NEW ACTIVITIES

Environmental Health Workshop

The Central Asian Republics (CARs) of Kazakhstan, Turkmenistan, Uzbekistan, Tajikistan, and Kyrgyzstan face serious public health problems caused or aggravated by severe environmental degradation. Agricultural practices have contaminated the soil and groundwater with pesticides and phosphates. There are localized problems of chemical and metal pollution of air and water caused by mining and industry. Sewage is often untreated. These and other conditions have brought about high levels of acute diarrhea, respiratory infections, neurological diseases, pesticide poisoning, congenital disorders, and cancer.

A.I.D.’s Office of Health, in collaboration with the Task Force on the Newly Independent States, has agreed to help the CARs address these problems by presenting a five-day workshop on environmental health assessment and management. WASH will help design and conduct the workshop tentatively scheduled for early 1993. In December a team from WASH and the Office of Health carried out a planning visit to four of the republics (all except Tajikistan) (Task 431). The goal was to identify the key environmental health issues, propose a preliminary workshop design, and identify appropriate participants.

The Danube and Beyond

In 1992, A.I.D., through WASH, provided technical assistance to four Danube riparian countries for a broad water pollution inventory of the Danube River and selected tributaries. A special data base called DEMDESS was designed to assemble and analyze data about the source and level of polluting discharges, or emissions, into the river from industry, agriculture, and municipalities, as well as information about institutions and regulations relating to water quality. The concerned countries were able to identify a number of high priority projects, such as the rehabilitation of nonoperational wastewater treatment facilities, that would contribute to cleaning up the Danube.

As a follow-up to these activities, WASH is now conducting sub-basin and prefeasibility studies for the most “bankable” of the proposed projects (Task 420). Activities will be undertaken in Hungary (the Sajo and Hernad River basins), the Slovak Republic (the Hornad River basin), Bulgaria (the Yantra River basin), and Romania (the Arges River basin). The WASH consultants assigned to this task will also assist the countries to institutionalize the DEMDESS system.
Environmental Pollution in Russia

In October, a WASH consultant joined a World Bank team to carry out an environmental project identification and preparation mission in Russia (Task 422). The team visited Moscow, the cities of Kemerovo and Novosibirsk in Western Siberia, and Jaroslavl, 250 kilometers north of Moscow. The consultant found that waterborne pollution is a serious threat to public health because heavy organic wastes combined with chlorine, used to treat drinking water, produce chlorinated hydrocarbons and thus create a cancer risk. Also, huge stocks of sludge from wastewater treatment plants are building up and leaching contaminates into groundwater and streams. A.I.D.'s Task Force for the Newly Independent States is using the team's report to determine next steps for A.I.D.

Drought Emergencies

The current drought in southern Africa prompted two recent WASH activities. In October and November, at the request of the Office of Foreign Disaster Assistance, four WASH consultants visited several drought-stricken areas in South Africa to evaluate the steps being taken to deal with the crisis (Task 417). The work was done for a Consultative Forum on Drought organized by a group of international organizations concerned that the government of South Africa was responding inadequately to the emergency. The consultants concluded that the current conditions of water scarcity are due to lack of resource development, poor management, and lack of consistent water-supply policies. They provided the Consultative Forum with recommendations for upgrading rural water delivery systems in the stricken areas.

In December, three other WASH consultants carried out a combined engineering/public health assignment in the port city of Beira in Mozambique. Because of the drought, Beira, a city of 3 million, is nearly out of water and is experiencing saline intrusion. Extreme measures such as evacuating the city have been considered, but, since Beira is a key port for receiving relief supplies, it must be kept open. The WASH consultants investigated alternative water sources and made recommendations about which were the most practical, assessed the city's capacity for coping with the public health consequences of the water emergency, and made recommendations for assistance from A.I.D. and other donors (Task 432).

Other New Field Tasks from around the Globe

Papua New Guinea. In January, WASH collaborated with the Institute of Medical Research in Papua New Guinea to develop a hygiene education and sanitation strategy for the Eastern Highlands Province (Task 395). The proposed strategy incorporates a community-based approach to improving environmental sanitation.

Indonesia. To assist the Government of Indonesia's strategy of increasing private-sector participation in the provision of urban services, during the months of October and November, WASH conducted a survey and documented private-sector experiences, opportunities, and constraints in eight secondary cities and metropolitan units of Jakarta; made recommendations for increasing private-sector participation; and selected sites for pilot projects (Task 399). The consultancy is part of the PURSE Project—Provision of Urban Services.

Malawi. In October, a WASH team carried out a mid-project evaluation of the water supply and sanitation component of the Promoting Health Interventions for Child Survival (PHICS) Project in Malawi (Task 416). Under the Ministry of Works, the project is supporting the construction and rehabilitation of gravity-fed rural piped water systems and, under the Ministry of Health, health education and sanitation promotion.

Central America. In September 1991, representatives from external support agencies active in water and sanitation in Guatemala, El Salvador, Honduras, and Nicaragua formed the Regional Water and Sanitation
Network for Central America. The network will carry out a collaborative program of technical assistance for the region and focus government attention on sectoral issues. In October 1992, a member of the WASH staff accompanied the newly installed staff of the RWSN on a tour of the member countries to begin developing a consensus on RWSN’s long-term goals (Task 425).

East and Southern Africa. The Capital Projects Office of the Bureau for Private Enterprise requested assistance from WASH in identifying potential water, sanitation, and solid waste capital-development projects in East and Southern Africa. In September, WASH consultants identified seven potential projects, and in 1993 they will conduct prefeasibility studies for up to three of the seven (Task 393).

Guatemala. In early 1992, WASH and the R&D/Health Quality Assurance Project devised a project monitoring system used to track the progress of the hygiene education component of CARE/Guatemala’s water and sanitation program. The system, which covers personal and domestic hygiene, latrine use and maintenance, and oral rehydration therapy, places emphasis on observed behavior and “behavior trails.” (A “trail” is concrete evidence that a certain behavior has taken place.) The emphasis on behavior grows out of recent research which finds that measures of health knowledge and attitudes alone are not sufficient indicators of change in health practices.

CARE/Guatemala began using the monitoring system in June with positive results. Follow-up technical assistance was requested from WASH in September to evaluate progress in implementation and to improve staff skills in collecting data (Task 387).

A monitoring system much like CARE/Guatemala’s will be used in a new five-year A.I.D.-supported water, sanitation, and hygiene education project in the Guatemalan Highlands. The first step in implementing the monitoring system is to conduct a baseline study of the current health status of children under five and the prevalent water and sanitation behavior, knowledge, and practice patterns of the population living in the project communities. WASH is organizing and directing this baseline study in association with INCAP (Task 394).

Ecuador. Water quality problems have persisted in the coastal areas of Ecuador for a long time but have become more critical with the onset of cholera. (Ecuador experienced 46,000 cases of cholera in 1991 and 30,242 in 1992 through September.) To obtain a better idea of how to reduce Ecuador’s cholera vulnerability, WASH carried out a water quality analysis in three coastal cities in December using guidelines prepared by WASH on the basis of its experience in Peru and other countries (Task 430).

Another task for Ecuador concerns institutional strengthening. The National Association of Water and Sewer Utilities (ANEMAPA) was founded in 1986 but to date has neither realized its potential nor attracted many members. Two WASH consultants will work with ANEMAPA periodically over a twelve-month period to expand the scope of the organization and to help it establish priorities (Task 423).

Update on Serial Buy-Ins

Belize. Since early 1992, WASH has been assisting the Government of Belize to develop and institutionalize a community-based strategy through USAID’s Improved Productivity Through Better Health Project, a water, sanitation, and vector control effort. The following tasks are to be carried out by WASH (several with the collaboration of the Vector Biology and Control Project) during fiscal year 1992-1993.

- Task 392: Water Quality Monitoring. WASH is assisting Belize to develop appropriate water quality standards and to clarify ministerial roles and responsibilities relative to water quality monitoring.
• Task 398: **Training of Trainers.** WASH is helping to develop a cadre of trainers who can respond regularly to training demands. It is especially urgent for Belize to train district-level health staff to work more effectively with village health committees.

• Task 419: **Drilling Training.** WASH provided training to Ministry of Natural Resources well drillers. Specifically, the well drillers learned more about the range of hydrogeological conditions in Belize, improved their technical skills, and assessed the need for additional equipment.

• Task 427: **Operations and Maintenance.** WASH is providing technical assistance to design, implement, and support an appropriate maintenance management system for water systems in Belize.

• Task 428: **Hygiene Education.** WASH is helping to set up a health data collection system to be used as the basis for a health education program.

• Task 429: **Information Management.** WASH is assisting the Ministry of Health and the Ministry of Natural Resources to establish data collection systems that will provide the information necessary to monitor health education, operations and maintenance, water quality, vector control, and the use of alternative technologies.

• Task 433: **Appropriate Technologies.** WASH is assisting the Belizian Water and Sanitation Authority to identify technologies other than rudimentary water systems and handpumps to match the needs, preferences, and capacities of Belizian communities.

**Ecuador.** In September 1989, the Government of Ecuador and USAID/Ecuador entered into a four-year agreement to implement the Water and Sanitation for Health and Ecuadorian Development (WASHED) Project. The primary purpose of the project is to strengthen EOS, the institution responsible for rural water supply and sanitation. WASH has been providing technical assistance to WASHED through a series of buy-ins, the most recent of which supported a workshop held in September to evaluate WASHED’s progress and to identify and solve implementation problems (Task 389).

**Sri Lanka.** From 1985 to 1991, A.I.D. funded a program of institutional development for the Sri Lankan National Water Supply and Drainage Board. WASH provided assistance mainly in the form of yearly assessment workshops and management development. In order to consolidate the gains made in improving the NWSDB, A.I.D. and the World Bank agreed to provide additional funding for two years. A.I.D. funds are being used for a series of short-term technical assistance activities being carried out by WASH. The third such activity was the development during October of a training program for the officers in charge of water systems (the equivalent of plant supervisors in the United States) (Task 418).

**Workshops and Conferences**

**Women and the Environment.** The WASH Associate Director for Community Participation and Hygiene Education represented WASH at a four-day conference on Women and the Environment, December 1-4, sponsored by the High Institute of Public Health in Alexandria, Egypt (Task 397). She delivered a paper on current strategies for involving communities in the management of environmental pollution.

**Training Workshop.** WASH designed and implemented a training program September 28-October 9 on community sanitation and latrine construction for Peace Corps volunteers and their counterparts in Niger (Task 391) using the updated version of the WASH latrine construction guide.

**Start-Up Workshops.** WASH held two project start-up workshops, one in October for the Catholic Relief Services Water and Health Development Project in Morocco, which targets the poor southern provinces of Tata and Tiznit (Task 421), and the other in December for Africare in Malawi, which plans to develop water and sanitation facilities in three countries in Southern Africa (Malawi, Zimbabwe, and Zambia) (Task 424). WASH was asked to assist both organizations in planning more integrated health education/community development programs.

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Answers: All these questions are answered in WASH’s computerized slide show on cholera, see page 5. 1. (b), 2. all choices are correct, 3. (b), 4. (c). In 1854 John Snow removed the handle from the Broad Street pump, which he rightly suspected was the source of a cholera outbreak in London, 5. (b), 6. (c).
NEW WASH REPORTS

Technical Reports

Deriving Design Standards for Rural Water Systems: Case Studies Using Water Demand Data from Ecuador, Guatemala, and Honduras. TR 78. Donald T. Lauria and Kimberley D. Cizerle.

A.I.D.'s Rural Water Program in Latin America: What To Do about High Demand. TR 79. Donald T. Lauria and Kimberley D. Cizerle.


Field Reports


Final Evaluation of the Peace Corps Guinea Worm Eradication Program. FR 369. Deirdre LaPin.

Peace Corps Seminar/Workshop on Solid Waste, Quito, Ecuador. FR 371. Menagem M. Bessalel and Mercedes Torres Barreiro. Also in Spanish.


New from WASH

Computerized Slide Show on Cholera. The WASH Project has prepared a computerized slide show entitled "Assessing the Options in Water, Sanitation, and Hygiene Education for Cholera Prevention and Control." The show describes a method for conducting a rapid assessment of cholera vulnerability in countries faced with the threat or the reality of cholera.

The five free-standing parts of the show contain background information on how cholera is spread and prevented. Both direct causes and indirect factors, such as weak sector institutions or the absence of laws and regulations, are covered.

The show may be presented on an IBM-compatible personal computer (386SX or higher) with a VGA color monitor and 10MG of memory. For large groups, it can be projected via a data display board with an overhead projector. A set of presenter's notes accompanies the show.

For more information, contact WASH Headquarters.
Cholera Quiz—What Is Your Cholera IQ?

(Answers are on page 4.)

1. In 1991, there were _________ reported cases of cholera in Latin America and the Caribbean.
   a) 450,000  b) 643,000  c) 278,000  d) 78,000

2. The current pandemic (El Tor) differs from previous ones in that...
   a) it has lasted longer  b) the disease is less  c) the disease is often  d) the vibrio persists longer in the
       deadly  asymptomatic  environment

3. Cholera became more intensive in the following countries in 1992.
   a) Peru, Ecuador, El Salvador, Bolivia, Chile, Guatemala  b) Brazil, Peru, Mexico  c) Brazil, Peru, Mexico, and
       Guatemala  d) Mexico, Panama, and Venezuela

4. The Englishman John Snow is remembered because he . . .
   a) isolated the cholera  b) pioneered new treatments  c) removed a pump  d) designed sewers to
       handle the cholera vibrio

5. How many cubic centimeter(s) of a cholera patient's stool contain(s) 100 million cholera organisms, enough to
   infect another person?
   a) 25  b) 1  c) 5  d) 10

6. In 1829 cholera killed the following number of people in the United States.
   a) 100,000-150,000  b) 5,000-10,000  c) 150,000-250,000  d) 4,000-5,000

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Julie Klement
R&D/H/CD
1240 SA-18
Agency for Internat. Dev.
Washington, DC  20523-1817

OPERATIONS CENTER
1111 N. Kent Street  Room 1101
Arlington, Virginia 22209-2111 USA

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