Aug.1965 to Aug.1970	Development Officer, University Grants Commission, New Delhi	Science Education
Sept.1970 to May 1971	Chief Executive, National Council for Science Education	Science education planning

May 1971 to Aug.1974	Joint Secretary, University Grants Commission, New Delhi	Administration of Science and Education projects
Aug.1974 to Apr.1979	Director, Dept.of Science and Technology, New Delhi	International Co-operation in science and technology
Apr.1979 to Jan.1984	Minister Counsellor, (Science) Embassy of India, Washington DC	Indo-U.S collaborative projects on science and technology as well as follow-up of UNCSTD activities
Jan.1984 to Apr.1989	Regional Adviser/ Environmental Affairs Officer, United Nations Environment Programme, Regional Office for Asia and the Pacific	Implementation and follow up of UNEP programmes in the field of environment and development in Asia & Pacific. Represented UNEP on ASEP and SACEP meetings and activities.
July 1989 to date	Consulting Adviser, Tata Research Dev- elopment & Design Centre	Design & formulation of R & D projects on environmentally sound technologies.

PROFESSIONAL EXPERIENCE

Since 1958, occupied several important positions in the University Grants Commission rising to the No.2 position of Joint Secretary, dealing with policy matters relating to development of scientific and technological capabilities in Universities and Research Institutions. Was simultaneously Chief Executive of the National Council of Science Education from 1968 to 1973, involved in scientific co-operation with NSF, NAS.

In 1974, was invited by the Minister of Science and Technology to join the Department of Science and Technology in its No.2 position, as Director in charge of several divisions for rapid development of innovative projects in the field of science and technology, including environment and was involved in all policy matters relating to planning, execution and design of important activities in the broad area of science and technology including the role of professional and non-governmental organisations in building up S & T infrastructure.

Has travelled extensively and visited large number of countries under bilateral and U.N programmes.

In Washington, maintained a close liaison with all agencies working in the area of environment, e.g. EPA, Department of the Interior, USDA, Fish and Wildlife, Smithsonian Institution etc. Active part in the summit meetings between Indian Prime Minister, Late Smt. Indira Gandhi and President Reagan for promoting closer

collaboration between India and USA.

In my assignment with UNEP, I was involved in programmes aimed at sustainable development through environmentally sound resource management. Some of these programmes were desertification and dryland degradation, protection of mountain ecosystem, environmental management of marine resources, watershed and water resources management, environmental education and training. This is reflected in some of the publications

I have also been associated in different capacities with a number of activities, some of which are listed below :

- Secretary of the Task Force on Science Education of the Education Commission (Kothari Commission) of the Government of India.
- Member of the Task Force on Science Museums of the Planning Commission, Government of India.
- Member of the Panel for Development of Software for Satellite Communication.
- Member of the Governing Board of Bal Bhavan Children's Society, New Delhi.
- Member of the Joint Task Force of the CSIR which brought out the Director of Science Research in Indian Universities, as a joint publication of the University Grants Commission and the CSIR.
- Member of the Board of All India Christian Higher Education.
- Member of the UNEP Expert Group on Appropriate Technology
- Member of the UNEP-UNESCO Steering Committee on Environmental Education.
- Vice-President of Commonwealth Association of Science and Mathematics Teachers.
- Member of the Board of the School of Social Sciences of the Jawaharlal Nehru University.
- Elected Life Member of the Maharashtra Association for the Cultivation of Science, Pune.

LIST OF PUBLICATIONS

1. Planning and Progress of Science Education (Indian Institute of Public Administration Journal), Vol.XV, No.3, 1969, pp. 533-43
2. Scientific Research in USA (Report of the Bi-national Conference on Education & Research in Life Sciences), Proceedings of the Conference on Education and

3. Scientific and Technical Education (Economic and Political Weekly, Vol.VII, Nos. 31-33, August 1972)
4. Teaching of Foreign Languages and Cultural Politics (Address at the Jawaharlal Nehru University, New Delhi)
5. Report on the Problems of Student Indiscipline in Indian Universities, a University Grants Commission Publication.
6. Analysis of problems of supply existing activities and proposals for the improvement of educational materials in developing countries. Published in the Conference proceedings by Deutsche Stiftung fur Entwick-lungslander, 1972
7. Summary of Major Recommendations of the Bi-National Conferences in Chemistry, Physics and Life Sciences, Biology News, Vol.II, No. 2 & 3.
8. Some Aspects of Science and Technology in Japan, March 1977, JSPS News.
9. A concept of Technology City for Renewable Energy, jointly with M.Anandkrishnan and R.Gopal, UN Publication, 1983.
10. Solid Waste Management, Chemical Engineering World, Vol.XIX No.3, March 1984
11. Environmental Management Issues and Trends- Proceedings of Third Symposium on Our Environment, 27-29 March, 1984
12. Environmental Impact of Rural Development Schemes- Proceedings of Fourth World Congress for Rural Society, Manila, Philippines, 15-21 December 1984
13. Environmental Education for Engineering and Technology-An Analysis of Experience- Proceedings of ICSU Meeting " Science and Technology Education and Human Needs ", Bangalore, August 1985
14. Framework for Environmental Management of River Basins Proceedings of International Workshop on Water Quality Management, Bombay, January 1987.
15. Role on UNEP in Promoting Environmental Education at Tertiary Level -Proceedings of UNESCO Regional Seminar on the Strategy for Inclusion of Environmental Education at University Level, Yogyakarta, Indonesia, July 1987
16. Action Plan for Control of Mycotoxins - Address at Second International Conference on Mycotoxins, Bangkok, Thailand, September 1987
17. International Cooperation for Combating Coastal and Estuarine Pollution - Paper to be presented at the IAWPRC/ JSWPR Specialised Conference on Coastal and Estuarine Pollution, Fukuoka, Japan, October 1987

18. Sustainable Development and Environmentally Sound Management of Freshwater Resources - Paper to be presented at Water Asia 87, Singapore, December 1987.

Names of persons to whom references may be made:

- 1) Dr.M.S.Swaminathan, D.Sc., F.R.S
Honorary Director,
Centre for Research on Sustainable Agricultural
and Rural Development,
11 Rathna.Nagar,
Teynampet,
Madras 600 018
- 2) Dr.A.Ramachandran,
Executive Director,
U.N.C.H.S,
Nairobi,
Kenya.
- 3) Prof.M.G.K.Menon, D.Sc., F.R.S
Minister for Science,Technology, Atomic Energy,
Ocean Development & Electronics,
Anusandhan Bhawan,
Rafi Marg,
New Delhi 110 001
India

18. Sustainable Development and Environmentally Sound Management of Freshwater Resources - Paper to be presented at Water Asia 87, Singapore, December 1987.

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Minister for Science,Technology, Atomic Energy,
Ocean Development & Electronics,
Anusandhan Bhawan,
Rafi Marg,
New Delhi 110 001
India

BIO - DATA

NAME : LESLIE HERATH AGE : 55 years

ADDRESS : 24 B, Alfred Place,
Colombo 03. Sri Lanka
Tel. 574762 Fax 574761

EDUCATIONAL

QUALIFICATION : B.Sc., (Botany, Zoology, Geology) - Benares
Post Graduate degree (Photo-geology) - Holland
Ph. D., (Hydro-geology) - Paris
Diploma (Soil-Science) - Holland
Diploma (Project formulation & Evaluation) - Bangkok
Diploma (Food & Nutritional Policy Planning)- Sussex

RELEVANT EXPERIENCE

- 1965 - 67 ASSISTANT SUPERINTENDENT OF RESOURCES SURVEYS
Was responsible for the drawing up of an Inventory of Physical resources for a planning exercise conducted with the assistance of the Government of Canada.
- 1967 - 69 ASSISTANT DIRECTOR, MINISTRY OF PLANNING & ECONOMIC AFFAIRS
Was a member of team consisting of National and International experts responsible for the formulation of the Perspective Plan for the Agricultural Sector funded by IBRD.
- 1969 - 70 DEPUTY DIRECTOR, MINISTRY OF IRRIGATION, POWER & HIGHWAYS
Responsible for the formulation of the 5 year plan for the Irrigation Sector.
- 1971 - 75 DEPUTY DIRECTOR, MINISTRY OF AGRICULTURE & LANDS
Was Head of the Project Formulation Division and was responsible for identification and formulation of Projects and Programmes for National and International funding. During this period my Unit was responsible for the identification and formulation of a number of large national projects in the agricultural sector.
- 1975 - 77 CHAIRMAN, NATIONAL LIVESTOCK DEVELOPMENT BOARD
Was responsible for the establishment, planning and operation of this new Organisation. The establishment of the National Livestock Development Board was an attempt by the Government to re-vitalise this sector by releasing it out of the departmental controls. By the time I left this organisation it had a total staff strength of 180 professional and 1200 other grades including labourers.

1975 - 77

DIRECTOR, FOOD & NUTRITIONAL POLICY PLANNING DIVISION
MINISTRY OF PLANNING & ECONOMIC AFFAIRS

I held this post concurrently with the Chairmanship of the National Livestock Development Board. I was responsible for introducing the concept of Food nutrition and policy planning into the country. I was its first Director. I was also responsible for the establishment and the acceptance of the methodology of the particular strategy by various sectoral Ministries.

1977 - 81

CHAIRMAN, WATER RESOURCES BOARD

Was responsible for the investigation and exploitation of ground water resources in Sri Lanka and the utilisation of renewable energy sources for lifting of irrigation water. During my tenure of office in this Organisation, I was responsible for the introduction and popularisation of Ipil-ipil into this country. Ipil-ipil is now widely grown as a fodder and fuel in many parts of the country. For the first time an environmental impact assessment was done for the exploitation of ground water in Miocene limestones of Sri Lanka.

1981 - 85

DIRECTOR, SOUTH ASIA CO-OPERATIVE ENVIRONMENT PROGRAMME (SACEP)

In February 1981 I was elected by a High Level Ministerial Meeting held in Colombo as the First Executive Director of the South Asia Cooperative Environment Programme (SACEP). This was a programme where nine of the ten countries in South Asia viz. Afghanistan, Bangladesh, Bhutan, India, Iran, Maldives, Nepal, Pakistan and Sri Lanka agreed to cooperate in fifteen broad areas of environmental concerns.

As the first director of SACEP I was responsible for the establishment of the Secretariat, recruitment of staff and the organisation of a work programme in the selected subject matter areas. Funds were raised from various agencies and missions were organised to visit the member countries for identification and formulation of suitable projects for implementation both by governmental and non-governmental organisations. The first Governing Council of SACEP approved ten projects that were formulated under my direction. The Environmental Clearing House Project (now called RENRIC) was one of those ten projects. As I was of the opinion that this project would be of particular importance to the region I took special interest when I was the Director of SACEP to discuss the possibility of funding this project with Jehan Rahim of UNDP who promised to assist in its implementation. One could assume that I am fully conversant with the aims and objectives of this project

July 1985 - 1989

CHAIRMAN, DAIRY DEVELOPMENT FOUNDATION (GUARANTEE)
LIMITED., (D.D.F)

I functioned as the first Chairman of the D.D.F., a project funded by the World Bank and a number of other agencies (US \$ 110 Million) for the privatisation and revitalisation of the Dairy sector in Sri Lanka.

I was also a Director in the following public sector establishments :-

1. National Milk Board
2. Ceylon Institute of Scientific & Industrial Research
3. Ceylon Oils and Fats Corporation
4. Ceylon Leather Corporation
5. 'Freedom from Hunger' Board

UNEP

I have worked as a Consultant to FAO, World Bank, UNDP and UNIDO, etc. on various projects and programmes for which I was released by the Government.



QUESTIONNAIRE ON
ENVIRONMENTAL AND NATURAL RESOURCES INFORMATION

1. NAME OF ORGANIZATION :

Address :

Acronym (if any) :

Telephone:

Cable:

Telex:

Fax:

2. Name of person in charge of information/documentation:

Title/Position:

Please attach a brief Biographical sketch:

3. Type of organization (mark all applicable):

/..../ academic

/..../ national non-governmental

/..../ governmental

/..../ international non-governmental

/..../ intergovernmental

/..../ others (please specify)

4. Number of staff (please indicate estimated numbers):

Total for the Organization/unit:

Professional:

Non-Professional:

Documentation/information staff:

Professional:

Non-Professional:



5. *Brief description of the main activities of the organization:*

(Please attach a copy of the latest Annual Report or similar publications describing your activities.)

6. *SUBJECT COVERAGE:*

9 a.) *Please check the headings in the list below to indicate those which best describe the areas with which your organization is concerned.*

<u>TITLE</u>	<u>TITLE</u>
Agro-Ecology	Environmental Administration
Agro-Environmental Education	Environmental Analysis
Agro-Meteorology	Environmental Conservation
Agro-Technology	Environmental Education
Agro-Waste Recycling	Environmental Engineering
Air Pollution	Environmental Forestry
Air Quality Management	Environmental Geology
Aquaculture	Environmental Health
Biogas Technology	Environmental Management
Conservation	Environmental Planning
Conservation and Recycling	Environmental Pollution
Ecological Assessment	Environmental Protection
Ecology and Environment	Environmental Resource Economics
Ecology and Resource Management	Environmental Soil Science
Environmental Studies	

Others : _____



available to those working for the organization. available to people outside the organization.

Loans of documents	/../	/../
Provision of copies of documents	/../	/../
Training in information use	/../	/../

Other (specify) : _____

9. PUBLICATIONS: Please check (/) the appropriate box(es) to indicate types of publications produced by the organization and supply, if possible, sample copies or list of titles:

Journals	/../
Bulletins	/../
Newsletters	/../
Annual reports	/../
Technical reports (other than annual reports.)	/../
Bibliographies	/../
Manuals/handbooks	/../
Abstracts	/../
State-of-the art reviews	/../
Current awareness	/../
Others (specify)	/../

10. Geographical scope of your organization or bibliographic unit:
- | | |
|--------------------------------|--|
| /../ State, province, district | /../ Regional (specify region) |
| /../ National | _____ |
| /../ International | /../ Sub-regional (specify sub-region) |
| /../ UN Organization | _____ |

11. Is your organization a center of any Network? /../Yes /../No
- If yes, please specify :
- _____

12. Do you have access to any online database: /../Yes /../No
If yes, how many records do you have? _____
13. Do you have a microfiche reader/printer? /../Yes /../No
14. Do you have computers? /../Yes /../No
If yes, please specify :

15. May SACEP staff visit your facilities /../Yes /../No

Signature

Date:

Please return the completed form to :

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P.S. RENRIC would very much appreciate if a set of all your recent publications is sent as early as possible, which would enable us to build up our data base in the shortest possible time.

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1. *President,*
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Ministry of Power & Energy,
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3. *President,*
Science Center,
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4. *General President,*
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Bangladesh

1. *Society for the Conservation of Nature (SCONE)*
Dhaka.

2. *Bangladesh Institute of Development Studies.*
Dhanmandi, Dhaka.

3. *Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP)*
Chandi House,
17 Topkhara Road,
G.P.O. Box 2883,
Dhaka 1000.

4. *Bangladesh Academy for Rural Development (BARU)*
Kotbari, Comilla.

5. *Bangladesh Council of Scientific and Industrial Research (BCSIR)*
Dhaka.



India

1. *Director-General,
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Kvishi Bhawan,
Dr Rajendra Prasad Road,
New Delhi 110001.*

2. *Director,
National Environmental Engineering Research Institute,
Nehru Marg,
Nagpur 440020.*

3. *Director,
Zoological Survey of India,
34 Chittaranjan Avenue,
Calcutta 700012.*

4. *Director-General
Council of Scientific and Industrial Research,
Anusandhan Bhawan,
Rafi Marg,
New Delhi 110001*

5. *Mountain Eco-System and Wildlife Society,
282 Krishna Nagar Canal Road,
Jammu 180001.*

6. *Nature Conservation,
Central Building,
Pune 411001*

7. *Society for Clean Environment, Garden Resort,
Sion Trimbay Road,
Bombay 400071.*

8. *Wadia Institute of Himalayan Geology,
15 Municipal Road,
Dehra Dun 248001.*

9. *Secretary,
Department of Ocean Development,
C.G.O. Complex,
Laxmi Road,
New Delhi 110003.*

10. *Director,
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Jodhpur,
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11. *Director,
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12. *Dr M.S. Suraminathan,
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11, Rathna Nagar,
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Madras 600018.*

13. *World Wildlife Fund,
Godrej Building,
Lodhi Estate,
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14. *Director,
Development Alternatives,
New Maharajah Road,
New Delhi 110016*

15. *Director,
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19. *Secretary,
Bombay Natural History Society,
Hornbill House,
Shahid Bhagat Singh Road,
Bombay 400023.*

Nepal

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Kathmandu.*

2. *D. Hanonk R. Mishra, Member & Secretary,
King Mahendra Trust for Nature Conservation,
Kathmandu.*

3. *Director,
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4. *Dr Ratna S S J. B. Rana,
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Kathmandu.*

5. *Secretary-General,
South Asian Association of Regional Co-operation,
Kathmandu.*

6. *Director-General,
Department of Soil Conservation and Watershed Management,
Kathmandu.*

Pakistan

1. *Institute of Public Health, Engineering
and Research,
University of Engineering & Technology,
Lahore 31.*

2. *Pakistan Scientific and Technological
Information Centre (PASTIC),
Islamabad.*

3. *Pakistan Council for Appropriate Technology, (PCAT)
Islamabad.*

4. *Rural Development Foundation,
Islamabad.*

5. *National Documentation Centre,
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Islamabad.*

6. *Environmental Management Society,*
Karachi.

7. *Mr. Riaz M. Akbar, -Director,*
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8. *Dr Mohammad Aslam Khan,*
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Peshawar University,
Peshawar.

9. *Dr Muzammil Ahmed,*
Institute of Marine Biology,
University of Karachi.
Karachi.

10. *Dr G.S. Quaraishi,*
Director,
National
Institute of Oceanography,
Karachi.

Sri Lanka

1. *Ceylon Institute of Scientific &
Industrial Research,
363, Bauddhaloka Mawatha,
Colombo 7.*

2. *National Building Research Organisation,
99/1 Jawatte Road,
Colombo 5.*

3. *National Aquatic Resources Agency,
Crow Island,
Matlakkuliya,
Colombo 15.*

4. *Natural Resources Energy & Science Authority
of Sri Lanka,
Maitland Place,
Colombo 7*

5. *Institute of Fundamental Studies
of Sri Lanka,
380/72 Bauddhaloka Mawatha,
Colombo 7.*

and

*Hantana Road,
Kandy.*

6. *Environmental Foundation Ltd.,
6 Boyd Place,
Colombo 3.*

7. *Department of Wildlife Conservation,
Rajamalwatte Mawatha,
Sri Jayawardenepura,
Kotte,
Battaramulla.*

8. *March for Conservation,
Department of Zoology,
University of Colombo,
94 Munidasa Cumararatunge Mawatha,
Colombo 3.*

9. *Sri Lanka Environment Council,
145/18 Dutugemunu Road,
Kohuwela.*

10. *Greater Colombo Economic Commission,
Environment Division,
14 Sir Baron Jayathileka Mawatha,
Colombo 1.*

11. *Conservator of Forests,
Department of Forests,
Rajamalwatte Road,
Battaramulla.*

12. Sri Lanka Association for the
Advancement of Science,
Wijerama Mawatha,
Colombo 7.

13. SARVODAYA,
98 Rawattawatte Road,
Rawattawatte,
Moratuwa.

14. President,
Ruk Rakaganno,
c/o SLAAS Committee,
Science Building,
Vidiya Mawatha,
Colombo 7.

15. Marga Institute,
61 Issipathana Mawatha,
Colombo 5.

International Organisations

1. *INFOTERRA,
United Nations Environmental Programme,
Nairobi.*
2. *Food & Agriculture Organisation,
Regional Office for Asia & Pacific,
Bangkok.*
3. *World Health Organisation,
Regional Office,
Indra Prastha Estate,
New Delhi 110003.*
4. *International Union for Conservation of
Nature and Natural Resources,
Avenue du Mont-Blanc,
CH - 1196 Gland,
Switzerland.*
5. *World Wildlife Fund,
Avenue du Mont-Blanc,
CH - 1196 Gland,
Switzerland.*
6. *U.S. Aid - Bangladesh, Bhutan, Nepal, India, Pakistan, Sri Lanka.*
7. *UNESCO Regional Office,
Lodi Road,
New Delhi 110023.*
8. *UNDP Resident Representative in SACEP Countries.*
9. *Representatives of donor agencies - SIDA, CIDA, IDRC, NORAD.*

