Chapter 11
Promotion of Environmental Health

The main thrust of WHO's programme on environmental health continues to be in the field of community water supply and sanitation as an important element of PHC in many countries. However, a number of countries in the South-East Asia Region experiencing the adverse health effects of rapid urbanization and industrialization have initiated programmes related to the prevention and control of pollution, particularly in urban areas, and to the promotion of chemical safety, including programmes on chemical poisoning and emergency preparedness and response. The Organization has adopted a Global Strategy for Health and Environment, which is based on the recommendations of WHO's Commission on Health and Environment and on the outcome of the United Nations Conference on the Environment and Development (UNCED) held in Rio de Janeiro in June 1992. The strategy establishes a unifying framework for WHO's future collaborative activities in countries for capacity building to plan and implement national actions for health and the environment. It provides the basis for WHO to support Member Countries as they prepare action plans to implement Agenda 21 of UNCED. The Regional Office has prepared a draft regional plan of action for health and environment in line with Agenda 21.

11.1 Community Water Supply and Sanitation

A detailed evaluation of the International Drinking Water Supply and Sanitation Decade (IDWSSD), 1981-1990, presented at the 44th session of the Regional Committee, described the achievements made by each country, the constraints, and the actions to be taken in the 1990s. Furthermore, the Regional Committee passed a resolution (SEA/RC44/R7) urging Member Countries inter alia to reaffirm the priority of safe water supply and adequate sanitation in the 1990s, and particularly
to meet the needs of the poor while monitoring progress continually. Subsequently, a document, “Decade Assessment and Perspective for the 1990s”, was prepared highlighting the water supply and sanitation coverage targets by the year 2000 (Table 6).

Table 6. Percentage of urban and rural population coverage

<table>
<thead>
<tr>
<th>Sector</th>
<th>Coverage attained</th>
<th>Target for 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1980</td>
<td>1990</td>
</tr>
<tr>
<td>Water Supply</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>64</td>
<td>76</td>
</tr>
<tr>
<td>Rural</td>
<td>31</td>
<td>66</td>
</tr>
<tr>
<td>Sanitation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>30</td>
<td>48</td>
</tr>
<tr>
<td>Rural</td>
<td>6</td>
<td>12</td>
</tr>
</tbody>
</table>

The above table shows that more intensive efforts have to be made in the coming years to realize the targets set for the end of this decade, particularly for sanitation.

1. Institutional Development

During the period under review, support was provided for strengthening the institutional development of sector agencies through consultancies, special studies, and the development of management information systems. An assessment of water quality surveillance was undertaken in Bangladesh when a programme was developed for implementation. A review and assessment of the operation and maintenance of water supply and wastewater systems in India was undertaken with WHO assistance. A consultant was assigned to Maldives to assist in the improvement of water supply and wastewater systems. In Myanmar, a review of the sanitation programme for schools, health posts and communities was completed. In Nepal, a study on sanitation was supported in order to develop the national sanitation strategy for the 1990s. A consultant reviewed the sanitation programmes in the countries of the Region, and studies were carried out in Bangladesh, Indonesia, Nepal and Sri Lanka on the promotion of hygiene and sanitation for review at a regional consultation in May 1993.

2. Human Resources Development

WHO continued to support the strengthening and development of human resources through fellowships, special training courses/observation tours and other group educational activities for engineers from Bangladesh, India, Maldives, Myanmar,
Nepal and Sri Lanka. In-country training for para-professional engineers and health officials was organized in Bangladesh and Nepal. National workshops on computer-based project management using WHO/HQ's Environmental Health Information for Management of Development Activities (EHMDAC) software were conducted in Bangladesh. As part of the UNDP-funded sector training project, professional and sub-professional staff received training in the implementation of water supply and sanitation projects in Nepal. Support was provided for setting up national training institutions in water supply and sanitation in Bangladesh and Nepal.

3. Monitoring of Water Supply and Sanitation Programmes

Emphasis continued to be focused on further development and strengthening of MIS (management information system) capabilities in national water supply and sanitation agencies in Bangladesh, Nepal and Sri Lanka. In Bangladesh, sector monitoring is also being expanded through a grant from the Swiss Development Corporation.

4. Project Support

Many countries received support through the provision of laboratory equipment and chemicals and supplies, computer hardware and software, and office and other equipment for their CWS projects.

11.2 Environmental Health in Rural and Urban Development and Housing

Most countries increasingly face problems of uncontrolled population growth and rapid unplanned urbanization, which jeopardize the health of people, particularly those living in slums and squatter settlements.

A Regional Consultation on Municipal Solid Waste Management held in October 1991 resulted in the publication of a report entitled “National Institutional Development for Solid Waste Management – Goals and Action”. As a follow-up of this consultation, a document to serve as a guide in the selection of storage, collection and transportation equipment for solid waste management is being prepared.

In an effort to increase the cross-sectoral issue of drainage, a joint WHO/UNDP/World Bank regional workshop was held in October 1991 and a document on “Direction in drainage for the 1990s” was published outlining the various strategies and actions at national, community and donor levels.
Many countries of the Region are experiencing environmental health problems related to rapid urbanization. A 'Healthy City' project for six major cities of the Region was prepared jointly with ESCAP. In Bangladesh, a healthy city workshop to address problems of urbanization was supported. Assistance was provided to Sri Lanka for undertaking community environmental health assessments. Case studies on intersectoral approaches to community management of environmental problems were initiated in Bangladesh and Sri Lanka. A consultant assisted Myanmar in reviewing latrine construction in urban areas.

11.3 Health Risk Assessment of Potentially Toxic Chemicals

WHO collaboration in this area focused mainly on human resource development through national workshops, study tours and participation in international conferences as well as dissemination of technical information.

Courses for trainers on early diagnosis, treatment and control of pesticide poisoning were held in India, Indonesia and Thailand involving the health, agriculture and industry departments. An intersectoral workshop was also organized in Myanmar to develop a training manual on managing pesticide poisoning. Development of national poison centres was supported in India, Indonesia and Thailand through the organization of workshops and the supply of computer equipment. Workshops on technological and chemical disaster management were organized in India and Indonesia. Work on legislation and regulations on the use of hazardous and toxic substances was completed in Indonesia. Legislation on hazardous chemicals was reviewed in Thailand, where chemical safety management was also assessed in order to develop a comprehensive chemical safety monitoring system. Environmental epidemiology courses under the International Programme of Chemical Safety (IPCS) were held in Indonesia and Thailand. A comprehensive environmental epidemiology programme was drafted in India.

11.4 Control of Environmental Health Hazards

Collaboration with the countries was focused on activities related to the management of environmental health hazards. As stated earlier, an approach paper was prepared for the development of action plans for health and environment under Agenda 21 of UNCED, and a regional action plan for developing environmental health plans in the countries was drafted.
The Organization supported studies in India on groundwater pollution, industrial water consumption, the pollution monitoring system, financial aspects of pollution control, and environmental epidemiological studies in certain critically polluted areas. Training courses on control of noise pollution were organized in India and Indonesia. WHO arranged the participation of Indian officials in the International Conference on Water and Environment in Ireland and in a seminar on environmental policy and regulations in the United States. Fellowships in the United Kingdom and the United States were provided for the training of pollution control staff from India in hazardous waste management and control of toxic chemicals and pollutants. Technical staff from Myanmar and Thailand were trained abroad in the disposal of toxic wastes. Study tours were organized for officials from DPR Korea, India and Thailand. Assistance was extended to Thailand for undertaking air pollution monitoring and control in two districts in Lampang Province. A consultant assisted Bangladesh in preparing a programme on the control of toxic chemicals and hazardous waste management.

Under the Global Environmental Monitoring System (GEMS), water quality monitoring was continued in India, Indonesia and Thailand. As part of GEMS/Air quality monitoring, special reports on the quality of air in Bangkok, Bombay, Calcutta, Jakarta and New Delhi were prepared and WHO support was provided for data collection and analysis at monitoring stations in India, Indonesia and Thailand. In Bombay, the Human Exposure Assessment Location (HEAL) project continued to be implemented, while a new HEAL study on lead exposure was initiated in Bangkok.

11.5 Food Safety

WHO's efforts in this area were directed towards technical cooperation with Member Countries in developing their food safety programmes through institutional strengthening and human resource development. The Regional Office prepared a regional food safety document giving an overview of current country situations and future perspectives for strengthening national programmes.

WHO supported the organization of a workshop on surveillance, prevention and control of food adulteration in India as well as the preparation of manuals on good manufacturing practices and laboratory procedures. Studies were also initiated on pesticide residues in food staples, on plastic food containers and on mutagenic studies of certain foods. Assistance was provided to Indonesia for reviewing its national food safety activities and identifying areas in need of support, and a draft national food sanitation programme was prepared. A research study on street-vended foods in Bali and draft guidelines for street food safety were also completed, and training courses on food technology and food sanitation inspection for provincial and district-level staff were held. Study tours to observe food safety programmes...
were organized for officials from Indonesia and Sri Lanka. In Sri Lanka, an evaluation of the national food safety programme was carried out and a UNDP-assisted food safety development project document was prepared. Support was given to the training of public health inspectors and medical officers in food safety. Thailand received support for a national computerized information network on food safety analysis and quality control and for studies on the dietary intake of arsenic and tin and on lead contamination levels in street foods in Bangkok. Technical assistance on the analytical aspects of food quality was provided to DPR Korea.

Selected Codex Alimentarius texts and guidelines were translated and published in Indonesia, while in India the national food standards were reviewed so as to harmonize them with the Codex standards.