

EDITORIAL

The general realization of the finite nature of fossil fuel resources has resulted in seeking by the energy planners, the possibility of finding nonconventional sources of energy which are non-depletable and at the same time, renewable or reusable. Such sources of energy are of primary importance to both the developed and developing countries. The recent policies of the developed countries are aimed at reducing dependence on fossil fuels while the developing countries, particularly those who do not have fossil fuel are trying to develop technologies to harness renewable and reusable sources of energy in a more efficient way, particularly to meet the energy requirements of the rural areas.

It should be borne in mind that though the resource base of renewable or reusable sources of energy are extremely large, only a fraction of it can be exploited at suitable geographical sites. Many countries have started major research and development programmes for the wide scale harnessing of indigenous renewable sources of energy, the results of which would lead to a reliable estimate of its contribution to the overall world energy supply system.

These non-conventional sources of energy have opened new vistas in the field of energy. Presently the most immediate use of the solar energy is for water heating. for the next 5 years, a greater emph-However, solar dying of products, space heating and cooling, thermal electricity, photo-voltaic conversion and water pumping from ground water wells are receiving increased attention of the energy planners in many countries. The most probable trend in development of wind energy in the near future is most likely to focus on a much increased use of wind machines for water pumping and rural electrical systems. Several devices have been pro-

posed to harness the energy of the sea. Presently on a small scale, wind energy is being used to power buoys. Biogas is also becoming increasingly popular in some rural areas of Asia.

The impact of renewable resources of energy on the environment vary widely. Although in some cases, like geothermal energy and hydropower, fairly advanced studies have been made on their impact on the environment, in other cases, the knowledge is limited. Studies are now being conducted in many areas by countries and research centers on the impact these forms of renewable sources of energy have on the environment.

The scope of activities in the Priority Subject Areas of SACEP stresses not only the need for developing techniques for use of alternative sources of energy and its implications to environment and development, but also identifies the necessity for the development and transfer of technologies for the use of renewable and reusable resources such as agricultural wastes, forest wastes and waste generated in industry, fish processing and human settlements.

It is envisaged that in the formulation of SACEP projects and programmes asis will be given to the development of these areas of environmental concern.

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PROJECT NEWS

Regional Seas Programme

The first activity of one of the Priority Projects coming under the purview of the South Asian Seas Regional Programme, " Development of a System of Protected Areas in the South Asian Seas Region," - (SAS 6), which has been approved by UNEP is scheduled for December 1988/January 1989 in Colombo. It will be the first of three workshops called for by this project. This workshop will concentrate on identifying critical marine habitats and ecosystems of the South Asian region. IUCN, the executing agency of the project, is presently identifying the participants for this workshop and the participants will be about 20 Regional Experts. The SACEP Secretariat and the Government of Sri Lanka will provide the logistic support for this workshop.

The Priority Project " Development of an Operational Regional Contingency Plan for Responding to Marine Pollution Emergencies for South Asian Regions," (SAS 5) under execution by IMO, commences in September 1988. The first activity of this project will be a visit of a Consultant to the five Marine Member States during the months of September and October 1988. This mission will be for advisory and data gathering purposes and the Terms of Reference will be :

- a) To prepare an updated review of national contingency plans.
- b) To prepare an outline of a draft regional contingency plan and technical background information documents based on data available, and
- c) To identify further technical assistance requirements in the field of Marine Pollution Combating, for the individual countries.

The other 4 Priority Projects are at various stages of development and it is expec. ... ted that they would become operational within a short time.

Co-ordinated Environmental Education Programme

This programme was drafted on the recommendations of a UNDP/SACEP Mission of 1982, and was designed as a Package Programme for sensitizing people in all spheres of life, from small children in rural areas to high level decision makers.

The SACEP Secretariat, since then has been approaching several International Agencies with a view of implementing this programme.

In February 1988, the SACEP Secretariat had discussions with UNESCO regarding UNES-CO's collaboration with SACEP in this programme. Based on these discussions, the recently concluded Fourth Governing Council Meeting of SACEP requested UNESCO to prepare an Inter-Country Environmental Education Project for South Asia and to submit to UNDP or any other interested International Organisation for funding and for SACEP to execute this project in association with UNESCO.

This decision of the Governing Council has been duly communicated to UNESCO who recently informed SACEP that they have had discussions with UNDP on this matter, who had shown interest in this project and had requested a project summary to be forwarded to them for their study and consideration. Accordingly, the summary proposal has been submitted and now UNDP's positive response is expected.

Environmental Impact Assessment and Cost Benefit Analysis

The final report of the "Senior Level Expert Workshop to evaluate the Benefits and Constraints of the Environmental Impact Assessment Process in SACEP Countries," has been published by UNEP and made available to all SACEP Member Countries by the Secretariat.

One of the outputs of this workshop has been the publication by UNEP, of a booklet titled " Environmental Impact Assessment - Basic Procedures for Developing Countries," with support of the Government of the Netherlands. The SACEP Secretariat has made available this publication to all its Focal Points.

As envisaged, the Secretariat is confident that the other recommendations of this workshop would be taken up by the respective Member States and also that funding for the follow-up action would be available from donor agencies and funding institutions.

Environmental Clearing House Services Project

The SACEP Secretariat has been negotiating with the Asian Development Bank for the implementation of this project. The SACEP Secretariat is at present awaiting a visit of an Asian Development Bank Mission to Colombo, where not only this project will be discussed at length but also the possibility of SACEP and the Asian Development Bank collaborating in other areas of common interest.

Technology for Development of Renewable and Reusable Resources

On the subject of identifying common areas of interest in the areas of pollution control, industrial safety, energy recovery and conservation, UNIDO submitted a project proposal which the SACEP Secretariat studied and modified, so as to conform to its standard project proposals.

This project proposal was submitted to UNIDO and they have requested the SACEP Secretariat to obtain from its Member States individual request letters so that this project could be formally approved by them. Accordingly SACEP has informed its Member States and the SACEP Secretariat is confident that this project would be finalised soon.

> ' All youth organizations believe that environmental issues stand high on the priority list of global problems. However, their solution depends on the preservation of peace on our planet. The quest of solutions to ecological problems is impossible without the curbing of the arms race, for the arms race absorbs tremendous intellectual and material resources of mankind. The solution of ecological problems also depends on the way of life of young people and their value orientation. '

> > Dr I.I. Russin

WCED Public Hearing, Moscow. 8th December 1986.

ETVIRONDENTAL ENITIATIVES IN SACEP COUNTRIES

This is the second in a series of articles where the SACEP Newsletter would highlight the activities of its Member Countries in the field of environmental management.

This issue features some aspects of Environmental Problems in Bangladesh and mitigatory measures undertaken.

Bangladesh can be classified into 4 regions based on the condition of the soil. They are the coastal regions, plain land, northern plateau and the hilly ranges.

Environmental degradation of the soil are due to various factors and sources, some of which are the unplanned felling of mangrove plants in the southern coastal belt, intrusion of saline waters, poorly planned excessive irrigation and unplanned application of chemical fertilizers and insecticides.

The Northern part of Bangladesh is facing the threat of desertification due to deforestation resulting from excessive extraction of fuelwood, whilst the soil erosion in the hilly regions is due to illicit felling of trees. The lack of proper conservation activities are causing ecological imbalance in the forest zones, such as Madhpur, Jaintapur, Khagrachari, Buderban, Rangamati and the Sunderbans.

The marine and inland waters of Bangladesh are more or less good in quality. However, the exhaustive use of water in very densely populated areas are highly polluting the surface waters. Other main sources of pollution are the disposal of untouched sewage and industrial effluents into the waterways, such as rivers and lakes. The Journalists and Environmental Experts have raised a hue and cry over the pollution of the river Ganges and the Brahmaputra on account of dumping industrial wastes upstream. There are 4,700 small and large towns standing on the banks of the river Ganges at its upper reaches. The dumping of wastes of these towns without proper treatment has caused hazardous effects on the lower riparian states. Overpumping of ground water in the coastal belt for irrigation is enhancing the intrusion of brackish waters into the rivers as well as the sweet water aquifers.

There are also clear signs of air pollution in Bangladesh. This is due to exhaust fumes of vehicles, discharge of gasses from industries particularly those of neighbouring countries and there is probable depletion of the oxygen and increase of arbon dioxide content due to excessive felling of trees for the brick industry and domestic consumption.

There is also the threat to the animal population, especially due to the increasing demand of meat consumption and the lack of adequate production methods. Over population is also a major threat to the environment pollution in Bangladesh.

The Government of Bangladesh has, in recent times, taken steps to expand the control activities of environmental pollution through the Department of Environmental Pollution Control.

1) The DEPC has surveyed almost all the industries of the country and detected 950 industries discharging pollutants to the environment. The concerned industries have been advised to stop such pollution and they have requested to attach treatment facilities with their industrial plants by 1989, failing which, they have been informed of legal action. The new industries have been directed to invariably add treatment plants with their industries for getting Government approval.

- 2) It has been collecting samples of drinking water of all cities, analysing them in the three DEPC laboratories and advising the concerned agencies to take corrective steps towards improvement of drinking water quality, and 12,000 samples have thus far been examined, and results communicated for corrective steps by the concerned agencies. The DPHE, another sister Department, also monitoring drinking water quality throughout the country has been monitoring the water qualities of the major rivers with respect to dissolved oxygen, biochemical oxygen demand, chemical oxygen demand and bacteriological pollution and about 10,000 samples from 36 rivers have been tested and a Data Bank has been opened.
- 3) It has been surveying the vehicles plying on roads and emitting black smoke having carbon monoxide etc and using air horns thus damaging the tympanic membrane of the ears and hence the DEPC has been urging them for correct sounding low pitch horns, and so far 20,000 vehicles have been surveyed, of which 80% were found defective and legal action has been initiated against 30% of the defective vehicles.
- The DEPC has been receiving complaints of other types of environmental pollutions, investigating into them and taking corrective measures where necessary.
- 5) It has been organising publicity activities on bad effects of pollution such as publishing wall magazines, distributing booklets among the people, arranging publication of articles on environmental importance in newspapers and reading out articles in Radio and TV and in seminars and workshops for creating environmental awareness among the public.
- 6) It has advised the Government for planting trees and accordingly the Government has taken interest and now has taken up projects under the Forest Department to grow trees along both the sides of the roads and highways all over the country to deter deforestation and tremendous progress has been made, and thus far about 30,00,000 Nos of saplings of timber and fruit trees have been planted along both the sides of the highways since 1978.
- 7) It has advised the Agricultural Department to plant trees along the roadsides and accordingly, in their Integrated Barind Development Project of US \$300,000/, the Agricultural Development Corporation has incorporated an item of tree plantation and have planted 25,00,000 Nos of tree saplings along both sides of roads of Barind Areas (northern part of the country) and also reexcavated about 6000 surface tanks for irrigation thus minimising the quantity of ground water extraction which was alarmingly lowering the ground water table during the last few years.
- It has advised the Soil Research Institute to conserve the soil and accordingly the soil conservation activities have been started.
- 9) The DEPC also has taken up a scheme of modernising the three existing water analysis laboratories at a cost of \$2.6 million dollars with foreign assistance.
- 10) The Government is learnt to have taken up a programme to expand the DEPC adequately with suitably trained and experienced manpower.

DO YOU KNOW?

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About 60 million people all over the world have died during the recent years, due to diarrhoeal diseases caused by unsafe drinking water, malnutrition and insanitory environments.

- A leak from the Pesticides Factory in Bhopal, India killed more than 2000 people and made more than 2,00,00 either blind or afflicted.
- 1000 people were killed in an Explosion of Liquid Gas Tanks in Mexico City and left thousands more homeless.
- Agricultural Chemicals, Solvents and Mercury flowed into the Rhine River during a warehouse fire in Switzerland, killing millions of fish and threatened drinking water in the Federal Republic of Germany and the Netherlands.
- Lack of Proper Environmental Development and Management triggered a drought in Africa killing a million people and put about 35 million people at risk of survival.
- The Chernobyl Nuclear Reactor Explosion sent nuclear fall-out across Europe and Asia and increased risks of future human cancers probably in a radius of 2000 miles for 50 years.
- The Lake Malawi in Central Africa holds over 500 Cichlid fish species, 99% of them being endemic. Introduction of alien species and industrial pollution are now threatening to cause their extinction.
- The eastern strip of forest in the island of Madagascar had about 12,000 plant species and 190,000 animal species of whom about 60% were endemic. It is learnt that at least 93% of the original primary forest has been eliminated.
- The Catting Down of Forests for Banana Plantations, Oil Wells and Human Settlements in Western Ecuador have caused the disappearance of 50000 or more of endemic plants and animals during the last 25 years.
- The 110,000 square kilometres of wetland in the Paratanal Area of Brazil was probably the most extensive and richest wet-land in the world. They supported the largest and most diversified populations of water fowl in South America. Agricultural expansion, dam construction and other forms of disruptive development have threatened and will continue to threaten their existence.
 - Though no proper recording has been maintained, during the last four decades, there has been a gradual extinction of different kinds of plant and animal species in the Kaptai, Karnafuli and the Sunderbans Area in Bangladesh...
- According to the World Wildlife Fund and the IUCN, 20 species of birds, 31 species of Mammals and 4 species of reptiles are in danger of becoming extinct in Pakistan.
 - About 60% of the land in Pakistan is under the threat of desertification; its forest cover which is only 5%, is disappearing at an annual rate of 1%.

(Bangladesh Observer and Pakistan Environmental Profile)

UNTIMELY DEATH OF A SACEP HEAD OF STATE

The Consultative Committee of SACEP met on the 19th of August 1988, and expressed its deep sense of sorrow and grief at the untimely death of President Zia-Ul-Haq of Pakistan, and conveyed to the Acting President and Government of Pakistan, its condolences. It also expressed its deepest sympathies to Begum Zia and the members of the bereaved family.

President Zia-Ul-Haq was a great supporter of SACEP.

FORTHCOMING ACTIVITIES OF SACEP

TIME FRAME

September/October 1988

December 1988/January 1989

ACTIVITY

IMO Consultancy Mission to the Five Marine States of SACEP in connection with the South Asian Seas Priority Project - ' Development of an Operational Regional Contingency Plan for Responding to Marine Pollution Emergencies in the South Asian Region.'

First Workshop in connection with the South Asian Seas Priority Project - ' Development of a System of Protected Areas in the South Asian Seas,' titled "Identification of Critical Marine Habitats and Ecosystems of the South Asian Region," to be held in Colombo, Sri Lanka.

Fifth Governing Council Meeting of SACEP.

The next issue of the SACEP Newsletter will be a Special Issue to mark the Declaration of 1988 as SACEP YEAR OF TREES FOR SOUTH ASIA. The SACEP Secretariat wishes to place on record its deep appreciation to the UNEP Regional Office for Asia and Pacific, especially to the Regional Director Dr Nay Htun and Environmental Affairs Officer, Dr R.D. Deshpande, for making available the funds to meet the cost of this publication as well as all the SACEP Newsletters so far published.

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April 1989