Countries of the Region continue to accord high priority to community water supply and sanitation in the context of primary health care. There is, at the same time, in many countries, a growing awareness of environmental problems and their close links with health and socioeconomic development, particularly in those countries experiencing rapid urbanization and industrialization. Concern for pollution of drinking water resources from toxic chemicals and solid and hazardous wastes is receiving increased attention in the Region. Many countries, while continuing to pursue the goal of safe water and sanitation as part of HFA/2000, have also initiated activities related to the improvement of environmental health in rural and urban development and housing, prevention and control of health hazards from environmental pollution, chemical safety and control of poisoning, health risk assessment and risk management, environmental epidemiology and food safety.

To assess current scientific knowledge on the consequences to human health of environmental factors linked to socioeconomic development, the Director-General of WHO established a high-level technical expert Commission on Health and Environment. The Commission has focused its attention on environmental determinants affecting health in the areas of energy, industry, urbanization, food and agriculture. The report of the Commission, likely to be available later this year, is expected to suggest general strategies to prevent or mitigate adverse effects of the changing environment on health. The Commission’s report will not only form the basis for WHO’s new global strategy for environmental health, but will also be WHO’s input to the 1992 UN Conference on Environment and Development.

WHO participated in the ESCAP Ministerial-level Conference on Environment and Sustainable Development, held in Bangkok in October 1990. The Conference reviewed the state of the environment and policies in Asia and the Pacific, and
endorsed the broad framework for regional strategy for environmentally sound and sustainable development in Asia and the Pacific region, issuing a ministerial declaration to that effect.

11.1 COMMUNITY WATER SUPPLY AND SANITATION

A Global Consultation on Safe Water and Sanitation, held in New Delhi in September 1990, reviewed the International Drinking Water Supply and Sanitation Decade (1981-1990) and issued the New Delhi Statement that appealed to countries for concerted action to enable people to obtain the basic needs of safe drinking water and environmental sanitation. The New Delhi Statement's challenge was "Some for all, rather than more for some", and it recommended four guiding principles for countries in formulating strategies for the 1990s. These strategies were: environmental protection to safeguard health by integrated management of water resources and wastes; strengthened institutions for sustainable development; community management empowering people to own and control their systems; and sound financial practices for better management.

Following up on the Global Consultation, countries of the Region are engaged, with WHO support, in a comprehensive review and evaluation of Decade achievements and shortfalls to be addressed in preparing their sector strategies for the 1990s and beyond. This information will be an input to the new WHO global strategy on community water supply and sanitation, which is a component of the new global environmental health strategy that is being developed.

Countries and external support agencies have been urged to collaborate to formulate and implement action plans to incorporate the guiding principles of the New Delhi Statement. Consequently, WHO collaborated closely with the UNDP/World Bank Decade programme on water supply and sanitation by assisting in the preparation of sector review and development documents, development of MIS and an information management system to strengthen national planning and coordination in the sector, and in areas of environmental sanitation and drainage. As a result of the agreement between WHO and UNICEF to jointly support country-level water supply and sanitation monitoring for improved sector management, WHO is supporting the development of national sector information management within the framework of the CESI micro-computer data base system.

1. Manpower Development

WHO continued to support manpower development relevant to countries’ needs through fellowships, special courses, observation tours within and outside the Region and through other group educational activities.
Training in the country of subprofessionals and professionals in low-cost sanitation, network design, handpump operation and maintenance and community participation in the management of water supply and sanitation systems was organized in Bangladesh, India, Indonesia, Myanmar and Nepal. A workshop for planning in environmental health, based on the national five-year plan, and a seminar on health education aspects for community water users were held in Indonesia. A national-level workshop on the use of micro-computers for planning and design of water supply and sanitation facilities was organized in Bangladesh with the participation of engineers from Indonesia and Thailand. Training activities to strengthen village-level institutional development as part of the ongoing water supply and sanitation projects continued in Indonesia on handpump installation, rehabilitation of water supply systems, operation and maintenance as well as other aspects of health improvements. On-the-job training was provided in Mongolia in the operation and maintenance of wastewater treatment plants and in water quality laboratory testing. In Myanmar, evaluation workshops on latrine construction and on water supply and sanitation programmes at state and division levels were planned, and an orientation workshop on construction of latrines at the township level was held.

A source book of health education and communication support materials for drinking water supply and sanitation in India has been finalized.

2. Institutional Development

Support was provided for the strengthening of institutional capabilities in the areas of manpower development, management information systems, improvement of operation and maintenance, water quality surveillance and monitoring, etc. The institutional structure of the Department of Public Health Engineering in Bangladesh was studied for improving its capability, especially in coordinating with other sector agencies. A water supply and sanitation sector review was carried out in Nepal and preliminary plans and programmes up to 2000 A.D. were formulated. The development of national water supply and sanitation management information systems was undertaken in Bangladesh and Nepal. Manuals for basic health workers for the operation and maintenance of sanitary latrines were being prepared in Myanmar.

3. Water Quality Surveillance

National standards and codes of practice for drinking water quality were revised and formalized in a ministerial decree in Indonesia. District laboratories in Bengkulu and Lampung provinces of Indonesia are being strengthened as part of the development of a model system for water quality monitoring and surveillance to be replicated in other provinces. Water quality laboratory equipment installation and training were provided in Mongolia as part of the development of the Central Reference Laboratory.
4. Research

Research studies for the improvement of performance in the various aspects of water supply and sanitation were being carried out in India, Indonesia, Myanmar, Sri Lanka and Thailand.

11.2 ENVIRONMENTAL HEALTH IN RURAL AND URBAN DEVELOPMENT AND HOUSING

Most SEAR countries are faced with the problems associated with rapid population growth and urbanization, resulting in squatter settlements, overcrowding in existing settlements and unplanned growth in urban peripheral and fringe areas with deteriorating environmental conditions and services such as water, excreta disposal, waste water and solid waste collection as well as disposal facilities. A healthy city project proposal to improve environmental conditions and services in slums and squatter settlements in five cities of SEAR was therefore prepared jointly with ESCAP for donor funding.

The Regional Office has collected and reviewed solid waste management status reports from Bangladesh, India, Indonesia, Myanmar, Nepal, Sri Lanka and Thailand and prepared an overview to be used as a background paper at the Regional Consultation on Solid Waste Management, planned for October 1991. The Consultation will enable exchange of experience on solid waste management and formulation of a national agenda for action. In addition, a workshop on the same subject has already been organized in Kathmandu, Nepal, in collaboration with GTZ, in which officials from Bangladesh, Bhutan, India, Indonesia, Myanmar, Sri Lanka and Thailand participated.

Waste water drainage is another common problem faced by most SEAR countries. A regional workshop on drainage is planned to be held jointly with the UNDP/World Bank Water Supply and Sanitation Group in South Asia in late 1991 to discuss issues and problems of drainage and evolve a regional drainage strategy. Country status reports and regional overview papers have been prepared.

11.3 HEALTH RISK ASSESSMENT OF POTENTIALLY TOXIC CHEMICALS

WHO's efforts in this sub-programme area were focused on technical cooperation for manpower training on risk assessment, dissemination of information on potentially toxic chemicals being used in SEAR countries, and on control of environmental health hazards, food safety and workers' health.
1. Manpower Training

An Intercountry Course on Risk Assessment/Risk Management was held in the WHO Regional Office for South-East Asia, New Delhi, in October 1990, with participants from India, Indonesia, Myanmar, Nepal, Sri Lanka and Thailand. The course included the IPCS teaching/learning module for risk assessment, emergency preparedness/emergency response, survey techniques, health monitoring and environmental epidemiology. A National Course on Health Risk Assessment in Chemical Safety, supported by IPCS, was also organized by the Directorate General of Drug and Food from 26 November to 1 December 1990 in Indonesia.

A national Course on Environmental Epidemiology, sponsored by IPCS, was held at the Industrial Toxicology Research Centre, Lucknow, India, in October 1990. Participants of this course included medical inspectors of factories and people from medical colleges and state pollution control boards.

2. Institutional Development

Under the UNDP-assisted project “Safety and Control of Pollutants and Toxic Chemicals”, the establishment of poison control centres supported by a data base on toxic chemicals was being implemented in India, Indonesia and Thailand. Hardware and software equipment were provided.

Project formulation framework documents for UNDP assistance were prepared for Bangladesh and India.

11.4 CONTROL OF ENVIRONMENTAL HEALTH HAZARDS

WHO's collaboration with Member Countries was mainly directed at strengthening institutional and manpower capabilities through technical cooperation and other support.

The UNDP-funded intercountry project “Safety and Control of Pollutants and Toxic Chemicals” entered its third year of operation and addressed the countries' respective priority problems of chemical safety and pollution.

The second phase of the UNDP-funded project on “Control of Environmental Health Hazards” became operational in DPR Korea in April. The project is expected to further upgrade the capability of the Central Hygienic and Anti-Epidemic Station in controlling pollution by toxic organic compounds or heavy metals from industrial and agricultural sectors.

The municipality of Delhi, India, is pursuing the recommendations made by WHO in respect of the city's environmental pollution problems.
1. Manpower Training

Management approaches for reducing health risks, hazardous wastes and chemicals were covered in the Intercountry Course on Health Risk Assessment and Risk Management, held in the Regional Office in October 1990. A second national workshop on intersectoral cooperation was held in Thailand in April 1991 with a view to strengthening environmental control programmes related to indoor pollution from toxic chemicals.

A course developed by the Regional Office for training trainers of community health workers in India in the diagnosis and treatment of pesticides poisoning was held in April-May 1990. Similar courses will be presented in Indonesia and Thailand later this year. A two-month special course on water and air pollution control aspects was organized in the Netherlands for ten officials of the Indian Central Pollution Control Board.

2. Institutional Development

WHO assistance in water, air and soil pollution monitoring and control was provided to the Central Hygiene and Anti-epidemic Station Laboratory in DPR Korea. Computer hardware and software were provided for information management related to toxic chemicals and hazardous substances as well as other essential laboratory and field monitoring equipment for national programmes in India, Indonesia and Thailand.

A data base on chemicals in use in Indonesia is being established in Indonesia with the assistance of a consultant. Another consultant assisted India, Indonesia and Thailand in preparing strategies on chemical emergency preparedness and emergency response. A third consultant reviewed hazardous waste management practices and recommended improvements in implementing waste management procedures in the industrial regions in India.

3. Global Environmental Monitoring

Under the Global Environmental Monitoring System (GEMS), water quality monitoring activities continued in Bangladesh, India, Indonesia and Thailand. Air quality monitoring activities continued in India, Indonesia and Thailand. In connection with the preparations for the United Nations Conference on Environment and Development in 1992, the Regional Office assisted WHO headquarters in compiling information on air quality, and motor vehicle and energy-related air pollution in five megacities of the Region. Food contamination monitoring continued in Thailand. Health effects monitoring continued in Central Bombay, India, under the Human Exposure Assessment Location (HEAL) project. Bangladesh, India, Indonesia, Nepal, Sri Lanka and Thailand are participating in the Global
Environmental Health

A new global community water supply and sanitation strategy is being developed for better planning and implementation of sustainable sectoral activities to ensure safe water and adequate sanitation facilities for all.
Expanded Programme on Immunization

Significant progress has been made in the Region towards achieving the main objectives of EPI and the goal of Universal Child Immunization through an integrated approach.
Environmental Radiation Monitoring Network (GERMON) on monitoring levels of radioactivity in the environment.

4. Research

In Thailand, various national studies are being carried out on such aspects as agricultural chemical use and effects, motor vehicle emissions, plant extract insecticides, environmental problems in newly industrialized areas, and guidelines development for sea food-related wastes from households.

11.5 FOOD SAFETY

WHO assistance to Member Countries in the field of food safety covered aspects such as strengthening of food legislation for monitoring and inspection of food contaminants, strengthening of laboratory facilities for microbiological and chemical examination, training of manpower on various aspects of food safety control programmes, training of analysts/chemists and food inspectors, food standardization and control services, and development of information material for educating food manufacturers and user communities in food safety measures. The establishment of intersectoral collaboration for effective implementation of the monitoring system and development or harmonization of national food standards using the Codex Alimentarius standards was emphasized. With a view to identifying possible areas of WHO assistance to countries, the Regional Office initiated a study to assess national food safety programmes and prepare a regional overview with the assistance of a consultant.

1. Manpower Development

Officials from Myanmar and Thailand participated in the Codex meeting held in Rome in March 1991, while officials from India, Indonesia and Thailand attended the First Asian Conference on Food Safety in Malaysia in September 1990, during which issues and strategies for the 1990s were dealt with. Nationals from Indonesia were awarded fellowships to study food laws, standards and analytical monitoring techniques. In Indonesia, a training course on food hygiene was organized for food inspectors from provinces and another training course on quality control of manufactured food commodities was held for provincial food inspectors and administrative officers. Support was given to the preparation of training modules and health education in the subject. In India, food analysts/chemists from seven state food laboratories were trained in the analysis of food additives and contaminants. In Sri Lanka, public health officials were trained in food inspection and sampling techniques and on legal procedures related to food safety.
2. Institutional Development

In Indonesia, an interministerial workshop on food standardization and control services was held in October 1990 with a view to strengthening inter-agency coordination. A revision of the national food sanitation programme was completed. The revised decree on the inspection and classification of eating establishments and food catering services was reviewed. The translation of the Codex Alimentarius and other relevant literature was completed. A consultant assisted in the strengthening of food inspection in low-acid canned food.

In India, a review of food safety laboratories was completed and a chapter on the food laboratory was prepared for incorporation into the statutory provision of the national food laws. A training course on good manufacturing practices was developed and a manual prepared for harmonizing national standards with Codex standards. Electronic laboratory equipment for the central food laboratory was provided.

3. Information Support

In response to various queries from governments, the Regional Office provided health-related information on such substances as the use of hexane as a cleaning solvent used in edible oil, brominated vegetable oil for soft drinks, food colouring for ice creams, sanitary practices for mineral water production and lactoperoxidase for milk preservation.