

## **4. Response to Problems Regarding Environment and Development**

### **4.1 Natural Environment**

#### **(1) Deforestation and Desertification**

The use of wood for fuel accounts for nearly 90% of the wood consumption in Pakistan and the wood consumption volume, excluding imported wood, is approximately double the forest growth volume, constituting one factor for deforestation.

The Inspector General's Office of the MELGRD has instructed each provincial forest department to formulate a long-term working plan for the purpose of sustainable forest management, has strengthened community-level activities, monitoring and afforestation, including the management of private land, and has approved the lower enforcement power of provincial governments.

Meanwhile, the assistance by such international organizations as the EC, World Bank, ADB, the Netherlands and UNDP for the forestry sector in Pakistan emphasises improvement of the vicious relationship between the excessive exploitation of natural resources and poverty, focusing on the implementation of projects designed to (i) sustain the livelihoods of poor people, the number of which increases under vulnerable natural conditions, and (ii) establish sustainable forest management.

#### **(2) Biodiversity and Conservation of Ecosystem**

Alteration of the configuration of a watershed because of water use for an irrigation system, etc. has various impacts, including the diminishment of fresh water bodies in the lower reaches. As a result, the ecosystem for mangrove forest, birds and marine organisms are threatened in brackish water zone. Indiscriminate deforestation for fuel-wood, large-scale commercial logging and over-grazing have placed precious flora and unique fauna in a critical situation.

In the NEAP 2001, the MELGRD lists ecosystem management as one of the four core fields. It has prepared the Biodiversity Conservation Action Plan 2000 and has been implementing some ecosystem conservation programmes which are specific to unique areas with NGOs and with the technical and financial assistance of such international natural environment protection organizations as the GEF, WWF and IUCN. At the federal level, the preparation of a red data book is in progress with the assistance of the SDC with its completion expected in a few years time.

There is a consensus among the organization involved in environmental conservation that a matter of the highest priority is the capacity building of primarily the provincial wildlife protection departments and forest departments which are responsible for practical conservation work of the natural environment. As the survival of the ecosystem relies on the characteristics of the geographical area, the participation of the local community affecting the local environment is essential for conservation of the natural environment. Accordingly, conservation projects which are appropriate for specific areas are being promoted to make the sustainment of the livelihoods of local residents compatible with conservation of the ecosystem in each area.

## **4.2 Urban Environment**

### **(1) Air Pollution**

Although air pollution in large cities in Pakistan is facing a critical situation, clear data indicating the causal relationship between air pollution and health damage or the rate of contribution by source is not readily available except for reports on the adverse impacts of offgas from certain plants on human health. General emphasis based on limited measured data is placed on SPM by comparing the local value with the relevant WHO guideline.

While the NEQS sets forth the legal threshold for 18 items to stationary emission sources, NO<sub>x</sub> (annual median) is the only subject item in regard to the ambient air quality. In the case of vehicular emissions, only CO and black smoke are subject to the regulatory regime.

In regard to stationary sources of air pollution, the SMART (self-monitoring and reporting tool) programme is being implemented as in the case of waste water and each provincial EPA monitors plants based on the plant offgas standards.

One measure in progress to control mobile sources of air pollution is the conversion from fuel with high emission factors of NO<sub>x</sub>, etc. (diesel and the mixing of kerosene) to CNG with a low emission factor. Oil companies are planning to phase out leaded petrol in 2005.

The VETS was established in Peshawar in 1997 with the assistance of the GTZ as part of the Urban Industrial Environment Protection (UIEP) Programme. While more than 5,000 vehicles have been inspected, further assistance for other cities has been suspended due to the shift of emphasis of the GTZ's aid to capacity building and other reasons.

While a project to effectively implement the SMART Programme and a project to introduce mobile VETSs nationwide have already been approved as NEAP-SP projects, funding sources