YEAR BOOK 2002-2003

Pakistan Environmental Protection Agency (Pak -EPA)

Pakistan Environmental Protection Agency (Pak-EPA) is an attached department of the Ministry of Environment and is responsible for implementation of the Pakistan Environmental Protection Act, 1997 that mainly focuses on control of pollution and protection of environment. It also deals with public complaints and conducts research and investigation in different fields of environment. During the year 2002-2003, Pak-EPA carried out the following activities:

Pollution Control

Industrial Pollution Control

As the environmental awareness among industrial entrepreneurs increased due to continued efforts of the Government and demand of environment friendly products in the international market enhanced, the industrial sector in the country started implementing the National Environmental Quality Standards (NEQS). Although the pace of implementation of the NEQS remained slow because of various factors like non-availability of indigenous technology, resource constraint and lack of monitoring by the regulatory institutions yet some major initiatives were also taken by the industry. A number of industrial units like textile, surgical, sugar, leather, and chemicals installed waste water treatment plants. Three cleaner production centers each by UNIDO (Rawalpindi), LIDO (Sialkot) and a private sector started functioning. These CPs are promoting adoption of ISO 14000 and helping improve environmental performance of the industry. Combined industrial waste water treatment plant at a cost of Rs. 520 million in Korangi is under construction and will be completed in March 2004.

Under a Technical Assistance program of the Asian Development Bank (ADB), a study has been undertaken to develop investment feasibility for six combined wastewater treatment plants and two hazardous waste disposal facilities.

To minimize role of environmental inspectors, and giving self-respect to industry, a Self-monitoring and reporting program was devised in consultation with the industry. The program is user friendly and requires minimum efforts to enter and transfer data of industrial effluents to concerned EPA through a software “SMART”. A full-scale national SMART program will be launched from January 2004. Based on the reported data, EPAs will start negotiations with highly polluting industries and enter into pollution reduction agreements with specific targets to be set through Environmental Improvement Plans. An NEQS Implementation Committee headed by Dr. Pervez Hassan and comprising representatives of trade and industry, NGOs and other stakeholders will supervise the program.

Federal and Provincial EPAs issued Environmental Protection Orders under section 16 of the Environmental Protection Act, 1997 to violators of the NEQS and referred cases to the Environmental Tribunal.

Vehicular Pollution Control

Under an agreed program with the Ministry of Petroleum and Natural Resources, phasing out of lead from gasoline and sulphur from diesel and furnace oil was initiated. Recently, lead from gasoline has been eliminated and sulphur contents which were 1% in diesel have been brought down to 0.5%. These measures certainly improve quality of air in urban centers. Efforts are also being made to further reduce sulphur contents to 0.25%.

As part of the alternative clean fuel program, about 300,000 vehicles have been switched over to CNG. Car manufactures have also introduced built-in CNG cars. Rickshaws (three wheelers) have also been successfully converted to CNG with the assistance of Canadian International Development Agency (CIDA). Although this has been done on an experimental basis, but efforts are being made to encourage local industry to manufacture built-in CNG rickshaws.

As the unleaded gasoline is being marketed in the country, use of anti-pollution devices such catalytic converters and particulate arrestors in diesel vehicles has been planned. For this purpose, the existing vehicle emission standards are being revised and adoption of EURO standards at the manufacturing stage is under consideration.

Environmental Squads at the federal and provincial level are also monitoring visible smoke emitted by vehicles. This system is being strengthened and streamlined with the cooperation of provincial EPAs.

Land Pollution Control

Pak-EPA has developed a project on integrated management of solid waste in Pakistan in order to adopt best environmental practices to ensure the protection of public health and environment. It also developed landfill site selection criteria for the safe and adequate disposal of solid waste. Pak-EPA is also developing Guidelines for proper disposal of solid waste and incinerators in Pakistan for the guidance of local governments.

M*anagement of Hazardous Substances*

Presently no system exists in the country to regulate handling, transportation, storage and proper disposal of hazardous waste. Pak-EPA has drafted Regulations which presently are under consultation.

Environmental Monitoring

Pak-EPA gives due importance to monitoring of air, water and land. Different monitoring activities and studies were carried out during year 2002-2003 and test results were made public and disseminated to concerned institutions. There is need to expand monitoring activities particularly keeping a check on ambient air quality, surface and ground water quality, transboundary effects of air pollutants, pollutants effects on food chain and life, residual pollutants in products, life cycle of toxic material etc. but Pak-EPA budget is very limited. Keeping this in view, Pak-EPA got approved a project from CDWP on "Environment Monitoring in Pakistan" at a cost of Rs. 1089 million to be funded from grant in aid of the Government of Japan. This project is now under submission to the ECNEC for approval. Some of the monitoring activities carried out in different areas are described below:

Wastewater Quality Monitoring in Islamabad

Quality of water flowing through nine streams in Islamabad was monitored by Pak-EPA with Korean overseas volunteer. The purpose of this monitoring was to know the extent of sewage mixing directly to the streams causing pollution. Sampling of the stream water running through different areas of Islamabad was carried out during different seasons analyzed in the Pak-EPA Laboratory. After the analysis of these samples, discussion and conclusion was made on the basis of results obtained and report was written and finalized. CDA is being associated to workout a plan for stopping dumping of sewage in the rain streams.

Survey of Drinking Water of Sara-e-Alamgir

Pak-EPA gives due importance to small cities and town to control and monitor pollution. A survey of drinking water of Sara-e-Alamgir was conducted by Pak-EPA, laboratory on 12th December 2002. The purpose of this survey was to initially examine the drinking water quality, sewerage system and sanitation conditions in town and on the basis of these observations to assess the health risk.

During the survey meeting was held with TMO Sara-e-Alamgir and briefings was made about the present drinking water supply system and solid waste management. The sampling of drinking water and wastewater was done and analysis were conducted at Pak-EPA, laboratory. On the basis of the tests, recommendations were submitted to the Minister emphasizing on setting up clean drinking water for he public.

Air and Wastewater Monitoring of Gujranwala and Faisalabad Cities

A project on air and wastewater monitoring of Gujranwala and Faisalabad was planned jointly by Pak-EPA and JICA. The objective of this activity was to assess air, water and wastewater quality of Gujranwala and Faisalabad. The sampling of air, water and wastewater was done both in Gujranwala and Faisalabad. A consolidated report is at final stage.

Survey of Drinking Water, Sewerage System and Solid Waste Management of Gujrat City

A survey of drinking water, sewerage system and solid waste management of Gujrat City was conducted by Pak-EPA, on 30th January 2003. The purpose of this project was also to assess the health risks of living beings through the evaluation of drinking water quality, sewerage system and Solid waste management pattern in the city. During the survey, meeting was conducted with District Environment Officer, TMO Gujrat where the discussion was made on the present situation of Drinking water, Sewerage system and Solid Waste Management in Gujrat City. Sampling of drinking water was done from different tube well sites and end users sites in Gujrat City. The analysis of these samples was conducted at Pak-EPA, laboratory (CLEAN), conclusions and recommendations were made on the basis of results obtained and report was finalized.

Survey of Drinking Water of Chakwal City and WasteWater Sampling at Adhi & Rajjian Oil and Gas Field

With the direction of Minister of State for Environment, a survey of Drinking Water of Chakwal city and wastewater sampling at Adhi & Rajjian Oil and Gas Field was conducted by Pak-EPA

on 29th May 2003. The purpose of this survey was to assess the drinking water quality and the associated health problem among the population in Chakwal City.

During the survey, a meeting was hold with the Tehsil Nazim and other officials of Chakwal who briefed about the water supply system in Chakwal City. Sampling of drinking water from different locations in Chakwal City and of wastewater from Adhi & Rajjian Oil and Gas Field was done and analysis was conducted at Pak-EPA, laboratory (CLEAN). According to the Physio-chemical analysis report, it was found that out of 12 samples 7 were found with exceeding values of heavy metals (Pb and Cd) from WHO guideline. Whereas according to the bacteriological analysis report, all drinking water samples were found unfit for human consumption.

Environmental Impact Assessment of Development Projects

EIA process has begun in the country in an organized manner after notification of EIA Regulations 2000 and availability of IEE/EIA Guidelines (developed through a long consultative process). The Federal and Provincial Environmental Protection Agencies (EPAs) have developed their capacity to review and issue environmental clearances. The review process is carried out through public participation. Capacity of EPAs is being enhanced through on the job training.

During the year Pak-EPA received EIA entitled "Pakistan Highway Rehabilitation Project for N-5 & M-9 (Phase-I) received on 21st April, 2003. The cost of the project is USD 239.5 million and the total environmental management cost mentioned in report is 364.17 million (approximately 6.3 million US $). The project consists on various Highway sections containing 229 k.m for rehabilitation and maintenance and 174 k.m for resurfacing and strengthening of Highway in Punjab, Sindh and NWFP provinces. This is one of the mega project in public sector and also a trans-provincial project. It will set precedents for other Highway projects in Pakistan and will strengthen sound environmental management of highway/ motorways.

Implementation of Development Project

Green Library and Documentation Centre

A Green Library & Documentation Center has been established in the premises of Pak EPA to provide technical support to its staff and information to general public. Green Library has technical material on air, water and soil pollution. Latest books/journals and articles are available. Green Library is also working as a resource center for the Ministry of Environment.

Green Library is a supporting research programme of Pak EPA by making available the latest environmental literature. It is providing research information to the Central Laboratory for Environmental Analysis of Pak EPA.

National Environmental Action Plan (NEAP)

There have been efforts in both public and private sector, to carry out programs related to the protection of the environment and dealing with the issues of environment. Although these measures and programs were useful in their impacts and in creating awareness among the public,

need for more integrated and sustainable programs was felt at the federal and provincial levels. A National Environmental Action Plan (NEAP) was thus approved by the Pakistan Environmental Protection Council. The NEAP identified four priority core areas viz. i) Clean Air; ii) Clean Water; iii) Eco-system Management; and iv) Solid Waste Management.

A Pollution Control Project Implementation Unit was established in Pak-EPA in the Year 2002. The unit developed a number of projects such as: Activity based capacity development project; Clean drinking water initiative project; 25/75 Environment Improvement Program for Industry etc. Besides a number of studies are being carried out for assessing emission of mercury in coal and disposal of electronic waste in the country.

The Unit also imparted training to EPAs and other related institutions in the field of EIA, monitoring and environment and trade.

International Cooperation

Pak-EPA is working closely with international partners to address environmental issues in Pakistan. Some of the main cooperations include:

POPs Enabling Activity: Preparation of the POPS National Implementation Plan under the Stockholm Convention

The objective of the project is to strengthen capacity and build ownership in Pakistan to meet its obligations under the Stockholm Convention, including preparation of a POPs National Implementation Plan. The National Implementation Plan describes how Pakistan will meet its obligations under the Convention to phase-out POPs sources and manage POPs contaminated sites. The project will enable Pakistan to ratify the Stockholm Convention and become a Party to the same.

Male Declaration on Control & Prevention of Air Pollution and Its Likely Transboundary Effects for South Asia

In compliance with the decision of the UNEP Governing Council, UNEP-AP initiated a Regional Ambient Air Monitoring Programme for South Asia namely "Air Pollution and its Likely Transboundary Affects for South Asia under the Male Declaration". The Project is to be implemented in o8 countries (Bangladesh, Bhutan, India, Iran, Maldives, Nepal, Sri Lanka and Pakistan). The project is to be completed in two phase i.e. Male Declaration-I and Male Declaration-II.

Pakistan Environment Programme (PEP)

Pak-EPA is seeking Pakistan Environment Programme (PEP) cooperation during phase-II commencing from 2004 to 2006. The Royal Netherlands government has been pleased to fund the Pak-EPA component.

JICA Cooperation

A long-term JICA Expert stationed in Pak-EPA is working on the issues of environmental pollution. This cooperation is available since 1999 and is growing with time. Through this window of opportunity, Pak-EPA got the opportunity to undertake various studies in the field of air and water quality monitoring.

KOICA Cooperation

Under an arrangement, a Korean Volunteer remained associated with Pak-EPA, Environmental Laboratory "CLEAN". During his stay, the KOICA volunteer a study on waste water contamination in Islamabad.

Other Initiatives

Pak-EPA launched a campaign "Say No to Plastic Bag" at the national level targeting reduction in use of plastic shopping bags. It has also approached Government of China, where two of the cities are using bio-degradable plastic bags, for possible transfer of technology to manufacture similar kind of plastic bags.

With a view to creating mass awareness, Pak-EPA conducted declamation contest in local school in which students from Northern Areas and Islamabad actively participated. Besides, videos on environmental issues were also shown in the schools. Advertisement in the print and electronic media on different environmental issues were also floated to create awareness among general public.

Strengthening of federal and provincial EPAs is essential to effectively implement Pakistan Environmental Protection Act, 1997. Due to weak monitoring and regulatory system in the provinces and inadequate facilities, Pak-EPA worked out a project proposal "Activity Based Capacity Development (ABCD)" Project aiming to strengthen EPA both logistically and technically to undertake important environmental activities. The project is under consideration in the Planning and Development Division.