UNDP–WORLD BANK

WATER AND SANITATION PROGRAM

ANNUAL REPORT

JULY 1994 – JUNE 1995

The UNDP-World Bank Water and Sanitation Program is a collaborative initiative emerging from the International Drinking Water Supply and Sanitation Decade of the 1980s. By participating in activities in more than 28 countries, the Program serves to strengthen national and local efforts for improving the access of poor people to safe water and sanitation.

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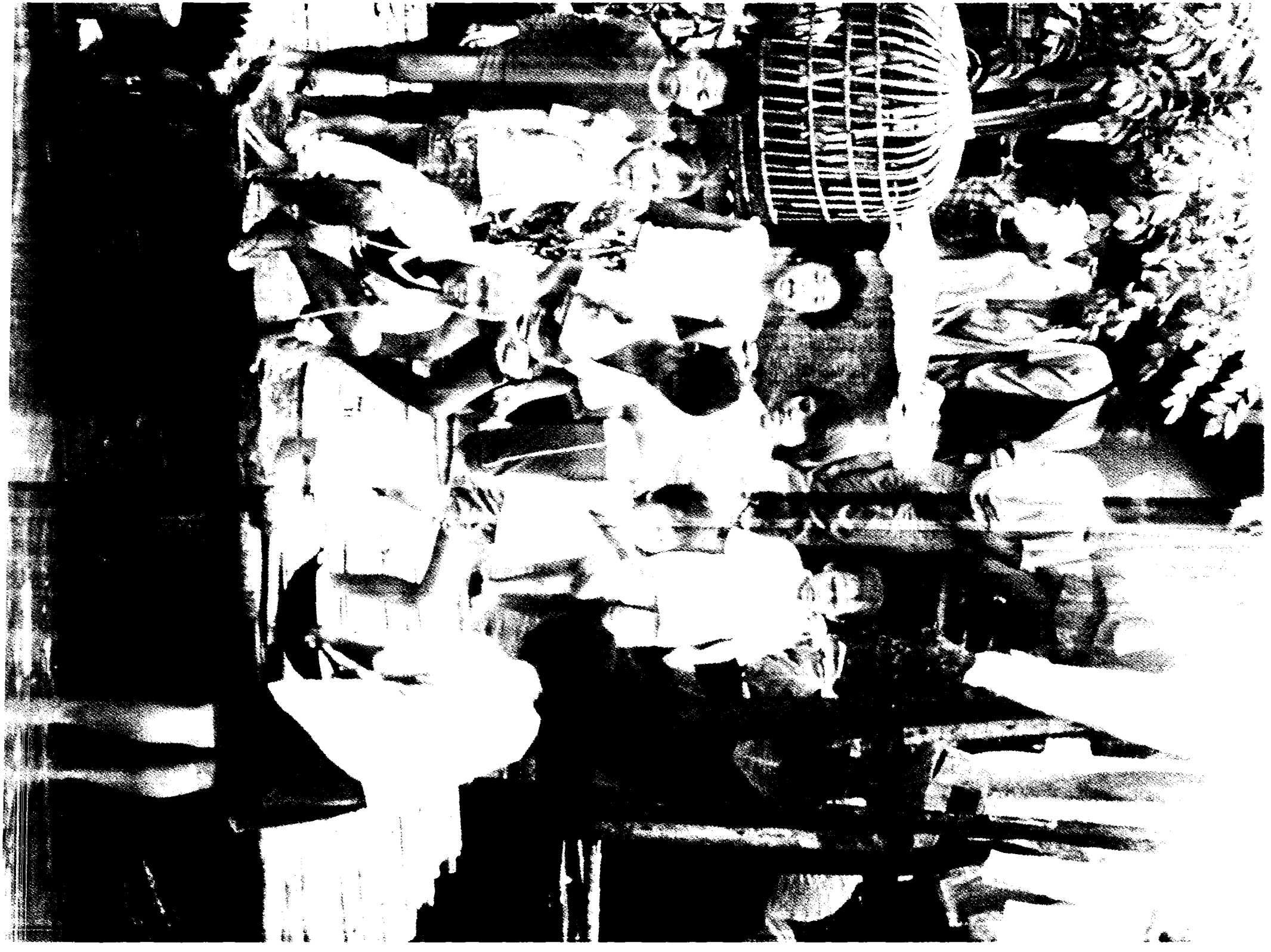

Welcome to this Annual Report, a review of the activities conducted by the UNDP-World Bank Water and Sanitation Program during fiscal year 1995 (July 1994 through June 1995).

We prepare this report for a variety of audiences, starting with our partners in developing countries. This year the document will be available in three languages (English, French and Spanish) in an attempt to reach more people. Our intended audience also includes development practitioners, particularly those supporting the Program, as well as readers with more general interests in this vital field.

The report serves several purposes. Our main goal is to share our experience and insights about improving water and sanitation services for poor people. We continue to learn through field experiences, and we want to document and disseminate the ideas and lessons. We also attempt to describe the context, nationally and regionally, in which the Program operates. Finally, the report is an account of how we managed the resources provided by our many partners.

A new feature of the publication highlights a thematic aspect of Program operations. The 95 report does so through the special emphasis on large projects providing services for people in rural areas. The regional sections that follow recount the field activities undertaken in 28 countries by staff of the five Regional Water and Sanitation Groups (RWSGs). Finally, we explain how the Program is organized and financed.

This annual report details the latest chapter in the Program's evolution, involving sustained efforts by a constellation of partners who have worked together for almost two decades to help provide basic services for poor people around the world. Even as we go to press, discussions are underway about how our efforts in water supply and sanitation can continue and improve in a broader context. We are exploring ways of working with additional partners to address water problems more comprehensively.

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CONTENTS

Introduction

FORGING AHEAD, APPLYING EXPERIENCE

Despite soaring rates of urban migration, most of the poorest people on Earth live in rural areas that often lack the most basic requirements for health and survival. But whether they find themselves in the remotest corners of West Africa or in the burgeoning cities of South Asia, millions of human beings in all regions of the developing world are suffering for want of safe water and sanitation services. A 1995 report of the United Nations indicates that more than one billion people are without proper water supplies and almost three billion must defecate outside or in unhealthy facilities. Development agencies, governments, donors, and certainly the people living in precarious environments are working steadfastly to offset immediate hazards, while trying to stem the pace of increasingly dangerous and crowded conditions. They have reaped some significant successes, but still face awesome challenges.

The International Drinking Water Supply and Sanitation Decade of the 1980s brought safe drinking water to more than one billion people who had never had it before, and more than 750 million gained access to improved sanitation facilities. This progress was achieved through the collaborative efforts of governments, development agencies, and the people who had the most to gain. These partners learned during their work that improving access of the poor to sustainable services is difficult and complex, especially amid global climates of escalating population growth and declining resources. In many countries, there are more unserved people than ever. No fixed formula for sustainable service provision works in every country, much less in every area or city. But we are learning and distilling rules and principles that, when translated into action, can dramatically improve the prospects for sustainable systems and improved quality of life for the poor.

The UNDP-World Bank Water and Sanitation Program is committed to its threefold strategy of working with partners to support sustainable investments, to build the capacity of governments and people to develop and maintain systems, and to exchange the knowledge cultivated in so doing. A rich legacy of experience and collaboration help the Program implement this strategy, and, indeed, both its history and future are closely tied to the evolution of the sector.

Where did we start? Where are we going?

In 1978, the first global project designed to increase investments in the sector through improved water and sanitation technologies was launched by UNDP and the Bank, which were both readying to meet the challenges of the Decade. It was in that initiative that the Program took root and branched into two teams: one group concentrated on sanitation systems, and the other focused on handpump development. Concurrent with field research and trials, efforts were under way to garner larger investments in water and sanitation by strengthening project preparation skills and training for government and community institutions. The International Training Network (ITN) was thus developed. The Program also helped to disseminate the participatory lessons and data acquired by the Promotion of the Role of Women in Water and Environmental Sanitation Services Project (PROWWESS), which received great support from Norway and was later assimilated into the Program. In 1987, those involved in all of these initiatives

realized their work should be coordinated to have maximum effect at the country level. Sector planners later joined and reinforced the field teams, which evolved into the Program and its Regional Water and Sanitation Groups (RWSGs) in 1989.

But we learned that technology and increased investments are not enough, as projects were failing to sustain themselves. Low-cost technologies had been refined, but systems fell idle and into disrepair because not enough attention was paid to the capacities of institutions and communities that must manage and pay for them. Economic and financial analysis of the impact of the systems that were put into place was insufficient, and local communities and individual users were not appropriately consulted about the services they wanted and for which they were willing to pay.

During the early 1990s, a global consensus was reached by water and sanitation professionals that the way forward was to treat water as an economic good, and that management of systems should take place at the lowest appropriate level within the communities served. The Program helped shape these principles, refined its triadic operational strategy accordingly, and began to structure projects to support investments by building capacity, treating water as an economic good, and employing demand-based approaches to involve stakeholders in selection, operation, and maintenance of systems.

Throughout its existence, the Program has been an exercise in learning, in both its evolution as an agent of development and in its field initiatives. Most of the country work has concentrated on improving water supply and sanitation services in rural areas, and the RWSG managers asserted at an annual planning meeting in April 1995 that it will remain a priority. We've made good strides and learned much, but improvements in sanitation lag terribly far behind. Approximately 2.5 million children die each year because of inadequate, unsafe sanitation. At the same April meeting, Program staff recommended continued support for efforts aimed at tackling the emerging crises presented by urban and peri-urban sanitation areas. The logical approach is to adapt the formula that has proven successful in stimulating rural water supply development: capacity building, investment support, and learning and dissemination of information.

As the Program broadens its agenda and the learning process escalates for urban and peri-urban sanitation, it is appropriate to review the accomplishments as well as the remaining problems encountered in improving the provision and use of rural water supply and sanitation services. It is around that theme that this Annual Report is based. The following section will present data collected from applying the principles and lessons ascertained by field and headquarters staff, by donors, and by other partners—lessons that, when applied, lead to affordable and sustainable water supply and sanitation systems. We know that the manner in which the principles and rules are put into practice matters very much, and many hard questions remain to be answered through ongoing applied research of what works and what does not. The subsequent regional sections will further outline the work conducted in 28 developing countries during the fiscal year, as well as plans for the future. Administrative and financial data appear at the end of the document.

Consistent with the cutbacks experienced by some of our donors, particularly UNDP, Program financial resources have been significantly reduced and staffing and project work have been adversely affected, particularly in East and South Africa. But with the ongoing commitment of our donors and partners, and strengthened by its linkages with the Water and Sanitation Division in the World Bank, the Program is expected to continue its essential work. Concurrently, we are working to help plan the Global Water Partnership, an ambitious endeavor aiming to provide more comprehensive assistance in all aspects of water management. It is likely that the Program will provide the foundation for this expanded Partnership as it evolves in the years ahead. Because of its experience, decentralized operational structure, resources, and international linkages, the Program will be a cornerstone of the Partnership, advocating management of water as an economic good, while retaining its full commitment to serving the poor who are so desperately in need.

DEMAND-BASED APPROACH:

Making Large Rural Water Supply and Sanitation Projects Work

Despite the growing level of investment in water and sanitation over the past decade, an increasing number of people lack access to adequate water and sanitation services in rural and peri-urban areas. While experience demonstrates that no fixed formula works, the direction that should be taken to improve service delivery has become more clear. A set of principles has emerged that provides the framework for delivering improved services on a sustainable basis.

Based on these principles, the UNDP-World Bank Water and Sanitation Program has adopted an approach to project design and implementation that encourages governments and implementing agencies to apply more consistent rules and policies than in the past. In the field, the Program assists with the design and implementation of projects that incorporate these rules, and is starting to build a systematic learning component into the projects. This learning component aims to continually improve the delivery of rural water and sanitation services within projects. It also provides a basis for systematic learning across projects.

While the Program has consistently maintained its mission to improve services for the poor, its approach has evolved substantially since it first became involved with rural water supply and sanitation (RWSS) projects more than 15 years ago. In the early years, it focused on low-cost technology development, with an emphasis on handpumps and latrines. It subsequently addressed the role of the beneficiaries, and promoted participatory methodologies, including specific tools to incorporate gender issues. In many ways, this earlier work concentrated on increasing user-responsiveness and responsibility for basically supply-driven services, consistent with general practice at that time. The Program provided support to governments and supply organizations that were acting as service providers instead of service promoters. The current Program approach increasingly emphasizes demand-responsiveness.

The Traditional Approach

Experience has clearly demonstrated that rules which favor highly centralized decision-making about service allocations and the level and intensity of local demands have not produced either efficient or sustainable services. Many large investments were based exclusively on technical merits and did not fully respond to what the targeted communities wanted. Examples of such traditional rules that have not worked well include:

- The selection of communities to be served by planners on the basis of external determination of "need" for service, rather than economic "demand" for service
- The selection of levels of service to be provided (and by implication, technologies to be employed) based on "affordability", rather than on "willingness to pay"
- The provision of the prescribed service level on a grant basis without procedures to negotiate with the selected communities on cost-sharing arrangements, which may differ from a uniform allocation of such responsibilities
- The extensive involvement of government personnel, rather than local decision-makers, in decisions regarding the location, construction, operation, and maintenance of community facilities

There are now numerous ex-

amples of projects which have successfully modified some of these traditional institutional rules with positive effects.

The Current Approach

The Program's approach to RWSS is based primarily on two of the principles that were developed by the Nordic donor community and endorsed at the 1992 International Conference on Water and the Environment in Dublin. These principles emerged at the end of the International Drinking Water Supply and Sanitation Decade when the sector began to agree that projects must focus to a greater extent on demand and sustainability. They are:

- Water is an economic as well as a social good and should be managed as such.
- Water should be managed at the lowest appropriate level, with users involved in the planning and implementation of projects.

These principles have broad implications for water resources management and development in general. Managing water as an economic good requires careful attention to issues related to the allocation of water among users and to the principles that should guide allocation, for example, between urban and rural areas or between the water supply and irrigation sectors. It is essential that the principles are considered in decisions about the use of public and private funds as well when investing in rural development.

Managing water as an economic good also implies that projects must be designed to provide incentives for the efficient and effective use of facilities. There must be a balance between the economic value of water to users, the cost of providing services to users, and the prices charged for these services. Typically, in RWSS projects these elements are not in balance. The government usually determines the cost of providing services through the technical options it offers, and it also sets the prices charged to users. But this price does not necessarily correspond to the value that users attach to the service or to the cost of providing services.

In practice, policy-makers must establish project rules that create incentives for stakeholders to achieve more efficient allocations and use of facilities. These rules must help to create more consistent relationships between the value, price, and cost of services. The overall aim is:

To achieve water uses and investments in which the value that people (the users) attach to a given service is greater than the cost, and consequently, is a service for which they are willing to pay.

In order to manage water at the lowest appropriate level, criteria must be developed to determine what that level is for different activities. The most robust criterion appears to be that major management decisions should be made at a level that encompasses, but does not go beyond, the range of demands being addressed. In other words, a decision should not be made at a higher level, if it can be made effectively at a lower level.

In RWSS projects, demands for community water supply and sanitation services are localized demands. Therefore, managerial decisions about levels of service, locations of facilities, and cost-sharing should be made locally as well. The main role of higher-level government agencies should be to establish institutional rules, regulations, and processes that encourage such local decisions.

Translating Principles into Action

Translating these principles into action requires that project planners establish rules and procedures that encourage efficient and effective choices, permit valid inferences about the level and intensity of local demands, and reduce transaction costs. An increasing number of projects financed by the World Bank and other external support agencies (ESAs) are applying these principles as a means to create incentives that encourage demand-responsive services. Four broad and interrelated rules have been identified.

- *Eligibility criteria:* Eligibility rules for participation should be broad enough so that eligibility does not, by itself, guarantee that every eligible community will receive service during a particular time period. Services should follow, not precede, community initiative in seeking the improvement.
- *Technical options and service levels:* Communities should be actively involved in selecting service levels. A range of technical options and service levels should be offered to communities, and their related cost implications made clear.
- *Cost-sharing arrangements:* The basic principles of cost-sharing should be specified and community responsibility for costs (capital and operation and maintenance costs) made clear from the outset. These principles should aim at negotiated cost-sharing arrangements in which the local community chooses the levels of service for which it is willing to pay.
- *Responsibility for investment support:* Particular emphasis should be placed on responsibility for the sustainability of investments. Rules should be set regarding asset ownership, operations and maintenance, and the

recovery of system costs.

Projects must design operational procedures that offer alternatives for community support. The local community should be able to choose who assists them with proposal preparation, construction of facilities, and operations and maintenance (O&M). The role of intermediation is recognized in order to disseminate rules and information to guide community decision-making. Administrative procedures must encourage efficiency in service delivery. The cost-sharing arrangements should also be made clear prior to the decision by the community.

A project's long-term success depends on adherence to a clear set of rules and procedures that create proper incentives. For example, rules about levels of service and financial policies should be such that communities contribute enough to the project to have a stake in getting the service they want, knowing full well the cost implications of sustaining this service. Although the rules provide a framework for all activities, the project should be designed so that lessons from earlier project phases can be fed back into subsequent phases of the project. This adaptive project design requires continuous review and modification throughout planning and implementation and is critical to the improved performance of the project and investment sustainability.

Moreover, project rules must provide incentives for appropriate behavior. The main project stakeholders must be actively involved in developing the rules and be committed to their enforcement. The best set of rules is the simplest: transparent and not subject to interpretation. The fewer the rules, the better, as long as they are internally coherent and promote desired behavior. Rules must be widely disseminated, understood by all, and consistently applied by stakeholders. It is essential that sector policy supports the rules on a national level.

Applying the Rules

In the late 1980s, the Program assisted with the implementation of a series of RWSS pilot projects, in countries such as Ghana, Indonesia, Kenya, and Pakistan. These projects were designed to test financial, institutional, social, and technical interventions at the community level. In recent years, the Program has worked with governments, beneficiaries, NGOs, the World Bank, and other ESAs to incorporate lessons into the design of large investments. The Program currently supports RWSS initiatives in 20 countries and large World Bank-funded projects in 15 of these countries (see table, page 12).

The Program also promotes the analysis and exchange of experiences among countries as part of its efforts to learn what works in RWSS projects. In 1994, a workshop was held in Sri Lanka with participants from ten World Bank-supported projects in seven Asian countries. The workshop was the first time such a group had convened to review the results of a range of RWSS projects. It was also one of the first international meetings to analyze the operational implications of designing and implementing large demand-responsive projects. Workshop participants from India organized a follow-up conference in Cochin to continue the exchange of experiences and approaches within India. The results of these workshops contribute significantly to the design of the Program's learning agenda.

The Program's experience with RWSS has shown that project planners are applying the rules as a means to encourage demand-driven investments. Below describes the results of a survey on how the rules are being applied in recent projects with Program involvement.

Eligibility Criteria for Participation

Demand-driven projects must ensure that communities are not being selected based only on need, but that communities take the initiative to improve their services. The idea is that project planners should not prepare lists of communities that should be served, but rather set eligibility rules on how communities can become eligible for services. The eligibility rules should allow more communities to be eligible than can be served, and then prioritize communities based on expressed demand.

All of the surveyed projects have eligibility criteria requiring communities that request services to contribute to the costs and assume responsibility for long-term O&M. However, there is still substantial confusion between eligibility criteria based on need and criteria based on demand. Need-based criteria include health and poverty indicators, infant mortality, water scarcity, water quality, and distance to source. Other examples of eligibility criteria are back-stopping by local government, development potential of the community, and participation in other project components. These criteria can be used by governments to choose the geographical regions that will be served first, as long as communities that are selected have shown evidence of their demand.

Once eligibility has been established, prioritization criteria will

determine which communities get served first among those that have clearly expressed a demand. For example, a large RWSS project in Bolivia established the following prioritization criteria: first come, first served; communities who agree to pay a higher percentage of costs; and areas where the municipal government cosponsors investments and there is a critical mass of communities. This critical mass will help achieve economies of scale and lower costs.

Technical Options and Service Levels

Technology options and levels of service are integral elements of the new approach. They directly relate to the choices communities make about the services they want and for which they are willing to pay. Although most project designs now offer a range of technical options to communities for water supply provision, many projects still do not fully allow communities to chose their preferred technical option or have promotional campaigns favoring certain options. Examples of this situation can be found in projects in Mali, India, and the Philippines. This underscores the importance of training intermediaries and project staff in demand-based approaches and developing methodologies for negotiating service levels with communities.

Service levels are closely linked to the project's financial policy and are usually defined by the amount of water that will be provided and the proximity to the house. A demand-based approach requires that communities choose their preferred service level based on their willingness to pay. However, many projects influence this decision by offering higher levels of subsidy for the technical options that they want to promote. This situation most frequently occurs for piped water systems (pumped or gravity), and rarely for boreholes fitted with handpumps. In piped systems, projects often provide high subsidies for public standpipes, but require beneficiaries to fund house connections, as is the case in Ecuador. In sanitation, less than one third of the projects offer higher levels of service than latrines, although most projects allow beneficiaries to chose between a VIP and a pour-flush latrine. Preliminary indications are that communities often want, and are willing to pay for higher levels of service.

Many projects have adopted technical standards into their design. In projects in Ghana, Philippines, and Ecuador, technical standards coincide with those established by government, but in Bolivia they have been adopted as national standards as a result of the project. Other projects have developed standards independently as in Indonesia and Nepal. In projects where new standards have been prepared, they have replaced the "over-designed, urban-biased" standards of the past, and closely approximate rural reality (for example, water consumption rates of 20-50 liters per capita per day). They also promote the use of low-cost technology. When adequately designed, standards have a positive impact on quality, design, and investment costs. However, standards can also have a negative impact by limiting technological innovation and therefore cost reductions.

Cost Sharing Arrangements

Most surveyed projects require beneficiary contributions to capital costs, even for a minimal level of service. Contributions may be in cash, kind, or both. Two alternative approaches have been used in defining cost-sharing arrangements: (1) a subsidy defined as a percent of the investment cost, and (2) an established subsidy ceiling.

Subsidy as percentage of investment cost: Approximately half of the surveyed projects require communities to make a percent contribution to project costs, but have no established investment ceiling. This is the case in projects in Mali, Eritrea, Ethiopia, Philippines, and Sri Lanka. Contributions are typically quite low, ranging from 8 percent to 20 percent of investment costs, and often provided in kind. Because the contribution is relatively small, this policy provides little incentive for the user to push for lower investment costs.

The question remains whether such a relatively small contribution does in fact demonstrate an economic demand for the services. Communities have found it difficult to fully understand this policy, as percentages mean little unless converted to real terms. It is not clear if the community financial contribution is sufficiently high to influence decisions. This policy also raises equity issues, as communities may receive a different level of subsidy depending on the costs of the technologies chosen.

Ceiling imposed on subsidized amount: All projects that apply a ceiling to the amount of government subsidy require communities to contribute a percentage of the investment cost up to the ceiling, and cover full costs above the ceiling. Ceilings are determined in two ways: as a defined minimum level of service or in real terms as a cash value.

Defined as level of service: Governments will subsidize a percentage of the investment cost up to a "minimum" level of service.

Program Involvement in World Bank-Funded Water Supply and Sanitation Projects

Country	Program staff based in country	Project name	Project cost ° (US$millions)	Estimated number of beneficiaries
Benin		Rural Water Supply and Sanitation Project	15	200,000
Bolivia	X	Basic Rural Sanitation Project (PROSABAR)	47	450,000
China		Second Rural Water Supply and Sanitation	189	9,000,000
Ecuador	X	Integrated Health Project (FASBASE)	12	150,000
Eritrea		Eritrea Community Development Fund	4	126,000
Ethiopia		Ethiopia Water Supply Development and Rehabilitation Project	49	—
		Social Rehabilitation and Development Fund	75	3,800,000
Ghana		Community Water and Sanitation Project	27	350,000
India	X	Karnataka Rural Water Supply and Environmental Sanitation Project	118	4,800,000
		Uttar Pradesh Rural Water Supply and Sanitation Project	70	3,500,000
Indonesia	X	Water Supply and Sanitation Project	123	2,000,000
Malawi		First Infrastructure Project	6	—
Mali		Mali Agricultural Sector Project (PASA)	7	150,000
Nepal	X	Rural Water Supply and Sanitation Project (JAKPAS)	3	44,000
Pakistan	X	Rural Water Supply and Sanitation Project	48	1,560,000
Philippines	X	First Water Supply, Sewerage, and Sanitation Project	133	3,000,000
Sri Lanka	X	Community Water Supply and Sanitation Project	32	2,500,000

° Refers to total project cost or cost of rural water supply and sanitation component.

Above this level, communities must pay full costs. Projects in Ecuador, India, and Nepal have established financial policies based on this concept. Although this policy forces communities to make a choice, it allows a high degree of subjectivity in defining the basic level of service and does not always produce the most efficient solutions.

In real terms: Government defines its contribution as a fixed amount of money, regardless of the level of service chosen. This is the policy in projects in Bolivia and Indonesia. If the subsidy ceiling is sufficiently low, communities must make financial choices about service levels. Therefore, this policy provides the best incentive for the communities to make choices and influence costs. However, setting the initial ceiling can be arduous and requires commitment to its enforcement by all project stakeholders.

A standard subsidy ceiling adopted at the country level as national policy has two benefits. First, without a ceiling on the subsidy provided by government, there is a risk of financing very costly projects with high investment costs per capita while the same resources could finance projects with lower investment costs and benefit a much larger number of people. Second, governments only subsidize a basic level of service, and communities must bear the additional costs of the project above this level.

Responsibility for Investment Sustainability

Although most projects require communities to assume responsibility

for O&M, the majority of projects still do not transfer system ownership to the communities as a matter of government policy. Even when state governments retain legal ownership of the water system, communities remain responsible for system management. It is not clear if projects are moving towards community management because governments no longer want to assume responsibility for these services, or because of the belief that management should occur at the lowest appropriate level.

Given the distortions created by high levels of subsidy in the sector, it is important to determine if the demand expressed by communities through the selection of the desired level of service and a contribution to the capital costs is an indication of a long term demand to sustain the facilities. For example, a project in Nepal requires the community, in addition to contributing to capital costs, to deposit one year of O&M costs in a bank account prior to initiation of the project. However, it remains to be seen whether communities do in fact assume their responsibilities for O&M. Communities should be given the choice to undertake management directly or obtain services from others. Skills training and technical backstopping should be provided.

Long term sustainability requires that rules be set to address cost recovery and the financing of depreciation and replacement. Despite that, this is a critical element of the financial policy, no surveyed project defined responsibilities for full cost recovery, including the costs of system replacement. However, the project in Bolivia moves in that direction with rules requiring the government to determine the financial policy for full cost recovery within a year.

The Learning Agenda

There are major gains to be made in the quantity and quality of service provided to low income communities by moving toward demand-responsive delivery of service. Much remains to be learned about the rules and processes which work best in different settings. For this reason, the learning agenda has become the focus of much of the Program's recent efforts. This agenda focuses on how to create demand-responsive projects, and it measures results in terms of implementation costs and the effective use and sustainability of services.

The Program is continuing to address specific issues about the demand-based approach to RWSS projects. In the field, it aims to systematically monitor the project rules and procedures and modify them as required. At the global level, it is facilitating exchanges between countries and is synthesizing results. Some questions it is now addressing include:

- What project rules would create the right incentives? What level of payments and thresholds of financial contribution reflect economic demand? What technical options and what mix of services are the most appropriate? Are the rules conducive to providing sustainable services based on what consumers want and are willing to pay for?
- What information do communities need to make an appropriate decision on the levels of service and organizational arrangements for implementation and O&M?
- What types of incentives would reduce costs and lead to efficiency in service delivery, including the costs of intermediation?

The Program is continuously increasing its knowledge of what does and does not work in RWSS. It is reaching out to other partners in the sector to gain from their experiences and applying its knowledge projects in urban and peri-urban areas as well. The ultimate test of the approach will be measurable improvements in water and sanitation services for the poor. ■

PARTICIPATORY DEVELOPMENT

During the past year, the Program continued to explore ways to implement demand-driven, participatory projects on a large scale. It promoted the consideration of gender and other social variables such as ethnicity, religion, and class in all aspects of projects, and sought to identify pertinent institutional arrangements that help promote sustainability.

The Program/PROWWESS coordinates the activities of the Working Group on Gender Issues for the Water Supply and Sanitation Collaborative Council. The *Gender Issues Sourcebook for Water and Sanitation Projects* was produced in January 1995 and has been widely distributed. A companion piece, *The Sourcebook for Gender Issues at the Policy Level in the Water and Sanitation Sector* has been drafted and was presented for review at the 1995 Barbados meeting of the Collaborative Council. *The Contribution of People's Participation, Evidence from 121 Rural Water Supply Projects* was also produced. This document analyzes rural water supply projects using both quantitative and qualitative methods, and demonstrates that beneficiary participation was more significant than any other factor in developing functioning water systems and in building local capacity. The work clearly establishes a sound rationale for conducting projects in a participatory, demand-driven fashion, if physical infrastructure is to be used effectively.

The Participatory Development Fund, managed by the Program and funded by Norway, continues to provide small grants to innovative activities. The Society for Promotion of Area Resource Centres (SPARC) received funding in FY95. SPARC is a network of local NGOs in India. It works in alliance with the National Slum Dwellers' Federation and other city-level NGOs to implement sanitation projects in the slum areas of several cities. SPARC received funding to study several of its community sanitation experiments in three urban areas and to perform a more in-depth analysis of initiatives in a fourth city, Bombay. The organization will document experiences and lessons by producing monographs and audio and videotapes, and will also disseminate this information through newspaper articles, radio programs, and a workshop. The Participatory Development Fund has also supported the Kenya Water for Health Organization in conducting case studies of three community water and sanitation projects in two provinces. The studies were presented at the NGO Forum of the Fourth United Nations Conference on Women in Beijing in September 1995 and will be used in future project preparation and implementation.

The Participatory Development Fund also supported a Philippine NGO — Partners in Research, Training, and Community Organization — to analyze the performance of two water districts in the Philippines that provide services to poor peri-urban and rural communities. The study focused on the contributions and various stakeholders and the institutional and project management factors that hinder and promote sustainability.

Program staff also worked to promote participatory development through activities in the field. In Ghana, staff worked with local consultants and government personnel to conduct studies on extension and gender issues. Rural water supply and sanitation projects in various regions have been assessed, and the preliminary results were fed back to project staff at an annual sector review meeting. An additional study, on the use of demand-based approaches, is planned for 1996. Program staff also prepared a proposal to create a government monitoring and evaluation unit to track the implementation of the national strategy by projects across the country.

In Bolivia, Program staff helped to design a large rural water supply project called PROSABAR (see the RWSG-AN section). Demand-driven, participatory approaches are part of this large initiative, as is a plan for systematic learning, which synthesizes lessons for current and future investments, strategies, and policies.

A case study is also under way in East Africa, examining community management of seven water schemes in Kenya to identify the reasons for success or failure. With Program involvement, all field work and draft reporting was completed during FY95. The study has found that schemes often lack rules regarding eligibility and community commitment, and that scheme management is often not accountable to beneficiaries. These findings are already being incorporated into the rural water supply components of other projects in the region and will be integrated in a workshop on community-managed schemes in Kenya, proposed for the coming year. Other work in East Africa includes collaboration with WHO, UNICEF, and others on the Participatory Hygiene and Sanitation Transformation (PHAST) initiative. An evaluation of PROWWESS work in East Africa indicated that its activities have had a significant impact, and that the participatory techniques now commonly used in many places and projects have caught on in other sectors as well.

In Pakistan, Program staff are working with various partners to apply a variety of institutional arrangements for community-based projects, and the knowledge distilled is being documented and disseminated. Program staff also promoted participatory training methodologies in Mongolia through a water supply and sanitation technical assistance and capacity building project, which is to be completed in late 1995.

The Program will continue to promote participatory approaches in the coming years. By collaborating with ITN centers, publishing best practice papers, training materials, and other publications, and supporting sector operational activities and investments, the Program will seek to ensure that community stakeholders remain at the forefront of its sector development activities. ■

Ghana: Participatory Development for an Improved Water Source

The women of a small, rural Ghanian village get their water from a river one quarter of a mile away. The river dries up during the dry season, and those who consume its water are often plagued with bilharzia and diarrhea. It is no wonder then that the village members want an improved water source.

Fortunately, a project financed by the World Bank will soon allow the village members to get the improvements they seek. The Program provides technical assistance to this ongoing project.

The project is being implemented in a participatory, demand-driven fashion. This community first expressed its demand for water by applying to its district government office for improvements. The community was chosen to participate in the project (from a pool of eligible communities) after it agreed to provide a portion of the capital costs and to cover all costs of facility operation and maintenance once the facility was installed. A local NGO was hired to teach the women and men of the community about the possible water supply facilities and levels of service they could obtain. The NGO helped the community members to choose the type of facility they wanted and to determine the way in which they would collect money to cover the community contribution to the capital costs and operations, and maintenance.

The community selected a borehole and a hand-dug well, and has collected money to cover its contribution to capital costs. At a general community meeting, they decided the amount that different community members should contribute toward these costs. They decided that women and youth, adult men, the chief, and community elders should contribute different amounts. The community also determined the amount each household should pay each month to cover operations and maintenance costs.

The NGO helped the community form a Water and Sanitation Committee, composed of four men and three women. The chairperson and the secretary are both men, and the treasurer is a woman. The treasurer explained that she and other committee members go in pairs to collect money from community members. Villagers place more trust in this collection arrangement, she said, as the presence of two members increases accountability and makes corruption less likely. She went on to explain that some community members were not able to pay the full amount of their contribution at one time, so they were allowed to pay in installments. The community makes its living from farming, and its contributions were raised from the sale of cocoa, maize, and rice.

Through the use of a participatory, demand-driven approach, these villagers are well on their way to obtaining a water facility that meets their water needs and financial capacity. With the help of the local NGO, they have organized themselves and have collected money for the capital costs of the project. The community is also prepared to collect money for the ongoing operation and maintenance of the facility. Soon they will have their improved water supply facilities, which they will be ready to maintain.

Regional Overview

SOUTH ASIA

Structural adjustments in the economies of several South Asian countries have paved the way for attempts to reform water and sanitation services and to improve the lives of millions of people. Although countries such as Bangladesh and India can claim notable increases in peoples' access to safe water and sanitation during the past decade, sustainable improvements to water and sanitation service expansion hinge on ongoing policy revision and consequent changes in the frameworks and management of utilities, government ministries, and related institutions. Sector professionals, therefore, must face the challenge of formulating strategies to translate these policy shifts into operational terms.

It is a tough job. These strategies for reform include ongoing promotion of community management in a social and political environment that is highly stratified: the majority of the population is clustered around the poverty level. Political instability, complex urban problems, high levels of illiteracy, and the low status accorded to women complicate the tasks of devolving and reorienting the delivery of centralized water and sanitation services from government ministries to local governments and communities. To accomplish this and to achieve greater efficiency and sustainability, the Regional Water and Sanitation Group–South Asia (RWSG-SA) continues its work with governments in the effective use of adaptive project

designs that emphasize cost-sharing and focus on structured learning.

Regional Water and Sanitation Group – South Asia

The fiscal year saw significant changes within the Program as well as within the region. The Group formulated its work agenda for the fiscal year to address and learn from three areas: the design of RWSS projects, institutional reform and intermediation in both rural and urban contexts, and urban sanitation options. As partner governments increasingly become facilitators of water and sanitation services rather than providers, it becomes all the more important for sector actors supporting this goal to learn from their activities. This learning mode is reflected in several of the RWSG-SA's country and regional projects.

To move the sector forward, the country teams in South Asia implemented an agenda of operational support, collaborative sector work, and dissemination of lessons through publications and workshops. For example, the Program helped to organize a workshop in Goa, India that focused on sanitation services monitored by community groups in slum areas.

Proactive RWSG-SA staff made special efforts to strengthen links with donor agencies through collaborative studies and greater interaction with their country and regional offices. More specifically, the regional team negotiated with the UNICEF office for South Asia in Kathmandu, Nepal, to collaborate in the countries of the South Asia Association for Regional Cooperation on a joint program to strengthen government and local capacity to implement sector reforms.

Successful interregional collaboration took place during the fiscal year when the managers of Bank-assisted projects in Asia met at a workshop in Colombo, Sri Lanka, and identified the priorities to be monitored for sustainable rural water supply and sanitation systems. To translate conclusions of the workshop into actions on the ground, a follow-up workshop with the Asian Development Bank (ADB) and other partners is planned in the near future.

The RWSG-SA Country Teams also began to incorporate the principles cited in Colombo into their RWSS activities and projects, and plan to test and build on those principles through structured learning. The India team went a step further and replicated the Colombo workshop in Cochin, India in March 1995 for the Indian managers of various national, donor-assisted projects. Finally, to better inform

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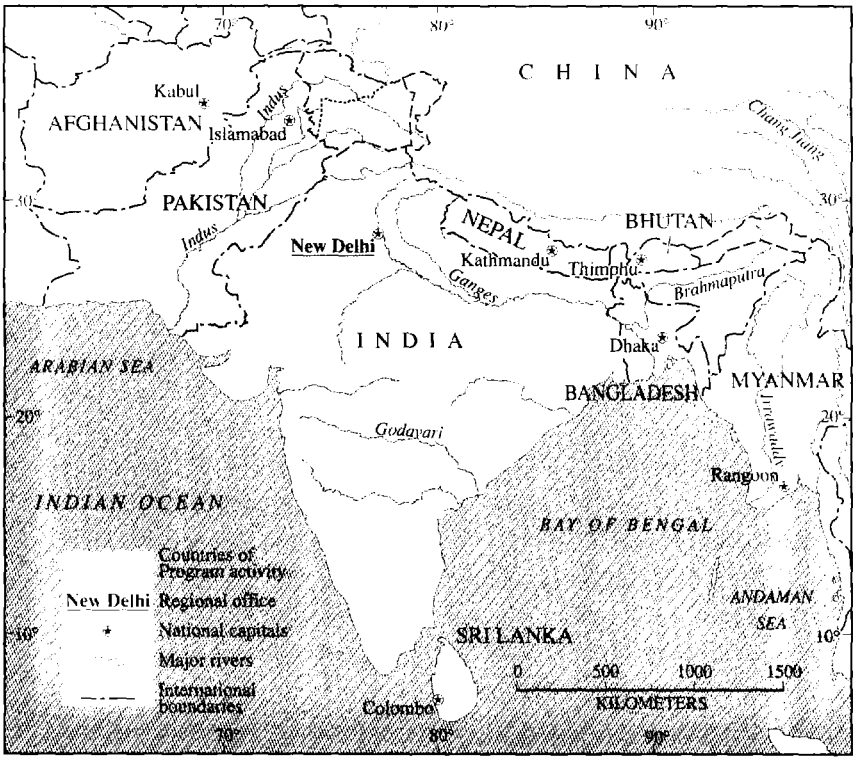


COUNTRY	Population in millions 1993	Life expectancy in years 1993	Urban population as percentage of total population 1993	GNP per capita in US$ 1993
Bangladesh	115.2	56	17	220
India*	883.6	61	26	310
Nepal	20.8	54	13	190
Pakistan	122.9	62	34	430
Sri Lanka	17.9	72	22	600

Source: *World Development Report 1995*
*All data for India are for 1992 as provided in *World Development Report 1994*

partners about the information distilled from the Group's efforts, a more systematic and vigorous dissemination policy was adopted.

The RWSG-SA provided operational support to five RWSS and four urban projects during the fiscal year. Steady progress in development of sustainable water supply services was particularly noted in the People's Water and Sanitation Project (JAKPAS) project in Nepal, and in Bangladesh, where the Group is supporting the Handpump Training and Monitoring Project. The handpump effort seeks to improve the sustainability of community handpump water sites by enhancing handpump maintenance through proper community-based training and improved production and spare parts distribution through the private sector. In addition, the International Training Network project in Bangladesh, which had experienced delays in approval, moved forward as a result of the Group's contribution to the appraisal report.

The RWSG-SA is the largest of the regional groups, and it proactively seeks opportunities for regional collaboration, to share project experience and begin team-building. Three international, one regional, and eighteen national experts reflect a structure with strong country teams in five countries supported by staff in the regional office. The Group's staff are almost equally divided among the RWSG-SA office and each of the country offices, with a slightly smaller staff in Sri Lanka. The Program expects to strengthen its New Delhi office with two international experts: an institutional development specialist supported by the Danish International Development Administration (DANIDA) and a sanitation expert sponsored by the Overseas Development Administration (ODA) of the United Kingdom.

The core funding for the RWSG-SA comes from bilateral partners, including Denmark, Japan, Norway, Sweden, and the United Kingdom. The Group collaborates with the donors by involving them in its activities, such as internal reviews of projects, systematic learning, and sector coordination initiatives. In the future, the Group will seek to expand these partnerships through more country-focused project proposals.

RWSG staff enthusiastically participated in the United Nations' Fiftieth Anniversary events celebrated in the countries, and advanced the Program's evolution by contributing ideas for development of the Global Water Partnership.

The Technology Promotion Unit, housed in RWSG-SA, concluded its activities and the remaining technology specialist joined UNICEF. The Group, however, will continue to provide advice and technical support to the countries in the region, shifting focus from technology development to user perspectives on low-cost technologies and service provision.

This year, the Group is assisting in the design and supervision of RWSS and urban projects in India and is documenting lessons from five RWSS projects in India, Nepal, Pakistan, and Sri Lanka. The acquired knowledge will be synthesized in a global anthology being compiled by the Informal Institutions Group within the World Bank's Water and Sanitation Division.

Bangladesh

Despite impressive advances in service coverage in the water supply and sanitation sector (population with access to safe water: rural — 85 percent, urban — 82 percent; population with access to sanitation: rural — 26 percent, urban — 63 percent), advances in the proper use of facilities has lagged behind, and long-term sustainability of services remains in doubt. Coordination of sector development and issues regarding institutions, technology and social, and financial factors are not adequately addressed. Bangladesh does not yet have a stated sector policy, and uncoordinated activities lacking strategic vision often ensue. Misplaced priorities result in unclear rationales for financial allocation and conflicting strategies, sometimes in the same geographic area. Community involvement in services provision is constrained by the highly centralized structure and orientation of sector agencies and their weak managerial, financial, technical, and communication skills. Subsidies for services are high and cost recovery for services both in the urban and rural areas is low.

Given the above context, donor coordination and sector work remained priorities for the country team, in order to encourage consistent policies and sustainable activities. Further, the RWSG-SA completed a situation analysis of the sector, two caselets on innovative service delivery, and also advised on the project and sector review missions by the Dutch government, the Swiss Development Cooperation (SDC), and DANIDA. Staff also participated in the bimonthly, informal donor meetings. Moreover, in response to an SDC request, the country team continues to work with sector partners to foster sector policy and programming. It is likely that during FY96, such efforts will pay off with an announcement of a policy framework and a sustainable and government-owned

mechanism for coordination and strategic analysis.

The main funding sources for the Program in Bangladesh have been the SDC, DANIDA, and the United Nations Development Programme (UNDP) Regional Bureau for Asia and the Pacific.

The Program continued to support the Department of Public Health Engineering in the implementation of the DANIDA-funded Handpump Training and Monitoring Program. It has laid the foundation for developing a replicable model of community-based operations and maintenance (O&M) of the Tara handpump. Distribution of spare parts and a systematic computerized monitoring of handpumps were also incorporated into the model. Lessons have been documented regarding the impact of grassroots participatory training on O&M, on garnering support for the private sector, and on marketing spare parts.

The Program also conducted a preliminary study in northern Bangladesh to examine the implications of different handpump financing options in rural areas with shallow water tables. The study concluded that despite impressive water supply coverage, the subsidized public tubewells do not always meet the needs of the very poor. The study also revealed that with private sector participation, supply has increased and prices have decreased. More and more people are installing handpumps and paying for them with their own resources, community funds, or assistance from NGOs or charities.

As part of its continuing efforts to link the Program with large-scale investments, the country team pursued opportunities for strategic sanitation planning and thus helped to develop the sanitation component of the DWASA IV project funded by the International Development Association (IDA). The Group also worked with a local NGO, the Chittagong City Corporation, to reformulate, in line with community demand and willingness-to-pay, the sanitation component of the IDA-assisted Urban Development Project, which will serve 30,000 residents.

Finally, capitalizing on its experience and expertise, the Program has designed two pre-investment pilot projects on sustainable water supply for the urban poor and community-based urban solid waste management. These pilots are based on innovative service delivery mechanisms that assess and refine the institutional and social conditions necessary for national replication. Expansion of the pilots may be possible through the forthcoming IDA-assisted Municipal Services Project and other future sectoral investments.

India

More than one quarter of India's urban population, about 50 million people, live in peri-urban settlements with inadequate safe drinking water, sanitation, drainage, solid waste disposal, and other basic infrastructure services. Rapidly growing peri-urban communities continue to exert pressure on the already over-stressed urban environment and infrastructure, and local bodies have neither the capacity nor the resources to respond to this challenge.

Five percent of India's predominantly rural population still does not have access to safe water, and the existing supply for nearly half of all rural residents remains inadequate. This is despite the fact that the government has progressively increased its financial outlays in the sector. Poor operation and maintenance of the installed facilities, deteriorating water quality, and poor ground water yield aggravate the

problem. Access to sanitation facilities is no better, with coverage extending to only about 10 percent of the rural population. A rural water supply and environmental sanitation strategy is needed to improve coverage and to promote the sustainability of existing investment

Sector institutions continue to follow the traditional, centralized, supply-driven approach with inadequate financing and cost-recovery mechanisms. However, the Government of India's Eighth Five-Year Plan (1992-97) encourages decentralized and demand-based service delivery. It also advocates that the standard of service should normally correspond to the level that the users are willing to finance, maintain, and operate, and further promotes the involvement of non-governmental organizations. Again, the challenge is to find out how these principles will best translate into implementation strategies.

Efforts in India during the past year were geared toward learning about the delivery of sustainable water and sanitation services to the poor. To apply the lessons from these successful efforts — several of which have no ties to the Program or to the World Bank — to larger investments in the sector, the RWSG-SA analyzed the cases and sought the key factors for replication. A few case studies have been undertaken; one of them—*People's Participation in Improving Sanitation: A Case of Kanpur Slums*—has been widely disseminated. Several more cases will be documented in the future.

The Group helped to create a Think Tank during the year as a forum for voicing sector concerns and for building consensus on sector issues and policy, a significant step forward for the Program. The Think Tank brings together "movers and shakers" from both the formal and informal sectors who have made significant improvements in delivering services in an innovative, cost-effective, and accountable manner. Participants at the first meeting agreed that the forum was a positive step for the sector. They also established two working groups: one to study peri-urban sanitation services and the other to study the implications for the rural sector of the recent constitutional amendment to decentralize powers at the village level.

As part of sector development support, the Program organized a workshop in Cochin to share the experiences of externally assisted projects in the rural water supply sector. Participants reached consensus on which issues must be addressed in order to achieve sustainable systems. Program support to the sector extended to Hyderabad, where the Group will help draft a state-level sector strategy within the proposed World Bank-assisted Second Hyderabad Water Supply and Sanitation Project.

Peri-urban sanitation is a major and expanding priority for the Program. In India, the Program will pursue this theme through the slum sanitation component in the Bank-assisted Bombay Sewage Disposal Project. The Program sponsored an exchange of lessons by bringing four community representatives from the Bombay project to several sites of the World Bank-assisted PROSANEAR project, currently underway in Brazil. Rather than being guided or restricted by overarching city sewerage plans within cities or subsections of cities, the PROSANEAR project is shaped by demands expressed by communities, often on a neighborhood basis, for the types of systems they will pay for and can maintain. The representatives from Bombay returned with innovative ideas and practices to promote demand-based solutions, in addition to sustainable, community-level institutional and financial arrangements. The Think Tank, through one of its working groups, will also focus on these topics.

The India Team helped the Ministry of Urban Affairs and Employment to initiate a pilot scheme to test the principles emerging from global experience for sustainable sanitation options. Assistance will continue to be provided to the Ministry in formulating and implementating this pilot initiative.

The RWSG-SA also began assisting the National Slum Dwellers Federation in a comparative study of their efforts in three cities. The Federation, formed in the 1970s by slum residents

India: Learning in the Karnataka Rural Water Supply and Sanitation Project

An IDA-assisted rural water supply and environmental sanitation project in Karnataka intends to improve water supply and to provide drainage, latrines, and other environmental sanitation facilities in 1,200 Indian villages. The project provides for pilots in 11 villages, implementation of Phase I in 250 villages, and implementation of Phase II in 950 villages. Community contributions cover a portion of the capital cost for environmental sanitation and the full cost of O&M. Villagers make informed choices regarding house connections for water supply as well as the number and location of sanitation facilities. District-level NGOs aid the process, and Village Water and Sanitation Committees monitor local commitments and contributions, and manage operations and maintenance.

One objective of this large initiative is to understand and draw lessons about incentives for the various participants. RWSG-SA staff support this learning component; they focus on the role of informal institutions in the promotion of community participation, cost-sharing, and local ownership.

The Karnataka RWSS project was designed to:

- Explore residents' demands for components of various services as revealed through community choices, and not determined by initial engineering reports.
- Clarify the roles and relationships of NGOs as they emerge at the end of the village-level Participatory Rural Appraisal exercise and define who does what, by when.
- Analyze the compliance of NGOs to these commitments in order to understand the incentives or disincentives at work.
- Determine the effectiveness of the Village Water and Sanitation Committee processes through: monitoring the progress of capital cost contributions and house connections, and collecting data on the composition and effectiveness of the committee meeting process.
- Determine the effectiveness of the training received, particularly by technical persons, through a study of demand for services during the construction phase, their response during O&M, and the demand for services in the market place.
- Examine the monitoring of O&M, the adequacy of tariff setting and the effectiveness of billing and collection, the enforcement powers of the Village Water and Sanitation Committee, and the promptness and effectiveness of attending to repairs. Data generated from this exercise can be correlated with data collected earlier in the project.

in several Indian cities to influence policies affecting the poor, is also represented in the Think Tank. In the three initiatives under study, community participation is promoted in slums to improve the delivery of sanitation services. This activity is funded by the Norwegian government through the Program-administered Participatory Development Fund (see page 14).

The ODA and the UNDP Regional Bureau for Asia and the Pacific provide the core funding for Program work in India. Additionally, the Norwegian Ministry of Foreign Affairs has extended assistance for two demonstration projects — a community-based solid waste management project in Panaji and an integrated rural water supply and sanitation project in West Bengal.

Nepal

Twenty million people live in the landlocked, mountainous country of Nepal, where the annual per capita income is approximately US$190. Wealth is very unequally distributed; the top decile of families earns more than 40 percent of total family income, and the lowest decile earns less than 2 percent. The population is growing at 2.5 percent per year, and while there is net rural-urban migration, rural Nepal is still home to approximately 90 percent of the population. Water-related diseases affect many people, and diarrhea and dysentery are the leading causes of morbidity and child mortality.

The People's Water and Sanitation pilot project (JAKPAS) constituted the Program's core activities in Nepal during the year. This pilot project aims to address the water supply needs of rural areas, where only 35 percent of the

population has access to safe water. It is part of the preparation of a proposed US$16 million IDA credit to establish a Rural Water Supply and Sanitation Fund Board to manage the resources of a National Rural Water Supply and Sanitation Project and support NGOs and communities in project implementation. The JAKPAS pilot project examines service delivery options for rural water supply and sanitation by departing from the conventional, supply-driven model implemented by a central government agency. JAKPAS is based on the premise that community ownership, as expressed by a willingness to share costs, to participate in the planning and organization of activities, and to operate and maintain facilities, is likely to result in the greater sustainability of the RWSS infrastructure. The response from support organizations — NGOs, firms, and consortia arrangements with local governments — has been encouraging, although several weaknesses have been identified. A total of 144 communities (78 in the first tranche and 66 in the second) are currently working with 30 support organizations.

Project implementation was particularly impressive, considering the project's wide range of activities. The JAKPAS pilot developed and used participatory planning tools at the community and managerial level. For example, in March 1995, JAKPAS brought together representatives of partner support organizations to discuss the experiences and problems with implementation. The feedback was extremely useful and led to the revision of strategies and streamlining of managerial, monitoring, and evaluation processes. Implementation has been completed in about 50 of the 65 communities that have signed implementation phase contracts. Two missions, one from RWSG-SA and one from Program headquarters, conducted intensive reviews of the Management and Information System (MIS), monitoring and evaluation, and social development activities, and also assisted the country team in formulating strategies, operational guidelines, and instruments for use by the proposed RWSS Fund Board.

Project staff also prepared a video to describe the relationships of communities, support organizations, and others involved. It explains project rules, commitments, and participatory decision-making, and further outlines the project cycle.

The RWSG-SA's second major activity in Nepal was the finalization of a study on community handpumps in the Terai Region, *An Assessment of Operation and Maintenance*, commissioned by His Majesty's Government in partnership with the Program, UNICEF, and the Finnish International Development Agency (FINNIDA). There have been differing opinions among implementing agencies in Nepal on the type of handpump best suited for community use. The study was commissioned to evaluate the operation and maintenance status of different types of community handpumps and to guide policy decisions on this issue. It concluded that there was no justification for continued use of a more expensive, improved pump, as it did not offer any specific advantage over the more widely used handpump. While the improved model is more robust, maintenance was hampered by the low availability of spare parts. At a meeting held in May 1995 to discuss findings and conclusions, participating agencies jointly defined actions to implement the recommendations of the report.

As JAKPAS moves toward replication on a large scale, the Group will participate in an appraisal of the proposed IDA project to establish the

National Rural Water Supply and Sanitation Project. The JAKPAS pilot project is expected to end in March 1996, having prepared for the transition to the RWSS Fund Board and established its operating procedures and approaches. The experiences from the pilot project will be drawn into a regional initiative to analyze, document, and disseminate lessons learned in five RWSS projects.

The Program will continue to participate in any follow-up to the handpump study, documenting in particular the transition to the production and distribution of spare parts by the private sector, as well as progress on implementing other key study recommendations.

Pakistan

Disparate policies in the provinces and federal areas created considerable confusion and delays in RWSS projects in Pakistan, despite a national policy that treats water as an economic and a social good and promotes its management at the lowest appropriate level. The Program extended its support to the government to help turn these principles into actions that would yield more sustainable services and to further the decentralization of Pakistan's rural water supply and sanitation sector.

The Pakistan team continued its support to the UNDP- and UNICEF-assisted Federal Support Unit; the IDA-assisted RWSS Project in Sindh, Baluchistan, and Azad Jammu and Kashmir provinces; the RWSS subsector of the Social Action Program Project (SAPP); and the IDA-assisted Community Infrastructure Project in the North West Frontier Province. During involvement with these activities, Program staff continued to focus on learning and dissemination through supervision, appraisal, review missions, and national and provincial workshops and seminars.

The Federal Support Unit supported the federal government and the Policy Implementation Review Committee and helped coordinate the changes made to the RWSS policy.

Under the IDA-assisted RWSS Project, the country team conducted a fact finding mission for a mid-term review of the project, and showed that the Rural Development Department in Sindh and the Local Government and Rural Development Department in Azad Jammu and Kashmir province developed viable implementation strategies for a demand-based and community-managed program.

In collaboration with governments and line agencies, the Program built systematic learning methodologies into the project cycles. Successes and failures relating to the project rules for village selection, service levels, cost sharing and institutional arrangements can thus be analyzed and documented for use within the project and for wider dissemination.

During the second year of the SAPP, Program staff monitored policy reform and maintained a dialogue with the governments to better analyze achievements and lapses. The respective governments, committed to operationalizing the uniform policies, and Program staff helped to develop demand-oriented scheme identification criteria. The SAPP project promoted use of non-formal institutions to mobilize communities and emphasized sanitation through local governments and rural development departments.

Program staff appraised and developed a plan for the Community Infrastructure Project in the North West Frontier Province to test the effectiveness of participatory approaches to community infrastructure development.

The country team in Pakistan also worked on flexible technical guidelines, design standards, and service levels for gravity-flow systems to assist the line agencies during the community mobilization process. A computer program was written to help planners provide appropriate options to communities willing and able to pay.

The Program led the way in policy discussions with the ESA technical groups and larger working groups with government representation. These meetings provided valuable opportunities for deliberation and brainstorming for the RWSS sector.

The Program collaborated with the Orangi Pilot Project in Sindh to document lessons from the replication of this project's low-cost sanitation program. The final report is due next year.

The core funding for Pakistan has come from Norway, the UNDP Regional Bureau for Asia and the Pacific, and the country program of UNDP. In addition, the entrepreneurial Pakistan country team secured additional funding from the Sector Operating Division at the World Bank and from SDC for team inputs in the rural water supply, social action, and community infrastructure projects.

Sri Lanka

The rural water supply and sanitation sector in Sri Lanka is beset with overlapping responsibilities, confusing regulations, and a devolved, newly established provincial administration. Nearly 80 percent of Sri Lankans live in rural areas, and fewer than half of them have access to safe sanitation. Access to safe water supplies is not

Pakistan: A Case of Demand, Awareness, and Initiative

Salmia, a village of 130 families in Azad Jammu and Kashmir provinces, was one of the first phase communities to get a water supply scheme under the IDA-assisted RWSS project. The scheme was designed by a local consulting firm, under the supervision of the line agency (the local office of a government agency). Through this design, water is brought by a gravity system from a spring situated on the side of an adjacent hill. It flows across a valley to the main storage tank that holds 2,000 gallons. The tank was constructed by community members.

After the formation of the water commmittee and prior to construction of the system, 10 to 12 families living at a higher elevation than the proposed storage tank learned that the technical design deemed connection to their homes infeasible. The system could not make water flow uphill from the tank.

These community members asked the water committee and the line agency to review the design, as they were sure that their homes were located below the actual source spring. They wanted the storage tank to be constructed on a higher site. The water committee approved, but the line agency disagreed and declared that the given houses indeed rested above the source and were not to be included in the final scheme.

The affected residents, confident of their familiarity with the terrain, persevered and sent representatives to "higher-ups" in the agency. Subsequently, Program and line agency staff visited the village to re-examine the design and discovered that these well-motivated and unified residents were correct. The residents were later provided with an additional quantity of pipe required to reach the tank. After the extra pipes had been installed, the valve was opened. Water indeed flowed to all members in Salmia village.

much better. Despite stronger investments in education and health services, the RWSS sector is fraught with insufficient institutional capacities, incoherent policies, and poor coordination and planning. This is the context in which the Program participated in the IDA-funded Community Water Supply and Sanitation Project to help formulate and promote a uniform RWSS policy. It also helped launch the UNDP-assisted National Community Water Supply and Sanitation Project (CWSSP) for institutional coordination and capacity building. The Program managed its support to Sri Lanka through the team leader in the Islamabad office, who made quarterly missions to Colombo.

The CWSSP has successfully enetered into the expansion phase, and covers 820 villages with 21 schemes in operation, 92 schemes under construction, and more than 115 schemes ready for construction. The project, implemented by communities with the assistance of NGOs, has established a viable partnership arrangement and implementation procedure. There are now 52 such NGO/partner organizations fully mobilized, and 139 community-based organizations are registered in three districts. The structured learning process, introduced with the Program's assistance, has identified important issues for smooth project implementation.

The Government of Sri Lanka and UNDP agreed in December 1994 to launch the National Sector Coordination Program. This is the first nationally-executed project in the water supply and sanitation sector, and the Program is helping the government to administrate the international consultants involved. Program staff will also review the project's major accomplish-

ments. A short-term consultant was appointed by the Program to update the project document, to identify and prioritize key actors and issues, and to redefine the workplan. A consultant later prepared an inception report and made recommendations for improving coordination in the sector.

The Program also continued its support to the government and to the IDA in the preparation of the Clean Settlements Project. This project seeks to improve the environmental infrastructures of low-income urban communities in the Colombo metropolitan area, through an adaptive and participatory program in partnership with the communities, NGOs, local councils, government agencies, and the private sector. Six pilot projects have been launched with six support organizationss to test and refine procedures for implementation of water supply, drainage, sanitation, solid waste disposal, and other infrastructure. Enhancement of community capacity for planning, design, implementation, and management of services is another goal of the project. The communities involved with the six pilots are mobilized and have prepared action plans. The Program has finalized a proposal to monitor the system in order to systematically document the lessons on the viability and applicability of key project rules.

The Program's activities in Sri Lanka are supported from core funds, including Norway and the UNDP Regional Bureau for Asia and the Pacific. ■

Regional Overview

EAST ASIA AND THE PACIFIC

The countries in East Asia and the Pacific continue to experience rapid economic growth, and the number of people living in absolute poverty in the region has declined since 1980, from 330 million to 180 million. But poverty reduction remains a priority, and in countries such as Indonesia and the Philippines, annual per capita incomes are well below US$1,000. Several of the nations are changing from centrally-managed systems to more market-based economies that involve the private sector, but these transitions, which are concurrent with high rates of urbanization, prove to be particularly difficult in primarily rural societies, such as those in China, the Lao People's Democratic Republic (Lao PDR), and Vietnam. As more people migrate to the cities, larger demands are being placed on already strained and outdated infrastructure services.

One-third of the city dwellers in Indonesia, approximately 21 million people, lack access to safe water and sanitation, and, if population growth continues at its current pace, the country's population will double within 40 years. Acute sectoral problems also pervade the rural areas, where the majority of residents live. The Regional Water and Sanitation Group for East Asia and the Pacific (RWSG-EAP) is responding to these widespread problems by providing technical assistance to RWSS initiatives and helping to meet the awesome consequences of explosive urban growth.

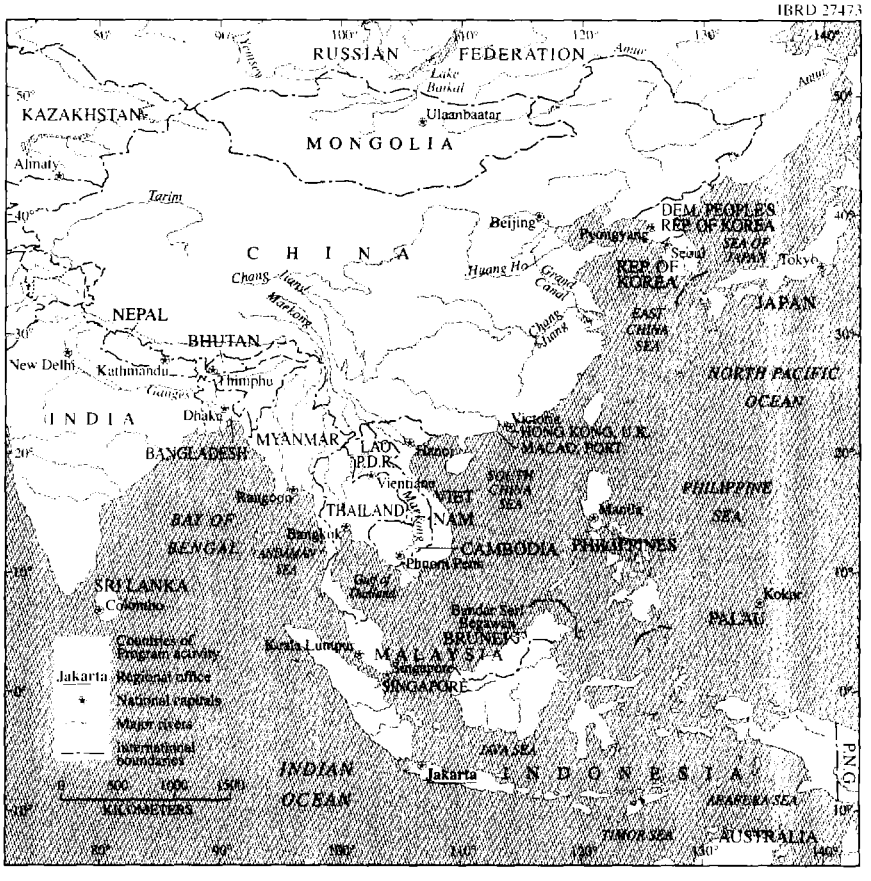
RWSG-East Asia and the Pacific

The RWSG-EAP, based in Jakarta, Indonesia, worked closely, but selectively, with national governments, UNDP, the World Bank, and other ESAs to design and supervise major investment projects. National water and sanitation sector development policies and strategies have also been developed collaboratively. Other major initiatives include strategic supervision of the World Bank-financed Water and Sanitation Project for Low-Income Communities in Indonesia and a series of applied research studies on nightsoil management to support the Hubei Urban Environment Project in China. In the Philippines, the Program supports major rural water and sanitation investments by the World Bank, Overseas Economic Cooperation Fund (OECF), and the Australian International Development Assistance Bureau (AusAid) by working to strengthen the capabilities of communities and local institutions participating in the projects. The Group is also extensively involved with the preparation of national sector development strategies and investment programs in Lao PDR and Vietnam.

The Program's regional efforts aim to apply the institutional lessons of the International Drinking Water Supply and Sanitation Decade, subsequently defined in Dublin and Rio, to large-scale initiatives. In many countries of the region, the water supply and sanitation sector suffers from a fragmented instutional framework, neglect of water quality, and a lack of sound fiscal policies and management. It is also clear that domestic water supply planning should be part of a comprehensive and integrated approach to sector management. The RWSG-EAP is helping a number of countries to develop water and sanitation sector reviews and dynamic action plans, and staff are therefore working toward the development of demand-driven, adaptive projects, particularly in large rural programs. The Group's strategic support for rural water and sanitation investments is particularly strong in the major initiatives under way in Indonesia, the Philippines, Vietnam, and Mongolia. Of course, the strategies and action plans are designed so that learning occurs systematically and that refinement of project designs is ongoing. Institutional capacity building through human resources development is also an essential part of the Program's agenda to make services more sustainable in East Asia and the Pacific.

One of the highlights of the year was a regional workshop on design and implementation of large-scale rural water and sanitation projects. Jointly hosted by the two Asia RWSGs, the workshop in Colombo, Sri Lanka in 1994 gathered together the national managers of projects being undertaken in Asia. World Bank task managers and representatives from the Asian Development Bank also attended to discuss the managerial, institutional, and financing issues and the solutions. The Asian Development Bank offered to host a follow-up workshop which is likely to take place in March 1996.

The Program enhanced its focus this year on deteriorating environmental sanitation conditions in urban areas, particularly in the burgeoning megacities of Asia. Initiatives to address urban sanitation problems will sharpen in the years to come as the Program gains expertise in this area. Case studies and operational research, which already underpin much of the Program's rural water supply work will



COUNTRY	Population in millions 1993	Life expectancy in years 1993	Urban population as percentage of total population 1993	GNP per capita in US$ 1993
China*	1,162.2	69	27	470
Indonesia	187.2	63	33	740
Lao People's Democratic Republic	4.6	52	20	270
Mongolia	2.3	64	60	390
Philippines	64.8	67	52	850
Vietnam	71.3	66	20	170

Source: *World Development Report 1995*
*All data for China are for 1992 as provided in *World Development Report 1994*.

form an increased share of the RWSG-EAP's work on urban sanitation.

A regional manager and experts in community development and environmental sanitation make up the Group's regional office staff, and there are project offices in China, Lao PDR, Mongolia, the Philippines, and Vietnam, which are staffed by local experts with expatriate support. The Group actively cooperates with many other external and local development agencies. For example, RWSG-EAP is working with the World Health Organization (WHO) to develop a new approach to hygiene education and sanitation promotion that emphasizes behavioral change, and with WHO and the Swiss Sanitation and Water in Developing Countries Program (SANDEC), to develop a regional, collaborative strategy for waste management and resource recovery. In Indonesia, Lao PDR, and the Philippines, the Group works closely with local NGOs to conduct participatory training programs and case studies related to the structured learning process.

RWSG-EAP is also collaborating with a number of bilateral agencies — including the Dutch Government through the Directorate General for International Cooperation (DGIS) to support the International Training Network Center in the Philippines, and with AusAid, and the Swedish Government, through the Swedish Agency for International Technical and Economic Assistance (BITS), in Mongolia. The Group maintains a close relationship with the United Nations Volunteer Program and has helped establish volunteer posts in Indonesia, the Philippines, and Mongolia.

China

China has a population of 1.162 billion people, nearly three-fourths of whom live in rural areas. More than 80 percent of urban residents and more than 60 percent of the rural population have access to domestic water supply. The national illiteracy rate for those over 15 years of age is only 22 percent, 36 percent for women.

The Program is working closely with the Bank on two urban environmental projects. The Hubei Urban Environmental Project is being prepared for partial financing by the World Bank as part of its lending program in a series of environmental projects for China, the Bank's largest borrower. This project, proposed for FY96, is in the cities of Wuhan, Huangshi, Xiangfan, and Yichang in central Hubei Province. The four cities have a combined urban population of more than 7 million. The Bank project is focusing on municipal services, such as sewerage and sanitation improvements, nightsoil management improvements, solid waste management, and industrial pollution control.

The Guangxi Urban Environmental Project is also part of the Bank's series of environmental projects for China. The project is proposed for Nanning, the provincial capital, and Guilin. The Guangxi project has many of the same components as the Hubei project, along with "small area environmental improvement" component that aims to upgrade a slum area.

The Program, through its Nightsoil Management Improvement Project, assisted the Bank and Hubei Province in the preparation of an investment program for the nightsoil management improvement component of the Hubei project. A series of participatory workshops was designed for provincial and city officials, and four interrelated desk studies as well as a pilot demonstration project of the strategy and technical options selected were prepared. The desk study of nightsoil management improvement examined the interrelated aspects of hygiene and epidemiology in nightsoil handling practices, the socioeconomic and marketing aspects of nightsoil management and use, and technical options, costs, and benefits of improving management and use.

The Program is working closely with SANDEC on this project, and the demonstration consists of several technical pilot activities that are currently being undertaken in three cities. The activities include: construction and monitoring of modified septic tanks in both private and public latrines, monitoring of existing septic tanks for comparative purposes, construction and monitoring of modified nightsoil storage tanks, and establishment of a pilot plant for composting of nightsoil and solid waste. The Group concluded monitoring the pilot activities in 1995; the information distilled about improved capacity to undertake such activities will be channeled into the proposed Hubei project.

The nightsoil management study is a learning opportunity and will have a significant impact for many other environmental projects planned for China and other East Asian countries, particularly Vietnam.

Indonesia

Approximately 180 million Indonesians inhabit the islands of this archipelago. Most of the people live on the islands of Bali and Java, where high population densities, rapid industrialization, and escalating tourism combine to worsen the overwhelming

environmental and sanitation problems. The country has experienced steady, robust economic growth over the past decade (averaging about 6 percent per year). The proportion of the population that is living in poverty has dropped to 15 percent, according to government estimates, but the development of water and sanitation infrastructure has not kept pace with economic growth.

Rural water and sanitation coverage levels are estimated at 50 percent and 40 percent, respectively. Urban piped water supplies provide unreliable service, and city dwellers have to depend on a wide variety of sources with highly variable quality and costs to meet their daily needs. In the rapidly growing cities, particularly in the megacity of Jakarta (with an estimated metropolitan area population of 14 million), human and solid waste disposal presents an increasingly complex challenge.

In 1994, the UNDP and Dutch-financed Community Water and Sanitation Project was completed. This project developed and tested a strategy for community planning, financing, and management of environmental sanitation improvements that can be incorporated into urban development projects as a part of the Indonesian government's integrated urban infrastructure development program. In FY95, Program staff continued to work closely with the World Bank and the United States Agency for International Development (USAID)-funded Municipal Finance Project to see that the strategy was applied effectively in several cities and towns.

With UNDP support, the RWSG-EAP helped the government and the World Bank to prepare the Water Supply and Sanitation for Low-Income Communities Project (WSSLIC) in 1992. The ongoing project continued to improve the access of approximately 2 million rural inhabitants in six provinces to safe and adequate water and sanitation. An innovative effort for both the Bank and the government of Indonesia, this project incorporates a community-based, demand-driven design that allows for relatively quick modifications.

The Program collaborated with SANDEC to conduct applied research on technical sanitation issues. A septic tank sludge treatment study is now under-way, and the Group carried out a case study of community-based solid waste management as part of a global review by SANDEC.

The Government recently launched its sixth Five-Year Development Plan (1994-98), and the RWSG-EAP reinforced it by helping to prepare a water and sanitation sector review, development strategy, and action plan with UNDP/DANIDA financing, supplemented by UNICEF. The strategy and plan are dynamic in design and will be regularly updated to ensure their continued relevance.

The main vehicle for learning has been the WSSLIC Project, for which the RWSG-EAP provides strategic supervision and conducts case studies. The lessons from the implementation have been disseminated to government staff and Bank task managers in the form of reports and short presentations.

The Program will intensify its focus on urban sanitation issues selectively, while continuing to provide strategic supervision for the WSSLIC Project and conducting case studies to learn from the ongoing sector development process. In collaboration with WHO, a participatory hygiene and sanitation education program will be launched on a pilot basis in two WSSLIC Project provinces during FY 96. Encouraging hygiene behavior and correct use of sanitation technologies among the poorest population

groups is the aim of this effort. A specific opportunity that the Program expects to capitalize on is the Semarang-Surakarta Urban Development Project, for which the Group, the Bank, and the Government are designing a pilot sewerage project to ameliorate human waste disposal problems in Indonesia's overcrowded urban settlements.

The RWSG-EAP employs two national country officers with expertise in health education and rural participatory development. Most program activities in Indonesia are financed through UNDP regional funds. Smaller amounts have been made available from WHO, Japanese and Danish grant facilities and World Bank research funds, for specific studies.

Lao People's Democratic Republic

A landlocked country of some 4.6 million people set in the heart of the Indochina peninsula, Lao People's Democratic Republic (Lao PDR) is relatively sparsely populated and predominantly rural. Eighty-five percent of the population live in the countryside. The country is largely mountainous, apart from lowland areas bordering the Mekong flood plain, and communication remains a major challenge. There are also many different ethnic groups with diverse cultural identities.

Until recently one of the more isolated of East Asian nations, Lao PDR has begun a rapid transition from a planned to a more market-oriented economy. Growth, external support, and investment are increasing rapidly. Nonetheless, the country still has some of the lowest rural water supply and sanitation service levels in the region. Although there had been significant improvement since 1991, coverage in 1993 was estimated to be 37 percent for rural water supply and 12 percent for sanitation. Coverage remains even lower in the more remote provinces. Furthermore, there is little monitoring of appropriateness, sustainability, use, and the impact of existing services.

Progress in recent years has been largely externally driven, and there are no policy guidance or national strategies for channeling internal and external resources.

In late 1993, however, the government became fully committed to strengthening the central level of the National Water Supply and Environmental Health Program and to developing a comprehensive sector strategy. The primary objective of the Program is to assist the government with institutional strengthening and strategic planning. Group staff also contributed expertise to World Bank-financed projects, including the Louang Namtha Provincial Development Project and other ESA-assisted initiatives.

Work on the Sector Strategy and Action Plan (SSAP) has focused on building consensus and developing the capacities of Lao PDR agencies to implement the ongoing substantive work. RWSG-EAP accomplishments included the team-based development of a concept paper for the Lao water supply and sanitation sector, workshops and preliminary meetings for the four working teams from the involved agencies, and design and teaching of a course about teamwork.

More than 80 representatives from sector ministries and agencies gathered for the first time when RWSG-EAP staff and SSAP teams sponsored the first in a series of "sector forums." Steps required to build a more structured project pipeline were defined, and focus will continue to be placed on strengthening management capacity. The Program aims to help complete the SSAP in 1996. This Lao-led process should guarantee a high degree of ownership, fostering widespread use of the SSAP, as well as regular updating in future years. Other countries may also benefit from the lessons of the Lao SSAP.

A two-way learning approach has underpinned the Program's work in Lao PDR. Based on an essential, preliminary "listening" phase, low-profile, catalytic support was provided to national institutions and personnel. National management staff retained lead roles in the initiatives. This learning process identified the need for increased flexibility and capacity to share experiences. Lessons were disseminated through the wide distribution of docu-

mentation, the inauguration of a regular series of sector forum meetings, regular contact with ESAs, and encouragement of media coverage.

The Swedish International Development Cooperation Agency (Sida) finances the Program's initiatives in Lao PDR. This support complements UNICEF's ongoing WSS program, which also receives financing from Sida. The Program has had a chief technical adviser resident in Lao PDR since July 1994; the country office is within the National Water Supply and Environmental Health Program in Vientiane.

Mongolia

The Mongolia People's Republic in north-central Asia covers more than 1.5 million square kilometers. About 35 percent of the 2.3 million Mongolians live in urban areas, while the rest inhabit a rugged rural terrain. Most people live in tent-like *yurts*, including half the residents of the capital city, Ulaanbaatar. This settlement pattern, together with a nomadic lifestyle, has implications for any water and sanitation development program. More than half the country's people are underserved or unserved by a safe and adequate water supply. Sanitation is a more serious problem. Household and public latrines exist only in urban areas. Except in apartments, there are only a few single detached houses with individual latrines.

The Program began its involvement in Mongolia in July 1993 with the Water Supply and Sanitation Technical Assistance and Capacity Building Project. The ongoing project focuses on improving sanitation, hygiene, and water supplies in provincial towns and in the peri-urban area of Ulaanbaatar. Project activities include: demonstration of low-cost, appropriate water and environmental sanitation technologies, such as deep wells with handpumps, ventilated and improved pit latrines, and water treatment approaches such as defluoridation; hydrological studies; training in hydrogeology, well drilling, operations and maintenance, water quality and treatment, hygiene education, and community management; and the development of training and education materials using the PROWWESS strategies.

Overall, the project has had a significant impact in Mongolia. Though small, the initiative is now beginning to show that it is possible to provide basic water supply and sanitation services with limited resources. The project is already well regarded, both by the communities in which it is active and by the responsible government institutions.

Users pay less for water from the project handpumps. However, daily water consumption in the peri-urban slum areas, called *gers*, is still well below the 40 liters recommended by the National Hygiene Services. UNDP requested that the Program continue its work in Mongolia in a follow-up phase.

The hygiene education component included a series of workshops on participatory hygiene education as a follow-up to the 1993 PROWWESS Participatory Training. Outputs of the training workshops included a series of field-tested hygiene education guides and tools, and provincial work plans for the future. Production of the guides was closely coordinated with the government's Health Education Unit, UNICEF, and WHO. The Program received strong commendation from Save the Children for its participatory training activities. One of the national trainers, trained by the Program, was contracted by Save the Children to work with the Mongolian Social Development Center in its implementation of the National Poverty Alleviation Program.

Swedish BITS co-finances the RWSG's work in Mongolia and pays for equipment and technical assistance. In addition, AusAid has provided a small contribution for the support of hygiene education and training activities.

The RWSG's work in the country offers the opportunity to learn about water and sanitation service provision for moving populations. A different set of institutional arrangements and community organization is required as well as new low-cost technologies that can move with the users. In addition, Mongolia is a fertile ground for the application of the Program's RWSS experiences.

Discussions with the government and donors led to the conclusion that the extension and consolidation of the pilot and demonstration programs could help develop strategies for meeting the needs of all underserved *ger* dwellers. Responding to the significant interest expressed by the government and UNDP, Program staff developed an outline for a possible follow-up project addressing poverty alleviation and socioeconomic development through water and sanitation provision. Program staff, however, had to explain that the Group could not commit to the execution of any further activity because of funding constraints. AusAid and other bilateral donors have expressed interest in the project.

Philippines

A water crisis threatens the Philippines. A 1993 report of the Philippine

government, co-sponsored by the World Bank, described the absence or gross inadequacy of water facilities in both urban and rural areas. The government, with external support, is now working hard to avert overwhelming environmental damage and pollution, and, increasing mortality from waterborne diseases. A Water Summit held in December 1994 and the passage of the Water Crisis Act by the Philippine Congress marked significant Philippine efforts. In addition, the government's Social Reform Agenda was passed. It focuses on the delivery of basic services, including water supply and sanitation, to the country's 19 poorest provinces.

The UNDP-assisted Institution Building for Decentralized Implementation of Community-Managed Water Supply and Sanitation Project was started in July 1994. The initiative aims to improve the delivery of services to poor communities by strengthening local government units and NGOs. Water supply and sanitation services in 180 communities will be improved in the seven poorest provinces, Kalinga and Apayao (Kalinga and Apayao recently split into two provinces) in the Cordillera Region in the far north of Luzon; Capiz in the Western Visayas; and the provinces of Zamboanga del Sur, Cotabato, Surigao del Sur, and Agusan del Sur in Mindanao.

Using a participatory approach, the project team of consultants and area coordinators under the Water Supply and Sanitation Program Management Office of the Department of the Interior and the local government conducted project planning and implementation workshops in each of the six provinces. These workshops provided an opportunity for the local governments and NGOs to discuss with the project team the feasibility of the approaches being proposed. Topics discussed during the workshops included project area selection, participatory approaches to planning and implementation, community organization and participation, institutional development, and technology options.

The project focuses on community organization, training of local government staff, and training of users. Furthermore, NGOs are being looked upon as partners in the delivery of basic services, working in collaboration with the local government units. For this purpose, the International Training Network Center (Philippines) was contracted to organize the 180 communities through local NGOs, along with community organizers working under them and with the local governments. In preparing their work proposal, the ITN (Philippines) staff assessed the capacities and strategies of local NGOs and community workers in the provinces.

To initiate the learning process within the project, a structured learning workshop was held in Manila. Participants included project staff from PHI/93/010, government counterparts, and representatives from seven provinces. Lessons and best practices will be fed back into the project and to similar projects. A follow-up workshop is planned.

The Program has also introduced learning processes to World Bank project supervision. A rapid assessment of beneficiary communities that had NGO assistance in community organization was conducted by Program staff. The results were compared with those of an earlier survey of communities without NGO assistance. Several indicators showed that communities with intervention performed better, including the water user fee collection rates: these communities had dramatically higher rates of fee collection than those without NGO intervention.

The RWSG-EAP manages a team of four long-term local consultants and a United Nations Volunteer water engineer and additional staff working at the local level for the UNDP-financed project.

Vietnam

This country of 71.3 million people is in the midst of dramatic change as it moves to a market-based economy. Economic growth has been rapid in recent years, averaging in the range of 8 percent annually. Most Vietnamese people reside in rural areas and earn income from agriculture and related industries. However, urbanization is accelerating rapidly. Water supply and sanitation infrastructure is poorly developed, and sanitation-related illnesses remain a dominant threat to public health. Water coverage is estimated at 70 percent in urban areas and 30 percent among rural communities, while adequate sanitation coverage is in the range of 60 percent in the North and 30 percent in the South.

Since late 1993, Program activities in Vietnam have increased substantially. Because of dramatic changes in economic and social policies and an influx of foreign assistance, clear development strategies are required to ensure that resources are used efficiently and effectively. The RWSG-EAP appointed a new national country officer whose immediate tasks were to plan the development of an urban sanitation sector strategy to complement the existing urban water strategy and to draft an integrated rural water and sanitation strategy. The government has requested that the RWSG-EAP

continue to give guidance and technical support as these two strategies evolve. The Program has also continued to support human resources development by training water utility operators to better management of operations and maintenance.

The RWSG-EAP prepared terms of reference for the integrated rural water and sanitation strategy and has assisted the government in securing financing from DANIDA for developing the strategy. The Program is viewed by both the government and an increasing number of ESAs and NGOs as an "honest broker." As a result, its advisory role for strategy development, project identification, and analysis is continuing to expand.

At the request of the government, the RWSG-EAP expects to increase its support for human resources development. SDC funds have been secured for financing a number of Program-executed, in-country training events based on requests from the Ministry of Construction. As preparation of the urban sanitation and rural integrated strategies progresses, the RWSG-EAP will play an active role in reviewing consultants' work, advising the government on the way forward, and identifying projects that will form elements of an action plan for executing the strategies.

The sector planning process and the associated development of new projects will offer abundant opportunities for incorporating systematic learning into adaptive project designs. Improvement of water and sanitation infrastructure is particularly needed in the hundreds of small Vietnamese towns with populations of less than 30,000. In these small semi-urbanized settlements, the Program will work with the governments to formulate strategic approaches to improving sanitation in response to community demand. ■

Regional Overview

WEST AFRICA

Human development in West Africa is particularly challenged by unsafe drinking water and sanitation facilities for both the urban and rural poor. In most countries of the region, the lack of policies acknowledging basic human needs for all strata of the population results in increasing disparities in the distribution of resources. The poor receive the lowest level of services for health, education, water, and sanitation, but often pay the highest prices for delivery.

The high rate of urban growth makes costly extensions of suitable drinking water supply facilities a necessity. Many African capitals, such as Dakar and Ouagadougou, are trying to improve their drinking supplies by installing pipes that carry water from sources tens of kilometers away. This undertaking is, of course, very expensive. In most West African cities, the number of households with private drinking water connections is less than 50 percent (70 percent in Abidjan, but 45 percent in Conakry, 38 percent in Ouagadougou, 23 percent in Bamako, and 15 percent in Bissau).

Sanitation surveys conducted in several major cities showed that it is rare for more than one quarter of the population to have direct access to appropriate and hygienic facilities. Management of household solid wastes is an increasingly burdensome task for the meager budgets of the municipalities, and only in the best cases is service provided to city centers and residential districts. The relatively small amounts of household waste collected are dumped at unsuitable sites, without due consideration given to protecting underground water sources or the surrounding natural environment.

This state of affairs reveals major dysfunctions within national structures responsible for water and sanitation service development. The lack of financial resources and management capacity has led to a high level of inefficiency in service provision, which, for the most part, is not based on real user demand.

However, this bleak picture is brightened by a growing awareness on the part of national decision-makers and development agencies of the need to reform sectoral policies and implement strategies that take into account the lessons of earlier projects, which were based on structural institutional reform and broader participation of the people being served. Through direct country collaboration and the dissemination of new ideas, the Program contributes considerably to ongoing reforms in the water and sanitation sectors.

Regional Water and Sanitation Group – West Africa

The main objectives of the Regional Water and Sanitation Group for West

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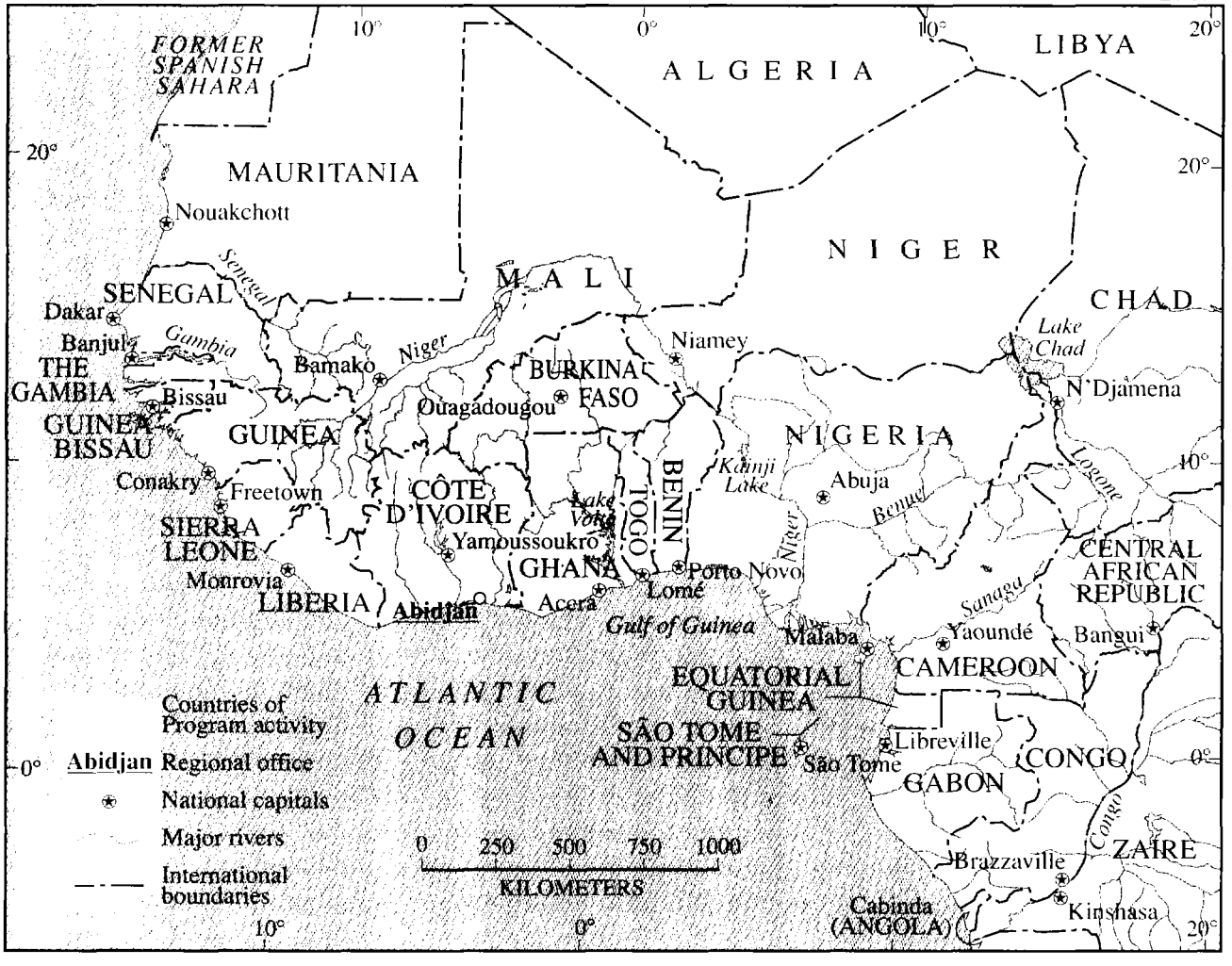


Africa (RWSG-WA) are to build local capacity, support sustainable investments, and learn and disseminate lessons from these projects.

Based in Abidjan, Côte d'Ivoire, the RWSG-WA contributed significant support to sectoral management planning reforms. The Group helped formulate sectoral strategies and action plans for rural water and sanitation (in Benin and Ghana) and urban sanitation (in Benin, Burkina Faso, Côte d'Ivoire, Ghana, Guinea, and Guinea Bissau). The methodology proposed in the strategies came from an analysis of experiences and results from similar projects, as well as knowledge based on the application of tried and tested

COUNTRY	Population in millions 1993	Life expectancy in years 1993	Urban population as percentage of total population 1993	GNP per capita in US$ 1993
Benin	5.1	48	30	430
Burkina Faso	9.8	47	23	300
Côte d'Ivoire	13.3	51	42	322
Ghana	16.4	56	35	430
Guinea	6.3	45	28	500
Guinea Bissau	1.0	44	21	240
Mali	10.1	46	26	270

Source: *World Development Report 1995*

principles from other countries or regions of the world. For example, in Ghana, the simplified sanitation network techniques developed in Brazil were successfully introduced. New ideas have been tried in pilot projects — at the district level (for urban sanitation) and at the provincial level (for rural water supply).

Capacity building is based on three complementary activities: human resources development, institutional strengthening, and sectoral strategy and policy formulation. To face up to the new challenges posed in obtaining a supply of suitable drinking water and sanitation services, several national or regional authorities benefited from training seminars and study tours. For example, the RWSG-WA financed the participation of West African decision-makers in training seminars in Morocco on urban sanitation planning. Study tours were organized for directors of ongoing projects in Burkina Faso, Ghana, and Guinea, during which they had an opportunity to meet their colleagues and to familiarize themselves with other projects underway in the sub-region. Thanks to this training effort, administrative officials are in a better position to get involved in strategy formulation and to take up the new issues that they will face in strategic sectoral planning.

RWSG-WA also supports and collaborates with the two ITN centers in the region: Centre Regional pour l'Eau Potable et l'Assainissement à Faible Coût (CREPA) in Burkina Faso and the Training Network Centre in Ghana. These two centers aim to increase the capacity of countries in the region to deliver water and sanitation services to low-income groups, using community-based, participatory approaches. The ITN and its member centers were created to improve the capacity of local communities and agencies to sustain low-cost RWSS services, using community-based, participatory approaches. One aim of the ITN is that for its member centers become self-supporting, independent of external funding and support. The two centers in West Africa have made strides towards this goal, and will move closer in the coming years.

Support of sustainable investments: Most of the strategic proposals and action plans drawn up in collaboration with RWSG-WA have led to large projects, financed by the World Bank and other donors like DANIDA, UNDP, and the French Development Agency (CfD). National village water supply investment programs in Benin and in Ghana, formulated with RWSG-WA assistance, are underway with World Bank assistance. Sectoral investment programs intending to upgrade urban environment and sanitation were defined with RWSG-WA assistance in Burkina Faso, Ghana, and Guinea. In each case, a financing plan was discussed and drawn up in collaboration with ESAs at round table conferences or through direct contacts, leading to the implementation of major investments.

Learning and dissemination of lessons: RWSG-WA gathers information about water and sanitation activities in the sub-region, either from its own experience from projects implemented with direct Program participation or from documentation about innovative approaches that deserve to be better known. Materials in French and English, including a videotape and a set of slides, were prepared. RWSG-WA also has a documentation center with more than 5,500 references, drawn primarily from the region.

During FY95, RWSG-WA directly implemented operations in seven countries: Benin, Burkina Faso, Côte d'Ivoire, Ghana, Guinea, Guinea Bissau, and Mali. Nine professionals, four of whom were African, carried out the work plan for the Program. Given the budgetary constraints, the number will probably be reduced in the near future. RWSG-WA activities are primarily financed by UNDP, Luxembourg, Switzerland, Norway, France, and the World Bank.

The scope of the RWSG-WA activities expanded throughout the entire sub-region. This was achieved through a wide dissemination of reports and the organization of several regional seminars and workshops. For example, RWSG-WA jointly organized a regional workshop with UNICEF and WHO called "Schools, Health and the Environment." This workshop brought together representatives of eight Francophone countries. The Program also initiated a regional study on the management of community piped water supply systems in five countries, with the support of local consultants.

Benin

In 1992, the Government of Benin approved the Rural Water Supply and Sanitation Strategy. Prepared with Program assistance, this strategy is rooted in decentralized decision-making processes and promotes community financial investment and participation in operation of water points, cost reductions in building systems, and in equipment and maintenance. It also advocates greater national private sector involvement in construction and implementation activities. In the sanitation sector, national authorities have expressed increasing levels of concern about the deterioration of

services available to the population and about the impact of this situation on the environment and quality of life, particularly in low-income communities. In March 1991, the government launched an environmental plan of action. The preparation of a national sanitation policy, part of this exercise, was also assisted by RWSG-WA.

The Program is conducting two critical activities: supervision of the implementation of a new Community Water Supply and Sanitation Project and support of the design of a national sanitation policy. The preparation phase for the community project is complete. Local NGOs were identified and trained. Tender documents were prepared, published, and awarded for the supply of 1,500 handpumps. Several seminars were organized, both in the capital city and in the provinces, to initiate the demand-led process in the water and sanitation sectors. The RWSG-WA conducted a dozen missions to the field to keep partners informed of project progress and propose solutions to avoid any obstacles. Within the framework of the national sanitation policy, a seminar was organized for which the background paper was prepared by RWSG-WA. The seminar laid the foundation for fruitful and efficient collaboration among the various partners (ministries, donors, NGOs, and the private sector).

As the Community Water Supply and Sanitation project moved into the implementation phase, a local publicity firm launched an information campaign. IDA, DANIDA, and the Water Supply Department asked the Program to take on a supervisory role and continue facilitating and disseminating information. The RWSG-WA will also promote the national sanitation program, cultivate financing, and help coordinate various partners for new projects.

IDA/DANIDA project supervision and the design of a national policy gained considerably from a major DANIDA-Cotonou and Swiss consultant trust fund contribution managed by the Program. Without these additional sources of funding, RWSG-WA would not have been able to continue with activities that have been under way in Benin since 1987.

A willingness-to-pay study conducted by RWSG-WA staff has, for the first time, made it possible to illustrate that real demand at the village level does not necessarily correspond to need, as calculated by the authorities, and that potential users in Benin are willing to pay on condition that water supply and sanitation services improved as a result. The Program continued to strengthen ties with bilateral agencies present in Benin, especially with DANIDA, the German Agency for Technical Cooperation (GTZ), UNICEF, CfD, and the African Municipal Development Program. These

links open communication and facilitate information exchange.

Burkina Faso

In Burkina Faso, 67 percent of the population had access to suitable drinking water in 1991; however, the connection rate to the urban water supply was only 38 percent. This rate is not likely to increase to any great extent over the next few years, given the lack of available water supplies and the amount of investment necessary to mobilize new resources. The sanitation situation remains hazardous. Only 25 percent of the people in Ouagadougou have appropriate sanitation facilities. Industrial wastewater is left to flow into the natural surroundings without any treatment, along with solid waste from traditional on-site sanitary facilities and septic tanks.

Over the past five years, Program contributions have led to the development of a strategic plan for wastewater and excreta disposal in Ouagadougou. The government began to implement this plan, which defined a strategic approach to developing sanitation and drainage in the city. After pilot projects were started in Sectors 2 and 16 of Ouagadougou, home to about 50,000 inhabitants, sanitation facilities were improved in 20 percent of the user plots. These pilot projects showed the feasibility of the proposals for autonomous sanitation and drainage facilities through the testing of financing and facility construction mechanisms, promotion of appropriate sanitation technology, and training of artisans using local resources.

Within the framework of IDA's Third Urban Project, the RWSG-WA prepared an urban sanitation development program and strategy to upgrade the urban environment in two major cities (Ouagadougo and Bobo Dioulasso) by improving wastewater and excreta disposal, stormwater drainage, and solid household and industrial waste collection and treatment. Community participation in the choice of the facilities, and in running, financing, and managing the infrastructure, and private sector and NGO involvement are the main characteristics of this strategy.

The project has been granted US$35 million, with about US$15 million contributed by the Burkina Faso government. Funds will be provided by UNDP to ensure follow-up for the project component relating to capacity development within the municipalities, so that they can conduct a sustained urban environmental development program under RWSG-WA supervision. CfD is providing support for environmental impact assessments, building of sanitation distribution networks, and a wastewater and solid waste treatment station planned under the strategic sanitation project.

A community participation pilot project for urban environmental management is underway, with joint support from RWSG-WA and UNICEF in Sector 7 of Ouagadougou. It enables a small-scale test of the involvement of the community, the public sector, local groupings, and the private sector in implementing urban environmental programs.

The Promotion of Demand for On-Site Sanitation Project has become an integral part of the National Water Supply Organization, which has extended coverage to the entire city of Ouagadougou. Promotion activities and construction of the on-site sanitation facilities were wholly-financed from local resources. The current program has trained 85 artisans to date and has made it possible to build 2,036 sanitation facilities, 75 percent of which are financed by user households.

Implementing on-site demonstration projects for demand-driven sanitation development in Ouagadougou and the town of Kumasi (Ghana) has made it possible to identify sustainable financing and institutional mechanisms for sharing the responsibilities for applying varied approaches adopted to different settings. A case study comparing results obtained in Ouagadougou with those from Bobo Dioulasso was published and widely distributed.

Côte d'Ivoire

The Government of Côte d'Ivoire has had a sector strategy in place for several years to improve urban conditions. Urban peripheries have developed at such a rapid pace, however, that they have defied all attempts at town planning, making it extremely difficult to put service facilities in place and ensure their maintenance. Better control over the impact of this sprawling urban growth on the environment and, particularly the effective management of sanitation, drainage, household waste collection, and treatment services are major challenges.

The fourth IDA-financed Urban Development project currently being prepared is based on integrated planning principles that were developed with RWSG-WA assistance. The project considers the requirements of the population, as well as all the environmental constraints that affect the development of a global urban infrastructure program: water supply, sanitation, household waste collection and treatment, and drainage. The national services and the relevant departments are involved with the strategy formula-

tion process, and, at the same time, as much local capacity as possible is called upon. The objectives are to arrive at a consensus among the various actors (users, the private sector, public authorities) and build partnerships between the private sector and the public administration.

Strategic plans will be prepared for the nine regional capitals. The aim is to make available to all strata of the population services or infrastructures designed according to the willingness-to-pay criterion.

An integrated pilot project intended to protect the urban environment and human health was launched in the Yaosséhi and Doukouré shanties on the outskirts of Abidjan. This initiative responds to concerns expressed by local people who formed an NGO, the Association of Côte d'Ivoire's Disadvantaged, to better their living conditions through their own efforts. Their main objectives are: to assist communities in designing plans to improve their surrounding environment and involve them at all stages (from seeking funding to project implementation); to propose viable low-cost systems for water supply as well as a safe sanitation infrastructure that adapts to the inhabitants' resources; to strengthen local capacity building; and to serve as a development model for improvements in shanty settlements. The project is focusing on water supply from stand pipes, organizational back-up for household waste collection, and community management of a health post.

RWSG-WA received SDC funding, making it possible to finance education activities, train NGOs, and build some of the infrastructure. The people in these areas make significant contributions to works and equipment purchases. The resident World Bank mission supports the health component.

This pilot project is applying a new approach in Côte d'Ivoire that enables residents of shanty towns to define and participate in making improvements to their lives. This initiative is particularly important at a time when several urban projects, financed by IDA, EDF, and others are trying to make life better in these precarious settlements. The following aspects in particular will be documented by RWSG-WA: the organization of local committees, decision-making mechanisms within the communities, the role of NGOs, and relations between the population and the urban authorities.

Ghana

The country is implementing some of the largest investment programs in the sub-region, with a multi-donor country-wide investment of more than US$80 million in community water supply programs. Major donors include CfD, the Canadian International Development Agency, DANIDA, IDA, the Japanese International Cooperation Agency (JICA), and the Reconstruction Loan Corporation for the Federal Republic of Germany (KfW). A host of NGOs, including WaterAid, World Vision International, and the Catholic Church, are also involved. In the area of urban environment sanitation programs, the

stage is set for IDA to invest over US$100 million in solid waste management, excreta management, and drainage. Sector policy has formalized the involvement of NGOs and the private sector; it recognizes decentralized responsibilities for the delivery of goods. This recognition is at the heart of the sectors unfolding institutional landscape. Privatization of urban water supply is also under serious consideration by the government.

The RWSG-WA and Bank staff concentrated their efforts for the IDA-financed Community Water Supply Project, covering four of the ten regions of the country. The bulk of the support included development of the monitoring and evaluation strategy with donors, assistance to the newly established Community Water and Sanitation Division of the Ghana Water and Sewerage Corporation, definition of the sanitation component, institutional capacity building, and supervision of the district teams and the NGO involvement in community extension activities.

The Program also helped the Bank to prepare the IDA-financed Ghana Urban Environmental Sanitation Project for the five major cities of Ghana. Documentation of private sector involvement in Municipal Solid Waste Management was also conducted.

Current RWSG-WA activities in Ghana have reached a strategic crossroads. During FY95, the Program withdrew much of its staff from Ghana because of financial constraints. Thus Program activities are being refocused. Program funding for country-level operations remains unresolved, so RWSG-WA will be forging partnerships that allow the tapping of in-country program/project resources. In this respect, networking with other multilateral and bilaterally funded programs and agencies — (Urban Management Program, Municipal Development Program, IDA, and the Swiss Center for Appropriate Technology — to share the costs of mutual country programs and documentation exercises, coupled with judicious use of the limited RWSG-WA regional resources, will be pursued.

Guinea

A major program for water supply sector management has been implemented by the Guinean government since 1988. Its reforms and institutional arrangements have served as a model to other developing countries. In 1993, the preparation of the Program to Improve Sanitation and the Urban Environment of Conakry, with RWSG-WA assistance, laid the groundwork for a new, strategic, integrated approach to environmental problems based on research into diversified technological solutions, cost recovery, and practical application of public and private partnerships. Despite substantial progress in infrastructure development, however, the health of a large portion of the urban population remains threatened. Less than one quarter of the residents in the capital have direct access to water connections. There is no suitable collection system for wastewater and excreta, which is left to flow into the surrounding environment without prior treatment. The reappearance of cholera is a direct result. Solid waste collection is poorly organized, and storm and rainwater drainage is made difficult because of high rainfall and the inadequate, ill-maintained drainage system.

The Third Urban Water and Sanitation Project, to be financed

under an IDA credit with RWSG-WA assistance, is based on strategic proposals drawn from the Conakry project. The Third Urban Water and Sanitation Project aims to develop basic sanitation infrastructure by building on institutional and financial accomplishments to permit the poor to have better access to water supply and sustainable sanitation services and to ensure a better management of environmental problems and resources. The RWSG-WA is also helping with the preparation of a pilot sanitation project for comprehensive implementation in the Bonfi-marché area. This pilot project was designed by a local team and implemented by a local NGO, ADRA-Guinée.

Intense political activity occurred during the year and slowed community involvement in project implementation. Nevertheless, partnerships were forged among NGOs, the government, community representatives, donors, and local businesses to launch the comprehensive IDA-funded Bonfi-marché sanitation project. The Strategic Sanitation Plan is functional and is consulted for each major urban environment and sanitation-related decision. The African Development Bank consulted the Program before preparing the Water Supply to Secondary Cities Project in Guinea, following on the urban environmental studies carried out in these towns by RWSG-WA with French financing.

During FY96, RWSG-WA will be backstopping IDA for appraisal and implementation of urban environmental and water supply projects. The RWSG-WA will also be closely involved in UNICEF preparations for a national sanitation policy.

The Program will participate in the national start-up seminar for IDA projects, during which the major strategic principles for sanitation and concrete application in IDA projects will be reiterated. Based on the Conakry project, Program staff are preparing a planning manual on integrated urban sanitation projects. The main lessons from the implementation of the Bonfi-marché pilot project will serve as a case study for developing partnerships and involving the private sector in sanitation services management.

RWSG-WA receives funding from the Government of Luxembourg to follow-up and promote strategic intervention approaches in the sub-region. The Bonfi-marché pilot project is financed in the framework of an IDA-initiated social development program.

Guinea Bissau

Although the rural environment has received considerable attention from ESAs and the government in recent years, urban water supply and sanitation has not been much of a priority. In Bissau, less than 15 percent of the population has direct access to drinking water; 78 percent draws water from shallow wells that are exposed to pollution. Conventional water and sanitation networks are not very extensive and are dilapidated, causing major losses. Rainwater drainage and household waste collection is very haphazard. However, despite difficult conditions and meager resources, several positive factors favor change in the sector. The government has prepared a water and sanitation master plan that outlines priorities and clearly identifies institutional responsibilities. Private sector participation was introduced in the area of water supply and waste collection services, and this has led to an improvement in service delivery. Cost recovery has been accepted by the authorities and users. A water supply and sanitation project will be launched soon by the African Development Bank. Finally, IDA and Japanese Trust Fund contributions aid the government on a program to improve water supply and sanitation services in Bissau and two secondary cities.

Since 1992, the RWSG-WA has been helping the government prepare the IDA Water and Sanitation Project based on a comprehensive development strategy and capacity building for planning and implementation. UNICEF collaboration is envisaged for information, education, and communication activities linked with sector development.

The Program will continue to give as-needed assistance to the government to promote an integrated approach for urban environmental problems and water resource management. A national seminar on new approaches to sanitation is planned.

The Government of Luxembourg supports RWSG-WA activities for promoting strategic approaches in the sub-region, the results of which have been beneficial to Guinea-Bissau. Preparation of the Urban Water and Sanitation project is financed by a Japanese Trust Fund grant and by the World Bank.

Mali

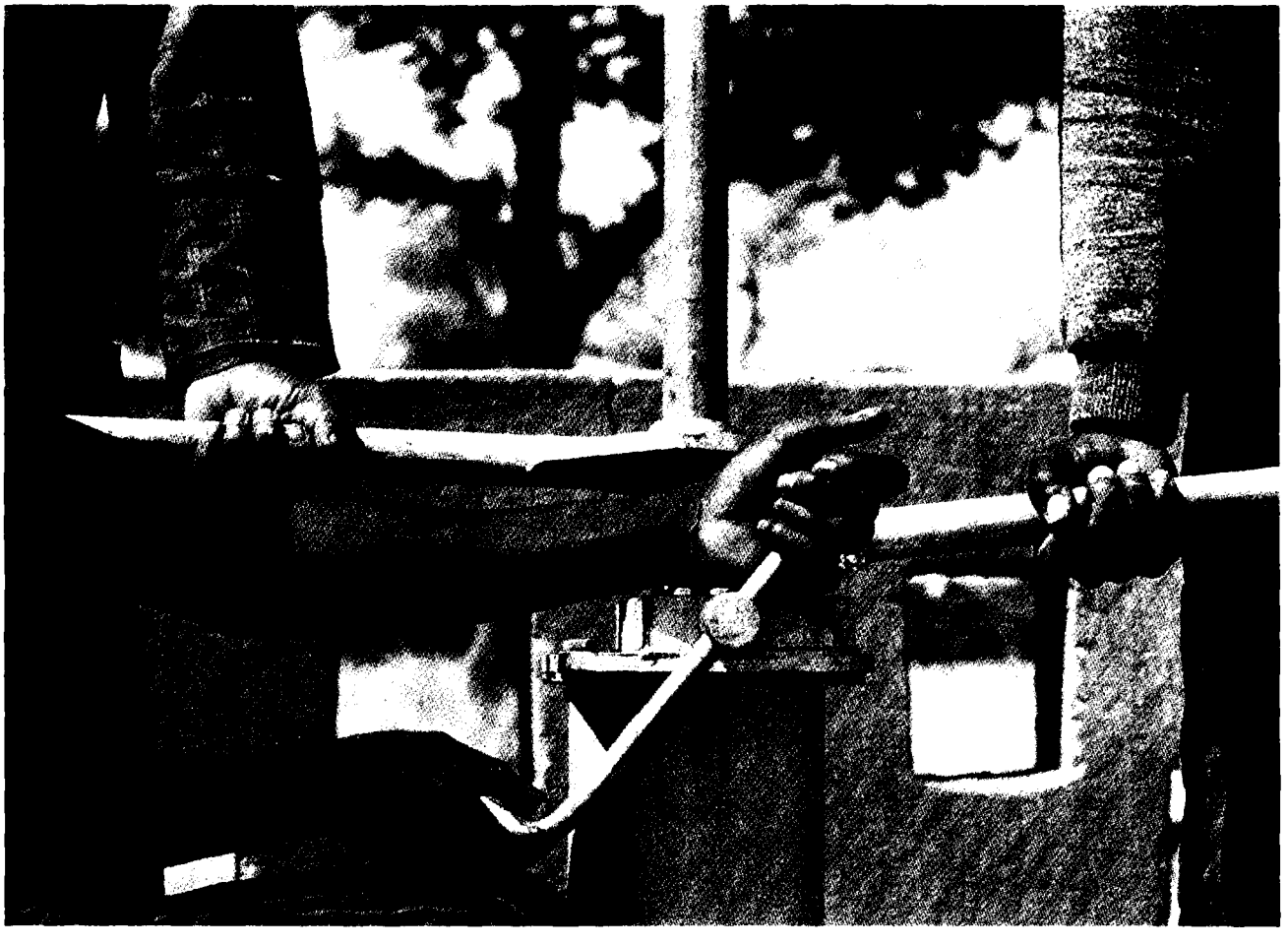
Over the past 15 years, water supply coverage has risen substantially. Major investments (some US$200 million), coming primarily from external aid sources, have made it possible to install 9,000 modern water points, equipped with handpumps and about 400 solar-powered pumps. A master plan to develop water resources was drawn up and submitted to a donors conference

in 1992. With regard to urban sanitation, the African Development Bank-financed master sanitation plan was prepared for the capital, Bamako. France and the World Bank are funding the restructuring of the Public Water Company. Village water supply components are underway in several regions through IDA financing. The government, with the help of several ESAs (KfW, CfD, FED), will equip about 100 semi-urban centers with community piped water supply systems.

From 1989 to 1992, the RWSG-WA supervised education activities as part of the water points rehabilitation program, which was carried out during a previous IDA-financed project. A health education campaign was organized with the collaboration of an NGO, and a works maintenance system was set up with blacksmiths' associations in the region. The Program also collaborated with the Malian Company for the Development of Textile Fibers to prepare a project component, as part of the IDA-financed agricultural sector project, which would build 450 new water points. RWSG-WA is supervising education activities.

The Program also developed, at the request of the local government, a peri-urban water supply project in Bamako. The objective of this project is to build on-site supply points in peri-urban areas or in areas of the city that are not supplied by the public water network. These water points will be managed by user associations. The project was financed by international French cooperation and is implemented with support from a Canadian NGO and RWSG-WA.

During FY96, the Program will continue to support ongoing activities in Mali. It will advise on project implementation and the management of water supply systems in peri-urban areas in Bamako. It will also support new initiatives to improve sanitation in these parts of the city. RWSG-WA will participate in national strategy formulation and in developing an action plan for drinking water supply. Finally, it will contribute to preparing a component for water supply as part of a new rural infrastructure project to be financed by IDA in 1996. ■



Mali: Blacksmiths Help Maintain Handpumps

In the southern region of Mali, rural and traditional blacksmiths have been working with iron since time immemorial. Today, they are independent artisans. With the development of the cotton-growing industry, the blacksmiths were trained, under the auspices of the Malian Textile Fiber Company, to repair agricultural machinery. They are grouped into associations, which makes it easier to provide the artisans with supplies.

There are about 1,500 wells equipped with handpumps in this region. All the rural water supply projects in the area aim at involving communities in the maintenance of these handpumps. However, maintenance of the water points is still heavily dependent on national services that keep the stocks of spare parts, carry out major repairs, and supervise work for a team of artisan repairmen.

A few years ago, the RWSG-WA suggested building up the network of artisan/repairmen, especially by giving the team full responsibility for repairing pumps and managing the stock of spare parts that had initially been wholly financed by the blacksmiths' associations. The spare parts were distributed among appointed blacksmiths, chosen by the associations for their responsibility, their skill, and their length of stay in the village. The people in charge of each association meet regularly to assess the way the stock of spare parts is being distributed and decide which orders should be sent back to the suppliers. Each association has a bank account with the National Agricultural Development Bank into which they pay part of the profits from their activities.

Strong points of the maintenance system

Repairs and spare parts management are conducted by respected local blacksmiths — major economic actors who participate in the region's development. They are motivated and close to the community. Spare parts are readily accessible though inventories maintained locally by the blacksmiths, who also have a long history of organization, which makes it easier to ensure from the outset that they are properly managed. Their skill in repairing all the breakdowns that may arise is readily acknowledged by the villagers.

Improvements for the future

In the future, blacksmiths could also become responsible for distributing and installing handpumps at the boreholes. Since they are very well known by the members of the community, these blacksmiths are well placed to respond to user demand and to promote drilling equipment. These activities should also make it possible to increase their profit margins because profit from spare-parts sales is still relatively low.

Regional Overview

EAST AND SOUTHERN AFRICA

Most people living in Sub-Saharan Africa are likely to engage in some form of agricultural work, and they are also likely to receive little compensation for their efforts. In 1993, economic output per worker was only slightly higher than it was in 1965, according to the World Bank. Wages cannot rise without increases in productivity and consumer demand, and when combined with social unrest and growing populations, this stagnation helps to fuel the widespread poverty afflicting countries in East and Southern Africa. As the region's economy is being further marginalized from the rest of the world, the poor suffer in terms of their living standards and health. Inadequate access to a safe water supply, for example, forces rural women in Kenya to devote many hours to walking as far as 10 kilometers to fill 20-liter water containers for their families. Diseases caused by polluted water and unsafe sanitation facilities decrease productivity in adults and render many people, especially small children, seriously ill every year.

Recent political developments, however, including democratization and structural adjustment in several countries, are spurring positive trends for advancement of the water and sanitation sector in the region. Decentralization of services, increased community management, and enhanced cost-recovery are gaining momentum in various sectors of many countries, such as Malawi and Uganda. As some governments in the region are becoming less active in water supply and sanitation project implementation, they are stepping up their roles as facilitators and regulators of these services. These trends have often been driven by a shortfall in resources for continued government provision of services, rather than being instigated by policy reformation and national strategies. Nevertheless, the changes bode well for the future development of safe water and sanitation facilities by communities throughout Eastern and Southern Africa.

During the fiscal year, several governments and ESAs in the region also demonstrated a renewed focus on urban development and poverty alleviation. Social unrest and poverty in rural areas continues to escalate urban migration, and the overwhelming challenges posed by urban sanitation problems demand attention. In Madagascar, for example, the World Bank estimates the urbanization rate to be soaring at nearly 6 percent annually, but less than 15 percent of the island country's 3.5 million urban residents are believed to have access to sanitation services. Urban sanitation has become a priority in the region.

The resource constraints faced both by ESAs and governments limit

their capacities to implement and support water supply and sanitation projects, causing the rescheduling or early termination of some initiatives. The ensuing need to conserve resources places greater emphasis on the need for sustainable systems. This growing concern is reflected in the work agenda of the Regional Water and Sanitation Group for East and Southern Africa (RWSG-EA) and in its advocacy of managing water supplies and sanitation projects at the lowest appropriate level. Efforts have been made to decentralize water scheme management to communities, and capacity building activities aim to increase sustainability through better resources management. There are also signs that enhanced coordination among sector actors has reduced the duplication of efforts; consequently, the design of projects will be more precisely targeted at community and sector needs.

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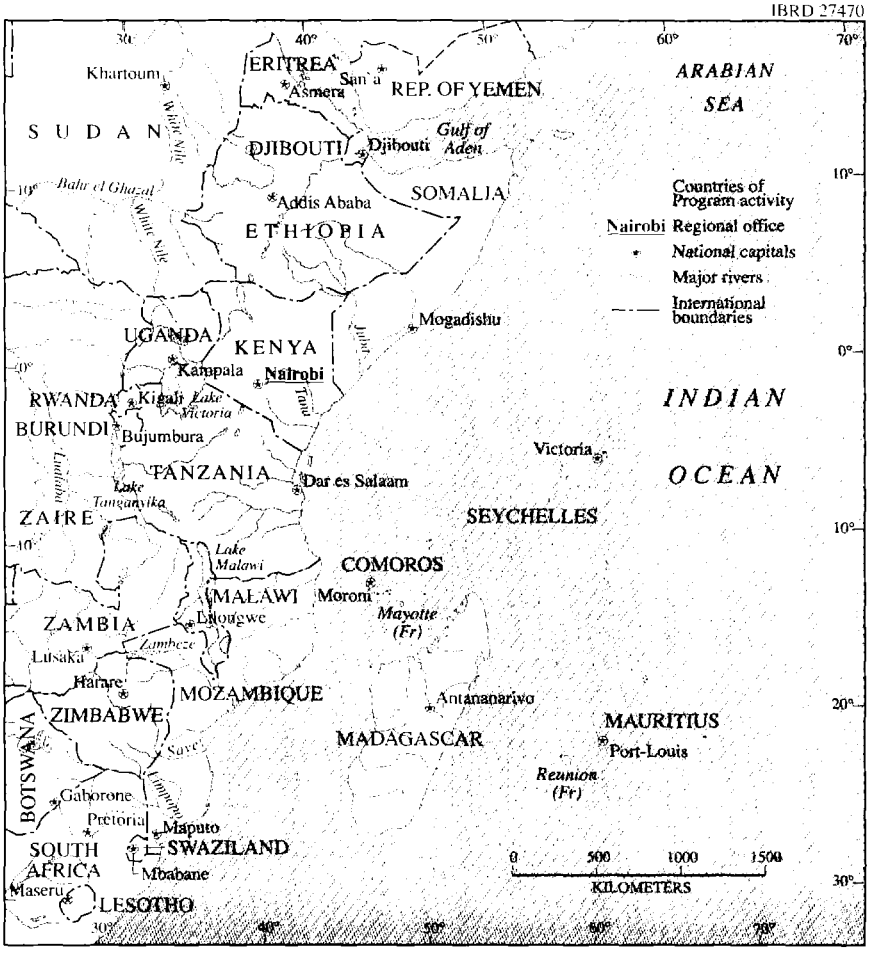
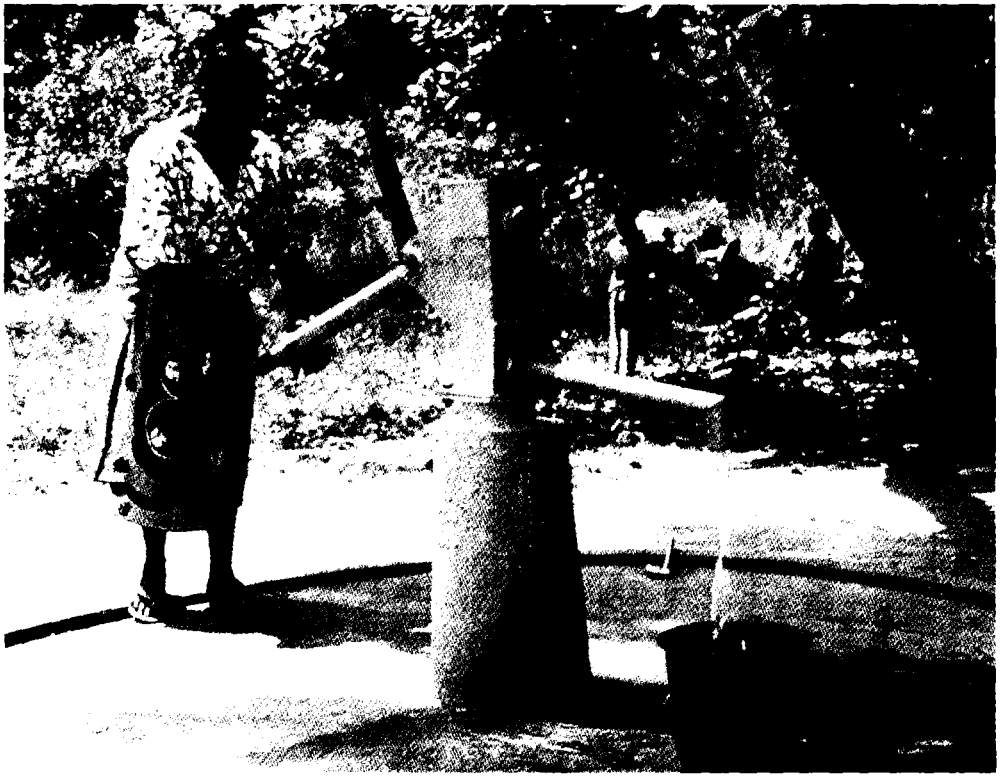


COUNTRY	Population in millions 1993	Life expectancy in years 1993	Urban population as percentage of total population 1993	GNP per capita in US$ 1993
Eritrea	—	—	—	—
Ethiopia	51.9	48	13	100
Kenya	25.3	58	26	270
Lesotho	1.9	61	22	650
Malawi	10.5	45	13	200
Tanzania	28.0	52	23	90
Uganda	18.0	45	12	180
Zimbabwe	10.7	53	31	520

Source: *World Development Report 1995*

Regional Water and Sanitation Group – East Africa

Rural water supply has been the focus of much of the Program's work during the year. Sector professionals and agencies that formerly concentrated on technology selection and project implementation are now largely interested in determining what ensures the long-term success of rural water supply efforts. Many of the Group's rural water supply activities target those factors, and the RWSG-EA, based in Nairobi, began a case study of seven water schemes in Kenya to isolate the reasons for success or failure. The preliminary conclusion of the study was that investors (predominantly NGOs) tend to set insufficient rules regarding eligibility and community commitment. Further, the case study revealed that manage-



ment of individual schemes often reflects existing governance trends, and that the management is frequently unaccountable to the intended beneficiaries. These and other lessons have been incorporated into the rural water supply components of other projects in the region. In addition, a workshop on community-managed schemes in Kenya has been proposed for the coming year to disseminate lessons to sector agencies.

Urban sanitation service delivery arrangements, including several that incorporate the private sector, were tested by the Program. Further, the RWSG-EA tried to solidify linkages between technology, community participation, and affordability in all of its activities. Case studies of urban sanitation projects in Tanzania and Uganda are in progress, and the RWSG-EA is partially managing sanitation sector initiatives in Ethiopia and Kenya. These efforts support the preparation of sector policies and strategies, as well as the development and implementation of future projects. The application of strategic sanitation planning tools will be an important feature of all future Program activities.

The RWSG-EA experienced some major changes during FY95, and its workplan differed dramatically from those of previous years. The Program became increasingly involved in collaborative activities on a regional basis, as well as in World Bank-assisted projects. Further, the RWSG-EA shifted away from two of its traditional priorities, handpump development and training related to the PROWWESS project, as the associated obligations were assumed by SKAT and the ITN Centers, respectively. These transitions were prompted by the Program's desire to switch from direct involvement in project implementation to facilitation of sector learning. The ITN centers (NETWAS in Nairobi and IWSD in Harare), now functioning independently of the Program, continue to significantly affect the health and well-being of poor people who have inadequate water and sanitation services (see box, page 52). Strong indications that several of the Program's initiatives are catching on, and are having the desired effects, also propelled the changes, as have funding cuts necessitating the Group's participation in fewer initiatives.

Country Level Collaboration (CLC) is but one of several regional collaborative activities in which the Group has become increasingly involved in the past year (see box, page 54). A regional CLC workshop was held in Mutare, Zimbabwe in July 1994 to review existing country-level activities and to discuss ways in which such collaboration could be improved in the future.

The joint efforts of UNICEF and other ESAs, including the Program, resulted in a Regional Sanitation Workshop held in Mutare in October 1994. The 42 participants from nine countries reiterated the importance of putting sanitation on the development agenda, acknowledging in particular the magnitude of urban problems.

The RWSG-EA's leadership of regional initiatives is especially marked by its guidance of the PHAST project, which promotes the design and testing of participatory tools and techniques in order to enhance sustainable behavior and encourage incremental sanitation improvements. Program staff helped to incorporate tested participatory methods into demonstration projects under way in five countries: Botswana, Kenya, Ethiopia, Uganda, and Zimbabwe. These nations, in which extensive partnerships mark the water supply and sanitation sector, are participating in

the PHAST project through their water and health ministries and through NGOs. Representatives of WHO, UNICEF, Sida, FINNIDA, DANIDA, NORAD, and other partners attended a workshop convened in Kampala, Uganda in December 1994 to review the progress of the PHAST project. The ITN centers in Nairobi and Harare have significantly advanced PHAST implementation, which will enable the subsequent dissemination of project results to new users.

A recent review of PROWWESS in East Africa confirmed the impact of its training and networking efforts. The techniques are now commonly used in many places and projects and have caught on in other sectors. The two regional ITN centers will assume coordination and training activities, and the Program will continue to promote participatory methods in investment projects by collaborating with the ITNs through involvement in the PHAST initiative. The Group also continued the part-time secondment of a PROWWESS associate to NETWAS, the ITN center in Nairobi.

To evaluate the regional situation with regard to handpumps, a meeting, "Hardware Elements of Handpump Technology — Field Experiences and Views on The Future," was convened. Twenty-two participants from large, bilaterally assisted projects, smaller NGO-supported projects, pump manufacturers, and individual handpump experts attended. Participants recognized that the unresolved sustainability issues have not been, in most cases, directly related to the technology. They instead advocated that RWS initiatives should address the difficulties with financing systems at the village level, dealership systems for spare parts in conjunction with manufacturers, quality control, and appropriate monitoring systems.

The RWSG-EA formerly provided feedback regarding the technical operation of handpumps to governments, manufacturers, and SKAT. However, monitoring and evaluation activities are now being assumed as collaborative efforts between SKAT and the respective projects.

During the next few years, the RWSG-EA will concentrate its efforts in four countries: Ethiopia, Kenya, Tanzania, and Uganda. It will continue to work with rural water supply and urban sanitation on a regional basis. The Program will attempt to build skills and expertise within the region to improve the implementation and sustainability of water and sanitation activities. The application of participatory approaches to World Bank-assisted projects will also continue. Because of the reductions in staffing (from nine to four professional staff), the current RWSG-EA staff will concentrate work in four countries but will provide limited support to three or four additional countries. The Program will rely to a greater extent on external consultants, many of whom are available from within the region, to cope with existing demands. Additional staff will be required if the RWSG-EA is to contribute effectively to all aspects of sustainable water and sanitation provision.

The RWSG-EA requires additional resources to increase its capacity to work with regional partners, governments, ESAs, and NGOs, and to network within the region. New funding prospects are being explored. Reimbursements for services through the World Bank's operational divisions as well as through an agreement with the ITN center in Harare may help the RWSG-EA to make up funding shortfalls in other areas.

Eritrea

At the time of independence in 1991, the residents of Eritrea inherited a devastated economy with a damaged infrastructure and social service facilities suffering from serious neglect. The country has since embarked on a process of reconstruction and development that builds on community commitment to participation in services provision and facilities construction. The government has drafted a water policy that highlights a number of important principles, including: the role of the public sector in the promotion of water resources management, the need to manage water as an economic good, the need for private sector participation, and the need for community participation in service delivery and management.

The RWSG-EA is helping the government of Eritrea to prepare and appraise a water component for an IDA-financed Community Development Fund to provide funding to communities for improved water supply. Communities will be expected to contribute a portion (10 percent or more) of the capital costs and to cover all recurrent costs, in addition to the replacement costs of pumps. Despite capacity constraints in the Program, Eritrea was added to the RWSG's workplan during the year because of the potential importance of the development fund-type investment mechanism in this region, and because Eritrea appears committed to sound principles for sector development.

In addition, the Program was asked to help review and support a donor-funded rural water and environ-

mental sanitation program. The Water Resources Department will prepare policies and strategies, conduct institutional reforms, and strengthen the framework within which water and sanitation is managed. In the coming year, RWSG-EA will provide input to an institutional strengthening and training program, and will contribute to the formulation of policies and strategies. The funding for these activities will be provided by UNDP and UNICEF.

The delineation of sector responsibilities between central and regional governments has been gradually emerging since the creation of the regionalization policy in 1993. The new Ministry of Natural Resource Development and Environmental Protection and its regional bureaus are now responsible for all water supply issues, and responsibility for planning, implementation, and operations is now vested with the respective regional bureaus. The responsibility for sanitation activities has not been so clearly delineated, although the ministries and regional bureaus of Health and of Urban Development and Housing are the main actors, together with the Ministry of Natural Resource Development and Environmental Protection. Despite recent progress, however, only an estimated 25 percent of the population has access to safe water, and only 19 percent has access to sanitation. Thus, improvements to sector policy, strategies, and capacity remain critical.

The RWSG-EA became quite active once again in Ethiopia during FY95, after the end of the UNDP-financed, World Bank-executed Sector Strengthening project in 1993. RWSG-EA staff helped to: prepare and appraise two World Bank-assisted projects, review a proposed NORAD-assisted program, and prepare a sanitation sector program funded by Italy through UNDP. The Group also advised on various handpump schemes, sector coordination, and collaboration with and among NGOs. In addition, the Terminal Report of the Sector Strengthening Project was prepared and submitted.

Thus, the Program has been associated with investments in rural water supply and sanitation in Ethiopia worth approximately US$80 million. Further, it helped to broker Norwegian assistance to World Bank-assisted projects and has been instrumental, jointly with UNICEF, in mobilizing resources (funds and technical assistance) for the development of a water supply and sanitation sector policy.

The RWSG-EA has been able to play an important role in Ethiopia, and all of its initiatives are innovative in the sense that they build upon collaborative arrangements among partners in the sector. The aim is to develop a rational and well-coordinated division of tasks.

Kenya

The Ministry of Land Reclamation, Regional and Water Development has not yet finalized its long-announced Water Policy, nor has it yet enacted the revised Water Act, providing for improved water resource management and decentralized water supply management. The completion of these policy instruments will improve the sustainability of existing and future investments. Improvements in this regard are needed, as more than half of the population still lacks access to a safe water supply and sanitation. On the urban front, there are indications that the government will commit to improving conditions in informal settlements in the near future; several projects aimed at relieving conditions in the settlements have already been initiated. In addition, building codes and standards were recently revised and now allow for the construction of more affordable housing (and sanitation facilities) in urban areas.

The Program continued to provide institutional and technical support to NETWAS, the Nairobi-based ITN Center, to assist it in developing a more demand-oriented business plan and in becoming a registered NGO, independent of external funding and support.

As part of its collaborative efforts with WHO, the Program tested the participatory methods and materials developed through PHAST pilot projects in Kenya. The RWSG-EA convened several workshops to review the pilot projects and has produced two reports to document the results. NETWAS was instrumental in monitoring and documentating this activity.

The Group continued to monitor and evaluate handpump activities in Kenya as part of its regional analysis of handpump performance and sustainability. In addition, it continued to work on a case study of rural water supply schemes, initiated in 1993 in collaboration with the UNICEF regional office and with financial assistance in the final stages from Sida. Program staff initiated additional field work to review the schemes and drafted a preliminary report in June 1995.

Informal settlements continue to be a focus of Program activities in Kenya, in collaboration with NGOs and other ESAs.

Malawi

The preparation of the National Water Development Project has highlighted the deficiencies of centralized maintenance systems, further substantiating the Program's experiences from the Borehole Rehabilitation Projects and others. This led to renewed support for the introduction of the Village-Level Operations and Maintenance (VLOM) concept into water supply and sanitation projects. The RWSG-EA assisted the Water Department of Malawi in preparing the strategy and action plan for the introduction of VLOM in borehole projects.

Involvement of the private sector in the development and manufacturing of handpumps continued, in collaboration with the Water Department and UNICEF, and with external assistance from the Program and SKAT, which will gradually assume the responsibilities that the Program has borne in the past.

RWSG-EA will continue to support the Water Department's efforts to build necessary institutional capacity, in particular by providing assistance to sector investment projects, including the National Water Development Project and the Social Action Fund's sector activities.

Kenya: Collaboration with UNICEF — Partnership to Reach the Poorest

The Baringo District in the Rift Valley of Kenya is occupied primarily by three pastoral or fishing tribes; the Tugens (who live in the rocky, rugged Tugen hills), the Pokots (who live in the eastern part of the District), and the Nemps (who live around Lakes Baringo and Bagoria). Their lifestyles, combined with harsh environmental conditions, have not enabled them to acquire the education, social services, or wealth as easily as some of their agronomist neighbors. The rate of adult literacy is low, and such modern amenities as electricity, piped water, sewerage systems, and telephones are rare beyond the few tarmacked roads that traverse the countryside. Most of the rural people live in thatch, mud, and wattle houses; only the *dukas* (shops) and other commercial or government buildings are likely to have solid walls, flooring, and corrugated roofs.

In 1993, Salome Mwendar, a UNICEF Programme Officer with many years of hands-on experience in the water and sanitation sector, attended two training courses facilitated by the RWSG-EA and NETWAS staff. The first, in May, addressed participatory development methodologies, and was based specifically on the PROWWESS approach that focuses on the development of human capacities to assess, choose, plan, create, organize, and take initiatives for project development. This workshop was funded by DANIDA; participants were drawn from PALNET, the Government of Kenya, and NGOs that were actively involved in community-based programs and projects in Kenya.

The second workshop, held in October, was based on the same concepts as the first but focused more on how the PROWWESS approach could be adapted for the promotion of hygiene education at the community level. Participants were drawn from six African countries, UNICEF, and WHO. The RWSG-EA, WHO-Geneva, UNICEF, and RUWASA provided funding for the trainers.

In collaboration with District authorities in Baringo, Ms. Mwendar conducted her first workshop in November/December 1993 with funding from UNICEF's New York office. Public health workers from the Government of Kenya and NGOs from the 18 sublocations (UNICEF's focus areas in the district) attended. Each sublocation has a population of approximately 4,000 people.

In the following year, she conducted three additional workshops, for chiefs, social workers, public health technicians, public health officers and other extension staff from all over Baringo district. Subsequently, in collaboration with the District Public Health Office, community-level programs were conducted in hotels and hostels and under shade-trees in rural villages, where people often gather for meetings and ceremonies. Core teaching aids were drawings on white cardboard that portrayed, in an African setting, the relationships between microbes and water; microbes and flies; microbes, flies, and open-air defecation; microbes, animals and animal contact with eating and cooking utensils. The drawings were conceived so that causal relationships could be clearly portrayed and demonstrated. Flies, for example, were shown landing on open-air defecation, picking up disease-causing microbes, and carrying them to food about to be consumed by a person, who then became ill. The drawings were set out flat on the ground, held down with pebbles, or were fastened to the wall of a building with masking tape.

This training and sensitization had dramatic effects. People learned for the first time about bacteria and their harmful consequences. The people had believed that diseases came from evil spirits that could only be placated by the *mganga* (traditional healer). After completing the hygiene education program, the communities embarked on a massive campaign to eliminate most of the unhygienic practices in their midst, particularly those at the household level. In addition, villagers began to participate more actively in the sanitation component of an ongoing sanitation project. Communities were motivated to build and use latrines, since they had come to appreciate their true importance. They would no longer build them solely out of fear of prosecution by chiefs or the Public Health Depart-

ment. It also became a common "discovery" within the communities that nearly half of their illnesses were caused by inadequate sanitation facilities. Communities were encouraged to select and construct latrines according to their preferences and ability to pay. The public health staff provided technical advice to individuals. UNICEF material and financial support for latrine construction has been limited to schools and other public institutions.

On a recent visit to Kenya, two water and sanitation professionals visited three sub-locations and interviewed groups of people under the acacia trees. The visitors were told how the training instigated by Ms. Mwendar had improved the lives of their hosts. The people explained the basics of their hygiene courses, placing the cards on the ground or on an outside wall. They recounted how few, if any, people continued to defecate in the brush surrounding their communities. Pit latrines are now in place and people are using them; those who do not endure the opprobrium of their neighbors.

Noticing youngsters in school uniforms, the visitors posed the question, "Children have been going to school for years in this community; why haven't you learned about microbes, flies and disease before this?"

They answered, "When it was explained in the classroom, it was hard to understand, but the pictures have made it clear."

"Have the practices you learned in the hygiene courses made any difference in your lives?"

"Yes," the visitors were told, "we don't get stomachaches nearly as often, nor do we get diarrhea so frequently any more. We can work harder and more comfortably. The latrines have also killed thousands of flies — there are hardly any left."

The local health officer confirmed that the number of people treated for diarrhea and other waterborne diseases has declined since the hygiene training took place and the latrines were built. While statistics have not yet been collected at the district, regional, or national levels, the apparent impact on these communities is very encouraging. Further, a primary school teacher in one group added that the number of children absent from school because of diarrhea, cramps, and other diseases had clearly declined. Many people in Baringo District are living healthier lives and the programs have grown significantly.

UNICEF, in collaboration with the Department of Water, the Department of Public Health, district governments, and NGOs, is implementing three associated projects in Baringo District with a comprehensive approach to hygiene, sanitation, and drinking water. A village-level participatory hygiene project based on the PROWWESS approach and methodologies began in 1993. The second is a sanitation project, that, since 1991, has addressed safe methods of human waste disposal (latrine construction) and improved housing. Since Ms. Mwendar's efforts began in 1993, this project has evolved from seven focus areas to cover the whole district. The third project helps communities develop water systems. In addition to the technical and engineering work, the project includes training in community management of system operation and maintenance so that communities can manage their own water systems.

Despite the tremendous effort and improvement that has taken place in this region in recent years, the needs remain great — the provision of safe drinking water to every community is far from a reality. Until it does become a reality, however, efforts like Ms. Mwendar's that motivate the community to get involved in improving their sanitation practices and preventing disease will increase the impact of the projects being implemented by the Program, UNICEF, and others.

Ms. Mwendar was unequivocal about the usefulness of the RWSG-EA and NETWAS training. "If I hadn't taken these two courses, UNICEF would not have implemented these projects that have had such a strong, direct effect on the well-being of the people in this district."

Tanzania

Despite several decades of rural water supply and sanitation development, Tanzania is still far from reaching its stated coverage targets. This shortfall is due in part to unsustainable investments made in past decades. However, in accordance with its 1991 Water Policy, the government is currently reforming sector policies to create a stronger framework for increasing investments through better management practices and more reliable services. During the past year, the Program provided continued technical assistance to support the Water Policy implementation and promoted recommendations proposed in the National Sector Review and Rapid Water Resources Assessment.

Urbanization is a significant factor in Tanzania's development process. Thirty-five percent of the population currently resides in urban areas, and this figure is growing rapidly. In response, the RWSG-EA supported the commercialization and joint (government-city council) management of urban water and sewerage services. Semi-autonomous urban water and sewerage departments will be formed in all major towns to facilitate the management of urban water supplies. This process, financed with Japanese grant funding through the World Bank, will strengthen the institutional environment prior to the initiation of a proposed IDA-financed Urban Sector Rehabilitation Project (USRP). The RWSG-EA participated in the appraisal of this project and will continue to support it during the implementation phase.

The Group also furthered urban sanitation initiatives. As a follow-up to the first RWSG-EA-supported Regional Urban Sanitation Workshop held in May 1994, a similar national workshop was held in Dar es Salaam, Tanzania in September 1994. The intent was to disseminate the findings of a GTZ-funded low-cost sanitation project, to discuss concepts introduced at the regional workshop, and to prepare an action plan for urban sanitation. A case study of the recently completed project in Tanga will be finalized during FY96. Lessons from this and similar initiatives will be fed into the proposed USRP.

Uganda

The policies and guidelines adopted by the government for Uganda's water supply and sanitation sector are based on community demand for services and management of operations and maintenance. Standardization of handpumps and privatization of repair services, as well as distribution and supply of spare parts were established in response to community demand. These elements necessitated new legislation and an operational framework in harmony with the decentralized administration already implemented in Uganda. The emerging problems of urban and peri-urban settlements are recognized by the sector agencies, and major investment projects have been initiated to address some of them. These will be especially important in the coming years, as the urban population is expected to grow at an estimated 2.4 percent annually.

James D. Wolfensohn, the President of the World Bank, visited the Katwe Urban Pilot Project in June 1995. The project, a community-based environmental sanitation improvement project, was financed by UNDP and managed by the RWSG-EA. Following a transition period, the local community will continue to implement remaining project activities with reduced support from the Kampala City Council, UNDP, and the Program. The Katwe project has demonstrated the potential of urban community mobilization, partially based on income-generating activities, in support of environmental sanitation.

Documentation of lessons will be extremely important, as the Katwe project has aimed at developing sustainable approaches toward community interventions and management of drainage, water, sanitation, and solid waste disposal services. The RWSG-EA provided substantial professional and management backstopping to this complex project, which may continue into a second phase, during which UNDP may channel funds directly to communities. The transition is currently being

managed by RWSG-EA, which is phasing out Program staff and giving management responsibilities to community-based organizations in Katwe.

RWSG-EA staff have applied the experiences and lessons from Katwe and other projects in Uganda (and throughout the region) through participation in the World Bank-assisted Small Towns Water and Sanitation Project, as well as in a review of the Northern Uganda Reconstruction Project. These projects address the provision of water and sanitation services to smaller towns using a demand-driven, community based approach.

Further, Program staff assisted the Directorate of Water Development in the preparation of policies and guidelines concerning the standardization of handpumps and the privatization of repair services. The RWSG-EA will continue to support the Directorate's effort to create an enabling environment for sustainable development within the sector and, related to this, will also provide services to World Bank-assisted sector investment projects.

Zimbabwe

Zimbabwe faces a variety of problems in the sector, especially increased pressure on existing systems due to rapid urbanization without a corresponding expansion of sector services. To support its decentralization policy, the government is reviewing options for increasing the sustainability of rural water sector investments. In particular, it is reviewing the potential for community management, including village-based planning, the decentralization of coordination mechanisms to the district level, and community-based maintenance of water supplies.

The RWSG-EA and the government of Zimbabwe jointly organized a Regional Workshop on Country-Level Collaboration in Mutare in July 1994 (see box, page 56). The workshop brought together participants from nine countries and five ESAs to review and discuss mechanisms for improving collaboration within and among their nations, using the Zimbabwean National Action Committee for Water and Sanitation as an example. The workshop also highlighted the importance of management at the lowest appropriate level and reviewed the role of communities in managing their water supplies.

The Institute for Water and Sanitation Development (IWSD), the ITN center in Harare, continues to expand its horizons, providing consultancy and advisory services to governments in the region and broadening the scope of its training program (see box, page 56). Through these efforts, the Institute's dependency on Program-managed funding support from Norway has steadily decreased. IWSD is expected to be completely independent of this funding within a few years.

Other Countries

Lesotho: Lesotho has received funds from SDC, through UNDP, for the development of improved water and sanitation sector coordination. The project is executed by the World Bank and supervised by the RWSG-EA. The project, originally intended to be completed by end of 1994, has been extended for another year. The Lesotho Water Supply and Sanitation Sector Action Plan was issued in January 1995. Subsequently, in May 1995, monitoring and evaluation manuals for each relevant agency were prepared and distributed. Training and management development on topics such as interagency collaboration, use of the Sector Action Plan, and implementation of the monitoring and evaluation system have also been ongoing.

Madagascar: Madagascar implemented a project similar to the one in Lesotho, as part of a larger sector initiative, in order to prepare a Sector Strategy and Action Plan guided by an interministerial committee. After the draft was prepared, the RWSG-EA organized a study tour to Zimbabwe and expected the sector plan to be subsequently finalized. Unfortunately, however, the entire project closed at the end of 1994; the RWSG-EA recently completed the preparation of a terminal report summarizing the project component.

Republic of South Africa: The RWSG-EA has been represented on a steering committee for a rural sanitation review commissioned by the government, through the Mvula Trust. As Program representatives could not be present during all of the committee meetings, written comments were provided on the available documentation. The future role of the Program in South Africa will depend on the Bank's strategy for sector activities there and on the resources available to the RWSG-EA.

Swaziland: The RWSG-EA participated in a UNDP mission to Swaziland during the past year, with a view to supporting capacity building for sustainable water sector development. UNDP's intention is to help to maximize the use of indigenous resources and to internalize the current ESA-driven process. The RWSG-EA's continued involvement has not yet been finalized, but the Group expects to assist this project in the future, pending clarifications between UNDP and the Program.

Strengthening Country-Level Collaboration

Established in 1989 as the Training Center for Water and Sanitation, the Institute for Water and Sanitation Development (IWSD) in Zimbabwe aims to increase human and institutional capacity in the water supply and sanitation sector and is currently operating in its second year as a registered, non-profit NGO. It continues to receive growing demands for services from the government and international organizations.

Three years ago, the RWSG-EA and the IWSD prepared a case study to evaluate country-level collaboration and the role of the Zimbabwe National Action Committee in sector coordination and development. This study originated following a 1991 meeting of the Water Supply and Sanitation Collaborative Council, which advocated greater emphasis on CLC. The Council requested that case studies be prepared for the 1993 gathering in Rabat.

IWSD, the RWSG-EA, and the National Action Committee followed up on this analysis by convening a workshop in July in Mutare, Zimbabwe. Forty-two participants from nine countries exchanged their views and experiences regarding CLC in developing-country agencies, NGOs, and ESAs. They also analyzed existing CLC avenues and established country requirements and recommendations for strengthening CLC. The Zimbabwe NAC case study served as the focal point of discussion.

Participants at the Zimbabwe workshop drafted an action plan and indicated ways in which collaborative activities within countries and across regions could be improved. They suggested follow-up activities for the action plan, and agreed that a follow-up workshop should be held.

IWSD's involvement in organizing the CLC workshop is just one example of the many services it provides to the sector, both in Zimbabwe and regionally. IWSD's work also illustrates the rewards reaped and the legacy of Program involvement in the region.

IWSD is part of the International Training Network. The ITN was created in 1984 to promote low-cost approaches for RWSS in Sub-Saharan Africa and to improve the capacity of local communities and agencies to procure and sustain such systems. One aim of the ITN is for its member centers to become self-supporting. IWSD is well on its way to reaching this goal. As members of the ITN progress toward independence, they will contribute to the improvement of CLC and the sector as a whole.

Rural Water Supply in East and Southern Africa

Policies for rural water supply and sanitation in East and Southern Africa shifted during the last two decades, from promoting a largely supply-driven approach to service provision in which governments provided "free" water to demand-based systems.

Supply-side policies were initially supported by ESAs, which provided most of the funding to the sector during this period. Many of these investments proved to be unsustainable, and ESA support has now turned toward demand-based solutions.

Sector policies vary throughout the region. In some countries, such as Tanzania and Zimbabwe, governments cover the full cost of capital investment and maintenance services for rural water supply systems, while in others, like Lesotho, community contributions to capital and recurrent costs are prerequisites for system construction. In many countries, however, cost sharing and cost recovery are now being integrated into sector policies.

A Closer Look at Kenya

SELF-HELP COMMUNITY GROUPS

The self-help movement in Kenya has been influential in driving sector development, particularly within communities with medium- and high-range growth potential. Residents of these areas have employed demand-based approaches to improve their access to water for both economic and domestic purposes. As early as 1977, self-help community water schemes accounted for 21 percent of all rural water supplies, and by 1995, several thousand self-help schemes had been developed. Many, however, have collapsed because of poor management.

Self-help schemes are typically initiated by community members who form "water groups," which can be registered under the Ministry of Culture and Social Services or through provisions made by the government. Once registered, water groups qualify for certain types of funding assistance.

Group leaders mobilize the community, solicit members for the group (membership requires an annual cash subscription), and solicit contributions (cash, materials, and labor for construction). Capital contributions range from 10 to 100 percent, with an average of 25 percent.

Funds collected by group members are supplemented, as necessary, by the government or ESAs. In the 1970s, the Ministry of Water provided supplementary funding for such schemes. Today, however, most supplemental funding comes from NGOs and ESAs, though it is often secured with government assistance.

Technical assistance for scheme design and supervision is provided either by government staff or private consultants, and private sector contractors and community members typically construct the schemes. Once the systems are in place, operation, maintenance, and overall management remain the responsibility of the water groups. Unfortunately, lack of adequate management training has been a stumbling block for most self-help schemes.

Piped water schemes are the most interesting examples of community-managed rural water supplies because they are often developed to fulfill economic needs, such as agriculture and livestock watering. They are not implemented primarily to improve access to drinking water. As a result, coverage only reaches 30-40 percent of the residents, and remaining households either choose not to join the group, or are unable to do so because of the high cost. These households purchase drinking water from their neighbors or collect it from traditional or alternative sources.

Mangement of these rural wter schemes typically rests with water group leaders. Unfortunately, the rules that govern management of the water system are often unclear or nonexistent. In many schemes, the leaders remain in office for life, and members have little say regarding management. Such problems have led to the collapse of many schemes.

Operations and maintenance is arranged by group leaders, depending on scheme requirements. In most schemes, little or no maintenance is conducted, and corrective action is only taken when a breakdown occurs. This is particularly true of gravity schemes, for which funds are collected only as repairs are required. Minor problems, such as leaks, that reduce system capacity but do not stop the scheme from functioning are often ignored. Communities commonly perceive this limited capacity as inadequate water supply or a water shortage, instead of a suboptimal system. Rather than addressing system efficiency as a first step, communities will often focus first on raising funds to expand the scheme. Clearly, this is an inefficient use of the community's resources.

User charges are not collected in many of these schemes. They are more common in diesel powered systems (which have constant cash requirements for operation), although tariffs set by the management may not accurately reflect real operation and maintenance costs. In gravity schemes, tariffs are strongly resisted, particularly when these require members to be metered. Most of the time, self-help schemes only recover enough revenue to cover operation costs and emergency repairs.

DONOR-FUNDED POINT SOURCE SUPPLIES

Point source systems (usually a well or spring, without a pipeline to distribute the water), which are supported by donor-funded projects in Kenya and elsewhere in the region, differ significantly from most self-help schemes. Point source systems are usually developed to improve access to drinking water rather than for agricultural or livestock purposes. Management is a function of village water committees, which may or may not be formally registered groups. They work to mobilize their communities to contribute toward scheme construction and routine maintenance.

Operations and maintenance activities are usually conducted by trained local caretakers who receive back-up services from the government or the private sector. However, similar to self-help schemes, routine maintenance is often not performed. Accessibility to spare parts is a common problem in Kenya and elsewhere, particularly if many different handpumps are used within a country. Schemes typically collapse when major breakdowns occur or as a result of poor financial management.

User charges are seldom collected regularly in communities served by point sources, although the collection of maintenance funds is common. Users pay for maintenance through in-kind annual contributions (i.e., livestock), monthly or annual flat fees, and repair-based collections. Financial management is a function of the water committee, and as in the case of piped supplies, its importance is not well understood or respected. Unfortunately, it is not uncommon to find that maintenance funds have been misused or misappropriated for unrelated activities.

LESSONS

The Program has been primarily involved in the support of point source systems, particularly handpump-based schemes, through a variety of ESA-funded projects. RWSG-EA is examining the experiences of both self-help schemes and donor-funded point source schemes to improve the sustainability of all sector projects.

Several lessons have already become clear. First, community self-help initiatives play a vital role in the sector, but it is important to recognize that the purpose of such schemes, particularly piped water schemes, is to provide water for economic development, not for health, while point source schemes are mainly developed to provide water for health. Thus, what works in one type of scheme may not be successful in another.

Management and operations, and maintenance are frequently inadequate in both point and piped supplies, and awareness among communities of the importance of management for the sustainability of the scheme is conspicuously absent. Additional training and attention to local technical and managerial capacity would increase long-term sustainability.

Finally, the development of an institutional environment and an adequate legal framework supportive of community-managed rural water supply projects would significantly strengthen the sustainability of such systems in Kenya.

This section was based on a report by G. Wambui Gichuru, *Self-Help Initiatives in Kenya's Water Sector,* 1995.

Regional Overview

ANDEAN REGION

Despite substantial investments made during the last decade, levels of water and sanitation coverage in the Andean region remain extremely low. Bolivia's service levels are nearly the worst in the Western hemisphere: water and sanitation coverage are respectively 58 and 43 percent. The situation is even worse in rural areas, where only 24 percent of Bolivians have access to a potable water system and only 17 percent have safe sanitation facilities. In rural Ecuador, the situation is slightly better, with 39 percent of the population having access to potable water and 31 percent to sanitation facilities.

Low service levels are also a serious problem in the rapidly expanding peripheries of the cities. In the Andean region, the urban population is increasing at an estimated rate of 4 percent annually; half of this growth is attributed to migration from rural areas. Accordingly, most city-dwellers will live in crowded, poverty-stricken areas for the foreseeable future. Cost-effective technologies and innovative strategies are therefore urgently needed for cities and water and sanitation companies currently lacking the resources required for reliable service delivery.

Several factors constrain development of the Andean water and sanitation sector:

- Weak public sector institutions, especially those responsible for setting national policies;
- An absence of sound technical and financial sector policies;
- Poor coordination among donor agencies and investment funds;
- Implementation of water and sanitation projects based almost exclu-

sively on technical merits, without consideration of economic efficiency and sustainability of services; and

- The difficult topography with arid areas and a dispersed population.

All of these factors must be addressed in a broad and coherent manner to improve services to low-income communities throughout the region.

Regional Water and Sanitation Group – Andean Region

The Regional Water and Sanitation Group-Andean Region (RWSG-AN) promotes systematic learning about water supply and sanitation development in Bolivia, Ecuador, and Peru. It was originally conceived in 1995 as a network to encourage the exchange of information and was converted into an RWSG after nine months of operation. This allows the Program to build stronger country programs and pursue an approach consistent with its other four regions. Financed primarily by the Swedish government, the RWSG-AN headquarters is located in La Paz, Bolivia.

RWSG-AN concentrates on identifying, testing, and recommending institutional alternatives to further efficiency and sustainability of the projects financed by the World Bank and other donors. It draws on the experiences of other local and national institutions and NGOs, and analyzes the roles of local institutions, municipalities, cooperatives, and utilities. It is also responsible for disseminating lessons from its Bolivian and Ecuadoran experiences through publications, videos, and seminars, as part of a larger capacity-building effort.

The traditional blue-print approach to designing water and sanitation projects of the 1980s did not provide enough flexibility. As a result, the Program has replaced this approach with a programmatic one, whereby projects are implemented in several phases and lessons drawn from the earlier phases are incorporated in the later ones. RWSG-AN has acted on this learning-by-doing strategy in the rural areas of Bolivia and Ecuador. With funding from UNDP, it has provided technical assistance for implementation, monitoring, and evaluation of the large-scale RWSS project in Bolivia. In addition, the Program assists with the water and sanitation component of the Integrated Health Project (FASBASE) in Ecuador. It is helping to design the structured learning component of FASBASE, promote demand-based approaches, and influence national strategies in rural areas.

Governments and ESAs show an increasing interest in investing in the peri-urban areas of the region. This is particularly true in Bolivia, where the government plans to increase its focus on problems in peri-urban areas in the upcoming years. Peri-urban problems require additional infrastructure investments, as urban population growth is around 4 percent, while national growth is 2 percent.

IBRD 27474

COUNTRY	Population in millions 1993	Life expectancy in years 1993	Urban population as percentage of total population 1993	GNP per capita in US$
Bolivia	7.1	60	59	760
Ecuador	11.0	69	57	1,200

Source: *World Development Report 1995*

Bolivia

In 1991, the Government of Bolivia made improvement of the water and sanitation coverage rates in rural and peri-urban areas a national priority and reorganized the institutions involved in the sector. A second-generation reform was launched in 1994 with the passage of the Popular Participation Law and a law creating the Sector Regulatory

System. The Popular Participation Law is radically changing local governments by decentralizing financial resources and political power. It created about 300 new municipalities in rural areas, previously under the jurisdiction of the central government, and transferred 20 percent of fiscal resources to municipalities.

In April 1993, the government asked the World Bank to fund a large rural water and sanitation project, Proyecto de Saneamiento Basico Rural (PROSABAR). PROSABAR draws on the experience of the Yacupaj Pilot Project, which was inititated in 1991. The pilot project was funded by the Government of the Netherlands and was executed by the Program. Its main goal was to design and test strategies for the provision of water and sanitation services in the poorest communities in the department of Potosi.

PROSABAR aims to increase water and sanitation coverage in an economically efficient and sustainable manner in rural areas and serve as an instrument for identifying and correcting policy deficiencies. RWSG-AN assists PROSABAR in reaching three operational objectives. First, the project seeks to ensure community participation at all stages to improve sustainability and economic efficiency and also to involve people in decisions affecting their welfare. To this end, PROSABAR intends to make full use of the participatory planning process derived from the Popular Participation Law: communities express their demand for water and sanitation services, and contribute to systems with full knowledge of the capital and recurrent contributions they are required to make to obtain each technically feasible option. Second, the project ensures that the proposed investments are indeed a high priority for both the communities and the society by relying on five-year municipal development plans and annual operating budgets prepared by each municipality. Third, PROSABAR is defining a financial policy that will be adopted for the sector at the national level. Subsidy ceilings have been defined to better allocate scarce public funds and to create incentives to pursue least-cost and demand-driven investments.

Program support to PROSABAR has included:

- Technical assistance to the preparation team for PROSABAR, particularly in the design of the financial policy;
- Preparation of the project document, specifying the role of the Program throughout the implementation, monitoring, evaluation, and feedback phases; and
- A case study evaluating the lessons of the Yacupaj Pilot Project to PROSABAR.

The Program will produce a series of case studies to illustrate the community experiences with water and sanitation projects in Bolivia.

Bolivia: The Yacupaj Pilot Project

The Yacupaj Pilot Project was executed by the Program between 1991 and 1994. It was one of the first projects in Bolivia to adopt a demand-responsive approach and to demonstrate that poor rural communities are willing to pay for water and sanitation services. It was also one of the first projects to follow an adaptive approach and to allow stakeholders to develop the project rules and processes. During FY95, RWSG-AN concluded the project with the following activities:

- An analysis of sustainability, completed six months after project closure
- A detailed cost analysis
- A two-day seminar to disseminate lessons from the Yacupaj experience to sector partners in Bolivia
- A videotape illustrating the elements of project strategy, implementation, and achievements

The Program will continue to evaluate, document and disseminate the lessons from the Yacupaj pilot project. This will include a study of the effect of the Popular Participation Law on water and sanitation services in the Altiplano. In addition, the pilot project will help the government and the World Bank to establish a framework for systematic learning, so that lessons are fed into investments, strategies, and policies.

Bolivia: Yacupaj Project of Lucas K'ahua

The Yacupaj project provided more than 60,000 people with water and sanitation services between 1991 and 1994. Most of these beneficiaries lived in dispersed rural communities of the Altiplano. Below is a profile of Lucas K'ahua, one of the communities where Yacupaj staff worked.

PROFILE

Total population	154
Number of families	40
Number of women	34
Number of men	42
Number of children age 5-18	53
Number of children younger than 5	25
Number of houses	40
Distance between houses (meters)	10-500

SETTING

Situated in a mountainous region of the Province of Chayanta, the village is located at more than 3,300 meters above sea level. The majority of the population is dispersed over the four "ranchos" in the village. About 30 hectares of land are cultivated, and the community has access to an additional 50 hectares of pasture. The climate is very dry, receiving only 300 mm of precipitation on average per year.

BACKGROUND

All families in Lucas K'ahua own their houses. Typically, these homes are constructed of adobe brick and straw-thatched roofs. Most are very small, having one or two rooms, and lack electricity or other basic services. Most people speak both Spanish and Quechua, with the older residents speaking only Quechua. The principal economic activities include planting crops such as corn, potatoes, barley, wheat, sweet potatoes, and beans. Sheep, llamas, and pigs also are raised to generate income.

Lucas K'ahua has a school with one teacher for three grades and 33 students. The illiteracy rate is 69 percent, and the community has no health facilities. The closest one is 7 kilometers away, and the residents report that the major health problems include diarrhea, scabies, and parasitosis.

Before the Yacupaj project, the residents used a stream as their primary water source. The average water use was 20 liters per family per day. Women collected the water in tin cans or ceramic jugs and stored them inside their kitchens. Although none of the families owned latrines, there was one latrine in the school. Garbage was disposed of in the open-air close to the houses, and the organic waste was used to feed domestic animals.

PROJECT INTERVENTIONS AND RESULTS

A school teacher from the community first introduced residents of Lucas K'ahua to the Yacupaj project after attending a nearby training and promotion session. The community then requested the construction of two latrines at the school through Yacupaj, and the villagers provided all of the labor and locally available materials. Their contributions totaled 40 percent of the cost. The community contribution to the cost of the project was significant: unskilled labor, locally-available materials, and 30 percent of the value of the materials purchased. Each family contributed 254 Bs (US$53) in cash and kind. The latrine construction was plagued with delays, mainly due to the farmers' heavy workloads in the fields and end-of-year festivities. As a result, many people lost interest during this four-month period. However, once the latrines were finished, the teacher organized a school health day and brought the community together again to promote construction of a spring protection and water distribution system.

Project staff assisted the community in collecting topographical data and designing the water system. The works consisted of a spring protection, a 4.8 cubic meter storage tank, 1,300 meters of pipe main, and a 1,200 meter distribution network to serve four public standpipes. The community elected a six-member water committee that received three days of training and established a monthly tariff of 1 Bs/per household (US$0.20)

The experience of the Yacupaj project in Lucas K'ahua clearly demonstrates that poor people are willing to pay significant portions of their incomes for safe water and sanitation services, and that they can be instrumental in those improvements.

Ecuador

Ecuador suffers from an acute need for adequate water supply and sanitation services. The RWSS sector in Ecuador has been constrained by a tradition of technically-oriented, supply-driven approaches to service delivery, resulting in high levels of services for a small percentage of the rural population and no clear financial policies. Investment planning is not based on sound economic criteria, and there is little coordination among the major sources of government financing to the sector.

Ecuador's water and sanitation sector has been affected by three catalytic changes. First, the country's modernization program has reduced the size of public institutions and mandated that the public sector no longer be directly involved in the procurement of goods, services, and works. Second, the Ecuadoran Institute of Sanitary Works has been dismantled, and the Secretary of Environmental Sanitation (SES) has been created. Third, municipal governments are being strengthened and given responsibility for water and sanitation services in both rural and urban areas.

Since 1993, the Bank has funded a US$13 million rural water supply and sanitation pilot project as a component of the much larger Second Social Development Project—Health and Nutrition (FASBASE). The objective of the pilot is to test institutional alternatives for the delivery and sustainability of services at the provincial and community levels. UNDP has funded a complementary technical assistance project, executed by the Program, which supports the implementation of the pilot project through capacity building and an analysis of field results and lessons.

Program activities in Ecuador are rapidly expanding. The Program has posted two local consultants in Quito to implement the UNDP-funded technical assistance project. The FASBASE team at the national level focuses on capacity building, monitoring and evaluation, and institutional sector studies. In the six provinces where the project is being executed, the challenge is for offices of the Secretary of Environmental Sanitation to make investments through the private sector and NGOs. Emphasis is placed on a demand-responsive strategy and community training. The team is addressing the critical issue of the cost of service delivery and providing support to the government to develop coherent financial policies for the rural areas. In addition, a series of workshops and exchanges with staff from Bolivia has allowed the team staff to draw on lessons from previous projects throughout the Andean Region. ■

PROGRAM ORGANIZATION AND FINANCING

The Program's strength derives from its highly decentralized organizational structure. It combines a strong field presence in five regions worldwide with a small management team at headquarters in Washington, DC. Thus, the Program is well positioned to operate on a day-to-day basis at the country-level and to address critical issues facing the sector with its regional and global perspectives. The preceding sections describe the work of the Program's five regional groups. The headquarters staff form a nine-person team charged with responsibility for overall planning and management, backstopping of field operations, analysis and synthesis of lessons, dissemination of information and lessons across regions, financing, and ESA relations.

The Program is part of the Bank's Water and Sanitation Division, which is located within the Bank's Environmentally Sustainable Development vice presidency (see figure, page 67). The staff of the Water and Sanitation Division and that of the Program work together toward complementary goals. The Division is divided into three thematic groups: informal institutions, utility reform, and water resources management. The Program's strongest links are with the informal institutions group, which aims to improve the delivery of services to poor communities by focusing on non-formal institutions, such as NGOs, the private sector, and community user groups.

In June, 1995, the Program staff at headquarters and in the regions totalled 92. This included 56 professional staff and 36 administrative staff. Staffing by region was: South Asia – 35; East Asia and the Pacific – 13; West Africa – 10; East and Southern Africa – 14; Andean Region – 6.

Financing

The Program benefits from a diversified base of financial support that is well suited to its global structure and field presence. Direct contributions come from different parts of UNDP, from bilateral agencies, and from the World Bank; developing countries contribute funds indirectly. The Program funding summary shows that between 1991 and 1995, the Program received more than US$67 million in direct contributions from its various donors (see table, page 68). However, available funds have decreased by 32 percent between 1991 and 1995.

Program activities at the country, regional, and interregional levels are funded in different ways. In-country operations are financed mainly from national sources and the external portion comes from both UNDP and bilateral agencies. Core funds for the RWSGs and the Program's regional operations come primarily from UNDP's regional bureaus for Africa and for Asia and the Pacific, as well as from a number of bilateral agencies. The Program's interregional core is funded primarily by UNDP and the World Bank, with some additional bilateral support.

Despite its diversified funding base, during 1995 the Program encountered a substantial shortfall of funds. In 1992 and 1993 the Program made many longer-term programming and staffing commitments based on funding approved by UNDP and other bilateral supporters. However, in mid-1993, UNDP encountered severe financial difficulties and was forced to cut back its core financing for interregional and regional African activities by 25 percent. Reductions in UNDP support, both at the intercountry and country levels, have been largely responsible for

the recent decline in Program expenditure levels.

Immediate steps were taken in an attempt to bring expenditures in line with reduced funding. At the same time, the Program's major bilateral donors maintained or increased their support and, in some cases, picked up the costs of positions previously funded by UNDP. Nevertheless, activities could not be cut back far enough or fast enough to bridge the funding gap. As a result, in early 1995 the Program faced a substantial shortfall for its regional staff and operations in both Africa and Asia during 1996.

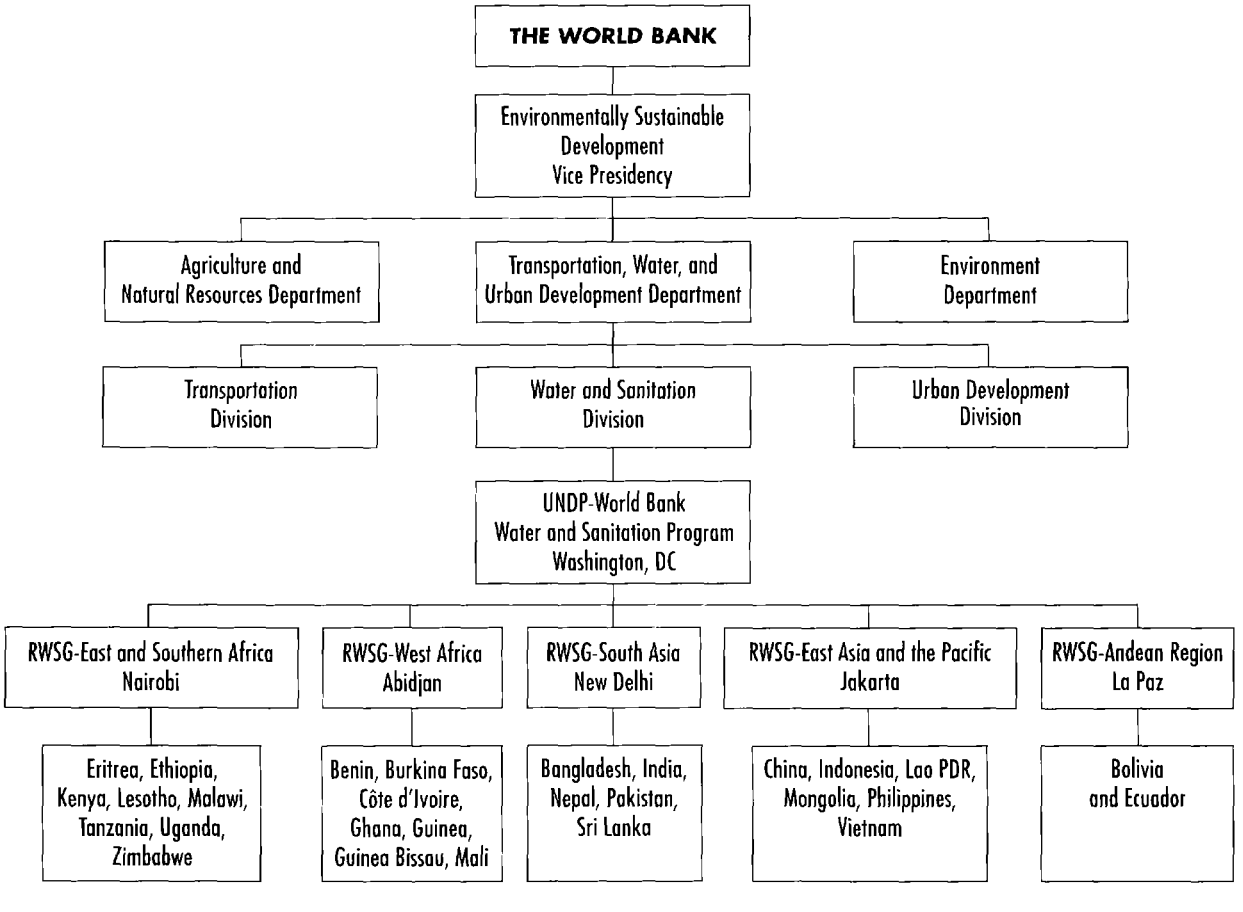
The Program has explored new ways to access funding for activities through the end of 1996. It has approached many of its donors either to elicit additional money or obtain permission to use dollars already approved or earmarked more flexibly. With new commitments of support from Norway, Sweden, and Switzerland in particular, the Program is well on its way toward regaining lost ground. The Program remains optimistic about its position as the cornerstone of the Global Water Partnership and confident that it will be able to continue its efforts on behalf of the poor.

Founding Partners

UNDP and the World Bank, are the Program's two founding partners. UNDP is the largest single source of funds. Its support for the Program comes from the Science, Technology and Private Sector Development Division (STAPSD, formerly the Division for Global and Interregional Programmes), from the Regional Bureaus for Africa and Asia and the Pacific (and to a lesser extent from Latin America and the Caribbean). Since 1991, UNDP contributions have totaled US$34.4 million, with an estimated contribution of US$3.7 million in 1995.

The World Bank supports the Program activities in a number of ways. In 1995, the World Bank's cash contribution was just under US$1million,

Organization of the UNDP-World Bank Water and Sanitation Program within the World Bank



PROGRAM DISBURSEMENTS BY SOURCE: 1991 – 1995*

US $000

	1991	1992	1993	1994	1995	5-YEAR TOTAL	PERCENTAGE OF TOTAL
BILATERAL AGENCIES							
Australia	0	11	2	30	11	54	.08
Canda	83	92	931	29	0	1,135	1.67
Denmark	224	326	686	393	399	2,028	2.99
Finland	126	0	111	134	0	371	.91
France	0	0	0	35	80	115	.17
Germany	50	66	0	0	44	160	.24
Ireland	0	0	0	87	26	113	.17
Italy	0	0	0	42	231	273	.4
Japan	0	0	343	1,111	1,402	2,856	4.21
Luxembourg	0	0	122	267	235	624	.92
The Netherlands	1,839	2,062	1,519	653	302	6,375	9.41
Norway	854	1,348	1,474	972	1,554	6,203	9.15
Sweden	0	0	202	329	880	1,411	2.08
Switzerland	1,094	953	904	1,175	1,107	5,233	7.72
United Kingdom	180	193	180	0	151	703	1.04
SUBTOTAL, BILATERAL	**4,450**	**5,051**	**6,472**	**5,256**	**6,421**	**27,649**	**41.17**
UNDP							
Interregional	3,532	4,670	1,298	1,058	1,279	11,837	17.47
Regional Africa	2,121	402	1,024	916	561	5,024	7.41
Regional Asia and Pacific	1,384	328	641	1,319	723	4,395	6.49
Other Regional	3,870	3,205	2,033	1,985	1,123	12,216	18.03
Country Projects	243	445	150	79	52	969	1.43
SUBTOTAL, UNDP	**11,150**	**9,049**	**5,145**	**5,357**	**3,738**	**34,439**	**50.83**
WORLD BANK	636	1,061	1,425	1,356	947	5,425	8.04
GRAND TOTAL	**16,235**	**15,161**	**13,042**	**11,968**	**11,106**	**67,511**	**100**

*Disbursements are for calendar year

approximately 8 percent of the total Program budget. It also provided in-kind support for many of the Program's overhead costs. In addition, it supports a wide range of projects in rural and in urban water supply and sanitation worldwide. The Program is involved in a growing number of these projects, and uses its experience to help make these investments more efficient and sustainable. The Program funding shows that although the total amount of UNDP funding has declined since 1991, it has allowed the Program to leverage an increasing amount of support from bilateral donors (see table, page 68).

Country-level Operations

Except for short-term or initial activities, in-country operations are financed from in-country funds, mostly from UNDP and bilateral agencies. Most countries in which the Program operates make substantial contributions, usually as in-kind sponsorship of national staff and office space, but occasionally as cash. Further, investment funds for planning and building water supply and sanitation facilities are increasingly generated locally by project beneficiaries. During FY95, the Program was responsible for a number of country projects financed by UNDP and various bilateral agencies. These are described in the country sections of this report.

Regional Operations

The Program's decentralized operations are supported by regional core funds. These funds allow the RWSGs to develop and support in-country operations. They also help support more integrated programs with regional strategies and a greater exchange of information between countries. In addition, the Program operates more efficiently from a regional base; an in-country presence can be justified in only a few circumstances. The regional core is funded by UNDP umbrella projects and several bilateral agencies.

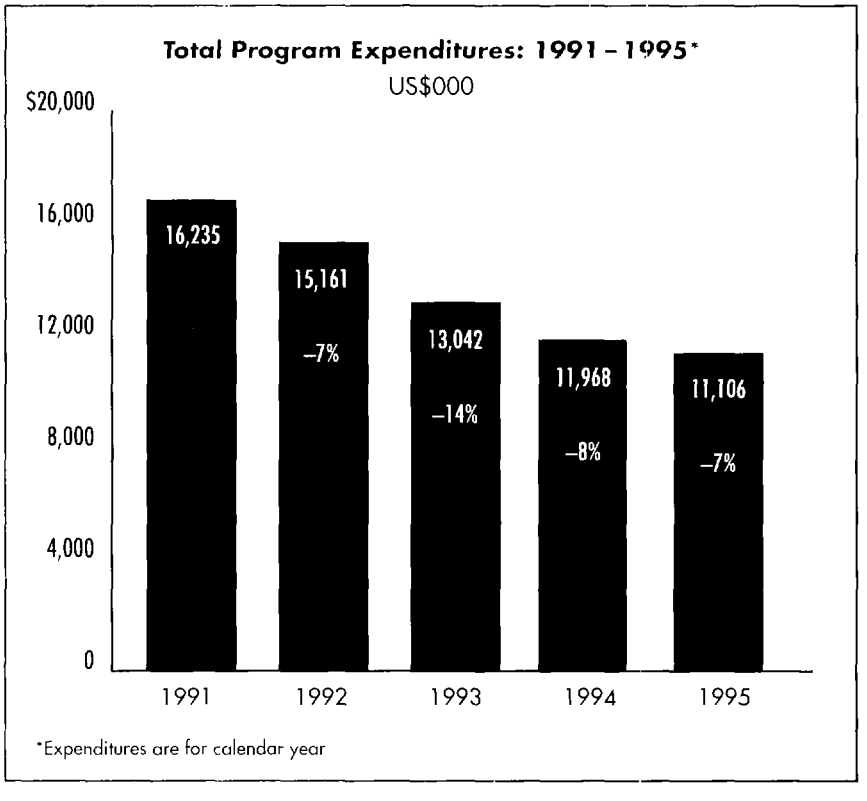
UNDP's Regional Bureau for Africa funds such a regional umbrella project (RAF/92/007 — Water and Sanitation for the Poor in Sub-Saharan Africa). Since 1991, the Africa Bureau's support has averaged more than US$1.0 million annually. During FY95, the bilateral agencies of Denmark, France, Luxembourg, Norway, Sweden, and Switzerland also funded regional core operations.

In Asia, the UNDP's Regional Bureau for Asia and the Pacific funds a regional umbrella project (RAS/92/001 Water and Sanitation for the Poor in Asia and the Pacific). Estimated UNDP disbursements under the project budget through the end of 1995 total US$2.5 million. Bilateral support for regional operations is provided by Denmark, Norway, Sweden, Switzerland, and the United Kingdom.

In Central America, UNDP's Regional Bureau for Latin America and the Caribbean has helped to finance the Regional Water and Sanitation Network, with assistance from Switzerland and indirect support from the United States. The Bureau had also made available preparatory funds for an RWSG-AN, but was forced to withdraw most of the money; Sweden is funding the Group instead.

Interregional Operations

The interregional core unifies the Program's regional and country operations. It provides the financial and human resources for activities originating primarily at World Bank headquarters. This includes the Program's management, work on informal institutions, backstopping of field operations, publications, information dissemina-



tion, and budget and personnel functions. This set of interregional core activities is funded primarily by UNDP and the World Bank, with some bilateral supplementation. The Division of Global and Interregional Programes, STAPSD's predecessor, provided approximately US$4.0 million per year through 1992. However, because of funding reductions, the Program is currently spending only approximately US$1.0 million annually in interregional core funds, mainly through INT/92/001. Norway and Switzerland have also supported the Program's interregional functions: Norway has supported PROWWESS and participatory development activities, and Switzerland has supported the ITN and overall Program coordination.

Bilateral Partners

The support of the Program's bilateral partners has become increasingly important, especially at the country and regional levels. At the country level, bilateral agencies fund small-scale pilot projects, national and international experts, and ITN centers. At the regional level, they support RWSG staff, consultants, and operational costs. At headquarters, they support the ITN centers, participatory development, and interregional programs.

In the past five years, 15 bilateral donors have supported the Program. During 1995, the Program disbursed contributions from 13 donors: Australia, Denmark, France, Germany, Ireland, Italy, Japan, Luxembourg, Netherlands, Norway, Sweden, Switzerland, and the United Kingdom. Some collaborative activities continue with past donors, including Canada and Finland, who are not presently contributing money to Program activities. In addition, discussions with Belgium regarding a post in East Africa have been initiated.

Australia

Year	1993	1994	1995
Contribution (US$000s)	2	30	11

In 1993, the Australian International Development Assistance Bureau (AusAid) approved funding for the hygiene education and training activities component of the Water and Sanitation Technical Assistance and Capacity Building project in Mongolia (MON/93/005), also financed by ODA, UNDP, and BITS. The project, to be completed in late 1995, focuses on improving sanitation, hygiene, and water supplies in provincial towns and the peri-urban areas of Ulaanbaatar. Total contributions from AusAid through 1995 were US$54,000.

Denmark

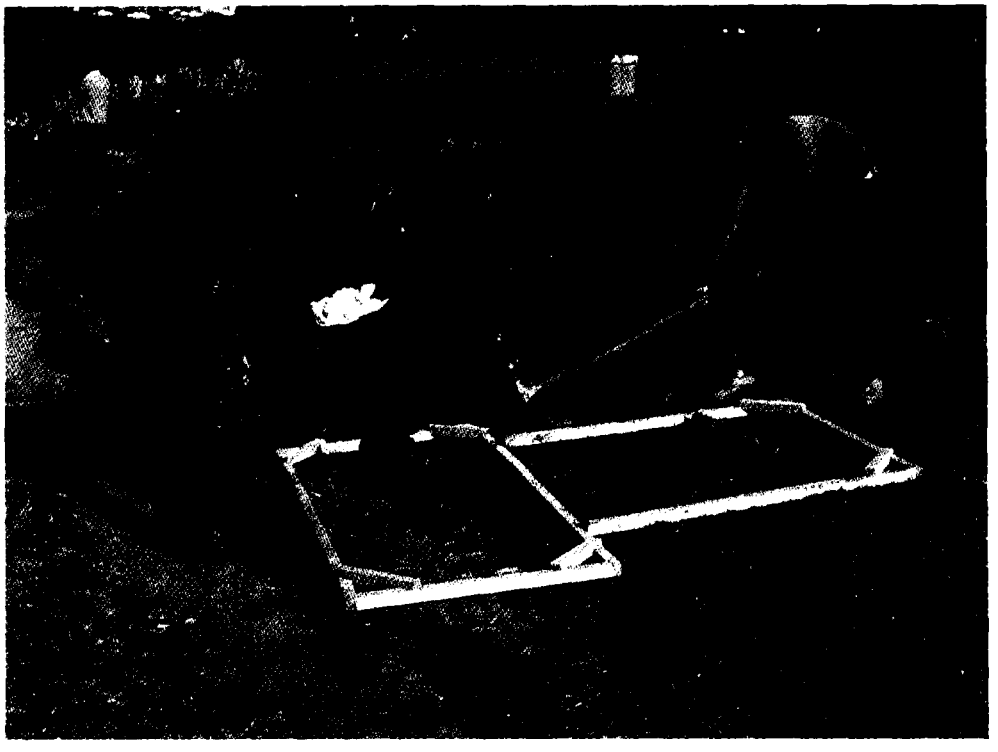
Year	1993	1994	1995
Contribution (US$000s)	686	393	399

Collaboration between the Program and Denmark began in East Africa, expanded into South Asia, and then into West Africa. Denmark's direct contributions for 1988-95 total approximately US$2.7 million.

Denmark, through DANIDA, finances two posts for the Program. In East Africa, the sector planning engineer has focused primarily on handpump maintenance and monitoring systems and on sector advisory support and policy development in several countries. In South Asia, the sector planning engineer post became vacant in 1994. The job description

was redrafted to reflect the Program's sharpened focus, and a sector planner (institutional specialist) took up the post in November 1995.

In 1993, DANIDA approved US$860,000 for a handpump training and monitoring program in Bangladesh. Implementation of the project is now underway, with a focus on the provision of training in operations and maintenance, dissemination of hygiene information, and the facilitation of spare parts distribution by the private sector. DANIDA has now approved US$1.26 million for an ITN center at the Bangladesh University of Engineering and Technology. The center is expected to become fully operational during FY96, once all government clearances have been obtained.



In West Africa, DANIDA supports a rural water supply and sanitation program in Benin, also financed by IDA, implementing a sector strategy developed in the early 1990s. The Program helped to develop the strategy and currently provides strategic supervision to the project. Denmark also funds HRD support to CREPA, the ITN center in West Africa.

Further, DANIDA supports activities in India, where it has funded an analysis of the community participation experiences in rural water supply and sanitation activities, and the production of case studies summarizing these experiences. In Vietnam, Denmark provides funds to assist in development of a rural water supply and sanitation strategy and action plan, to allow the government to create a pipeline of sound technical assistance and investment projects for the sub-sector.

Finally, DANIDA supported the Participatory Hygiene and Sanitation Transformation (PHAST) project in East Africa, which developed an effective hygiene and sanitation promotion approach, through the development and testing of participatory methods and materials.

Finland

Year	1993	1994	1995
Contribution (US$000s)	111	134	0

The Finnish International Development Agency (FINNIDA) was one of the Program's first bilateral sponsors and has contributed approximately US$371,000 to support Program activities during 1988-95. Unfortunately, FINNIDA was not able to renew its support of RWSG posts in East Africa and Asia beginning in 1992 because of substantial cutbacks in Finland's development aid budget. FINNIDA and the Program currently collaborate in Vietnam, where FINNIDA provides sector advisory support for the development of a national urban sanitation strategy. In addition, it supports the PHAST project.

France

Year	1993	1994	1995
Contribution (US$000s)	0	35	80

France has contributed approximately US$390,000 since 1988, through the Ministry of Cooperation and Development. The French Development Agency currently supports a demonstration project on water supply and sanitation in the urban fringes of Bamako, Mali. This project is set to be scaled up during FY96 and will then incorporate an environmental sanitation component. In addition, France has provided support for a study of urban sanitation in the secondary cities of Guinea. Funding for the RSWG position in West Africa, provided in part by the French Ministry of Equipment, ended in August 1995.

Germany

Year	1993	1994	1995
Contribution (US$000s)	0	0	44

The German Ministry for Economic Cooperation (BMZ) has supported a variety of Program activities through the German Agency for Technical Cooperation (GTZ), particularly in the early years when the Program was engaged in more technologically-oriented activities. During 1988-95, BMZ's support totaled approximately US$850,000. At present, the Program is working with GTZ in Tanzania to facilitate institutional and legislative reform in urban sanitation. The case studies and other project documentation, in addition to the post-project evaluation activities are due to be completed during the next several months. In addition, GTZ has been involved as one of the partners in the RWSN in Central America.

Ireland

Year	1993	1994	1995
Contribution (US$000s)	0	87	26

Since 1994, Ireland has provided approximately US$113,000 through a cost-sharing initiative with UNDP to support activities in the Katwe Urban Pilot Project in Uganda, and the urban slum community is learning to take responsibility for its own water and sanitation services. Activities are expected to be completed by November 1995 and should provide baseline information for operationalizing future urban infrastructure programs in low-income areas.

Italy

Year	1993	1994	1995
Contribution (US$000s)	0	42	231

After several years of absence, Italy rejoined the Program in 1994 when, as part of its contribution to Capacity 21, the Italian government earmarked approximately US$300,000 for the Program. A small portion of these funds helped to stage the first meeting of the Water Supply and Sanitation Collaborative Council's working group on institutional management options, held in June 1994. The remainder of the funds will be targeted toward Ethiopia, where the Program is helping to develop a national strategy and supporting the implementation of sanitation services as part of a larger water supply project in the Tigray region.

Japan

Year	1993	1994	1995
Contribution (US$000s)	343	1,111	1,402

Japan has made large amounts of grant funds available to the World Bank for the Population and Human Resources Development (PHRD) fund. Although the Program cannot access these funds directly, in March 1993, it reached an agreement with the Bank's sector operating division for Nepal to take responsibility for a grant for the JAKPAS project. The project was extended in December 1994 and funds were increased to a total of US$2.8 million; the project is due to be completed in early 1996. The IDA project was to be appraised in late 1995.

Luxembourg

Year	1993	1994	1995
Contribution (US$000s)	122	267	235

The newest of the Program's bilateral donors, Luxembourg initially funded an urban sanitation planner and local consultants to implement pilot sanitation projects in Conakry, Guinea, and to prepare and urban sanitation planning manual based on studies in Guinea, Burkina Faso, Côte d'Ivoire, and Ghana. In December 1994, Luxembourg agreed to extend their support of the urban sanitation planner who is based in Abidjan for 24 months. Total disbursements from Luxembourg through 1995 total US$624,000.

Netherlands

Year	1993	1994	1995
Contribution (US$000s)	1,519	653	302

The Netherelands began supporting the Program in the mid-1980s with large-scale programs in Nigeria, Indonesia, and Bolivia. Since 1988, the Netherlands has contributed more than US$6.6. million to the Program, making it one of the Program's largest bilateral donors.

The Community Water Supply and Sanitation Project in Indonesia (INS/88/005), which was jointly financed by the Dutch (US$2.6 million) and UNDP (US$1.5 million), ended in early 1994. The project has developed institution building and soical marketing strategies and introduced new physical facilities.

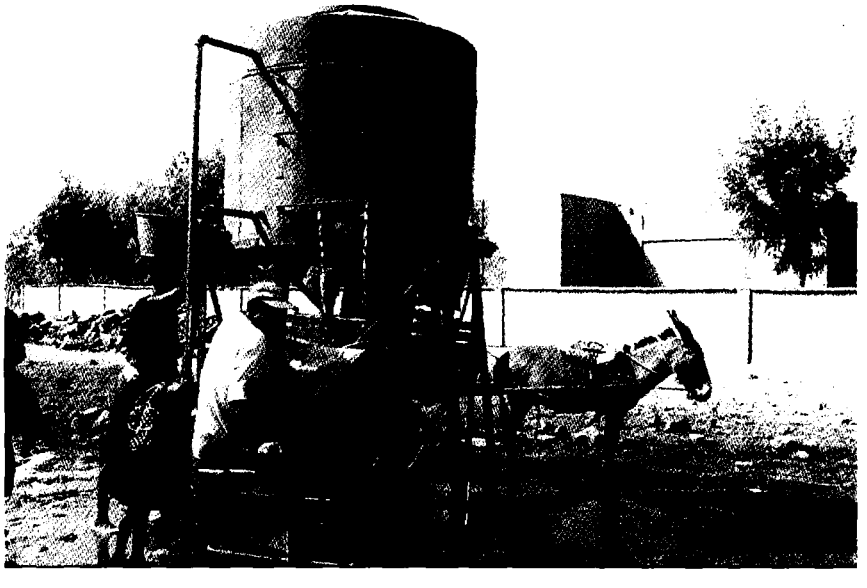
The Netherlands has also supported the US$2.8 million Yacupaj project in Bolivia to improve the access of rural inhabitants in the Potosi province to safe water supply and sanitation. A final evaluation was done in November 1994, and the project was operationally completed at the end of 1994. The lessons from the Yacupaj project have been fed directly into a national rural water supply and sanitation project, PROSCABAR, appraised and approved by IDA in 1995. The project is expected to be completed by the end of 2001.

In the Philippines, the Dutch government has supported the ITN center hosted by the Local Water Utilities Administration. In operation since 1990, the Philippines training network has grown to include a variety of participating institutions active in the water supply and sanitation sector. It is currently in transition from its status as a project under Dutch aid to that of an independent, self-sustaining institution. An evaluation took place in May 1995, which found that the center had made healthy progress toward its goals, and that a significant need for the center remains, particularly for capacity building in rural areas. The evaluation team recommended that support from the government of the Netherlands be extended for another two years.

Norway

Year	1993	1994	1995
Contribution (US$000s)	1,474	972	1,554

Norway is one of the Program's most supportive long-term partners. Norwegian-financed activities disbursed nearly US$9.4 million between 1988 and 1995. These funds, from the Department of Multilateral Development



Cooperation, support regional and global activities, as well as several in-country projects. At present, a framework agreement (1994-96) provides approximately US$4.2 million to the Program. This agreement provides funding to continue many of the activities Norway has supported in the past, and adds significant funds for participatory development activities.

Part of Norway's contribution has gone to demonstration projects that will lead to larger investments and produce lessons of wider use. Although Norwegian support for these particular projects has ended, related activities continue. For example, in West Bengal, India, the Program will continue to support an integrated water and environmental sanitation program for 24 villages, and in Panaji Town, Goa, India, it will support a solid waste management demonstration project based on preparatory studies financed by Norway. Activities in Goa are expected to be completed in the coming fiscal year.

In 1989, Norway helped to establish the Training Center for Water and Sanitation (TCWS) at the University of Zimbabwe to develop human resources for the sector. In 1994, the center transformed itself into a non-profit agency under Zimbabwean law and changed its name to the Institute of Water and Sanitation Development (IWSD). IWSD is well on its way to becoming a self-supporting agency, with the goal of replacing all core funding from Norway (through the Program) with fee-for-service income by 1997.

Norway has been an active supporter of gender and participatory development initiatives for many years. It began funding the PROWWESS initiative in 1983 when it was still a UNDP project, and continued its support for PROWWESS when responsibility was transferred to the Program in 1993. Since then, Norway has supported the Program's participatory development work, including the PROWWESS coordinator and several country-level activities (participatory training and an NGO workshop). The new framework agreement continues this support, and in particular, allocates almost US$500,000 for a Participatory Development Fund. The Fund provides grants to local organizations to implement participatory development activities.

Norway also funds several staff members in the RWSGs. In South Asia, Norway finances the RWSG manager, and in East Africa, it funds an institutional specialist position. The East Africa post has been vacant since late 1994, but was filled by the end of 1995.

In Pakistan, Norwegian assistance helps to finance the country team leader and part of the three-person country team. The country team is working with the government and several bilateral (the Netherlands in particular) and multilateral agencies (UNDP, UNICEF, the World Bank) on a program of participatory rural water supply and sanitation development.

Norway also provides support to facilitate the coordination of country-level activities in East Africa. With Norwegian funding, the IWSD organized a country-level coordination workshop in Zimbabwe in July 1994.

Finally, Norway is one of a number of supporters of the PHAST project in East Africa (see East and Southern Africa).

Sweden

Year	1993	1994	1995
Contribution (US$000s)	202	329	880

During the past year, the existing foreign aid agencies in Sweden were consolidated into one new agency, the Swedish International Development Cooperation Agency (Sida). Past support to the Program has come from SIDA and BITS, both of which are now part of the new Sida. Sweden's direct support of the Program began in 1993. In FY 93, Sweden approved funding for the East Africa RWSG manager post through a World Bank trust fund. This funding continues and enables the Program to support community management initiatives through workshops and project documentation.

A trust fund totaling US$1.55

million of 30 months was approved in late 1993. The fund has three components: US$519,000 for participatory development in South Asia; US$491,000 for a water supply and sanitation sector adviser in Lao PDR, and US$545,000 to launch a learning network among Andean countries. Activities supported by the South Asian participatory development grant are underway, led by a regional specialist, also funded by the grant. In Lao PDR, the sector advisor took up his post in mid-1994 to facilitate the improvement of local institutional capacity and the local manufacture of handpumps. This component, originally funded for one year, has now been extended for an additional 12 months. A coordinator for the RWSG-AN was recruited and posted in Bolivia in January 1995. The coordinator began providing support to the PROSABAR project, participating in sector policy dialogue with the government, and developing case studies based on PROSABAR and other projects. The coordinator left his post in September 1995 to pursue further education; a replacement has been identified, who will take up his post in January 1996.

BITS is one of three external financiers of the project, Water and Sanitation Technical Assistance and Capacity Building (MON/93/005) in Mongolia (along with UNDP, ODA, and AusAid). BITS support (estimated at US$350,000) is provided directly to the government and includes a package of technical consultations and well-drilling and hydrogeological equipment.

Sweden has joined Switzerland as one of the two primary supporters of the RWSN-Central America.

Switzerland

Year	1993	1994	1995
Contribution (US$000s)	904	1,175	1,107

Switzerland is another long-term Program partner, having provided more than US$5.7 million through the Swiss Development Cooperation (SDC) since 1988. In 1993, a Phase V framework agreement was signed with SDC, providing approximately US$1.8 million for a variety of activities during 1994-1996. The agreement continued SDC's long-standing commitment to African development and the ITN, while adding to the support of Program activities in East Asia.

During the past few years, SKAT, under contract with SDC, has been increasing its assistance to handpump design and manufacture activities. SKAT had been working closely with the two SDC-supported Program staff members: a mechanical engineer in Nairobi who promoted local handpump production in Africa, and a technology specialist based in New Delhi who handled technology issues in Asia and globally. However, in light of the Program's recently reformulated strategy, it was determined that UNICEF was better equipped to facilitate such technology-based activity. SKAT took over the responsibility for most activities in East Africa and the technology specialist in New Delhi moved to UNICEF, along with SDC funding. This completed the Program's handover of most of its direct responsibility for technology work.

SDC also promotes human resource development through the ITN. It directly supports two ITN centers, NETWAS in Nairobi and CREPA (along with Denmark) in West Africa. SDC also funded the ITN coordinator position in Washington, until he left in mid-1993, after which the post was left vacant. SDC also requested and funded a desk review of the ITN in mid-1994, which recommended that, among other things, a new ITN strategy be developed. The first step toward formulating this new strategy will take place as part of the program evaluation to be completed by the end of 1995.

In China, SDC finances a community development specialist in the RWSG to work in Mongolia, China, and the Philippines. Also in East Asia, SDC approved support in 1994 for a country coordinator and for a study of nightsoil management in Hubeiin 1994. Lessons from the nightsoil study, collected in collaboration with

SANDEC (formerly the International Reference Center for Wastewater Disposal), will be fed directly into a future World Bank-financed investment project in nightsoil management. In South Asia, SDC supports the country team leader in Bangladesh.

SDC continues to support sector coordination activities in Lesotho, training officials in the updating and use of the recently-developed strategic action plan. These activities will be completed at the end of 1995.

Also in 1994, SDC added funds (US$100,000) for software inputs into demonstration projects in Côte d'Ivoire and Mongolia. The Côte d'Ivoire project to promote water supply, health, and sanitation services in low-income urban settlements in Yopougon is now underway and will provide training and assistance to NGOs and other associations in the coming year. In Mongolia, SDC contributed funds to support peri-urban sanitation activities in Ulaanbaatar.

United Kingdom

Year	1993	1994	1995
Contribution (US$000s)	180	0	151

Through the Overseas Development Administration (ODA), the United Kingdom is presently collaborating with the Program on human resources development in South Asia, and supports human resources development through the ITN center in Calcutta, by funding a national HRD staff post in the RWSG for South Asia. ODA has now agreed to finance a sanitation specialist in New Delhi for two years. In addition, new money was received from ODA during FY95 to support activities in Mongolia. ■

UNDP Technical Assistance Projects Implemented by the Program

Global and Interregional Projects

Technology Promotion Facility (GLO/90/011)

Capacity Building for Urban Water Demand and Asset Management (GLO/91/017)

Development Communication Project (GLO/92/027)

UNDP-World Bank Water and Sanitation Program (INT/92/001)

Regional Projects

Water and Sanitation for the Poor in Africa (RAF/92/007)

Water and Sanitation for the Poor in Asia and the Pacific (RAS/92/001)

Regional Water and Sanitation in Central America (CAM/91/013)

Country Projects

Bolivia: Rural Water Supply and Sanitation: Potosi (BOL/90/004)

Bolivia: Support to the Water and Sanitation Project (BOL/92/101)

Burkina Faso: Sanitation Project in Ouagadougou (BKF/91/010)

Ecuador: Second Social Development Project – Health and Nutrition, UNDP-Financed Technical Assistance Under Basic Sanitation and Safe Water Component (ECU/92/008)

Ghana: Low-Cost Human Wastes Management – Pilot Project for Kumasi (GHA/87/016)

Indonesia: Community Water and Sanitation Project (INS/88/005)

Madagascar: Strengthening of Planning Capacity and Economics Management (MAG/89/001)

Mongolia: Water and Sanitation Technical Assistance and Capacity Building Project (MON/93/005)

Pakistan: Establishment of Federal Water Supply and Sanitation Sector Support Unit (PAK/90/013)

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Acronyms

ADB	Asian Development Bank
AusAid	Australian International Development Assistance Bureau, formerly AIDAB
BITS	Swedish Agency for International Technical and Economic Assistance, now part of Sida
BMZ	German Ministry for Economic Cooperation
CfD	The French Development Agency (Causse Française de Développement)
CLC	country level collaboration
CREPA	Centre Regional pour l'Eau Potable and l'assainissement à Faible Coût, ITN Center, Ouagadougou (Burkina Faso)
CWSSP	Community Water Supply and Sanitation Project
DANIDA	Danish International Development Agency
DGIS	Directorate General for International Cooperation (the Netherlands)
ESA	External Support Agency
FASBASE	Second Social Development Project – Health and Nutritian (Ecuador)
FED	European Development Fund
FINNIDA	Finnish International Development Agency
GTZ	German Agency for Technical Cooperation (Deutsche Gesellschaft fur Technische Zusammernarbeit)
HABITAT	United Nations Centre for Human Settlements
HRD	human resource development
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
ITN	International Training Network
IWSD	Institute of Water and Sanitation Development, ITN Center, Harare (Zimbabwe)
JAKPAS	People's Water and Sanitation Project, Nepal
KfW	Reconstruction Loan Corporation for the Federal Republic of Germany
MIS	Management and Information System
MSWM	Municipal Solid Waste Management
NETWAS	Network for Water and Sanitation, ITN Center, Nairobi (Kenya)
NGO	non-governmental organization
NORAD	Norwegian Agency for International Development
ODA	Overseas Development Administration (United Kingdom)
OECF	Overseas Economic Cooperation Fund
O&M	operations and maintenance
PAHO	Pan American Health Organization
PALNET	Participatory Learning Network
PDF	Participatory Development Fund
PHAST	Participatory Hygiene and Sanitation Transformation Project
PROSABAR	Bolivia Rural Water and Sanitation Project (Proyecto de Saneamiento Basico Rural)
PROSANEAR	Water and Sanitation for Low Income Countries (Brazil)
PROWWESS	Promotion of the Role of Women in Water and Environmental Sanitation Services
RWSG-AN	Regional Water and Sanitation Group, Andean Region
RWSG-EA	Regional Water and Sanitation Group, East and Southern Africa
RWSG-EAP	Regional Water and Sanitation Group, East Asia and the Pacific
RWSG-SA	Regional Water and Sanitation Group, South Asia
RWSG-WA	Regional Water and Sanitation Group, West Africa
RWSS	rural water supply and sanitation
SANDEC	Swiss Sanitation and Water in Developing Countries
SAPP	Social Action Program Project (Pakistan)
SDC	Swiss Development Cooperation
Sida	Swedish International Development Cooperaton Agency, formerly SIDA
SKAT	Swiss Center for Appropriate Technology
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VIP	ventilated, improved pit latrine
VLOM	village-level operations and maintenance
VO	village organization
WHO	World Health Organization
WSS	water supply and sanitation
WSSLIC	Water Supply and Sanitation for Low Income Communities (Indonesia)

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