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An Assessment of the UNDP-World Bank Water and Sanitation Program

Report of an Independent Team

May 1991

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*UNDP-World Bank
Water and Sanitation Program*

A Forward-Looking Assessment

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Acronyms

AFTIN	Africa Region Technical Department, Infrastructure Division
AIT	Asian Institute of Technology (Bangkok)
AMREF	African Medical and Research Foundation
ASTIN	Asia Region Technical Department, Infrastructure Division
CAPRE	Central American Association of Water Authorities
CEPIS	Pan American Center for Sanitary Engineering and Environmental Sciences
CESI	country external support information
CIDA	Canadian International Development Agency
CIEH	Comité Interafricain d'Etudes Hydrauliques
CREPA	Centre régional pour l'eau potable et l'assainissement à faible coût
DANIDA	Danish International Development Agency
DGIP	Division for Global and Interregional Programmes, United Nations Development Programme
DGIS	Directorate General for International Cooperation (Netherlands)
EDI	Economic Development Institute
EEC	European Economic Community
EMENA	Europe, Middle East, and North Africa
EPFL	Ecole Polytechnique Fédérale de Lausanne
ERIS	Regional School for Sanitary Engineering and Water Resources
ESA	external support agency
FAO	United Nations Food and Agriculture Organization
HABITAT	United Nations Centre for Human Settlements
HRD	human resources development
IBRD	International Bank for Reconstruction and Development
IDB	Inter-American Development Bank
IDWSSD	International Drinking Water Supply and Sanitation Decade
IHE	International Institute for Hydraulic and Environmental Engineering
ILO	International Labour Organisation
INFOM	Institute for Municipal Development in Guatemala
INURD	Infrastructure and Urban Development Department, Urban Development Division
INUWS	Infrastructure and Urban Development Department, Water and Sanitation Division
IPF	indicative planning figures
IRC	International Reference Centre for Community Water Supply and Sanitation
ITB	Institute of Technology Bandung
ITN	International Training Network

IWSA	International Water Supply Association
LAC	Latin America and the Caribbean
LDC	least developed countries
LWUA	Local Water Utilities Administration (Manila)
NCO	national country officer
NGO	nongovernmental organization
ODA	Overseas Development Administration (United Kingdom)
OSB	operational support to the Bank
PAHO	Pan American Health Organization
PPU	Project Preparation Unit
PRE	Policy, Research, and External Relations
PROWESS	Promotion of the Role of Women in Water and Environmental Sanitation Services
RAF	Regional Africa (UNDP)
RAS	Regional Asia (UNDP)
RBA	Regional Bureau for Africa (UNDP)
RBAP	Regional Bureau for Asia and the Pacific (UNDP)
RBLAC	Regional Bureau for Latin America and the Caribbean (UNDP)
RWSG	Regional Water and Sanitation Group
RWSS	rural water supply and sanitation
SDC	Swiss Development Corporation
SDT	sector development teams
SOD	sector operating divisions
TAG	Technical Advisory Group
UEST	Urban Environmental Services Team
UN/DTCD	United Nations Department of Technical Cooperation for Development
UNCDF	United Nations Capital Development Fund
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UNIFEM	United Nations Development Fund for Women
USAID	United States Agency for International Development
VIP	ventilated improved pit latrine
VLOM	village-level operation and maintenance
WASH	Water and Sanitation for Health Project
WHO	World Health Organization
WSS	water supply and sanitation

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Preface

The UNDP-World Bank Water and Sanitation Program has been active in varying degrees in 40 countries, employs a field and headquarters staff numbering some 70 higher-level staff positions, and is funded by UNDP and 10 bilateral donors at about US\$10 million per year. Present perceptions of the Program's approach and achievements have appeared to its managers to be generally positive, on the part of both supporting agencies and participating governments.

The Program has evolved from a one-project beginning in 1978 and assumed its present form largely in response to the priorities and goals of the International Drinking Water Supply and Sanitation Decade (IDWSSD) during the 1980s. Many of those goals remain valid, and while some needs have now been largely met, new ones have emerged that must be addressed during the current decade, particularly in Asia and Latin America. Many lessons, both technical and institutional, have been learned and now need to be applied on a broad scale.

The two major partners, UNDP and the World Bank, have therefore considered it appropriate to sponsor a forward-looking assessment of the Program to determine what changes, if any, in program orientation, structure, and operations may increase its effectiveness and impact in the years ahead.

Accordingly, the main focus of the Assessment is on the future orientation of the Program rather than on its past record. While it is obviously necessary to examine this record in certain critical areas, this exercise has not been

designed as a traditional in-depth evaluation of the Program's impact on sector development in the countries where operations have taken place. There are two main reasons for this: (a) the relatively short elapsed time since the Program assumed its present form in 1988; and (b) the level of resources that would have been required for a comprehensive in-depth evaluation in proportion to the benefits to be expected.

Initial terms of reference were comprehensive and ambitious, covering numerous elements, but because of time and financial limitations the Team Leader decided to focus the Assessment on the most critical questions and issues:

- (a) The roles of UNDP as a major supporting agency and of the World Bank as executing agency and manager of the Program;
- (b) The financing of the Program;
- (c) The identity of the Program, its relations with other ESAs and its future governance;
- (d) Management, staffing, and organizational arrangements;
- (e) Program strategy and impact, with particular reference to effectiveness in influencing government and donor sector policies and in capacity building;
- (f) The structure and effectiveness of the International Training Network; and
- (g) The challenges of the 1990s and their implications for the Program.

The Assessment was carried out during the last quarter of 1990 under the direction of a Team Leader, with field teams for Africa, Asia, and Latin America, and a special examiner for the

International Training Network. The Team also took into account the findings of a mission commissioned separately by UNDP, which visited Jordan, Egypt, and Tunisia in latter November. A consultant familiar with the Program since its inception assisted with research and analysis.

Fieldwork was preceded by a three-day briefing workshop for the Team Leaders and some Team members, held at World Bank headquarters, to analyze sector issues and Program approaches. Following this workshop, the Field Teams carried out in-country investigations in China, Indonesia, Bangladesh, and India in Asia; in Ghana, Nigeria, Burkina Faso, Ethiopia, and Kenya in Africa; and in Bolivia, Peru, Costa Rica, and Guatemala in Latin America. Comments from countries not visited, but where the Program has been active, were also invited through UNDP Resident Representatives. Replies were received from eight countries: Kenya, Rwanda, and Zimbabwe in Africa; and Nepal, Pakistan, the Philippines, Sri Lanka, and Thailand in Asia.

Concurrently, the Team Leader conducted extensive interviews with all supporting bilateral donors; the various World Bank departments involved in the Program; UNDP's Division for Global and Interregional Projects (DGIP) as well as the Regional Bureaux and PROWESS; and UNICEF, WHO, UN/DTCD, and ILO.

This report has been prepared by the Team Leader on the basis of the findings and recommendations emerging from these investigations and discussions. The report contains specific recommendations that represent a consensus of the Team members. These are summed up in Part I of the report.

The Team Leader and his colleagues wish to express their appreciation to the many government and agency officials who provided their views and advice, as well as to the entire staff of the Program — in the field and at headquarters — for their indispensable insights, support, and cooperation.

Part I

*Summary of Principal Findings
and Recommendations*

Summary of Principal Findings and Recommendations

1. The general finding of the Team is that the Program is basically sound and deserves continued support, and that its field structure is broadly appropriate. It has only recently been established in its present form and has therefore not yet had a substantial impact on sector development as measured by the expansion of service coverage or by increased investment. It has made a promising start, however, and is now well placed to make use of the lessons learned during the International Drinking Water Supply and Sanitation Decade (The Decade) and to assist governments to develop effective policies and strategies for expanding services to low-income communities. A foundation has also been laid for closer collaboration in this effort on the part of external support agencies.

2. While the results have been generally positive there are a number of areas in which Program strategy and management can be improved. The principal institutional issue is where the direction and management of the Program should be located. The Team's recommendation is that it should remain linked to the World Bank as executing agency, but should establish its own identity, through a name change and other measures, and maintain a higher degree of autonomy. To contribute to this it is proposed that a Review Board, comprised of representatives of supporting donors, be established. It is recommended that within the Bank, Program management continue to be exercised by the Water and Sanitation Division of the Infrastructure Department (INUWS) of the Bank's Policy, Research, and External Relations complex. Finally, the Team rec-

ommends that the Program be placed on a more secure financial basis through a series of suggested measures.

3. The Program should continue to focus its activities on expansion of coverage for the poor in both rural and urban areas through the application of low-cost technologies and community-based approaches to sector development. Concurrently, the Team suggests that the present Asia Sector Development Team (SDT) be broadened into an Interregional Urban Environmental Services Team (UEST), possibly under the management of the Urban Development Division of the Bank's Infrastructure Department, to facilitate collaboration of the two programs in rapidly expanding urban centers.

Chapter II: An Emerging Identity

Findings

1. The Program at present does not have a sharp image and completely clear identity; there is confusion on the part of governments as to whether staff represent the World Bank, UNDP, or a separate program. The present name contributes to this.

2. The mandate of the Program is not entirely clear to participating and donor governments and some other assistance agencies, but the Program is recognized as a catalyst for serving unmet needs.

3. Other UN agencies with substantial interest in the sector would like to be more actively involved: specifically, WHO, PAHO, UNICEF,

ILO, and UN/DTCD.

4. Contacts between the Program and regional development banks have been marginal: practically nonexistent with the African Development Bank; some contacts with the Asia Development Bank in a few countries. No meaningful contact has been established with the UNCDF, a potential source of funding for field projects.

5. Collaboration with NGOs has special importance and is encouraged. PROWESS should be involved.

Recommendations

- (a) Change the title of the Program to *Joint Program for Water and Sanitation*.
- (b) Issue a brochure, as a successor to the present "strategy document," announcing the changes and defining the mandate of the Program more clearly.
- (c) Link the Program more closely with the monitoring program currently being developed by UNICEF in collaboration with WHO, with CESI, and with ILO's network of training programs.
- (d) Establish closer links with other UN agency sector staff already working in participating countries, and draw upon the agencies for short-term consultant services.
- (e) Increase the participation of PROWESS in Program activities as a means of expanding links with NGOs (as well as enhancing women's participation at various levels).
- (f) Expand contacts with regional development banks (following policy discussions in the Collaborative Council).

Chapter III: The Financial Base

Findings

1. UNDP accounts for about two-thirds of the core funding, and there is uncertainty as to whether this level of funding can be maintained.
2. The short-term and uncertain nature of the funds available from year to year results in severe management problems.
3. The financial contribution of the World Bank is far too little in proportion to the existing and potential services and operational support available from the Program. It is not consistent with the "partnership concept" proposed for the future.

4. In addition, funding sources will need to be increased if the Program is to expand in Latin America and the Arab states.

Recommendations

- (a) UNDP should continue to provide core support for the Program at not less than the existing level and the World Bank should assume significant financial responsibility towards the core costs.
- (b) A Joint Task Force should be set up by UNDP and the Bank to negotiate an appropriate division of core cost support.
- (c) UNDP's Regional Bureaux should continue and expand their support, including the broadening of operations in Latin America and the Arab states.
- (d) UNDP should consider consolidating all its support into an overall indicative planning subvention for core support (at both headquarters and field level) on a rolling basis over a five-year period, allocated under the minimum possible documents.

Chapter IV: Interchange with Sponsors

Findings

1. A missing feature of vital importance is a mechanism for providing regular opportunities for interchanges on Program policy and progress between the Program management and financial supporters.
2. The result has been lack of information regarding Program goals and achievements; and no authoritative and fully grounded mandate for Program activities in relation to sector goals of the international community.

Recommendations

3. A small, informal Review Board comprising representatives of supporting donors should be established with the following functions:
 - (a) Provide for candid and unrestricted exchange of views;
 - (b) Sanction important policy statements;
 - (c) Verify the need for significant changes in managerial and programming arrangements;
 - (d) Consider new initiatives, taking account of the need for coordination with Board members' own programs; and,

- (e) Help mobilize continuing support for the Program.

Chapter V: The World Bank Linkages

Findings

1. The Program is well known throughout the Bank and is generally well regarded; its potential is increasingly recognized by the regional operations and technical departments.
2. Working relationships between these departments and the Program have been generally satisfactory. Operational support provided by the Program to the Bank has been growing, but contrary to some outside perceptions, the Program has not become unduly subordinated to normal Bank activities.
3. If the Program is to scale up its activities significantly in the next phase, closer cooperation with the Bank's regional offices will be required as regards both policy guidance to governments and preinvestment work.
4. However, there would be no significant advantages in shifting the management of field operations to the Bank's regional offices, and the Team considers that this would entail a number of risks and disadvantages.

Recommendations

- (a) The World Bank should continue to serve as executing agency for the Program, with day-to-day management located in INUWS, as at present.
- (b) Cooperation between the Program and the Bank's technical and operating departments in the areas of work programming, sector work, project preparation, and policy guidance to governments should be continued and expanded.
- (c) The future development of Program/Bank cooperation should be monitored to ensure that it remains in appropriate balance with the Program's broader goals, sector priorities of participating governments, and relations with other donors and assistance programs. Such monitoring is an appropriate function for the Review Board.

Chapter VI: Management and Staffing

Findings

1. Generally speaking, the Program is well managed, although the nature of its tasks requires the application of retail methods to wholesale problems. Considerable responsibility has been delegated to RWSGs for implementation of the agreed work programs. This is appropriate and should be continued.
2. It would appear that the size of the headquarters staff could be reduced somewhat, particularly if funding and accounting procedures could be streamlined as suggested.
3. The most serious management problem concerns the diversity in conditions of service and salary levels among different categories of staff both at headquarters and in the field. The present situation is very damaging to staff morale, and makes it difficult for the Program to attract and hold highly qualified people.
4. Other areas also require some improvement: field to headquarters reporting (to place greater emphasis on the impact of activities and outputs rather than merely on delivery of inputs); better reporting to governments and supporting donors; Program monitoring and evaluation.
5. A reorganization plan under preparation should be given time to show its effects.

Recommendations

- (a) Consideration should be given to carrying out a more comprehensive organization and management study of the headquarters structure than the team was able to conduct, to identify possible economies and ways of improving management efficiency.
- (b) The problems relating to conditions of service should be addressed as a matter of urgency. The Team proposes that the Bank's Vice President for Personnel and Administration be requested to undertake a review of the present situation for the purpose of developing a system that would reduce existing anomalies to the absolute minimum consistent with the legal requirements governing World Bank administration.
- (c) As a minimum, all staff members, before signing their contracts, should be informed very clearly of the terms on which they are being engaged. In addition, field staff should

be told the terms of employment of other members of the RWSGs.

Chapter VII: Field Structure

Findings

1. The RWSG concept is basically sound and has produced useful results. The RWSGs are considered to be a cost-effective mechanism for providing needed assistance to participating governments.

2. The appropriate size of a fully operational RWSG is about seven to ten professional members. A group smaller than this would be unable to produce a significant impact, considering the large number of countries to be served. A group much larger than this would run the risk of becoming a "mini-bureaucracy" with escalating overhead and administrative costs.

3. Present composition of the African RWSGs is weighted too heavily towards engineers, as well as towards expatriate experts.

4. The Francophone countries have not yet received sufficient support from the Program, which has up to now concentrated mainly on Anglophone countries of the region. The West Africa RWSG is now addressing this situation.

5. The RWSGs enjoy considerable autonomy and flexibility in implementing the agreed upon work programs. Following the establishment of the Program, the Bank's sector operating divisions deal directly with the RWSGs with regard to the agreed cooperative arrangements, largely bypassing Program headquarters in the interest of speed. This does not appear to cause any problems.

6. RWSGs have been most effective when they have had strong in-country linkages with participating countries. There is a need to strengthen these linkages, either through the multiplication of national country officers or through other means.

7. The absence of any RWSG in Latin America has resulted in very little Program impact in that region. The point has been reached when governments and external support agencies would welcome the Program on a regularized basis. PAHO and UNICEF have expressed interest in cooperating with the Program.

8. An independent consultant reports that in the Arab states the main common problems to be resolved relate to water resource conservation, planning, and management. It is not yet clear how

the Program can most effectively assist countries of the region. The issue needs further study.

Recommendations

- (a) Although the composition of the various RWSGs will necessarily vary in accordance with the regional situation and Program priorities, membership might typically include:
 - engineer (rural water supply)
 - economist/financial analyst
 - community development specialist
 - human resources development specialist
 - engineer (sanitation and waste management)
 - one person-year of consultancy (various)
 - a public health specialist in West Africa
- (b) The human resource specialist would be responsible for expanding activities aimed at capacity building and for relations between the RWSGs and the ITN Centers.
- (c) In West Africa, half the members of the RWSG should be French speaking.
- (d) More nationals from the respective region should be included in the RWSGs, and in-country staff should, to the extent possible, be nationals of the country concerned.
- (e) Budgetary resources should be increased to provide for additional country Program staff, some of whom could assist a cluster of neighboring countries.
- (f) In Latin America two modest offices — RWSGs in embryo — should be established:
 - one for Central America and the Caribbean region based in Guatemala City; and
 - one for South America, based in Bolivia.

Chapter VIII: Strategy and Effectiveness

Findings: Program Strategy

1. The activities of the Program are in close conformity with the stated objectives and strategy:

- (a) There is a strong poverty orientation. Although activities are not concentrated on the poorest countries of the various regions, they are focused on increasing service coverage for the poorer localities and communities, both rural and urban.
- (b) In line with this orientation, emphasis is placed on the development and application of affordable low-cost technologies versus expensive conventional systems.

(c) Sector policy advice to governments emphasizes these themes as well as community involvement, including involvement of women.

2. The Program favors an integrated approach, covering both economic and health aspects, but in practice there is often more narrow action, particularly in regard to demonstration projects.

3. The Program has no clear criteria for selecting countries for participation. Primary considerations have been receptiveness of the government and chances for success. Similarly, in connection with monitoring and evaluation, there is a lack of progress on developing criteria for success.

4. Country work programs appear to be generally in line with sector needs and government priorities.

5. In Africa, country work programs have largely been determined by Program staff in consultation with the Bank's operating departments. Also, in Africa, consultations with the participating governments have been generally marginal to the process. In Asia, governments have considerably more influence on the country work programs.

6. Despite some defects in implementation, the Team concludes that the Program strategy is sound, and that the Program can rightly claim to have made an important contribution towards the promotion of affordable and sustainable services for low-income communities in numerous countries where it is operational.

Findings: Effectiveness and Impact

7. The most important area of activity, as measured by the volume of staff time, has been sector policy and planning work, including sector advisory support to governments, implementation of sector studies, and project preparation work, often in collaboration with the Bank. It is too early to assess the eventual impact of these activities as many of the studies and strategic plans have been completed only recently or are still in progress.

8. High priority has been given to the organization of demonstration projects and other work with low-cost technologies. Several projects appear to be developing in a promising way. Many others have had mixed results and suffer from some of the following weaknesses: small scale and high

cost in relation to population covered, resulting in uncertainty about the potential for replicability; insufficient emphasis on the involvement of women; and inadequate integration into the country's institutional setup. Results of these demonstration projects have not yet been used as the basis for drawing up schemes for large-scale expansion of water and sanitation services.

9. Program participation in World Bank project preparation and Program influence on the Bank's lending policies have been more extensive than generally realized.

10. Several governments have affirmed to the Team that Program activities have begun to influence their sector policies and strategies. The applied research work and associated publications (most of which are attributable to earlier projects now incorporated into the Program) have broadened the technological options available to governments. The Program has also made a start on broadening institutional and financial options and on helping governments to develop supportive policy frameworks. So far the Program appears to have had relatively little influence on donor policies.

11. Little success has been achieved as yet in the area of capacity building when defined as the preparation of nationals to take over the functions of the RWSCs as well as the capacity of governments to shift away from the role of provider of services to facilitators of affordable self-reliant community-based systems.

12. Work with the private sector has been confined largely to assistance to handpump and latrine materials manufacturers, whereas the private sector has the potential for getting involved in many other ways.

13. The main strengths or comparative advantages of the Program vis-à-vis other assistance programs lie in the areas of sector analysis work, policy advice, applied research, information dissemination, networking, and, at least potentially, in better donor coordination. It has not been shown that the Program has a clear comparative advantage in the implementation of rural demonstration projects, nor, as presently set up, in the area of capacity building.

Recommendations

(a) The Program should concentrate its major activities on a relatively small number of countries, relying on others to continue ac-

- activities elsewhere with lesser support from the Program — that is, provide a catalytic rather than a long-term support function.
- (b) Organized consultations should be held with all governments with regard to the proposed country work program for their countries prior to its finalization.
 - (c) Future emphasis should be placed on analyzing the lessons learned from Program-sponsored demonstration work as well as from the experience accumulated by other agencies and programs, and on disseminating the information thus gathered as a step towards scaling-up to major investment projects. Organization of rural water supply demonstration projects should be de-emphasized unless there is a compelling reason to organize one, in collaboration with government, where none exists.
 - (d) Work in low-income, congested urban areas both on the urban fringe and within cities should be expanded along with intensified research and development aimed at building a wider range of low-cost intermediate technologies, with high priority on sanitation.
 - (e) Sustainability should be a high priority goal for all projects, rural or urban.
 - (f) The Program should define more clearly its approach to capacity building and to the priorities it should focus on in this important area.
 - (g) The relationship between capacity building and the involvement of nationals of the region in the RWSGs and country activities needs more emphasis.
 - (h) Strong emphasis should be placed on developing decentralized institutional frameworks and increasing the capacity of local entities and communities to take more initiative.
 - (i) There should be increasing emphasis on the participation of women, and closer coordination with PROWESS is important.

Chapter IX: International Training Network (ITN)

Findings

1. Nine ITN Centers have been established, or are about to be established, since the ITN project began in the early 1980s. Those Centers are at various stages of development and at present it is very difficult to assess thoroughly their individual achievements.

2. The ITN general concept and development objectives are sound and clearly oriented to capacity building; but the Network Centers lack short-term and tangible objectives and their institutional long-term impact is questionable.
3. Country or regional ITN activities are supported by bilateral aid and UNDP country offices. Expansion of the ITN is closely dependent on ITN management capacity to promote the ITN among the donor community.
4. Global collaboration among ITN Centers recently started but is hampered by the weakness of ITN management from the coordination unit at World Bank headquarters.

Recommendations

- (a) Governments should demonstrate a strong interest in the ITN concept and objectives before a Network Center is established.
- (b) The assessment process for establishing a Network Center should be oriented to the objectives, and the selection of host institutions, key staff, and preparation of work programs should follow accordingly.
- (c) The short-term objectives of any Network Center — namely, to stimulate shifts from conventional high-cost technologies and approaches to nonconventional or less-conventional ones, should be achieved in a specified and agreed time frame of three to five years.
- (d) Existing national or regional Network Centers should define or refine their short-term objectives and relevant strategies and activities to achieve these objectives.
- (e) Global collaboration, as well as ITN expansion, should be the responsibility of a small and nonbureaucratic coordination unit at World Bank headquarters. But for collaboration activities, such as training, exchange, research, documentation, information, and so forth, this unit should cooperate with appropriate international institutions, thus establishing a link with the entire water and sanitation international community.

Chapter X: Program Priorities in the 1990s

1. The sector development agenda for the next decade was debated extensively at the Global Consultation on Safe Water and Sanitation for the 1990s, held in New Delhi in September 1990 and attended by some 600 participants from 115 coun-

tries. The consensus is summed up in "The New Delhi Statement," subsequently endorsed by the General Assembly of the United Nations at its 45th session.

2. The basic challenge that faces governments and the international community now is how to provide some basic services for all people by the end of the next decade, despite the context of steady population growth, rapid urbanization, growing environmental degradation, and rising costs of water supplies.

Implications for the Program

3. If the Program is to remain relevant and to contribute significantly to sector development in the 1990s, it must place high priority on "scaling-up" its activities. At the country level this means moving as rapidly as possible from demonstration work to full-scale investment projects. For the Program as a whole this calls for the expansion of activities to additional countries and regions.

4. Successful scaling-up, however, will require much more than an increased flow of investment funds. If new systems are to be sustainable, major institutions and capacity-building activities are required.

5. Successful scaling-up also requires confidence on the part of decisionmakers in the claims made for the potential benefits of low-cost, community-based solutions. This implies independent technical evaluations, carefully designed cost comparisons between conventional and alternative solutions, and assessments of the institutional feasibility.

6. To increase its impact, the Program needs the support of others outside its own staff. This implies more emphasis on "software" activities: training, institution strengthening, participatory approaches, the involvement of women, sector policy advice to governments, and information dissemination.

7. The Program cannot expect to have the resources to deal with all aspects of the water supply and sanitation sectors. Judgments have to be made about balance between urban and rural, and between water supply and sanitation. Country service deficits must also be assessed in comparison to capacity and commitment to undertake programs; and the interest and willingness to collaborate of various ESAs supporting the sector must be determined. Similarly, broadening the number of countries to be included in the

Program's activities requires a careful evaluation of past efforts and future prospects. Where countries have dropped from a formerly active involvement with the Program, or the focus of activities has changed, the reasons for this should be determined, and the implications for the future examined (not least, to discover possible problems in securing government enthusiasm for reactivating activities).

8. In urban areas, a scattered, micro-level "neighborhood-by-neighborhood" approach is not likely to have a significant impact: in growing cities, Program efforts need to be integrated more closely with governments' overall urban policy and citywide strategies.

Recommendations

- (a) Expand efforts in the area of sector policy advice to governments, in close institutional cooperation with the Bank to enhance the impact, always avoiding any tendency to impose policies from outside.
- (b) As a priority policy goal, help governments to shift their role from providing services towards enabling users to develop, finance, and maintain their own systems.
- (c) Revitalize the ITN along the lines described in Chapter IX as a critical component of future strategic planning and as an instrument to support locally generated initiatives based on Program principles and approaches.
- (d) Accelerate publication of Program findings. These publications fall into two categories: (i) materials needed as soon as possible by operational staff and the ITN (guidelines, case studies, designs, sample questionnaires, etc.); and (ii) basic research findings. The long process of research and peer review needed for the latter should not be allowed to jeopardize operations by delaying the former. Preparation and publication of the former might be entrusted to the ITN Centers.
- (e) Prioritize the research and development effort to support the agreed strategy. More systematic and operationally focused research on both hardware and software is vital. Much of this should be undertaken through the rejuvenated ITN, which will be in most direct contact with field needs.
- (f) Develop and disseminate models for institutional systems that ensure sustainable service. These models should draw on a range

of institutions (public sector agencies, NGOs, private sector, and user communities), and should emphasize involving the communities themselves.

- (g) Make greater use of "social marketing" approaches and techniques to ensure that scaling-up activities are truly user-demand driven. Effective demand approaches should be based on the customer selection of service level and willingness to pay.
- (h) Expand activities in low-income urban areas not adequately served by existing conventional systems and established utilities; and support this effort with expanded innovative research on appropriate urban technologies, institutional arrangements, and linkages with conventional urban systems.
- (i) Establish closer coordination with the Urban Development Division (INURD) of the Bank's Infrastructure and Urban Development Department PRE complex to link Program activities with overall urban policy and planning.
- (j) Take a fresh and critical look at the prevailing approach to sector planning and its traditional emphasis on one system and standard

of service for an entire community.

- (k) The next decade will see increasing problems in the urban infrastructure in developing countries, especially in the "mega-cities." As a complement to the urban component of the Program, consider broadening the scope of the present Asia Sector Development Team into an Urban Environmental Services Team (UEST), and expand its activities beyond Asia to Latin America and selected major cities in Africa and the Arab states, with core funding from UNDP's DGIP and Regional Bureaux.
- (l) It is not recommended that the Program and the proposed UEST, if established, be merged and brought under a single management. Each program has its own specific identity and focus, as well as diverse staffing and management requirements.
- (m) If broadened in the manner suggested, consider locating the management of UEST in the Urban Development Division of the Bank's PRE complex to facilitate coordination with the Program and with urban policy research.

Part II

*Comprehensive Report
of the Assessment Team*

I

Origin and Evolution

1. The UNDP-World Bank Water and Sanitation Program assumed its present form officially only in 1988, when a number of UNDP-supported, World Bank-managed projects were consolidated into a single program. This section briefly reviews the origin and history of the Program during the International Drinking Water Supply and Sanitation Decade as background for the issues discussed in this report.

Evolution of the Program

2. The origin of the Program can be traced to 1978, when a decision was made by UNDP's Division for Global and Interregional Projects (DGIP) and the World Bank's Water and Wastes Unit to cooperate in the promotion of low-cost sanitation and water supply technologies as alternatives to costly conventional sewerage and piped water systems. Basic research on the development of such technologies had been initiated by the Bank a few years earlier in collaboration with a number of other institutions. By the late 1970s, field testing and demonstration work were called for. This work was initiated under the UNDP/World Bank project GLO/78/006, entitled, "Low Cost Water Supply and Sanitation Techniques," approved in August 1978. Over the three-year life of the project, activities were extended to some 20 countries of Africa and Asia. The primary focus was on demonstration and promotion of low-cost on-site sanitation, specifically, improved ventilated pit latrines and pour-flush toilets. Work was also done on low-cost piped water systems.

3. In 1981, following an in-depth evaluation, two expanded successor projects were approved — namely, INT/81/047, "Development and Implementation of Low-Cost Sanitation Investment Projects," and INT/81/026, "Laboratory and Field Testing and Technological Development of Rural Water Supply Handpumps." Both of these have been extended through several successive phases and are still operating as core components of the present UNDP-World Bank Program. By 1986, some 2700 handpumps of different types had been field tested in 17 countries of Africa, Asia, and Latin America.

4. In 1982, UNDP and the Bank agreed to cooperate in the establishment of several Investment Project Preparation Units (PPU) — two in Africa located in Abidjan and Nairobi and funded by UNDP's Regional Bureau for Africa; and one in Asia, initially located in Colombo, Sri Lanka (now located in Bangkok) and funded by the Regional Bureau for Asia and the Pacific. The theory behind the PPUs (not completely borne out by subsequent events) was that the main obstacle to increased external investment in the sector was the lack of a well-prepared pipeline of investment projects, stemming in turn from countries' lack of expertise in project preparation. The PPUs were intended to remedy this situation by providing expert assistance in the identification and preparation of projects for consideration by international donor and lending agencies, including the World Bank.

5. Also in 1982, an interregional "Information and Training Program in Low-Cost Water

Supply and Sanitation" was set up with support from CIDA. This program initially focused on the preparation of audiovisual training materials, and laid the groundwork for the subsequent establishment of the International Training Network currently supported by a number of bilateral donors and reviewed in Chapter IX of this report.

6. In addition, UNDP and the Bank have collaborated since 1980 on Research and Development in Integrated Resource Recovery and Waste Recycling — a subject that transcends the water and sanitation sector in the narrow sense, but that clearly has a bearing on the sector as well as on emerging environmental concerns. As the International Drinking Water Supply and Sanitation Decade progressed, all of the above regional and interregional umbrella projects were complemented by a large number of related country projects funded either from UNDP country indicative planning figures (IPF) or from bilateral assistance agencies.

7. To summarize, by 1987, UNDP and the Bank, with growing support from other donors, were cooperating in implementing a group of separate interregional and regional Decade-related projects. Each of these was separately funded and had its own specific objectives laid out in a project document. Originally, the projects were managed by the senior advisor, water and wastes, and later a division chief, who headed the World Bank's water and wastes unit and was responsible for research, policy development, cooperative projects, and other purely World Bank functions in the water supply and wastes sector. The various projects were grouped by technical content into subunits and each was headed by managers at division chief (2) or senior technical officer (1) rank. One manager was responsible for urban water supply and urban and rural sanitation, another for handpump development and resource recovery, and a third for the International Training Network (ITN). World Bank functions were assigned to a World Bank-staffed subunit.

8. In the meantime, two important trends had emerged in the orientation of the several projects, as a result of periodic evaluations carried out during the first half of the Decade. The first was a progressive shift away from the heavy emphasis on technology research that had initially predominated, towards greater attention to institutional issues and the development of service delivery mechanisms based on community participation. The second major trend was towards

more unified management of the collection of projects in an effort to achieve better coordination and impact. Milestones in these developments were: the Technical Advisory Group (TAG) Low-Cost Sanitation staff meeting held in Nairobi in 1984 and the Fourth Meeting of the Handpumps Advisory Panel held in China in August 1984, both of which accelerated the shift away from technology research and development towards greater emphasis on "software" issues; and the evaluation of the Africa PPU's in 1985, which recommended that they be replaced by interdisciplinary Sector Development Teams (SDT) that would bring together under a single management the expertise then scattered among the various individual projects. The SDT concept was accepted and subsequently developed into the network of broader-based Regional Water and Sanitation Groups (RWSG) that now constitute the principal field mechanism for the implementation of Program activities.

9. A third trend that emerged as the Decade progressed was a growing realization that to be really effective, project preparation and other micro-level activities needed to be carried out within an overall supportive national sector policy and planning framework. The several evaluations of the PPU's carried out in Africa and Asia confirmed this and led to increased emphasis on broader sector work, including sector studies and policy advice, as a major component of Program activities.

10. These trends culminated in 1987 in a decision by the Bank to merge the separate projects (with the exception of the Asia Sector Development Team) into a single program under the management of the Water and Sanitation Division (INUWS) of the Bank's central Policy, Research, and External Relations (PRE) complex, which would operate on the basis of an integrated strategy that would endeavor to encompass all important aspects of sector development work. The main elements of the strategy are summarized below. Management of the Asia Sector Development Team was transferred in 1985 to the Bank's Asia Region Technical Department, Infrastructure Division (ASTIN), where it remains now.

11. The reorganization of the Program into a single entity has, without doubt, had a positive effect in that it has improved the Program's overall cohesion and direction. It also involved a certain amount of disruption, which only now is being overcome. This has included a virtual cessa-

tion of research and publications activities; the disbanding of the former Technical Advisory Group for low-cost sanitation, which had initiated successful activities in some 20 countries; and a weakening of Program headquarters promotion and guidance of the International Training Network (ITN). The present Program structure comprises an anomaly. The Program is an organic and integrated entity in the operational sense, yet funding by UNDP is still tied to the original individual regional and interregional project components described above while bilateral support is governed by a multiplicity of individual project agreements. This has greatly complicated financial management and accounting.

Program Objectives and Strategy

12. The current objectives of the Program, and the strategy for achieving them are described in a Program document entitled, *Water and Sanitation: Toward Equitable and Sustainable Development. A Strategy for the Remainder of the Decade and Beyond*, published in July 1988. The overall development objective of the Program is to assist participating countries to build up their capacity to deliver safe water supply and sanitation services to low-income communities, both rural and urban, primarily through the use of low-cost technologies and community-based approaches. This poverty-oriented focus has steadily gained in prominence as the major theme as the Program has evolved.

13. The Program provides assistance to participating countries in five principal areas:

- (a) Sector advisory support aimed at the development and implementation of sound sector policies and strategies;
- (b) Organization of pilot and demonstration water and sanitation projects that can subsequently be replicated on a national scale;
- (c) Sector capacity building through training and institutional development;
- (d) Identification and preparation of investment projects that include components targeting low-income unserved communities and assisting governments in mobilizing the external resources to implement them; and,
- (e) Support to local industrial enterprises for the manufacture of low-cost pumps, latrines, and other needed equipment, materials, and spare parts.

A basic premise underlying the Program strategy

is that a piecemeal approach to sector development cannot be effective, and a coordinated approach involving action over several years in all the above areas is needed.

14. These services are provided to participating countries by the Regional Water and Sanitation Groups, which are interdisciplinary teams posted in various subregions to study sector issues at firsthand and to respond quickly to governments' requests for assistance. The four established RWSCs are located in Abidjan and Nairobi in Africa, and in New Delhi and Singapore in Asia. A summary of the composition and expertise of the various groups is contained in Annex 1, page 71.

15. The Program's field activities are complemented and supported by a set of global activities that, in principle, include:

- (a) Applied research focused on major unresolved sector issues both technical and institutional, related to the expansion of service coverage to low-income communities;
- (b) Program analysis for the purpose of assessing effectiveness and refining the strategy; and,
- (c) Dissemination and exchange of information and experience among participating countries and regions through various types of publications and the organization of workshops.

16. Activities in those areas have in fact been very limited during the past two or three years, but are presently being revived and expanded in collaboration with the Policy and Research Unit recently established in INUWS as a joint venture of the Program and the World Bank.

17. For programming purposes, countries participating in the Program have been divided into two categories:

- (a) Countries of primary focus, considered to be ready for more extensive, integrated sector support encompassing activities in all or most of the strategy areas listed above; and,
- (b) Other countries where the Program undertakes to provide specific targeted and time-limited activities upon request by a government or donor. Countries of primary focus currently number about 15, with ad hoc support of different kinds being provided to some 20-25 others.

Regional Differences

18. There are marked differences among the

regions in which the Program operates, as well as among the individual participating countries in the various regions. Among others, these differences include the number and size of countries that the RWSGs are attempting to serve; travel distances and communications facilities; rural/urban population distribution and rates of urban growth; status of sector institutions and availability of trained manpower; and dependence on external assistance for sector development.

19. In Africa, the RWSGs must serve a large number of countries, many of them relatively small in overall population. Sector institutions are generally weak and trained manpower scarce. Water supply and sanitation have a rather low priority, and sector development is heavily dependent on external assistance and consequently is largely donor driven. Urban growth is a relatively low priority but increasing, and rural sector development remains a high priority.

20. In Asia, the countries participating in the Program are fewer, but most contain very large populations. Some of them have large-scale domestically financed rural and urban water and sanitation programs. Sector institutions are generally better developed than in Africa, but many still suffer from serious financial and technical weaknesses. Urbanization in many countries is proceeding at a rapid rate, multiplying the number of mega-cities, and shifting governments' concern increasingly towards the service needs of the urban poor.

21. Latin America has the highest rate of service coverage of any region, but sector development has been relatively concentrated on the

urban areas and usually on the more affluent sections. At the current rapid pace of urban growth, it is estimated that by the year 2000 the region will be 80% urbanized, creating a need for much higher priority and increased coverage in urban, congested low-income areas that are multiplying rapidly. Many of the poorer countries of the region continue to have large unserved rural populations also. Large external debt burdens hamper governments' ability to allocate large resources to the sector.

22. This brief, overgeneralized picture is meant to convey some ideas of the diverse regional and country context within which the Program operates presently and which it must deal with in the future.

Program and Field Project Costs

23. The annual cost of the Program, including both core program costs and field project costs, is currently running at close to US\$11 million per year, with costs for 1990 estimated at US\$6.7 million for program costs, and US\$4 million for project costs. More details on the breakdown of the two categories are presented in Annex 4 (see pages 88-89). The program costs are funded by UNDP and 10 cooperating donors. Project costs are funded from UNDP country indicative planning figures (IPF), and in some cases, by bilateral donors through cost-sharing arrangements with UNDP. Counterpart contributions from participating countries in the form of cash payments, office space, equipment, and other supplies are an important factor.

II

An Emerging Identity

A New Approach

1. As a multilateral program (World Bank execution, predominantly UNDP funding), the Program has a mandate that bilateral agencies do not have. The message (community-based, low-cost) is not new in the rural water supply sector, although it is still rare to achieve it successfully. The medium (UNDP-World Bank combination) is new in the sector. The merging of the message with the medium is also new.

2. Another novelty in the sector is the extensive interplay with donor governments. As pointed out by representatives of the governments themselves in a series of interviews conducted by the Team Leader in visits to national capitals, the Program is the only full-focus, multilateral effort positioned (if not yet always successfully so) to search out gaps in service coverage in easily overlooked areas and to attack the causes of such gaps: weak sector policies and institutional structures, limited mastery of community development techniques (including social marketing and participation of women), and inability to finance experiments in low-cost, easily maintained facilities. More than once the view was expressed that the Program has become increasingly a wide-ranging center for fusing the fragmented, sometimes even conflicting and repetitive efforts of an international community, which has been awakened only in the past decade to the massive nature of unmet needs in the sector and the dire conditions facing millions.

3. The major areas of concentration have been defined as rural water supply and sanitation,

periurban and urban sanitation, and resource recovery/solid waste management. This coverage has by now come to require a particularly broad range of activities, incorporating aspects such as sector advisory support, demonstration projects, project preparation and supervision, industrial and private sector support, and capacity building. In such a widespread mix, the establishment of a clear identity is not easy. Most important in the efforts to clarify the role and potential worth of the Program are the participating countries for whose benefit the complex work is undertaken. They may be readily forgiven for their difficulties up to now in identifying with precision the definition and place of the Program in a sector that has an unusual number of players in the government itself, not to speak of the dozens of organizations and donor governments also involved. To compound the problem, the Program has a unique persona that one day shows a World Bank face, the next day a UNDP one. And somehow it also reflects more than casual connections with a number of donor governments as well as many multilateral organizations and NGOs.

4. The Program's broad and central role in the sector calls for an array of consultative and operational relationships with these other assistance programs. The pattern has been uneven, and the Team considers that enhanced efforts to coordinate with other programs will be required in the future. A positive and useful step in this direction would be for the Program to arrange with other agencies for the provision of short-term consultant services as required.

5. The newly reconstituted Water and Sanitation Collaborative Council, in which multilateral and bilateral agencies as well as representatives of developing countries are represented, should further contribute to the process. The other principal coordinating entities, including, to date, the Steering Committee for Cooperative Action for the International Drinking Water Supply and Sanitation Decade, as well as the Intersecretariat Group for Water Resources of the Administrative Committee for Coordination, should also be taken into account, although their direct relevance to the specific work of the Program is more distant.

6. At their headquarters and in the field, the Team consulted with all agencies prominently and regularly concerned with the activities of the Program, and found them generally anxious to achieve maximum coordination.

7. The *World Health Organization* (WHO) is a significant potential partner of the Program because of its constitutional status as a major participant in international health and environmental initiatives. A variety of reasons have made it difficult for WHO to reach its full potential in water and sanitation services over past years, and its managers see greater collaboration with the Program as an avenue for breakthrough. As an example of mutual help, WHO points to a WHO engineer post (financed by a bilateral program) in the East Africa RWSG at Nairobi. However, the Assessment Team reviewing Africa found no other close links at present.

8. A particular facet of WHO that is relevant to the Program is the CESI-profile system. The Team considers that continuous consultation with WHO on the progress of this system can only be beneficial.

9. The *Pan American Health Organization* (PAHO) has for some time been in close contact with the Program in an effort to assure collaboration in water supply and sanitation work throughout Latin America. In the words of the Latin America Assessment Team: "In discussions with PAHO in Washington, that organization expressed interest in the possibility of becoming an active participant in the UNDP-World Bank Water and Sanitation Program in the region. As PAHO is a very active organization in the American continent, with a network of offices and installations in all countries of the region, we believe that this offer is a good opportunity for some type of association with the Program at the field level."

10. The *United Nations Children's Fund*

(UNICEF) has also signified interest in larger collaborative efforts, particularly in information gathering and exchange, and the Field Assessment Teams have found evidence of considerable collaboration, although on an uneven basis. The report of the Africa Team has these remarks on UNICEF: "Attitudes ranged from noncommittal to positive, although UNICEF, like others, is not always clear as to the role and mandate of the Program. Examples of collaboration may be found in Kenya (where UNICEF and the Program do the groundwork for quarterly sector coordination meetings), and in Ethiopia, where there is a valuable exchange of information. In Nigeria, where UNICEF has been involved on a very large scale, collaboration was less close."

11. The *United Nations Department of Technical Cooperation for Development* (UN/DTCD) has significant interest in much closer association with the Program, an interest that has not yet achieved much response. DTCD has valuable assets in the form of technical advisers at headquarters and regional and national levels of planning and management in groundwater resources. The Team recommends that closer connections be established.

12. The *International Labour Organisation* (ILO) also would like to open up opportunities for mutual efforts, little connection having been established up to now. The Team considers that the management training facilities of ILO could be brought into play to good effect ("training of trainers," for example), and ILO's expertise in the social aspects of human resources development could offer good balance to the more technical orientation of the Program.

13. As for the regional development banks, the field Assessment Teams found that, while these banks are major investors in the sector, their connections with the Program and other water supply and sanitation operational agencies are remote. In fact, the Africa Assessment Team wrote, "Both [East and West African] Program staffs reported that there has been no contact at all, although the African Development Bank judged the Abidjan workshop and conference in May 1990 to have been a success." It seems to the Team that progress in achieving closer collaboration between the regional development banks and the operational agencies, including the Program, can only come at first through consultations in the Collaborative Council. Once broad understandings are reached at that level, it should be possible to formulate specific modes of cooperation be-

tween the banks and operational agencies.

14. The *United Nations Capital Development Fund* (UNCDF), which operates under the aegis of UNDP, developed a large program in water and sanitation for the poorest groups in the least developed countries (LDC) during the Decade of the 1980s. In addition, a number of housing projects for the poor were developed with water and sanitation components. Although in many cases certain consultations took place with PROWESS (also under the UNDP banner), these projects could have profited from a closer association with the UNDP-World Bank Water and Sanitation Program. The UNCDF projects normally have a technical assistance component financed by UNDP and an investment component financed by UNCDF. The offices of UNCDF in the field are located in the UNDP office under the authority of the UNDP Resident Representative.

15. The Program should develop a strategy to deal with UNCDF, which could include an agreement with UNCDF to be informed at the very beginning, when project identification takes place, in order to be an active participant in the development of water and sanitation projects.

16. The *United Nations Centre for Human Settlements* (HABITAT) can be counted as another untapped reservoir for cooperative action with the Program. Based in Nairobi and still active in establishing its own role in the sector, HABITAT has indicated interest in developing close links with the Program.

17. *Promotion of the Role of Women in Water and Environmental Sanitation Services* (PROWESS) is a special program of UNDP that has valuable potential for helping develop processes and informational materials for community involvement, particularly with regard to a key segment of the population — women. In its work with the Program and in its assignments of expert staff to the Program both in Washington and in the field, PROWESS has already shown itself poised to lend considerable assistance in facing the challenges ahead (as described in Chapter X), often through the use of new approaches.

18. *Nongovernmental organizations* have special importance for activities with strong grassroots links, like the Program. The intensity and frequency of contact depends on the nature of the work at any given time, but the Team recommends that the RWSGs be encouraged to nurture

relationships with NGOs prominent in the sector at national and local levels. The Africa Assessment Team offers this view: "The Program may have a comparative advantage (relative to World Bank operational divisions, for example) in establishing and maintaining links with NGOs and more could usefully be done in this respect. PROWESS should also be a means to maintain and increase links with NGOs. Many NGOs work with local rather than central government."

Sharpening the Image

19. Thus, the Program begins the 1990s with a unique (and mysterious, to some) combined management, a significant but not well-defined place among the many organizations operating in the sector, and a far-reaching, not entirely specific mandate (again confusing to some). The image is not entirely sharp, the mandate yet to be clarified.

20. In succeeding chapters, the Assessment Team offers a number of recommendations that will, if accepted, sharpen the image and clarify the mandate. As a first step, though, the awkward and not very enlightening name of the Program should be changed. It is clear to the Team that those who come into contact with the Program, and even those who work within it, are confused as to its identity. Innumerable concrete examples could be cited of how the staff present themselves — as World Bank, World Bank-UNDP, UNDP-World Bank, and so forth. The range of different written forms on name cards, letterheads, project cars, and the like, is remarkably wide. And none of the designations captures the true essence of the activity: a combination of two major partners, working in growing harmony with a cluster of other partners, including bilaterals, multilaterals, developing countries, NGOs, and others.

21. The Team therefore proposes as a first recommendation that a name change take place, and that the Program henceforth be known as the *Joint Program for Water and Sanitation*.

22. The second recommendation is that a brochure should be issued to announce this change and to define a clearer image. This would essentially be a successor to the publication entitled, *Water and Sanitation: Toward Equitable and Sustainable Development. A Strategy for the Remainder of the Decade and Beyond*.

III

The Financial Base

UNDP

1. Although based at the Washington headquarters of the World Bank and managed under Bank auspices, the Program continues, as from its commencement, to depend heavily on UNDP for its financial underpinning. This is appropriate enough (provided that substantial funding from other sources continues to grow in size and variety), since UNDP is positioned as the world's largest multilateral center for preinvestment development assistance and possesses a global network designed to facilitate planning and implementation of the gap-filling, poverty-oriented type of technical assistance that features predominantly in the Program's output.

2. The dominance of UNDP as a source of external funding (about two-thirds of which derives from UNDP) causes some disquietude because of uncertainties about that organization's commitment to maintaining the present solid level of support. Nevertheless, the Team considers that heavy UNDP involvement is logical and essential for the foreseeable future. Many aspects of the Program are keyed to global and interregional activities, including a large proportion of the research, policy planning, training, and general-interest publishing carried out at the Program's headquarters. Furthermore, the amount of crossfertilization of ideas and new initiatives and techniques, which takes place across regional borders and around the world, is impressive and continuing. The Team therefore suggests that UNDP's Division for Global and Interregional

Projects would be fully justified in seeking to continue average annual support at the existing levels as a minimum.

3. As for the other funding services within UNDP, including the Regional Bureaux, the situation is more complex and even more uncertain. Regional funds at the disposal of these Bureaux are limited and have been subject to diminution recently. Each Bureau reaches decisions independently on Program funding for each cycle, and competition from other potential sectors is heavy and extensive and heavily influenced by governments. Nevertheless, the Team found in discussions with the Bureaux that there is substantial agreement that participation in core financing for Regional Water and Sanitation Groups, as well as for enhanced financing through IPF allocations or bilateral arrangements involving in-country projects can be fully justified. The Regional Bureaux for Africa and for Asia and the Pacific have been heavily involved for several years, while the other two — Latin America and the Caribbean; Arab States and European programs — are presently cooperating in reviews of potential extension of the Program into their areas of interest.

4. In the view of the Team, the UNDP contribution towards the emergence and increasing impact of the Program deserves highest commendation, since the Team is convinced that without this support (often achieved in the face of severe procedural and organizational problems) there would be little prospect of reaching the present level of achievement. The downside is that up to the present time, in spite of universal appreciation

of its ground-breaking role, UNDP has been forced to continue its support in somewhat hand-to-mouth fashion, and in a fragmented manner at that. This means that solid planning figures (in the same sense as UNDP's indicative planning figures for regions and countries) have not been available to the Program's managers as they attempt to forecast available resources for future years. The respective inputs from DGIP and the Regional Bureaux for support of core expenses, including particularly those of the RWSCs, are not planned and administered as a package over a long period of time, but instead appear as a series of "projects" with varied arrangements as to funding, timing, purpose, and authorization.

5. The Team therefore proposes that the Administrator of UNDP consider the possibilities of consolidating estimated support figures from DGIP and Regional Bureaux into an overall UNDP indicative planning subvention to the core expenses of the Program (including both headquarters and field expenses) on a rolling basis over a five-year period. This estimate would be adjusted each year, taking into account developments and expenditures for the year just past and adding the planning subvention for the fifth year ahead. The Team believes that a concomitant improvement could be achieved by consolidating planned support figures into the minimum possible number of project documents, ideally one.

The World Bank

6. Central as the World Bank may be to the management of this innovative and highly visible Program (see Chapters II and V), the Team found little evidence of direct financial support by the Bank on a significant and continuing basis. Indeed, such supporting services as derive from the Bank in the form of office accommodations and other central housekeeping facilities appear to be offset by UNDP payments to the Bank for overhead costs generated by project implementation. The entire funding picture in this regard is obscure and deserves early clarification, but the Team has had to conclude that the Bank has yet to make any meaningful contribution to the financial underpinning of the Program.

7. In the Team's view, this is highly unfortunate from all standpoints. A significant measure of financial support from the Bank for the Program's core expenses would be a recognition of partnership and relevance and would be bound

to assist the Program in attracting further support and in rapidly expanding its coverage to unserved areas. In turn, the Bank would receive even greater benefits than are now realized in the supportive work of the Program relating to Bank operations that target the poor, an area where the Bank has not had a meaningful track record. But beyond the narrow question of cost-benefit lies the broader issue of full commitment to goals and approaches freshly endorsed by the Bank for new and urgent global attention: poverty alleviation, serving the unserved, community development, rural and local coverage, women in development, safe water for all — all these are bywords for the 1990s, and all are at the heart of everyday operations of the Program.

8. There is also the very practical problem that UNDP, as one of the two "managing partners" of the Program, can hardly be expected to maintain its heavily weighted support for core costs in the complete absence of a substantial, and preferably equivalent, annual financial commitment from the other "managing partner," the World Bank. More than a simple question of equity, this point becomes a matter of marshaling comparatively modest resources in the most effective and extensive way to achieve a great purpose that both organizations have accepted as a challenge, along with other participants in a combined international effort.

9. Accordingly, the Team recommends that the President of the World Bank and the Administrator of UNDP agree to the formation of a Joint Task Force to negotiate an appropriate division of core support costs between the two sponsoring institutions.

External Support Agencies

10. Although not heavily involved in core costs of the Program (there are a few disparate examples of sponsorship of particular core posts by individual governments), the major donor governments, numbering about 10, play a most important role, and their contributions to the costs of projects administered by the Program are significant. Often working extensively in the sector through their own bilateral organizations and participating in intergovernmental consultative processes, they see the Program as a useful and sometimes indispensable medium for augmenting their necessarily limited approaches, for pulling together the strands of varying efforts in given

regions and countries, and for helping focus sector policies in favor of uncovered populations and helping to build the capacity of governments to respond to these policies (see Chapter II).

11. For these reasons, the last few years have seen significant inputs by 10 donor governments, and there are indications that these may become more substantial as and when the Program starts to realize its full potential. The reference here to "donor governments" can be misleading. There is of course no single executive segment of any donor government where all policies and financing activities for the water and sanitation sector are determined and administered. The familiar diffusions of responsibility and control among government ministries and departments are to be found among donors. Health, agriculture, urban affairs, rural development, natural resources — the list of particular interests goes on and on, while the situation is further complicated in some cases by complex arrangements among the development assistance components dealing with multilateral affairs and those dealing with bilateral programs.

12. It is not for the Team to advise how donor governments should meet these problems — and in a number of cases satisfactory coordination does appear to exist — but it is essential for the Program to be able to count on a single channel of contact that can quickly and authoritatively resolve financing questions and provide the Program with fully reliable information about future participation. It is also most necessary to emphasize the value of an unfragmented approach by donors — that is, an effort to establish a planned scheme of inputs over a period of time, preferably on a multi-year basis. Some donors are already making conscious and conscientious efforts in this regard, but others have yet to consider the mutual value of scheduling financial contributions, core staffing support, and project inputs in a consolidated and long-term manner.

13. What are the major concerns and preoccupations of donors that, if satisfactorily resolved or ameliorated, might result in greater support for the Program and enable its expansion as proposed in this report? In discussions with donor government representatives both at the headquarter offices and in the field, the Team found a fairly solid consensus pointing towards the following areas for concentration:

- (a) By far the greatest preoccupation among donor governments is the overriding need for feedback, on an authoritative and thorough basis, from the Program's management on the utilization of contributors' inputs and on the general progress and evolution of the Program. Recent steps by the Manager to concentrate more thoroughly on donor relations are sure to be welcomed, and in the view of the Team, frequent visits to donor headquarters will be more than compensated by enhanced flows of support. Beyond this, written progress reports sent on a regular basis to supporting governments will have a beneficial effect. Chapter IV on "Interchange with Sponsors" contains a recommendation for a Review Board that, in the view of all donors interviewed by the Team Leader, would be the single most effective vehicle for the enhancement of true dialogue and for the ventilation on a regular but informal basis of the important concerns of donors.
- (b) A program responsive to donors' concerns will need to assure increasingly that its activities are demand driven — that is, that project and support efforts can be seen to reflect national needs and thus to emerge from local dynamics rather than from top-down planning. Chapter VIII, "Strategy and Effectiveness," deals with this issue.
- (c) Donors want to receive continual and convincing information proving that the diverse global, interregional, regional, and country activities of the Program all have an eventual outcome that produces measurable benefits at the level of local communities, whether of a large urban or small rural character.
- (d) A growing tendency is for the Program to employ nationals of developing countries for service in their own countries, either in projects or in national offices, and to a lesser but growing extent in RWSGs. This practice is one of the most appealing aspects of the Program (see Chapter VII, "Field Structure").
- (e) The concept of the International Training Network (ITN) is appealing in theory to most, but there are doubts and lack of hard information on its effectiveness in practice, Chapter IX, "International Training Network," deals with this subject.

IV

Interchange with Sponsors

1. Chapter I underlines the Program's emergence as an organizationally defined entity with the usual attributes of financial underpinning, staff support, and linkages with its sponsoring institution and other interested parties. Some of these attributes have unusual features and even unique aspects, but they nevertheless generally cover the areas of management normally found in public administration, both nationally and internationally.

2. A missing feature, and one that in the opinion of the Team has high importance, is a mechanism for providing policy guidance, review of past operations and future plans, and interchange of opinions and information between the Program's management and its financial supporters. Both of the managing partners have their own legislative bodies, but neither the UNDP Governing Council nor the Bank's Board of Governors are directly enough concerned with the Program's specific activities to offer the necessary interchange. This interchange should respond to the Program management's need for guidance by the sponsoring governments while providing the same governments with the complete coverage of progress and performance that only informed and unrestrained dialogue can produce. Such advice and guidance is automatically available on a consistent basis from participating countries, where programming and implementation consultations offer constant opportunities for valuable interchange on all matters.

3. In interviews with virtually all governments now offering financial support, the Team

found widespread interest in the establishment of a means to bring about such dialogue without the construction of elaborate new machinery and burdensome procedures. In turn, the management of the Program has expressed satisfaction with such a concept, provided that it is carefully tailored to encourage real dialogue and to discourage any tendencies to bureaucratize the arrangements.

4. The advantages of such an initiative would not be limited to free flows of information and enhanced understandings of goals and concerns. In addition, there would be the possibility for the Program to proceed in a more authoritative and fully grounded way as it embarks on new courses of action, modifies its major management features, and wrestles with perplexing and often unprecedented issues that invariably arise in international activities breaking new ground. At present, the Program is largely dependent for general policy guidance on ad hoc consultations and seminars dealing with broad strategies and issues and designed to provide guidance to the entire world community or to regional groupings. Thus, the deliberations in the recent Global Consultation on Safe Water and Sanitation for the 1990s, which produced "The New Delhi Statement" of September 14, 1990, provided valuable information-sharing opportunities on strategies and targets and benefited the Program along with all other major players in the sector; but the meeting was in no way intended as a supervisory or consultative entity for reviewing specific plans, projects, and management processes.

5. Similarly, intergovernmental and

interagency machinery exists in abundance, if not overabundance, to seek general agreement on goals and to work towards coordination and joint planning, but — as the examples of the United Nations Steering Committee and the Water and Sanitation Collaborative Council demonstrate — this machinery is not designed, in its orientation and composition, to meet the Program's need for a sounding board and for authoritative reviews of the specifics of its operations.

6. The Team has concluded that in these circumstances a flexible, unencumbered Review Board of limited membership could make a substantial contribution to the work of the Program. In addition to providing the setting for candid and unstructured exchange of views, for consideration of new initiatives, and for free flows of information, the Board would furnish the Program with a collective and authoritative voice, able to sanction important policy statements and to assist in verifying the need for significant changes in managerial and programming arrangements. Undoubtedly, there would be a significant added benefit in the form of attracting continuing and additional financial support for the Program.

7. In regard to policy statements, the Team has in mind the Program's publication of July 1988 entitled, *Water and Sanitation: Toward Equitable and Sustainable Development. A Strategy for the Remainder of the Decade and Beyond*. This centerpiece among the basic documents giving the Program its solid foundation continues to serve as the Program's charter, but it is essentially an internal document of the Program, without broader sanction other than that afforded by the parent World Bank department. In the view of the Team, documents of this kind would benefit significantly from review and approval by a Review Board.

8. It also occurs to the Team that many of the very problems it has dealt with extensively itself in the present report could be discussed with great advantage in the Board, as they assuredly will be with participating governments. Indeed, the Team would hope that if the recommendation for

a Board be accepted, one of its initial tasks would be to review this report and to reach understandings on its major proposals.

9. As for the composition of the Board, the Team strongly suggests that it be confined to representatives of those governments and intergovernmental organizations that are supporting the Program through direct cash contributions or indirect means, such as project inputs or staff resources, plus the World Bank and UNDP as managing partners. It will be important to assure meaningful dialogue by restricting the size and orientation of the Board to those sponsors whose financial support makes the very existence of the Program possible. Arrangements could, of course, be made for attendance at any given meeting by any government or organization with particularly pertinent interest in matters to be reviewed, and the Board may wish to provide for continuing attendance in some cases. The Board should establish its own procedures (simplified to the greatest possible degree) and should choose by consensus its chairman and rapporteur. Secretariat services, including advance circulation of documents for review by the Board, should be provided under arrangements agreed to by UNDP and the World Bank, in consultation with the Program Manager. A Board session of two or three days in the early part of each year should be sufficient. Such timing would enable pertinent issues to be brought to the attention of the annual June session of the UNDP Governing Council, if necessary and appropriate. Since nine of the ten currently sponsoring governments are in Europe, the Geneva office of UNDP would appear to be the most convenient venue.

10. The introduction of a Review Board as part of the total management process will call for an even closer consultative arrangement between UNDP and the Bank than now prevails. The Team understands that consideration is already being given to strengthening the liaison between the two institutions in regard to shared programs in general. This strengthened liaison can be particularly helpful for water and sanitation activities.

V

The World Bank Linkages

1. The World Bank interfaces institutionally with the Program in a dual manner. As executing agency for the Program, the Bank is responsible for Program management and is legally and financially accountable to the Program's financiers for the effective execution of the Program in accordance with the terms of the project documents and other project agreements with supporting donors. The Program's relations with various levels of Bank management thus have a bearing on Program performance and donor relationships.

2. Through its operational departments and divisions, the Bank also relates to the Program in another way. A major objective of the Program, though not the only one, is to generate additional investment in rural and periurban water supply and sanitation for the purpose of extending coverage to unserved, lower-income communities. The single largest potential source of such investment funds is the World Bank Group. The Program accordingly has a strong interest in working with the Bank's operational divisions to identify and help prepare suitable water and sanitation projects for inclusion in the Bank's lending programs. On its side, the Bank is not fully equipped through its mainstream departments and divisions to deal with low-technology, community-oriented water and sanitation programs, and it needs the assistance of the RWSGs to expand its operations significantly in this area.

3. Close collaboration between the Program and the Bank's operations and technical departments is therefore mutually beneficial, and will become more necessary in the future, as the Bank

shifts its policy increasingly towards poverty-oriented projects, as it is in the process of doing. There is, however, a certain amount of tension built into the Bank-Program relationship. The Bank is a lending institution and staff are under constant pressure to expand loans and credits. However, in the area of the Program's major concentration, additional funding, while obviously needed, is not the main problem: the primary need is to expand coverage through systems that will in the long run be sustainable, and to ensure use of simple technologies and close involvement of communities in the operation and maintenance of systems.

4. Building such systems requires time and intensive field work by specialized personnel. Experience during the Water and Sanitation Decade shows that efforts to implement rural projects in haste with large-scale injections of external capital often prove counterproductive. The role of the Program vis-à-vis the Bank should therefore not be merely to help generate additional investment in the sector but to assist the Bank plan and implement its loans and credits prudently and at a pace consistent with community-based approaches and with long-term sustainability. This would mean expanding investment selectively and — in most countries, particularly in Africa — slowly.

Relations with the Bank's Regional Departments

5. Cooperation between the Program and the Bank's Africa and Asia regions (technical and

country departments) is generally good and expanding. There has been little collaboration with the Latin America and Europe/Middle East/North Africa Regions, largely because the Program has had no field presence and only a few ad hoc activities in these regions. With the recent expansion of Program activities in Latin America, closer cooperation with the Bank's Latin America Region is beginning to develop, notably in Bolivia. In earlier years, the Program was not particularly well regarded by the Bank's operation divisions. Its activities were considered to be (and in large part were) marginal to the Bank's lending activities, which in the water and sanitation sectors were concentrated heavily on urban areas and on capital-intensive conventional water and sewerage systems. This situation has changed markedly over the past few years as Bank sector policy has shifted towards more emphasis on rural water supply and poverty-oriented activities and as the achievements of the Program have become better known throughout the Bank. The Team found all regional departments quite well informed regarding the activities of the Program; and while assessments of the Program's tangible impact on sector development vary, the potential of the approaches developed is increasingly recognized.

6. Collaboration between the Program and Bank operating divisions takes place in two main areas:

- (a) Participation of Program staff in the identification and appraisal of rural water supply and low-cost sanitation projects, or components of projects proposed for Bank funding; and,
- (b) Cooperation with the operating divisions in broader sector work, including sector studies and strategic planning. These activities are identified in the Program's annual and progress reports as "operational support to the Bank" (code OSB). The controlling instrument for Program-Bank cooperation in these areas is the annual country work plan, which is formulated by the Program staff in consultation with the operating divisions at the beginning of each year. After the work plan has been agreed upon, the respective country departments deal directly with the RWSGs for implementation.

7. While Program operational support to the Bank has been increasing, these activities presently absorb only a moderate share of Program resources as measured in staff weeks. The table in

Annex 3 shows how operational support has developed in 1988-1991 in terms of numbers of staff weeks programmed. As in the case of country activities discussed above, actual delivery may diverge from the programmed inputs.

8. Is collaboration between the Program and the operating divisions of the Bank perhaps too close? One major donor interviewed by the Team Leader expressed the view that the Program is seen by some governments and donors as basically an instrument of the Bank to generate bankable projects. On the basis of its own appraisal of Program-Bank relationships, the considered view of the Team is that the present cooperative arrangements are appropriate and beneficial to participating governments.

9. As mentioned above, the collaboration is focused on two main areas — namely, identification and preparation of low-cost rural and periurban water and sanitation projects; and broader sector work. As for the first category, preparation of investment projects for possible Bank/IDA support is a government responsibility for which the Bank does not provide technical assistance on a grant basis. Participation of Program staff in the identification and preparation of such projects should therefore be regarded primarily as a service to the concerned government and is, in fact, welcomed by participating countries as such. With regard to broader sector work, the objective is to assist governments to develop the sector policies, strategic plans, and investment programs needed to identify priorities and to attract external investment — both multilateral and bilateral. In this activity the Program needs the support of the country and technical departments of the Bank, which are major sources of sector information and are already working with governments on policy and institutional issues in many countries. Conversely, the participation of Program staff in sector work helps to ensure that poverty-oriented and low-cost approaches are adequately addressed and built into final project designs.

10. On the basis of the above findings, the Team concludes as follows:

- (a) The collaboration between the Program and the Bank's operational divisions is appropriate and consistent with Program objectives and has been beneficial to both, and most importantly, to the countries participating in the Program.
- (b) It follows, in the Team's view, that the World

Bank should continue to serve as executing agency for the Program. Transfer of managerial responsibilities to another agency would make it very difficult to maintain the proper coordination of Program activities with the Bank's mainstream sector development and lending activities.

11. The Team accordingly recommends that:
- (a) The World Bank should continue to manage the Program.
 - (b) Existing cooperative arrangements between the Program and the Bank's operating divisions should not only be continued but should be strengthened in the interest of accelerating sector development, carefully observing, however, the respective roles of the Program and the Bank in this joint enterprise, in line with the considerations advanced above.

Location of Program Management within the Bank

12. Headquarters management of the Program is presently the responsibility of the Water and Sanitation Division (INUWS) of the Infrastructure Department of the Bank's central Policy, Research, and External Relations complex. The question has been raised several times over the past years as to whether cooperation with the Bank's operating divisions could be enhanced and the impact of the Program correspondingly increased, if the management of Program field operations were decentralized to the Bank's regional offices, specifically the regional technical departments. On this important issue the Team found that not only does no consensus exist within the Bank, but there is in fact a wide divergence of views on the subject. (This question is distinct from but related to the issue as to whether the RWSGs in Asia and the Asia Sector Development Team should be brought under single management, and if so where in the Bank. This issue is dealt with in Chapter X.)

13. The Program's management strongly believes that the present arrangements should be maintained. The following reasons are advanced in support of this position:

- (a) Cooperation with the Bank's operating divisions is basically satisfactory at the present time and continues to expand.
- (b) Location of the Program within INUWS permits close cooperation with the division's Policy and Research Unit, which is essential

to maintain the proper balance and close linkage between field operations, applied research, and program analysis. Transfer of operational management to the Bank's several regions would risk destroying the present integration of the Program's country and global work programs and could affect the Program's impetus adversely.

- (c) Present management arrangements ensure an appropriate balance between operational support to the Bank and Program services to other donors. Transfer of management to the Bank's regions might lead over time to the subordination of Program activities and resources to the Bank's lending operations, to the detriment of future donor support.

14. The Bank's regional technical departments, particularly in the Africa Region, see things differently. The Africa Region Technical Department's Infrastructure Division (AFTIN), which has the responsibility of supporting the sector operating divisions, strongly believes that AFTIN management of Program field operations would greatly increase the impact of the Program in Africa without endangering its goals or integrity. The following arguments are advanced in support of this view:

- (a) While the operational support that the Program presently provides to the Africa SODs has been growing, it is much too little to support the large-scale poverty-oriented rural water and sanitation program to which the Bank's Africa Region is committed; a program with a target of creating five or six large-scale rural water supply projects in African countries over the next three to four years. Planning and development of those projects, for which RWSG assistance is needed, will require long-term and expanded commitments of Program support to the SODs, which can best be assured by AFTIN management of Program operations in Africa.
- (b) Broad policy reform and institutional changes are needed in Africa to move beyond the kinds of demonstration projects presently promoted by the Program and to scale up to countrywide replication. The influence and direct involvement of the Bank as an institution are needed in many countries to bring about the necessary policy and institutional reforms. "Stand-alone" projects cannot accelerate sector development at the rate needed and will become increasingly rare in

the 1990s. Close integration of policy work and the Program's activities can most effectively be achieved by shifting the management of operations in Africa to AFTIN. Without the necessary integration, the Program runs the risk of becoming increasingly marginal in Africa as the 1990s progress.

- (c) Location of an operational Program of this type in the Bank's central Policy, Research, and External Affairs complex is inconsistent with the Bank's basic regional structure. Shifting the management of Program field operations to the regional technical departments, while leaving research and technology development activities with PRE, would remove the anomaly.
- (d) AFTIN notes, finally, that it has established a new position funded by the Bank to oversee its future poverty-oriented water and sanitation development activities in the Africa region. The person recruited has been a senior manager of the UNDP-World Bank Program, and that background will help to ensure

consistency between the Program's and Bank's approaches to sector development in Africa.

15. Within the Bank's Asia Region, the Asia Region Technical Department's Infrastructure Division (ASTIN), which presently manages the Asia Sector Development Team, also leaned towards regional management of the Program's field operations in Asia but attached less importance to the issue.

16. In both the Africa and the Asia Regions, the country operations departments (as distinguished from the regional technical departments) expressed the view that present management arrangements meet their operational requirements satisfactorily.

17. The issue is clearly a sensitive and controversial one, raising strong differences of opinion within the Bank. Having heard the different positions and weighed the pros and cons of the various alternatives, the Team finds no compelling reasons to recommend a change in the management location of the Program at this time.

VI

Management and Staffing

1. As the report of the Africa Assessment Team states: "To the outsider, the Program seems an administrative nightmare." It can never escape the complications imposed by its complex system of multiple sponsors (UNDP, World Bank, bilateral), but this interplay of supporters is at the same time one of its greatest strengths. It accepts financial and other inputs in specifically tailored ways to suit the requirements of donors, and it budgets and accounts for each item in a handcrafted manner; uneconomically to be sure, but the only way to capture and retain specific kinds of support. It delivers its products either in the form of scarce and expensive individual expertise; specifically molded projects, often requiring labor-intensive inputs; or training programs that usually reach out to hitherto unreachable areas.

2. In short, the Program in its particular circumstances and with its special challenges has no option but to utilize retail types of machinery in attacking the wholesale problems that confront it and that would otherwise be largely ignored or avoided by the world community.

3. The field machinery required to move the Program at the point-of-contact level (regional, country, local community) is described in Chapter VII. Tempting as it may be to speculate on decentralizing such a Program to an unprecedented degree in order to maximize direct services to beneficiaries, the references in the preceding paragraphs illustrate why an actively functioning management and planning center is indispensable, and why a fairly extensive headquarters operation in Washington continues to be required.

4. The Team, through group consultations and individual interviews, has examined all major functions carried out at headquarters and has reviewed with the Program Manager his current plans for regrouping these functions under a plan developed since his appointment in mid-1990. A useful tool for the Team in its review has been the aggregation of self-prepared job descriptions prepared by Program headquarters personnel at the Team's request.

5. The Team was neither required nor equipped to engage in a structured organization and management review, a process that might advantageously be undertaken by outside consultants at a later stage, once the current reorganization process has had time to show its effects. Meanwhile, there are important points that the Team underlines for attention.

6. The Program is not a satellite circling in its own orbit, but is an integral part of the Bank's Infrastructure and Urban Development Department, Water and Sanitation Division, reporting to the chief of that division. This relationship is more than a line on the chart of organizational structure. As the Program Manager has stated to the Team: "The intellectual leadership of the divisional and departmental supervisors is essential for us."

7. This point is underlined in the relationships with the Water and Sanitation Policy Unit, a companion element in the division whose staffing is partially supported by the Program and whose work is supportive of and participated in by the Program.

8. As for the internal organization of the

Program's headquarters staff, current staffing and the contemplated reorganization build on the natural element of programmatic backstopping for regional operations: Asia, Africa, LAC, and EMENA. Commendably, each officer is not limited to regional backstopping but is also required to take part in the study and programming of activities in specialist fields, such as women's role in development, waste management, or rural communities.

9. A second grouping of staff is related to administration, a most complex and costly process for the reasons already outlined. Central to the complexities is the budgeting process, which requires the involvement of up to seven staff members. It is in this area that management review could eventually produce some savings.

10. The third basic element is research and publications, dealt with in Chapter X.

11. Management of the Program is aware that delegation of authority and responsibility to RWSGs has many potential benefits, including speedier operations; economies in staffing, travel, and communications; and more effective delivery of services. The Team found that the devolution process is taking place in a deliberate but determined manner. It should continue.

12. The most significant problem at headquarters, where it is seen in stark relief because of the Program's location in Bank headquarters, is also felt in seriously damaging ways in the field. This is the question of conditions of service for Program staff, a perplexing and largely unresolved issue that is sapping staff morale and endangering the successful continuation of the Program.

13. The Africa Team has reported on this problem with specific references to the situation in that region, but the Team as a whole finds the following commentary relevant and indicative for large numbers of Program staff at headquarters and in all regions:

Despite the high level of interest and dedication of the staff, it is clear that morale is seriously affected by problems relating to terms of service and career prospects. These are attributable partly (but not fully) to the special nature of the Program: The involvement of different donor agencies and the lack of continuity of the financial base.

Many examples were given by individual staff members of the frustrations and uncertainties that have arisen. In part these are the inevitable problems that arise when comparisons are made between colleagues from a range of differ-

ent countries and with a range of different skills. But to a very large extent they are attributable merely to uncertainty as to the terms being offered. The situation is complicated by the fact that the local World Bank office (as for example, in Nairobi) deals with many of the administrative issues concerning staff, but may not be fully aware of the complex and varied terms on which they are hired.

The Team recommends that, as a minimum, all staff members — before signing their contracts — should be informed very clearly of the terms on which they are being engaged; not merely in the sense that they are given the "book of rules," but more explicitly, setting out what they can or cannot expect in terms of leave, housing allowances, and so forth.

Going beyond this, the Team also proposes that each prospective staff member should be told the terms of service of others in the RWSGs. This may seem radical, but it is clear that staff members obtain this information soon after arriving in Africa and are often dissatisfied as a result. There is a variety of different terms of service, and the reasons for this are valid and can be explained. But a greater degree of openness in discussing this issue in advance would be an advantage.

As to salaries, the issue is not so simple. It may be sufficient to make it clear that there are several different scales, and that these differ considerably. (The list, possibly not exhaustive, is: World Bank regular staff, World Bank-seconded staff, local World Bank staff, UN-seconded staff, bilateral-seconded staff, local-seconded staff, and consultants).

14. This unflinching description of problems relating to conditions of service is not overstated. The Team Leader encountered a high degree of distress over inequities in staff treatment during a conference with program officers and research staff in Washington. A partial answer is to be found in the Africa Team's suggestion for assuring that the terms of employment are fully understood in complete detail whenever a new staff member is added (and this should include a forthright explanation of the divergences in pay, allowances, and benefits, and the reasons for them). But more than explanation is required; the tangled web of the present nonsystem, whereby comparable staff members work at comparable tasks for varying salaries and benefits, is a prescription for permanent trouble. The Program management, and Bank officials to whom they report, are unfairly exposed to criticisms in this regard, for the unsatisfactory situation is beyond their power to correct.

15. The Team therefore proposes that the Vice President for Personnel and Administration of the World Bank (the managing partner of the Program responsible for its administration) be requested to undertake a review of the existing entitlements

and emoluments of the Program's staff for the purpose of developing a system that would bring the present anomalies and disparities to the absolute minimum consistent with the legal requirements governing World Bank administration.

VII

Field Structure

The RWSG Concept

1. The Regional Water and Sanitation Groups that have been established in Africa and Asia represent the principal mechanism through which the Program provides advice and assistance to participating countries. As indicated in Chapter I, the RWSG concept has evolved gradually over a period of several years, during which UNDP and the World Bank experimented with different approaches to sector development support. The rationale for the selected approach is based on several factors:

- (a) Countries need external advice and support services that often do not require country-based advisors, either because short-term, periodic services suffice or because the multiplication of numerous country teams is not feasible for financial reasons;
- (b) It is difficult to find enough suitably qualified long-term experts required to staff many country teams; and,
- (c) At the other end of the spectrum, to attempt to provide assistance to a large number of countries from Program headquarters would involve a number of financial and technical drawbacks.

2. The RWSG approach was accordingly considered to be the most cost-effective method of delivering Program assistance to participating countries. As multidisciplinary teams, the RWSGs would be in a position to help countries develop longer-term sector policies and strategies as well as to provide advice on particular problems. Lo-

cated in the region, relatively close to the countries they serve, each RWSG would become familiar with regional and national sector issues and could respond quickly to countries' requests for assistance. In a position to make frequent visits to neighboring countries and supported in some countries by national program officers or country teams, RWSGs would be able to maintain continuity of contact with sector officials and thus to develop good working relationships. Finally, they would serve as a single source of expertise that countries could approach for assistance in dealing with a variety of sector issues, a source of help without which countries would have to seek assistance from a variety of donors on an ad hoc, project-by-project basis, with the attendant delays and complications. The features of the RWSG, taken together, give the Program, in the view of its management, a unique comparative advantage not possessed by any other single existing international sector support program.

3. The present field structure consists of four RWSGs: two in Africa, located in Abidjan and Nairobi; and two in Asia, located in New Delhi and Singapore. Annex 1, page 71, contains the assignments and specialties of all field staff.

Findings of the Assessment Team

4. On the basis of its field investigations and discussions with government officials in the countries visited, the Team concludes that the RWSG concept and the field structure of the Program are a basically sound and cost-effective way

of delivering the planned assistance to governments. The decision made in 1988 to decentralize operations from headquarters in favor of the RWSG structure was therefore a correct one. The Team presents findings later in this chapter on the special situation in Latin America.

5. There have been some transitional problems in headquarters-RWSG relationships but generally these have been resolved. Communications have been improved technically (electronic mail) and administratively (requests from the field are more promptly dealt with than previously).

6. The RWSGs benefit from being able to share support services with the World Bank offices. (They pay full cost, but probably obtain better service at lower cost than if they were wholly separate). The expenses of being decentralized are not easy to assess. The only obvious example of additional cost encountered in the field is the excessive administrative burden on the professional staff in Ghana, which accounted for more than 50% of the country coordinator's time. This is, however, a rather atypical case since the country coordinator (who is not responsible for specific projects) does not have a secretary.

7. The appropriate size of an RWSG would appear to be about seven to ten professionals, that is, the typical present size, (with the exception of the East Asia RWSG). A group smaller than this would have great difficulty in producing a significant impact considering the large number of countries to be served in each subregion and taking into account travel distances and communications problems. A group much larger would run the risk of becoming a "mini-bureaucracy" with escalating overhead and administrative costs and burdens, diverting the group manager from professional activities.

8. The composition of the RWSGs and the appropriate mix of professional skills are complicated questions that must be seen in relation to the Program's work priorities and goals in the subregion and countries in which each group works. The aim in Africa has been to put together teams whose members have both generalist and specialist skills, since each team member usually has a dual responsibility: to act as a "country officer" for two or three countries with responsibility for all aspects of the country program; and to act as a specialist to contribute to program development generally. This principle appears to the Team to be basically sound, given the limited resources available.

9. In the view of the Assessment Team, the present composition of professional staff, both in the RWSGs and in individual countries, is too heavily weighted towards engineering skills, particularly if the Program is to move in the directions recommended below — namely, towards less emphasis on demonstration work and more emphasis on the analysis of experience, sector policy development, participatory techniques, social marketing, and capacity building. Within this context, the appropriate minimum composition of an RWSG would appear to consist of the following personnel:

- an engineer (rural water supply)
- an engineer (sanitation and waste management)
- a sector economist/financial analyst
- a specialist in community development and participatory techniques
- a social-marketing specialist
- a human resources development specialist

The core group should be complemented by at least one person-year of consultancy in various specialized disciplines as needed. In West Africa, a public health specialist would be extremely useful. Every effort should be made in all regions to recruit more qualified nationals from the region for the teams. In West Africa, half the RWSG should be French speaking, to facilitate the expansion of Program activities in the Francophone countries.

10. While there is general agreement that the services provided by the RWSGs are generally appreciated by governments and donors, the Team also found a broad consensus that the groups need to develop more sustained contacts with the countries they are meant to serve by building up a stronger in-country presence than now exists in most participating countries. Every regional or subregional entity attempting to serve a relatively large number of client countries through periodic short missions suffers from several inherent limitations: actions initiated during the visits are often not followed up vigorously; it can be difficult through intermittent visits to develop the degree of understanding and mutual confidence needed for successful cooperation with local sector officials; and, client countries not visited frequently can come to believe they are not receiving their fair share of services. These factors, over time, can erode an RWSG's credibility with some governments.

11. The findings of the Field Assessment

Teams, supported by other available information, indicate that the RWSGs have in fact been most effective and appreciated in those countries where they are closely linked up with some kind of in-country support mechanism. In Nigeria, the Abidjan-based RWSG works with a national team that has been built up. In Ethiopia, two advisors have been established in the Water Supply and Sewerage Authority (WSSA) under a UNDP-funded project. In India, a full-scale country team has recently been formed. And in Pakistan, Bangladesh, and China, national country officers (NCO) have been posted. The Assessment Team was impressed with the performance and attitude of these NCOs. Where major operations have been launched without adequate in-country support, as in Indonesia, serious problems have been experienced. In numerous African countries where there are no NCOs, results have been generally limited.

12. The Team concludes that measures need to be taken during the Program's next phase to strengthen its links with the individual participating countries. Several possible approaches for achieving this have been brought to the Team's attention. One would be to increase the number of national country officers. It is suggested that the Program management review the situation to determine in what countries this would be desirable. Necessary budgetary resources should be made available for this increased coverage. It may be noted, parenthetically, that increased use of nationals as in-country extensions of the RWSGs represents a contribution to national capacity building. A second way to strengthen RWSG links with individual countries would be for the groups to establish closer contact with project personnel of other agencies — notably UNICEF, WHO, and UN/DTCDC — already stationed in the country. Such persons could provide valuable liaison with sector authorities, in addition to bringing the Program into closer relationships with other assistance programs, alleviating the fairly widespread perception that the Program works too much in isolation from others. A third approach, appropriate in countries where activity is concentrated, is to establish country teams to manage activities, permitting the RWSGs to devote more attention to countries where Program activities are less developed. This is, in fact, taking place now in some countries, notably Ghana, Nigeria, Zimbabwe, India, and China. The Team endorses this approach.

New Approaches to Latin America

13. At present no Regional Water and Sanitation Group exists in Latin America. During the past decade, the Latin American countries felt that they were in a more advanced stage of development than the Africa and Asia regions and felt that there was no need for an active role or presence of the Program. The same attitude seems to have been reflected in some of the multilateral and bilateral development organizations, in that they accepted the estimates that Latin America was in its own stage of development, that a program oriented towards the poorest groups was not necessary, and that solutions developed in Africa and Asia to provide water for rural communities were not applicable to Latin America. This attitude of the Latin Americans did not mean that they did not care for the poor; rather, it reflected the perception that economic development in the region would take care of the needs of the poor.

14. Unfortunately, the 1980s brought with it a decline in development in Latin America, to such an extent that many countries were much worse off at the end of the decade. The problem of external debt in the region and of deficient government policies in many countries resulted in a decline of production and productivity, an inflation that in many countries was out of control, a lack of savings, fleeing capital, and a great decline in investments. The governments, facing a tremendous problem of recession combined with inflation, did not have the resources to implement the social programs contained in the national plans. As a result in Latin America, water and sanitation in the rural areas and in the large and ever-expanding periurban areas did not receive the priority or the attention that they justly deserved. At the same time, the international development banks became much more cautious in their investments, which, in the case of water and sanitation, were oriented towards the improvement of water supply and sewage systems in the traditional urban areas, where recovery of the loans was more likely to occur.

15. As the 1980s progressed, however, it became evident that a great deal more attention had to be provided to the poor. The international community, in many fora, expressed its dissatisfaction with the state of affairs and insisted on the need to provide more such attention. This was reflected in Latin America by a renewed interest in the poorest groups. Today it is admitted that some

urgent measures are required to take care of the water and sanitation needs of an increasing and migratory population in the periurban sectors of most cities, as well as to find a solution to provide these services in the rural areas.

16. Deprived of the active presence of an RWSG in Latin America, the Program's activities in the region during the Water and Sanitation Decade were reduced to some few interventions handled directly from Washington.

17. An RWSG could have been helpful, especially at the end of the Decade, to identify regional investment possibilities offering pragmatic approaches to serve the poor, as in the periurban area of Tegucigalpa, Honduras, which has benefited from the support of UNICEF. An RWSG could also have helped governments in formulating sector policies and strategies and in promoting the restructuring of water and sanitation institutions.

18. In the Team's discussions with PAHO/WHO in Washington, that organization expressed interest in the possibility of becoming an active participant in the Program. As PAHO/WHO is very active in the Americas, with a network of offices and installations in all countries of the region, the Team believes that this offer is a good opportunity for an association with the Program at the field level.

19. In discussions with many agencies of the Guatemalan government, the Team learned of their interest and strong support for the possibility of establishing an RWSG for Central America/Caribbean in that country. In the Team's contact with the UNICEF office in Guatemala, which is presently active in the field of water and sanitation in Central America and in collaboration with the limited UNDP-World Bank Program activities in Guatemala, interest was also expressed in the possibility of becoming a partner in whatever group or structure the Program would establish in the region. Likewise, the office of the Inter-American Development Bank in Guatemala has reacted positively to the idea of a group that could coordinate and assist in the numerous activities related to water and sanitation.

20. In Bolivia, government representatives in the sector have also expressed total support for the possibility of establishing an RWSG for South America in La Paz. This possibility was also endorsed by the local representatives of PAHO/WHO, UNICEF, the Dutch government, USAID, and the Inter-American Development Bank.

21. The Team believes that with these changes

in attitude in the Latin American and Caribbean region, the time has come to increase the activities of the Program there. In order to achieve this, the Team considers that modest offices — RWSGs in embryo — should be organized at two key locations, dependent in size and coverage on available financing.

22. The Team suggests that a pre-RWSG could be located in Guatemala because of a number of advantages there. International transport and communications are excellent in Guatemala City. The Secretary for the Economic Integration of Central America is located in this city and so are the regional offices of UNICEF. This office could eventually cover all the Central American countries and Mexico, Cuba, Haiti, and the Dominican Republic, as well as the English-speaking Caribbean, including Guyana and Suriname.

23. The other office should be for South America, eventually covering all the countries of this subregion, to be located in Bolivia. La Paz appears to have a number of advantages. Demand for the RWSG is high in Bolivia, and La Paz is well linked in transportation and communication with all the other South American countries. Furthermore, the Program has already had some experience in Bolivia.

24. Concerning structure, both PAHO and UNICEF have expressed interest in an active participation in the Program, the nature of which will have to be negotiated with them. A draft proposal from UNICEF in June 1990 offered to house the Central American-Caribbean RWSG in its office in Guatemala. UNICEF is also ready to provide office services. In both cases, the agencies have expressed an interest in becoming partners of the Program in Latin America in a fashion that would be much more active than in other regions. Furthermore, in Bolivia and Guatemala, where many government institutions and agencies work in the water and sanitation sector — not always in close coordination — some government organizations have expressed interest in participating actively in the Program. INFOM, the Institute for Municipal Development in Guatemala, went so far as to say that they would be willing to host such a group. The Bolivian government has already approved a social investment fund, and it is expected that the Guatemalan legislature will also pass laws for a social investment fund. Agencies of these governments will need to increase special technical support and supervision to implement the new investment funds.

25. But, the great need and high interest in Bolivia and Guatemala threaten to absorb the Program's assistance there. As the new offices grow, a priority task should be to develop in-country national counterpart teams. Launching a "high impact/visibility" project where possible in the short term in each country, with a national team, would contribute greatly to the expansion of the Program throughout the countries and region, and influence the acceptability of recommended policies and institutional changes. The project design should build upon action-oriented research (community profiles) in the area served and should include a monitoring and evaluation (impact assessment) plan.

26. The following agencies should be invited to contribute to the launching of the activities in the early stages:

- PAHO and UNICEF
- Inter-American Development Bank, to support the long-range vision of the Program and to help launch short-term demonstration projects in Guatemala and Bolivia
- USAID in concert with its WASH program
- GTZ for environment and sanitation components
- the Netherlands and Nordic countries' agencies
- counterpart support from collaborating agencies and host countries

Prospects for a Regional Water and Sanitation Group in the Arab States Region

27. The Program has not been operative in the Arab states, except for one project — the UNDP-funded project, Improvement of Water Supply, Sanitation, and Waste Management in the Arab States Region, RAB/88/009. No RWSG has been set up in the region, nor does the Program have country coordinators in any country.

28. For those reasons, the Arab States Region was not included formally in the Program Assessment. An independent consultant mission was undertaken, however, as a companion exercise to the main Assessment, and has reached some conclusions that bear on the possible extension of Program activities to the region. The words from the consultants' report follow.

Water Supply and Sanitation

The role of an RWSG in the Arab states could be quite important. As indicated in the report, the institutional constraints in the Arab states relate to social-cultural, religious, and technical issues. Other constraints to water use are mainly posed by the scarcity and/or geographic confinement of the resource in relation to the demographic distribution pattern. In many countries, the growth rate of water use equals or exceeds population growth. Sectoral demands, for example in agriculture, are predicted to surpass the available exploitable resources. In both Jordan and Egypt, the available water resources are hardly sufficient to meet the needs, and at the current rate of use severe water shortages will occur by the year 2000.

The main common issues in need of resolution in the Arab States Region relate to water resources conservation, planning, and management; often the allocation of water is biased towards the agriculture sector. To allow for scientific exploitation, scarce water resources management, whether of domestic water supply, irrigation, or industry, should be introduced and practiced. Master plans for water resources exist in most Arab countries, however, action plans to implement them are either nonexistent or lack financing.

The UNDP regional program is playing a highly appreciated role in the water resources sectors of the Arab countries, and it has been instrumental in providing the right institutional support through human resources development and training (RAB/86/008), water resources management (RAB/80/011, RAB/89/003, RAB/82/013, RAB/90/005, RAB/89/020, and the latest project, RAB/88/009). During the mid-term review of the regional program, it was recommended that the Regional Bureau pursue its efforts in the water sector with two new projects dealing with efficient water utilization in industry and reduction of unaccounted-for water in municipal water supply operations. In our opinion these are projects of utmost importance and should be realized as soon as possible.

On-Site Sanitation and Alternatives to Public Sewerage Systems

In the Arab region, several methods are used to evacuate wastewater. The present ten-

gency is to develop collective public systems that include a wastewater treatment plant and to recycle the treated water for irrigation or other purpose. However, these public sewerage systems are only efficient in areas of high water consumption. It is thus evident that alternative systems should be envisaged for low water consumption areas.

In most low-consumption countries, the rural population constructs traditional latrines and cesspits that do not usually follow any specific standard, except the builder's. Assistance is required in providing dry pit latrines, water closets, flush latrines, septic tanks, community sanitation, and other facilities. Moreover, assistance is needed for simple natural treatment of wastewater, using methods such as the construction of filtering beds and small lagoons and controlled runoff.

Reuse of Wastewater

Assistance will be required by the Arab countries in the following fields:

- (a) Institutional aspects of reuse of treated wastewater, to improve the Arab countries' capacity in administration and distribution of the treated wastewater as well as the supervision of its use;
- (b) Cost recovery of treated wastewater — that is, to establish guidelines for pricing water; and,
- (c) Artificial recharge of groundwater using treated wastewater. Tunisia conducted tests in three locations but the results were inconclusive.

Waste Management

Waste management in the Arab region is still developing, and the degree of efficiency varies from one country to another. In most countries, waste management is a municipal responsibility while in some it is a combined responsibility of private enterprise and the municipality or the local authority.

UNDP Project RAB/88/009 investigated waste management practices in Arab countries and preliminary project findings indicate the existence of a number of models in the Arab region that can be further developed and popularized. In Syria, for example, the apparent success of small-scale, low-cost models of anaerobic digestion of waste calls for further investigating. From Jordan, sanitary landfills and composting plants

come that are worth considering for the Arab region.

In Egypt, there exists a traditional solid waste management and resource recovery system that is well organized, quite efficient, and that considers waste as resource material. In this system, individuals known as "Zabbaleen" or garbage collectors, separate the waste into recyclable and nonrecyclable categories, whereby the former is sold to other groups of the community who use it as raw material for small industries. This resource recovery operation sustains 30,000 people in Cairo. In an attempt to modernize the garbage collection operation, the government of Cairo introduced a parallel alternative of privately contracting garbage collection through a labor-intensive operation. The Zabbaleen, feeling pressure from the government's plans, managed to organize themselves in private companies and to modernize their operation through replacing their donkey carts with six flatbed trucks. At present 42 companies compete in six solid waste management/resource recovery businesses.

Project RAB/88/009 is in the process of initiating contacts for the production of training materials on the aspects of community participation in refuse collection and recycling, based on the lesson learned from the Zabbaleen. This model could be replicated in other countries of the region.

In Tunisia, the composting of selected solid waste has been successfully practiced on a pilot basis. This alternative was decided upon after extensive studies and research. The pilot plant in Tunis has a capacity of eight tons and has been operational for eight months. As a result of this pilot project, Tunisia plans to construct composting plants in Tunis and Sousse and is defining the needs for the city of Sfax and cities situated in the Sidi Salem basin.

The future regional efforts of the UNDP-World Bank Water and Sanitation Program should concentrate on water supply and sanitation in the framework of water management. To accomplish such a role, it is recommended to pool the United Nations specialized resources into one group. Such a group would provide advisory services to the region and establish links with existing Arab regional organizations to maximize its database. Recruitment of Arab experts from the region should also be encouraged. The group would assist the sectoral institutions in developing appropriate technologies adapted to the needs and constraints of the region. It would also be in a

position to discuss and analyze the ideas presented here with the concerned countries. The group could also review, document, and disseminate the work accomplished under ongoing or completed projects of the UNDP and other donors in the field of water resources and water and

sanitation supply technologies. Given the fact that the Regional Bureau for Arab States is fostering the establishment of regional networks in water resources (RAB/89/003), the group could also establish links with these networks and exchange and/or provide them with expertise.

VIII

Strategy and Effectiveness

1. The ultimate development objective of the Program is to increase the delivery of safe water and sanitation to low-income communities, both rural and urban, primarily through the application of low-cost technologies and community-based approaches to project organization and maintenance. In support of this goal, the Program concentrates its activities in the five interrelated areas described in Chapter I, paragraph 13. A primary objective is to shift the sector policies of participating governments and external support agencies towards higher priority for poverty-focused programs, while concurrently building up governments' capacity to formulate and implement such programs.

2. Through the medium of the regional Team reports, this chapter examines the validity of the Program's basic strategy and effectiveness. Subsequently, this report draws conclusions regarding the Program's "comparative advantage" in its areas of activity as compared with other alternatives and makes recommendations for the future.

Review of Program Strategy (Africa Team)

Poverty Orientation

3. The Program lays stress on its poverty orientation in many of its publications. Evidence of its poverty orientation might be found in the selection of countries of concentration, in the geographical location of activities within the country and the design of projects, as well as in the contents of sector and other reports.

4. For the most part, the Program operates in poor countries (although not always the poorest). In all these countries the rural population is, on average, notably poorer than the urban. To the extent that the Program is active in urban areas (the Kumasi demonstration project, for example), its focus on periurban areas is clearly consistent with a poverty orientation.

5. What is not yet very apparent (and could be usefully developed) in the Program, especially in its sector work, is an emphasis on measures that would directly favor the poor: for example, in urban areas, increasing the provision of communal standpipes and introducing progressive (or at least equal) tariffs.

Low-Cost, Community-Based Approaches

6. Experience over the last decade in Africa makes it abundantly clear that "sustainability" remains a problem for rural water supply. For this reason, low-cost, community-based approaches have been advocated for several years in this sector, as numerous publications show. But practice has lagged behind theory. In very general terms, it can be said that in many countries in Africa there are now a number of promising models. This general approach is certainly the right one (although the manner of community involvement and the type of appropriate technology will vary). The Program can justifiably claim to have made a contribution here, and to have begun testing in the field; but it cannot claim to be unique in this respect.

7. **LOW-COST TECHNOLOGY CHOICE.** Before the Program was formally set up, the development of low-cost technologies was perhaps the major activity; indeed this work has not completely ended. Undoubtedly this has had a substantial impact, but this Assessment is concerned with the subsequent phase: moving on from this research and development work.

8. The Program lays strong emphasis on low-cost technologies and continues to exert influence both in policy making and through demonstration projects and the promotion of handpump manufacture. There is, however, a problem. The Program is, in some eyes, associated not simply with low-cost technology in general, but with the AFRIDEV pump and the VIP latrine in particular. It is important that the Program should lay emphasis on the low-cost approach rather than on these specific technical solutions. Pumps other than the AFRIDEV can satisfy the need for village-level operation and maintenance (VLOM), and there may be circumstances where an alternative (such as piped gravity supply) may be better. And the VIP latrine is, in many instances, still not sufficiently low-cost and should not be promoted on a countrywide basis.

9. **COMMUNITY-BASED APPROACHES AND INVOLVEMENT OF WOMEN.** The project undertaken earlier in Kwale, Kenya, is a good example of a community-based approach and the involvement of women. The Program certainly emphasizes similar community-based approaches. Community involvement can mean a range of different things, from the provision of cheap labor to the organization of the community itself into an effective decision-making and implementing body. RUSAFIYA, a water and sanitation project in Nigeria, is a successful example of the latter.

10. By contrast, the involvement of women is not strongly emphasized in most of the Program's activities. The association with PROWESS should be increasingly beneficial for the Program, and the prospects for this should be given special attention in the future strategy.

Integrated-Comprehensive Approach to Sector Development

11. Perhaps the most important integration is between water, sanitation, and health education, which, in institutional terms, often means the involvement of both the ministries of water and health. This is of particular relevance in West

Africa, since in Francophone countries the health aspects of rural water supply have often not been greatly stressed. The Program certainly stresses this in its writings and cooperates in equal measure with the ministry of health in several countries, as for instance in Kenya. But the evidence from the demonstration projects is mixed. An integrated approach is not yet being achieved in practice in Awassa, Ethiopia, and Kumasi, Ghana. The cases of Bolgatanga, Ghana, and RUSAFIYA in Nigeria are more successful.

12. This raises a very general point of some significance. The economic case for improved rural water supply can be based mainly on benefits of time savings and improved health. The former are relatively easy to quantify (and even, perhaps, to value monetarily). The latter is both difficult to quantify and difficult to value in money terms. Willingness to pay for improved supplies is likely to reflect time savings benefits, but not health benefits (except where knowledge of hygiene is quite sophisticated). There is now empirical evidence (albeit specific to a few locations and subject to statistical criticism) that willingness to pay for rural water may be sufficient to make the case on economic grounds for investment in improved supplies, provided that these inputs will be subsequently maintained and used. In some cases (particularly in periurban locations) the empirical evidence is stronger, and it is clear that water supply provision can be a profitable venture. Although the economic justification for investment in rural water supplies may be very welcome, the logic of this approach should be to favor investment only where potential time savings are great (and/or income levels are high). Areas that account for a large proportion of the African population, and where polluted water sources are close at hand for part or all of the year, would not qualify for support.

Selection of Countries

13. As mentioned, the Program is currently active in varying degrees in some 40 countries that have indicated a desire to participate. Recognizing that resources do not permit equal assistance to all countries, the Program has divided countries into two categories:

- countries of primary focus receiving more comprehensive, integrated assistance
- countries where the Program undertakes to provide selected assistance in a particular area

14. The criteria for the selection of participating countries, including countries of primary focus, have not been spelled out formally or explicitly in any of the Program documents made available to the Assessment Team. The findings of the Field Teams on country participation follow.

Asia

15. The Asia Field Team reports that the selection of participating countries in the past was made on the basis of pragmatic considerations — that is, receptiveness of the host countries, magnitude of the unserved population, presence of UNDP projects, chances of success, donor interests, absorptive capacity of the country, and other similar factors. The Asia Team is of the view that, to the extent practicable, the next phase of operation should have a more pronounced focus on needs as determined collectively by interested governments (including both donors and participants) and international agencies, with priority consideration given to the least developed countries. Such needs can be determined by a number of indicators, including low per capita income (say, less than US\$500); high proportion of unserved; and, government's firm commitment to serve the low-income groups. Indochina and possibly the South Pacific would be candidate subregions deserving the Program's close attention. A good mix of projects, say, in demonstration, technology application, water supply, and sanitation in both rural and urban poor sections would increase the Program's impact there.

Africa

16. The Africa Team had the following comments: The Program inherited activities in a number of countries and had links with others. In East Africa, size is the first criterion for the selection of countries of concentration, followed by the likelihood of success as judged primarily by the RWSG manager. This means not only the receptiveness of the government (and possibly other donor agencies) but also the prospects of achieving something in the sector. The reasons why conditions are positive for working in Ethiopia, Uganda, and Zimbabwe (the three countries of concentration) are varied and relate largely to recent political events in these countries, which have created a climate favorable for Program involvement. In West Africa, there has been a strong Anglophone

bias; yet Francophone countries, although making up less than half the population of West Africa, number more by far. Ghana and Nigeria together account for a substantial part of Abidjan staff time and also have in-country staff. This is well recognized by the RWSG, which has identified four Francophone countries — Guinea, Mali, Benin, and Burkina Faso — on which to concentrate in the future. Receptivity of the government is the major criterion for selection in West Africa.

17. The extent of counterpart support varies. Where the activities are financed from UNDP/IPF, these are stated in the relevant project document. The general principle holds that there should be some counterpart contribution. Many recent examples of this could be cited, such as Zimbabwe and Madagascar. In the case of Benin, assistance was recently provided, but for which finance had not been earmarked. The RWSG manager was able to ensure that Benin provided some counterpart resources (in this case, from other donor funds).

18. Given the present extent of staff and financial resources, it is appropriate to concentrate activity on a small number of countries. The basis on which countries of concentration are selected is discussed above, but the principle should also be adopted that the countries of concentration are varied over time. Thus, the Program should plan to phase out existing countries of concentration over a period of years and phase in others, leaving activities that can be continued by others with little or no support from the Program (as may now be happening in Nigeria in regard to the RUSAFTYA project).

Work Programming

19. Since 1988, the Program's activities at the country and regional level have been based on a detailed work program formulated at the beginning of each year. The draft programs are prepared in the field by the RWSG managers and finalized at headquarters in consultations with the Bank's regional and operating departments. Since 1990, a global work program has been prepared on a biennial basis, which specifies the research, publication, and other activities for which Program headquarters is responsible. The country work programs provide considerable flexibility to enable RWSGs to meet ad hoc requests of governments not foreseen when the programs were formulated. The comments of the Assess-

ment Field Teams on the work programming process are detailed below.

Africa

20. The Africa Team has reported that in principle the RWSGs, World Bank headquarters, donors, and the governments themselves are all involved in the preparation of the work program. In practice, the RWSG manager together with his staff takes the major role in proposing a program. (In East Africa, the collaborating ITN institution, AMREF, was invited to participate in these discussions in 1990). At World Bank headquarters, Program staff have an influence, and all the operational divisions have the chance to comment and to specify their recommendations to the Program staff. It appears that donors and participating governments do not play a substantial role at present in the preparation of the work programs. They do, however, contribute on an ad hoc basis. For example, Program staff had informal discussions with those government agencies with which they have links in Zimbabwe and Ethiopia.

21. In West Africa, largely because of the Program's intent to become more actively involved in Francophone Africa, there is great willingness to respond to requests from these countries. The time so far devoted to these is still relatively small. In East Africa, there is active involvement in a greater range of countries, and the need for strict adherence to a clear policy is also greater. As a result, some requests outside the work program are resisted, although this is not usually because the Program could not obtain funding (or even use its own staff resources) to assist.

22. The work programming exercise is important, and the most recent one in 1990 seems to have been more successful than earlier ones. It was found to be very time consuming, although this may be less of a problem now that the model has been established. RWSG managers interpret the work program with a good deal of flexibility, and the final reality does not necessarily match the original plan. In the future, all collaborating governments should be involved in the work programming exercise. Rather than sending official requests, however, the more appropriate method, which seems to have been used in some cases, is for Program staff to discuss programming with the collaborating departments so that they receive a sense that they have a say in the use of resources. In some cases the in-country programming might

best be done through a work group. Other collaborating agencies, such as NGOs, should also be given the opportunity to make requests for assistance. But the distribution of staff time by country and activity is as important as the setting of clear objectives and performance targets.

23. All UNDP-funded activities are subject to normal UNDP monitoring and evaluation procedures. Other donors contributing to the Program do not regularly carry out formal evaluation in most instances. It is not yet clear how, or even whether, the actual work is monitored against the work program. Although the subject has been discussed among RWSG staff on various occasions, no progress has been made on the design of criteria for success.

Asia

24. The Assessment's Asia Team finds that the work programming methodology is generally satisfactory. Several Asian governments that were not visited by the Team sent written replies to the Team Leader confirming this satisfaction. In the formulation of the Asian work programs, consultations take place between the RWSG managers and the managers of the Asia Sector Development Team.

Monitoring and Evaluation: Influence on Sector Policy (Africa Team)

Government Sector Policies

25. In the earlier part of the Water and Sanitation Decade, the work of the sector development teams in Africa was the subject of an in-depth evaluation. Sector action plans have been produced, or are in various stages of production, in a number of countries, among them Ghana, Nigeria, Ethiopia, and Uganda. The real measure of achievement in this respect, however, is whether the stated policies are regarded by the government as their own and are subsequently put into practice. In this respect the most promising country is probably Ethiopia.

Donor Policies

26. The Program may influence donor policies and projects in various ways.

(a) By influencing government. Ideally, donors are guided by the stated policies of the gov-

ernments they assist; and the Program would therefore influence donors to the extent that it influences governments. But the majority of countries in Africa, at least in this sector, are "donor-dominated."

- (b) By assisting in donor coordination by government. The UNDP has been designated as the lead agency for donor coordination under the Water and Sanitation Decade, but this has not been effective in many countries. The World Bank has, for example through consultative group meetings and sometimes through more regular in-country meetings, taken on a donor coordination role, which is much broader and not specifically focused on this sector. The Program has not attempted to assert a role as proxy for either organization. However, in Ethiopia (possibly) it will be given a formal mandate to assist government in this task.
- (c) By informal links. In some countries there are informal meetings of donors, with or without government presence. For example, in Kenya Program staff participate in the Intersectoral Meeting on Water Supply and Sanitation where they contribute to the Secretariat. Program staff, especially in East Africa, have collaborated with several donors in various stages of projects, including identification, appraisal, monitoring, and review. This provides a very valuable exchange of information and experience and an effective way of influencing the policies of other donors.

World Bank Lending Policies

27. The World Bank has not been a major donor in the rural water supply or periurban sanitation sector in Africa in the past. Specific programs have, however, been included in some of the country lending programs, such as in Nigeria and Ghana; moreover, at the verbal briefing by operations staff in Washington it was intimated that the World Bank was considering very ambitious plans for investment in the rural water supply sector in Africa.

28. Until the recent establishment of a Policy Unit within INUWS, the Program has effectively comprised the total staff within INUWS/PRE. To the extent that INUWS has influenced lending policies, this may be therefore attributed to the Program.

29. In addition, regional and country Pro-

gram staff have had increasing contacts with the Bank's operational divisions and have contributed to a number of their activities, such as project preparation, appraisal, and implementation. (This includes, to a limited extent, agriculture sector staff, since rural water supply may form only one component of a more wide-ranging project, as in agriculture/rural development or in infrastructure.) The fruitfulness of such collaboration varies to some extent according to the personalities involved, but experience has generally been positive and more extensive than generally realized. (See Annex 2, page 74 for data on World Bank-financed projects in which the Program is involved.)

30. Recent Bank policy statements now emphasize the need for a poverty focus (in earlier years, the Program argued for a focus on the links to the environment as much as on poverty). But Bank policy with regard to a community-based approach is not so clear. The officials of the Bank's Africa and Asia regional technical departments who were interviewed by the Team Leader agreed that the Program has had a tangible impact in influencing Bank sector policies towards a greater focus on poverty and low-cost, although it cannot claim to have been the only influence in this direction.

Assisting Countries to Build Capacity (Africa Team)

31. Capacity building is a difficult issue. All donors recognize its importance but find it difficult to achieve in practice, although the time should now be ripe in most African countries. Capacity building has been noted as a weakness in the Program, both in the self-evaluation by the RWSGs (Abidjan meeting, 1989) and in other evaluations (such as Ethiopia, 1990). And although the Program is decentralized, there is still a danger that the RWSGs will become ivory towers, independent of the countries they are meant to assist.

32. As above, we may assess the potential merits of the Program with regard to capacity building:

- (a) The Program does not yet have a clear approach to capacity building. The International Training Network can play a potentially important role, but this is not enough. Human resource development should be recognized as an activity for which all have responsibility, but for which it may also be necessary to engage specialized staff. Some in-country Program staff have clearly been extremely

- successful in this respect; others have not. Personalities play a major role here. Staff based at RWSGs have less opportunity (and hence less responsibility) for capacity building; but here too, there is such a need. It is important for the Program to define more clearly how it proposes to go about capacity building, both in-country and in the RWSGs.
- (b) The way the Program is set up at the regional level does not particularly favor capacity building. Even in-country Program staff may feel answerable to the Program more than to the government, but the Program is not at a disadvantage here by comparison with other forms of technical assistance.
 - (c) If capacity building were given more explicit emphasis (and more thought on how to achieve it), the Program might achieve a comparative advantage in this respect; but it does not possess it at present.

Capacity Building and the Use of Regional Staff

33. The Program is, at present, staffed to a large extent by personnel from outside the RWSGs' region, especially in senior positions. (The Abidjan RWSG office is an exception.) Although the Team recommends that the Program should continue, once a more secure financial base is achieved, the objective should be to ensure that the majority of staff in the RWSG are from the region. Excellence should be the criterion for selection of RWSG personnel, and this is perfectly compatible with hiring staff from the region. Bilateral donors who provide seconded staff should be urged to employ Africans. It may be argued that this would reduce the extent of informal contacts with donor agencies, an element that has been so important to the Program. But some seconded staff have been consultants and have maintained few contacts with donor agencies, while high quality professional staff from the region often have a network of contacts that could easily be extended by short visits to their sponsoring bilateral agency.

34. Individual technical assistance personnel working in-country should, consistent with the stated aim of such personnel everywhere, "work themselves out of a job." In other words, a major part of their task should be to work closely with local staff who can then continue the work when they depart. For both long-term staff and shorter-term consultants there should be more experimentation with the "bus-stopping" approach —

namely, instead of a continuous stay of two years or more, staff should go elsewhere (possibly providing services to another Program activity in the region), leaving specific tasks to be undertaken in their absence.

35. There are other useful ways of building local capacity also, for example using and assisting local consultants.

36. In-country staff should, wherever possible, be nationals of the country concerned. There is an important distinction, however between the role of project coordinator, in charge of a particular project, and that of country coordinator, coordinating a range of activities, such as sector work and assistance to handpump manufacture. (The role of the latter, and indeed the very existence of such an in-country position, is still under discussion in the Program.)

37. The project coordinator can, and should, be located within the cooperating agency. For the country coordinator (if they are to exist), the following principle should be adopted: that they locate in an agency if possible, and in a separate office, or in UNDP, as the next best alternative. Only with very good reason should they locate in World Bank premises, since the practical advantages would be more than outweighed by the problem of maintaining a distinct identity.

Conclusions on Overall Effectiveness of the Program

Findings of the Africa Team

38. The major areas of activity of the Program have been defined as rural water supply and sanitation, periurban and urban sanitation, and resource recovery-solid waste management, although it is only in the area of rural water supply that much has been achieved to date. It is not recommended that the Program expand into other areas. It has already more than enough to occupy its limited resources, and other agencies are better equipped to deal with other very important sectoral problems, for example the issue of water resources.

39. The Program has been effective in broadening the technological options available. Most of the achievements here should properly be attributed to earlier projects now incorporated under the Program, but this work has not completely ceased, and the Program is able to ensure that it will have a more lasting impact.

40. A start has been made with broadening the institutional and financial options, most notably, perhaps, in Kumasi and RUSAFIYA in Nigeria. A start has also been made, notably through the sector work, in working with governments to create supportive policy frameworks.

41. Apart from support to local manufacturing of handpumps, assistance to the private sector has been slight. The strengthening of local capacity and the involvement of women are also areas where less emphasis has been placed.

42. A significant and productive activity is networking, both intra-country and inter-country. The Program rightly emphasizes this activity, in which it clearly has a comparative advantage, but its impact cannot easily be measured.

43. The Program's decentralized structure is beneficial especially because it allows for a closer and more continuous relationship with governments and others in-country. The Program needs to continue to act sensitively, building the confidence of donors and governments. It should resist any temptation to link its advice to prospective World Bank loan financing.

Findings of the Asia Team

44. On the whole, the main outputs and achievements in the region relate to the emerging change of authorities' attitudes and policies toward coverage problems and the use of lower cost options and concepts.

45. The Program has had a substantial practical impact on the policies and strategies of the government authorities and donors with regard to the poverty-focused subsector. Furthermore, the Program has generated technical assistance and increased investment in the low-income groups subsector.

46. In relation to its broad thematic areas, the Program is consciously maintaining its objectives in promoting basic needs as part of poverty alleviation policies and attempts to tap appropriate community-based management systems. It is also trying to incorporate the support of NGOs, the private sector, and regional and interregional exchange of experience, results, and information.

47. The Asia Team found a lack of suitable cooperation and coordination of activities with those of other donors active in the same countries and regions. In the countries visited, the Team observed that the field coordination required of the UNDP Resident Representative to carry out

the Water and Sanitation Decade's strategies is in most cases nonexistent. This is so even where attempts were made earlier by some UNDP field offices to act as a local focal point. Unfortunately, the sector was not taken seriously and other pressing sectors demanded more urgent attention of UNDP. Another more acute cause for the lack of coordination appears to be that the Resident Representatives have not been given the necessary support to fulfill their coordinating responsibility. Meanwhile, in response to the donors' desire, a number of informal coordination mechanisms were developed, which in most part involved the RWSGs and their country offices. While formal coordination rests with the recipient country, local coordination of donors is generally welcomed by governments as a useful supportive role.

48. Regarding the Program's effectiveness, participating governments and donors expressed appreciation, and the Team was pleased to note that cooperation extended by the Program personnel, whether from regional or global projects, was generally welcome. The Team found that several elements were crucial in the Program's success at gaining a reputation as a trusted and competent collaborator. In particular, governments and donors cited Program assistance in providing technical information and advice, preparation of new activities, and general readiness to be helpful. This stands the future Program in good stead as a leader in the water and sanitation sector in the Asian region.

Findings of the Latin America Team

49. The Program in Latin America in the past decade has been very limited. Program activities have been carried out in three countries only. In Brazil, where the Assessment Team did not visit, the Program has been involved in the development and dissemination of alternative technologies for urban low-cost sanitary infrastructure, including latrines, small-bore sewers, pour-flush toilets, and septic tanks.

50. In Bolivia, which has one of the lowest service levels for water supply and sanitation in Latin America, the Program started the pilot project in Oruro as a cooperative venture to field test handpumps (in 60 dispersed rural communities) with the participation of a number of agencies. The main objective of the project was to try certain methodologies and work strategies that would allow the active participation of the communities

in the solution of their water supply and sanitation problems. The Corporacion de Desarrollo de Oruro (Development Corporation of Oruro) acted as the main government agency through its unit of water resources or "Unidad de Recursos Hidricos" (URH).

51. One of the weaknesses of the Oruro project was that, from the outset, it did not have a project document or a work plan and activities developed in an ad hoc way. The project had three components: digging wells and installing handpumps in a rural area of Oruro; producing handpumps locally through the transfer of technology from Bangladesh; and, training and development of human resources.

52. During the life of the project some positive results were achieved. With the participation of the community and the involvement of women, a methodology was developed. Training procedures were developed with the cooperation of PROWESS, Project Concern International (an NGO), and the sanitation unit for the ministry of public health. Financing was obtained from the Social Emergency Fund of the Bolivian government. Fifty pumps were installed in several communities using the methodology that had been developed.

53. The production of handpumps was undertaken by a factory, CASAM, that belongs to the Development Corporation of Oruro. In the year and a half that they had been operating at the time of the Team's visit, the factory had produced 500 handpumps, 250 of which had been produced in the last three months. These Yaku-type pumps are, in fact, similar to the Tara pump from Bangladesh. The transfer of technology was done with the assistance of the UNDP-World Bank Program.

Impact in Latin America

54. Program activities in Latin America have had some impact in spite of limited regional involvement.

- (a) Due to the fact that Program activities have been very limited in the Latin American region, their impact on the governments' sector policies and strategies has been practically nil.
- (b) The donors' assistance policies in the Latin American region have not been directly impacted by the Program for the same reason. However, in the experience in Bolivia, where

the Oruro pilot project was executed, one of its components executed by the Proyecto Auto-Desarrollo Campesino (PAC) is a good example of how the Program could eventually influence the donors' assistance policies and programs. PAC is a program of the Bolivian government developed with the assistance of the European Economic Community, which keeps a strong presence in it. The person responsible for the Oruro project in PAC told the Assessment Team that the achievements of the project would influence PAC's policies and other projects. The fact is that several donors in the country were quite aware of the activities of the Oruro pilot project and its achievements. The Netherlands, USAID, PAHO/WHO, and the Inter-American Development Bank were among the donors who were all quite positive in expressing support for the enlargement of Program activities in the country and in the Latin American region, with the potential for the Program to play a more decisive role in coordinating the effort of a new Water and Sanitation Decade with the full cooperation of all interested donors.

- (c) The World Bank lending policies seem not to have been very much influenced by the Program in the Latin American region in the past decade. However, investment in the water supply and sanitation sector has been influenced by the region's slow progress in its overall development, which is due to a number of circumstances not the least of which is its debt burden. This slow development has occurred especially in the rural and periurban areas where, in many cases, the delivery of water and sanitation services has regressed from levels formerly attained.
- (d) The Bolivian pilot project of Oruro attracted the interest of the Netherlands government, which agreed to provide funds to UNDP on a cost-sharing basis to support a new project of water supply for the dispersed rural population of the Bolivian highlands, to be executed through the Program. The amount contributed by the Netherlands government is slightly over US\$4 million, which will be used to expand and improve the water supply and sanitation services in the rural communities of the department of Potosi.
- (e) There has been little opportunity for inter-country cooperation and information ex-

change in Latin America through the Program. An exception is the readiness of the Bolivian government, through the Development Corporation of Oruro, to cooperate with the government of Guatemala in the transfer of technology for the manufacture of the Maya pump. Regarding information exchange, the UNDP-World Bank Water and Sanitation Program financed the Pan American Center for Sanitary Engineering and Environmental Sciences (CEPIS) in Lima, in order to translate into Spanish four training modules developed by the Program in other regions. The material had to be adapted to the conditions of Latin America. With this material CEPIS organized three workshops to train trainers in low-cost technologies. Fifteen Latin American countries participated in the CEPIS workshops.

55. In relation to its broad thematic areas, the Program's effectiveness in Latin America can be gauged in a number of ways.

- (a) The Program's pilot projects in Guatemala and Bolivia have focused on the development and implementation of appropriate technology in the form of handpumps for use in the poor rural areas. In Oruro, a community participation component stressing the role of women in this sector featured in the project. These initiatives have served as a basis for the development of a more comprehensive approach to be launched in Potosi.
- (b) The pilot projects in Guatemala and Bolivia have had a poverty orientation with higher priority placed on unserved rural communities. The new project in Cochabamba, Bolivia, is virtually the Program's first intervention in a poor periurban area in the region, and it will be an important experience to monitor and evaluate for the lessons that can be applied. The phenomenal growth of cities, particularly the poor periurban sectors, is a serious problem in most of South America and is a growing problem in Central America. Through its activity in this region, the Program can eventually make an important contribution to the growing urban areas of this and other regions as well.
- (c) The project in Bolivia has made an important start in the application of the PROWESS methodologies for the involvement of the poor communities in the planning and implementation of project activities in water

and sanitation. Through its training modules, the project has begun to focus the attention of those working in the sector on the role of women in sector development. As the Assessment Team had little or no contact with the communities involved, it cannot comment on the direct impact of the project on women and communities. Nonetheless, future project designs should include baseline data and apply indicators developed by PROWESS to assess the project impact on women and communities. Additional efforts should be made to involve the poor (women and men) of the communities in the action-oriented preinvestment research and planning, as well as in the design and implementation of the projects. Promotion of the Program's concepts of women and community participation should also penetrate all levels of the Program's human resource development, policy, and institutional interventions. Another dimension of community participation discussed by CEPIS is worth studying further: The need to sensitize the community-at-large at country and city levels, including corporations, politicians, media, and others, to their roles in promoting the Program's water and sanitation goals and objectives to aid the poor.

- (d) The Program introduced the first low-cost handpump for use in Bolivia and Guatemala. Focusing on the demonstration of community-based service delivery mechanisms that use lower-cost technologies has helped to alleviate investment constraints and to support more effective use of limited available resources. Other methods being studied and tested may offer new choices for the Program to introduce in the future.
- (e) By and large the "knowledge base" of the Program from which governments might plan and implement sector policy has not been sufficiently developed and transmitted to the governments in the countries where the Program is operating. In both Guatemala and Bolivia, the prospective involvement of the social investment fund in the water and sanitation sector presents an important opportunity for the Program to interact effectively to stimulate policy and institutional responses. The Program has already been identified in these two countries as a prime actor in the implementation of sectoral

projects that the social investment fund will support.

- (f) In implementation of the country projects, the Program has effectively encouraged NGO action in the sector and has formed partnerships with NGOs in Bolivia and Guatemala at the community level. Some donor agencies emphasized in meetings with the Assessment Team the importance of opening the way for governments to increase their efforts to work with NGOs, including the possibility of contracting components of national programs to NGOs for execution. It is important for the Program to develop methods for identifying NGOs that have a demonstrated ability to perform to the standard required by the country project. NGOs should also be included in Program orientation and training in order to ensure the integrity of the Program's goals and objectives. The Program has effectively identified private sector manufacturers for the production of handpumps in both countries. However, these companies should be given guidance in the production standards and development of marketing and sales plans to ensure product quality and easy maintenance, as well as low cost and expansion of the market. Some thought should be given to the possibility of investing in manufacturing firms to be owned and operated by community members as an income-generating initiative. This has been done by a women's project in Mexico, with a revolving loan fund from UNIFEM. The project is producing a handpump developed in Colombia and selling it in Mexico.

56. The few activities of the Program in the Latin American region have attracted the attention of other donors. In Bolivia, the follow-up to the Oruro pilot project by the Potosi demonstration project financed by the Netherlands government is a good example of the coordination with other bilateral donors. However, the Dutch government will not be alone in the Potosi project as the cooperation of other bilaterals is envisaged, in particular USAID and the Inter-American Development Bank. The donors who were contacted in La Paz, especially USAID, IDB, UNICEF, and PAHO, are well aware of the activities of the Oruro pilot project and of the new project in Potosi. CAPRE in Costa Rica, ERIS in Guatemala, and CEPIS in Peru — all regional organizations dealing with water supply and sanitation — were

well aware of the training activities of the ITN, and to a certain extent had used material the ITN has developed.

Role and Comparative Advantage of the Program (Africa Team)

57. The Program has a comparative advantage in relation to other alternatives, especially in sector policy work and in assisting governments in donor coordination. Within the Bank, the Program has a combination of knowledge and country-based activities that give it a clear comparative advantage in the rural water supply and sanitation sector. Geographically, it currently has a severe disadvantage in Francophone Africa, but every effort should be made to change this situation. Less critical, but probably important for the future, is the lack of Portuguese-speaking staff, a condition that limits the Program's effectiveness in Southern Africa especially.

58. The Program has a clear comparative advantage in sector advisory support — not just in preparing documents but, more importantly, in supporting governments over a sustained period. This advantage arises by virtue of both the location of Program staff and the relationships that they establish and maintain.

59. Demonstration projects are also very important, but the Program does not necessarily have a comparative advantage in implementing them. Only if there are not already suitable projects — completed or underway — might it be necessary for the Program to set one up. Demonstration projects should be undertaken to the maximum extent by or in close collaboration with governments. The Program should have a comparative advantage in "scaling-up" successful projects and in translating the experience from such projects into sector policies and larger scale programs.

60. Since resources are scarce, the Program may achieve maximum impact by assuming a more comprehensive role in project preparation: writing terms of reference, reviewing the performance of consultants, and other evaluative tasks.

61. The move from research and development of handpumps to manufacturing is rational and timely, but it represents a major shift for the Program and will require a very different set of skills. More thought is required on how this should be done, and hence whether the Program does have a comparative advantage or not. Mobilizing industrial and private sector support is critical to the

outcome of this shift in focus. Nonetheless, the private sector is already involved in water supply and sanitation in many other ways, through the efforts of local artisans, contractors, and consultants from the country or region. There is scope for further work by the Program here.

62. Capacity building is not simply one component in the "box of tools" but is basic to the approach of the Program. It is a necessary part of the Program's activities and should be seen as a "cross-cutting activity" that includes sector advisory support, demonstration projects, project

preparation, and support to the private sector. Capacity building should also be seen as a separate component, requiring specific action and policy direction.

63. The Africa Team does not recommend further additions to the "box of tools," but it should be stressed that the whole is potentially greater than the sum of its parts. This relationship is most important for the combination of sector work and demonstration projects (and relates also to the policy of having countries of concentration).

IX

International Training Network (ITN)

1. This review does not aim to assess every International Training Network Center, but instead to assess the ITN "system": its justification, concept, objectives, strategy, mechanisms, and global outputs after a few years of operation.

2. To perform this assessment, the Team visited the Network Centers in the Philippines, Indonesia, Bangladesh, and Burkina Faso. Extensive discussions were held with Network Center directors or representatives, as well as with managers or officers from the Regional Water and Sanitation Groups of Singapore, New Delhi, and Abidjan. In Burkina Faso, the mission was able to meet with representatives of African Centers (Kenya, Ghana, Zimbabwe, and Burkina Faso). Discussions were also held with representatives of bilaterals from Denmark (DANIDA) in Bangladesh, and Switzerland (SDC) and Canada (CIDA) in Burkina Faso. In addition, the Assessment Teams had the opportunity in Africa, Asia, and Latin America to address some ITN-related issues. On the other hand, very few contacts were possible at the "central level," apart from meeting people during the Team's gathering in Washington in October 1990.

ITN Concept, Objectives, and Approach

Background and Objectives

3. The International Training Network for Water and Waste Management is a joint initiative of bilateral and multilateral development agencies in support of the goals of the International

Drinking Water Supply and Sanitation Decade. Under the leadership of UNDP and the World Bank, the ITN was launched in 1984 with "the long-term development objective to increase the capacity of developing countries to deliver water supply and sanitation services to low-income groups, using primarily low-cost technologies and community-based approaches." More specifically, the ITN's immediate objective was "to strengthen the capacity of sector and educational institutions within developing countries to carry out training programs and other human resources development activities on low-cost water supply and waste management" (UNDP project document INT/86/027).

Planned Activities

4. Toward the above objectives, the ITN's main tasks were originally defined as follows:

- (a) To inform decisionmakers and to educate and train practicing and student engineers and other field staff, in the use of low-cost appropriate technologies and approaches;
- (b) To promote the introduction of a multi-disciplinary approach emphasizing sociocultural and health considerations, in the planning, implementation, and maintenance of water supply and sanitation systems;
- (c) To support the collection and active dissemination of information on low-cost technologies and their successful applications; and,
- (d) To undertake research leading to further improvements in the cost-effectiveness, large-

scale implementation, and replication of basic water supply and sanitation programs.

Network Organization

5. The above tasks had to be performed by Network Centers, established in developing countries, within carefully selected existing sector or educational institutions; at least 15 Centers were expected to operate in the late 1980s. The project envisaged both national or regional Centers, each with its own network or local participating institutions. Program and budget for Network Centers were supposed to be supported by bilateral or multilateral agencies and technical assistance and support (twinning) brought by associated institutions from developed countries. At World Bank headquarters and under the Program's management, a coordination unit was set up to oversee and coordinate the ITN's activities and to provide technical support and assistance to Centers and sponsoring organizations in planning, implementing, monitoring, and evaluating their activities.

ITN Evolution

6. Three phases can be identified in ITN evolution since its conception:
- (a) Phase I (1982 to 1986), actually a pre-ITN phase, was dedicated to the preparation of training materials on low-cost technologies and approaches based on research and development by the World Bank and by other development agencies. These materials for the use of Network Centers consist of 47 slide-sound shows, 3 films, and selected training and information materials. Most of them have been translated widely.
 - (b) Phase II, from 1985, concentrated on the establishment of the Centers. From that date, the coordination unit focused its attention on the identification, preparation, and financing of proposals for the establishment of national and regional Centers. This phase of Center establishment should continue until the number of Centers has reached 15, the availability of external support permitting.
 - (c) Phase III of global collaboration started recently with the first ITN Directors Meeting in Calcutta in September 1990. This ultimate phase should allow the Centers and other sector institutions to exchange information

and experiences, and thus, to promote both technical cooperation among developing countries and cooperation among development institutions active in the sector.

ITN Sustainability

7. The issue of sustainability was discussed during the ITN design stage. ITN was designed to initiate the process of training sector actors in the use of appropriate technologies and community-based approaches and to incorporate these topics into curricula on a permanent basis. ITN Centers should be established within existing institutions, not to supplant them, but to assist them in introducing topics not previously in their programs. Financial support to Network Centers was intended to be of limited duration — usually five years — with the clear understanding that the teaching of nonconventional technologies and approaches would be incorporated into the regular programs. To the extent that these institutions are permanently engaged in sector training and education, the ITN message would be sustained. In other words it was assumed that, after some years and with ITN's assistance, a given country would evolve from a sustained "conventional" training and education system to a "less-conventional or nonconventional" but still sustained system. With that in mind, ITN's role should be to assist countries in properly and definitely taking a bend in their sector approaches.

ITN's Status and Achievement

8. In the last five years of the Water and Sanitation Decade, utilization of low-cost technologies progressed dramatically all over the world, mostly under the stimulus of the funding agencies. Fortunately, it has become more and more difficult to find projects in rural areas and even urban fringe areas using conventional technologies, and low-cost technologies are becoming conventional. The Decade, and more specifically the donor community, should be given credit for this evolution. But the "software" approaches, such as health and hygiene education, community involvement, and social marketing — the nontechnical aspects — face many more difficulties to penetrate the layers of tradition and attitudes assumed by decisionmakers, who are largely dominated by engineers. The change from supply-driven to demand-driven projects is a culturally

difficult step. With the nontechnical issues — more recently emphasized by the international community — the most difficult part remains ahead. This does not mean that training in low-cost technologies is no longer useful, but that more emphasis should be given to the nontechnical components. Even if the context evolves slightly, ITN general objectives are still relevant to the needs of the sector.

9. The New Delhi Statement (September 1990) issued by the international community at the close of the Global Consultation for Safe Water and Sanitation for the 1990s defines “human resources development (HRD) at all levels, from community members to politicians, as an essential component of institutional development.” The ITN Directors Meeting in Calcutta characterized the ITN as a “collaborative effort among institutions in developing countries, strengthened with the cooperation of external support agencies, and charged with building and strengthening HRD capacity for delivery of sustainable water supply and sanitation services for the unserved rural and urban poor.” This statement is consistent with ITN final objectives and is clearly oriented to capacity building.

Short-Term Objectives

10. If long-term development objectives do not raise any question, short-term objectives do. As a matter of fact, most Network Centers have no short-term tangible objectives; work plans prepared by the Centers include very detailed activities but refer either vaguely or not at all to any short-term objective. The evident risk is to have established a system that will indefinitely require assistance for new training and additional research. It is absolutely essential to define clearly specific short-term, three-to-five year objectives for each Network Center. There is no reason why taking the bend in sector approaches should require more than a few years. Although the ITN is a long-term operation, the actual process of changing attitudes and behaviors must be of limited duration.

11. Since 1986, nine Centers have been or are about to be established: There are three regional Centers in Africa. The Regional Network Center for East Africa was established in 1986 in Nairobi, Kenya, within the African Medical and Research Foundation (AMREF). In West Africa, the Centre régional pour l'eau potable et l'assainissement à faible coût (CREPA) was established in 1988 in

Ouagadougou, Burkina Faso, within the Comité Interafricain d'Etudes Hydrauliques (CIEH). Also, in Harare, Zimbabwe, the Training Center for Water and Sanitation was established in 1988 within the University of Zimbabwe (Department of Civil Engineering). There are six national Centers serving Africa, South Asia, and Southeast Asia. The Training Network Center was established in 1989 in Kumasi, Ghana, within the University of Science and Technology. Before that, in 1987, an ITN Center was established in Calcutta, India, at the All-India Institute of Public Health and Hygiene to serve rural areas. Also in 1987, two Centers were formed in Indonesia — in Jakarta within Cipta Karya (Directorate General of Human Settlements, ministry of public works), and in Bandung within the Institute of Technology Bandung (ITB). The ITN Center in the Philippines was established in 1990 in the Manila Local Water Utilities Administration (LWUA), while a new Center proposed for Dhaka, Bangladesh, should start operation this year within the Bangladesh University of Engineering Technology (BUET). Discussions are under way to establish other Centers in Asia (India, China, Thailand), Africa (Nigeria and Lusophone countries), and the Arab states. In Latin America, the Pan American Center for Sanitary Engineering and Environmental Sciences (CEPIS) in Lima, Peru, and the Regional School for Sanitary Engineering and Water Resources (ERIS) in Guatemala have been involved with the ITN, mostly for organization of regional workshops and translation and development of ITN modules. There are plans for establishing a Network Center in Guatemala, within the Central American Association of Water Authorities (CAPRE) with GTZ support.

12. The original planning for establishing new Centers, which is the coordination unit's responsibility, was to proceed with three to four new Centers each year — that is, a total of about 15 by the year 1990. Actually, only seven Centers were operational by the end of 1990. It appears that the process of establishing new Centers has been grossly underestimated. Motivating governments, assessing training needs, identifying the most appropriate host institutions, mobilizing external and counterpart funds — all are part of a very long and tedious process that can easily take between two and four years or more. Another fundamental reason for this delay in establishing Network Centers stems from the very limited capacity of the coordination unit and its small staff. During the

last two years, the coordination unit was a one-man show, and since mid-1990, the position has been vacant. Actually, the role of establishing new Centers is now partially played by the RWSGs, which are not staffed and prepared to take over. It appears therefore very urgent to prepare a realistic schedule for establishing new Network Centers, to staff the coordination unit accordingly and properly, and to provide the appropriate terms of reference and work plans.

13. The question of government motivation to participate in the ITN must be raised. A number of Network Centers — or subcenters in the case of regional Centers — are at a standstill, lacking commitment from governments. Despite official and generally sincere declarations, most governments do not really give human resources development a very high priority in any sector. The ITN Center in Indonesia, which regroups the two former Centers, has been waiting for government clearance for months. Only half of CREPA member countries are really actively training at country level. On the contrary, there is a strong commitment, which includes regular provision of counterpart funds, in the Philippines, in Ghana, and in Zimbabwe. It seems therefore urgent to concentrate ITN efforts on countries showing a strong commitment to working with the ITN; as it is correspondingly for the RWSGs. This is true for future Centers as well as for existing ones. Government commitment should be a prerequisite to any assessment exercise for establishing a new Center. Existing regional Centers should withdraw from countries showing little or no interest in ITN activities and objectives. Obviously, the best but not the only indicator of government commitment is the level of project participation.

Establishment of Network Centers

14. The draft guidelines, "Preparing an Assessment Report and Project Proposal for the Establishment of a Network Training Center," were prepared in the mid-1980s by the coordination unit. Although these guidelines are still generally valid, more emphasis should now be given to the identification of target groups or institutions that have the maximum influence on sector development, and to the nature and content of the "message" to be conveyed to each of those groups, with maximum possible impact. This would provide more specific targets and immediate objectives for the Centers. Assessment of new ITN Centers is

normally carried out by the supporting agency with the assistance of RWSGs. Two RWSGs (New Delhi and Singapore) were recently strengthened with HRD specialists, who should play a major role in the process of establishing new Centers and in maintaining a regional dialogue. During the assessment period, RWSGs should also look into existing or potential projects that can serve as demonstration support to training activities.

15. As emphasized in the guidelines for establishing Centers, selection of host institutions is difficult but essential. Generally, the choice of host institutions has so far been adequate. In some countries like the Philippines or Indonesia that have national institutions like LWUA and Cipta Karya already involved in sector training with a broad national network, the selection is easy. The same applies to CREPA, hosted by a group of three inter-country institutions engaged in the sector in most Francophone African countries. On the other hand, selection can be less evident, as in Bangladesh where BUET has no apparent low-cost orientation and no nationwide audience. It is therefore crucial that new ITN Centers, which will be responsible for changing mentalities and attitudes, be carefully identified, investigated, and selected. Real motivation of prospective host institutions should be thoroughly investigated; institutions may be more interested in providential financial resources brought by a new Center than in its actual objectives and project activities. Selection of host institutions should leave nothing to chance.

16. To ensure sustainability of the ITN system at country or regional level, it is essential that the Network Centers be integrated in the sector training and education systems; this has been emphasized since the early days of the project and regularly repeated. Most Centers visited by the Assessment Team are properly integrated in the existing system. However, the regional Center for Francophone Africa, CREPA, after two years of existence, has gained a broad independence from its host institutions, which are actually regarded as regional participating institutions. If this situation is acceptable today, its medium and long-term sustainability is really questionable. The regional Network Center for East Africa has been established in the Environmental Health Unit for AMREF, a well-established and reputable institution based in Nairobi with branches in neighboring countries. But, after five years of existence, it appears that the regional network is essentially

the AMREF network — that is, a health-oriented network; the water and sanitation sector is not extensively involved in this network's activities and this is prejudicial to project credibility and sustainability. On the other hand, proposals from Network Centers to ensure their long-term sustainability with consulting activities are unrealistic and irrelevant to ITN objectives.

National Networks

17. Depending on the size of the country, national networks include five to twelve participating institutions. With very few exceptions, they are either educational institutions, such as universities, institutes, schools, and so on, or they are government sector agencies: ministries of water, health, and others. Very few NGOs (except in the Philippines and India) and professional associations (except in Indonesia) are represented in national networks. These networks are constituted progressively after the establishment of the Network Center, without specific criteria or methodology. It seems, however, that a core national network, representative of the most influential target groups, should be constituted during a Center's initial assessment period. This would not exclude any public or private institutions willing to join the network.

Staffing of Network Centers

18. Staffing of Network Centers should be part of the initial assessment exercise. Qualification, number, country of origin, and cost of permanent or part-time local staff to be assigned to the Center should be determined and committed at the time of assessment. Provision of qualified local staff should be regarded as the major counterpart contribution — and one of the key elements for Network Center success. A good example is provided by the Philippines where LWUA has seconded full-time qualified training officers to the Center. These LWUA employees are assisted by a group of full- or part-time agents of various skills from NGOs and universities participating in the local network. Such a mix of local specialists, representative of the major components of the local network, is certainly the best means to establish and maintain contact and communication throughout the network.

19. Ideally, a Network Center team should include specialists in various fields, such as engi-

neering, sociology, public health and hygiene, communication, training, social marketing, and community development. Presently, the Centers are essentially staffed with engineers, some sociologists, and public health specialists. To achieve ITN objectives, a balanced mix of skills must be available at the Centers, either as permanent or part-time staff or as short-term consultants. But it is also important that all Center staff have, at minimum, similar frames of reference in technology (handpumps, low-cost sanitation) and community development (SARAR and others) to ensure constructive dialogue for global collaboration. This should not exclude any specific methodology or technology, which might be more appropriate in a particular environment.

20. Network Center staff consist of qualified professionals and, so far, the ITN has been lucky to recruit dedicated staff and enthusiastic managers. But whatever professional qualities they may have, there is among them a serious lack of capacity in teaching and especially in teaching adults (educators, trainers, practicing engineers, to name a few). It seems, however, essential for the credibility of the "messages" presented by staff that they can, through ability and expertise, convince people who already have very strongly anchored conventional ideas and a cultural reluctance to demand-driven and community development approaches. Therefore, to meet ITN objectives it is crucial to train Center staff, including local consultants, in specific techniques of teaching adults.

21. At the level of technical cooperation among developing countries, more experienced Centers could take responsibility for training staff at new Centers. This might be the case in Calcutta for staff assigned to the new Center in Dhaka. This would, in addition, create constructive regional linkages between Center staffs.

Sponsoring and Funding

22. With no exception, establishment and operation of Network Centers, at least during the evolution stage, needs financial external assistance. Fortunately, funding has not so far been a real constraint in establishing Centers. Financial support not including counterpart funds is summarized in Table 1. Only two donors (SDC and DGIS) contribute more than 50 percent of the total funding. It appears desirable to diversify the funding sources for ITN expansion.

23. Funding for the coordination unit at cen-

tral level has been provided by various donors such as UNDP (DGIP), DGIS, SDC, GTZ, CIDA, and the Ministry for Cooperation and Development (France) for a total of about US\$2.4 million. This amount includes the costs of coordinating unit staff, as well as costs relating to production and translation of training materials and preparation of the Center establishments.

24. Government contribution is limited to personnel, vehicles, facilities, and premises; contributions in cash (counterpart funds) are very seldom arranged.

Associated Institutions

25. Most existing Network Centers benefit from technical support and assistance from a training/education institution from the donor country. For instance, the International Institute for Hydraulic and Environmental Engineering (IHE) from Delft, Netherlands, provides technical support to the Philippines and Indonesia, whereas the Ecole Polytechnique Fédérale de Lausanne

(EPFL) of Switzerland assists CREPA in Burkina Faso. This type of assistance by training professionals is very helpful in preparing work plans, new training materials, course curricula, and other necessary tasks. Yet this support is missing in some ITN Centers such as in Kumasi and Nairobi. It is therefore recommended that an experienced institution be associated, as nonpermanent technical assistance, to each of the planned and established Network Centers.

Activities and Outputs

26. Network Centers generally prepare work plans for periods of one to four years. They are assisted in this task by the support agency (or its executing agency in the case of UNDP), or by the participating institution, and in theory by the coordination unit but more frequently by the RWSGs. Work plans are generally suffering from the lack of short-term objectives. Activities included in work plans are of similar nature, but the emphasis is put on training or research, or even on

Table 1 Summary of Financial Support to the ITN Centers

<i>Network center</i>	<i>External support</i>	<i>Total external funding as of December 1989 (US\$)</i>
Regional Network Center for East Africa (RNC, Nairobi, Kenya)	SDC (Switzerland) GTZ (Germany)	1,065,000 (1986-89)
Centre régional pour l'eau potable et l'assainissement à faible coût (CREPA, Ouagadougou, Burkina Faso)	SDC (Switzerland) CIDA (Canada)	1,111,000 (1989-91)
Training Center for Water and Sanitation (Harare, Zimbabwe)	UNDP (IPF/Zimbabwe) NORAD (Norway)	717,000 (1989-91)
Training Network Center (Kumasi, Ghana)	CIDA (Canada) UNDP (IPF/Ghana)	282,000 (1989-91)
All-India Institute of Public Health and Hygiene (Calcutta, India)	ODA (UK)	340,000 (1989-94)
ITB (Bandung, Indonesia)	DGIS* (The Netherlands)	434,000 (1987-89)
Cipta Karya (Jakarta, Indonesia)	IBRD Loan	272,000 (1987-89)
ITN Philippines (Manila)	DGIS* (The Netherlands)	1,009,000 (1990-94)
ITN Bangladesh (Dhaka)	DANIDA (Denmark) (proposed)	N.A.

* DGIS also proposed support for phase 2 (single Indonesian ITN), starting 1991.

consultancy activities, depending on the views of the support agency, the orientation of the host institution, and the personality of the Center manager. The scope of activities also varies and may include fields such as water treatment, water resources protection, wastewater reuse, and others. This situation reflects the various personalities of host institutions and Center managers. Even if all these topics are highly regarded in the New Delhi Statement, to address them all poses for ITN a serious risk of dispersing the limited Center resources and efforts. It is therefore recommended to specify clearly in the work plans the extent of technical subjects to be addressed by the Network Centers, as consistent with their short-term objectives. These subjects can vary according to the countries. It is also recommended that the coordination unit guide the preparation of work plans to avoid duplication of efforts, especially in research programs.

27. All ITN Centers use, or used at one point, the training slide-sound modules prepared by the World Bank. Most of them also prepared additional materials, generally based on local experience (case studies). The Centers in Indonesia spent the first two years of their existence in translating modules into Bahasa and adapting them to the local conditions. EDI training modules on water and sanitation and PROWESS training methodology are unfortunately not in use in Network Centers.

28. Training activities are conducted by all Centers based on work plans — or in a more ad hoc manner — and are offered through courses, seminars, and workshops for trainers and educators as well as for practicing engineers. Existing or adapted modules are widely used for these activities. There is unfortunately no thorough evaluation and no follow-up of these training activities and the impact cannot be assessed. An evaluation methodology should be made available to each Center for the proper identification of indicators to measure the impact of training activities and to evaluate the achievement of objectives. It is evidently too early to measure any impact on project planning, design, and implementation.

29. Some training courses have been organized in Europe for consulting engineers from developed countries, generally from private firms. This activity should continue and be extended to consulting engineers from developing countries and to project managers from bilateral and multilateral agencies, particularly regional development banks.

30. Modifying curricula in universities by introducing new technologies and approaches can pose administrative and cultural problems, but within the ITN framework, this introduction is progressing satisfactorily. Some engineering schools like EIER and ETSHER in Ouagadougou have indeed introduced low-cost technologies in their curricula and research programs long before the establishment of CREPA. But Network Centers should see that the teaching of low-cost technologies, health education, and community development is actually an integral part of the curricula and is not treated as a minor option. Some Network Centers receive students who come for a length of time to benefit from its library and participate in its research program. The Network Center in Nairobi also sponsors students for overseas long-term training. However commendable they may be, these marginal activities should not divert the Centers from their objectives.

31. All Network Centers have established a specialized basic library, available to any member institution of the national network; regional networks try to establish mini-libraries in their member countries. Libraries generally comprise the Program's publications as well as books and comments provided by the associated institutions. Some Network Centers also produce their own documents (case studies, research documents, and the like). Few Network Centers are aware of available documentation on specific subjects and of documents produced by other Network Centers. Centers should be regularly informed and advised on existing documents of interest, and such dissemination should be analyzed in the framework of global collaboration.

32. "Research activities must be viewed as a support to training and education work." This statement from the ITN Directors Meeting is quite reasonable. Most ITN Centers have prepared research programs that are generally consistent with their training programs; but duplication of efforts can be found in some. Better coordination between Centers and dissemination of results are needed. In addition, it appears that research carried out by some Network Centers — especially those hosted by universities — is not clearly training-oriented and can divert Center staff from their objectives. Research themes should be clearly identified during the work plan preparation, thus avoiding duplication and deviations.

ITN Management and Linkages with the Program

33. Under the Program's supervision, the coordination unit concentrated its efforts on producing training materials until 1986 and then on establishing Centers and monitoring their activities. It was also supposed to animate the ITN in promoting exchanges of training experiences, dissemination of documents, communication of research activities, and other transfers of information. Actually, since early 1990, the coordination unit is almost nonexistent and there is no management of ITN by the Program, with the exception of ITN Centers in Kumasi and Harare. (For these Centers funded by UNDP, the World Bank is the executing agency and the RWSGs of Abidjan and Nairobi supervise.) The role of the coordination unit must be clarified for the future, but it should assume overall ITN management, including expansion of donor support and supervision of the global collaboration within the Network.

34. Network Center supervision is presently carried out by support agencies, either directly or through their associated institutions or executing agencies (RWSGs for the World Bank). This supervision is combined with technical assistance and support and includes preparation and execution of work plans (training, research, documentation, monitoring, provision of funds, and so forth). Additional technical assistance is provided by RWSGs, especially for preparation of work plans, identification or development of "demonstration" projects, and other tasks. This system is working properly and there is no need to change it, provided that an active system of global collaboration can establish dialogue among supporting institutions.

Global Collaboration

35. So far, the unique manifestation of global collaboration (Phase III of the ITN evolution) has been the ITN Directors Meeting in Calcutta. Regional African meetings were held in 1989 in Nairobi and in 1990 in Ouagadougou. The need for international collaboration was recognized at the time ITN was conceived and is still to be encouraged. Some of the main benefits of such a global collaboration are the promotion of technical cooperation among developing countries, coordination of research programs, exchange of experiences, and dissemination of information. But, it would be dangerous for this collaboration

to lead to an "ITN club" with few external contacts. All major institutions active in the sector should be associated in this global collaboration.

36. Global collaboration needs to be structured and to have clear objectives. The coordination unit, which is responsible for materializing and sponsoring this collaboration, should not handle the day-to-day operation and should not be responsible for the following: the collection, analysis, and circulation of information within the ITN; training of Center staff; preparation of basic training materials; preparation and organization of regional or global workshops and meetings; answering Center questions, and other related tasks. For those duties, the coordination unit should seek assistance from specialized institutions. But, at present, priority must be given to the definition of short-term objectives, implementation of appropriate activities, and careful expansion of the ITN.

Conclusions

37. It is difficult to formulate conclusions on achievements since the Network Centers have an average of less than two years' existence. In addition, the diversity of environments in which they exist precludes any general consideration of performance. However, global conclusions can be expressed on ITN's concept, objectives, and organization. The general concept and long-term objectives — namely, the development objectives, should not be questioned; however, the Network Centers are clearly missing short-term specific and tangible objectives. Training by itself cannot be an objective for the Centers, each of which should have its own institutional objectives. This deficiency at the local level might rapidly jeopardize the whole project. The other main conclusion is that no significant expansion of the ITN and no real global collaboration will be possible without an appropriate and stable coordination unit at the central level. The following recommendations tend to address these issues.

Recommendations

38. After — and only after — a government has expressed its strong interest in and support to an ITN project, the assessment process should continue forward — conducted by the support agency, the coordination unit, and the RWSG. The process should focus at the national level on

a number of objectives:

- (a) The assessment of training needs, with identification of target groups, especially those who are the most influential on sector development and orientation;
- (b) The identification of the priority fields (urban, rural; water, sanitation; hardware, software; and others);
- (c) The definition of training and education programs to be implemented, including post-graduate diploma, short courses, and others;
- (d) The identification of the most appropriate training and education institutions where the above programs should be implemented (universities, water utilities, continuing education centers, etc.); these participating institutions will form the local network, one of them being identified as the Network Center (host institution); and,
- (e) The identification of the key staff to be assigned to the Network Center for project implementation.

The assessment process should thus provide the Network Center with clear and specific short-term objectives. Typically, that objective should be the implementation and development, within existing selected institutions, of sustainable capacities in training and educating in new sector approaches. This objective should be achieved in a specified time frame, according to a detailed and specific work plan.

39. After establishing the Network Center and training the staff according to the work plan, project activities should include the following efforts:

- (a) Identification and training of trainers, educators, and selected local consultants assigned to participating institutions (local network);
- (b) Preparation of training modules and adaptation of existing curricula, with the participation of trainers, educators, and local consultants;
- (c) Establishment of documentation centers within the local network;
- (d) Initiation and promotion of training-oriented research within participating institutions and other research centers; but, in any circumstances, research should not supplant training in Center activities;
- (e) Assistance to participating institutions in organizing and running the first courses, seminars, or workshops; and,
- (f) Preparing a self-evaluation methodology for participating institutions, to assess the im-

part of their operations.

Associated institutions from developed countries would provide assistance to Network Centers for work plan preparation and monitoring of Center activities.

40. The above considerations on objectives and activities apply also to existing Centers, and, as necessary, existing national or regional Network Centers should define and refine their short-term objectives, relevant strategy, and activities to achieve these objectives. As a matter of fact, national objectives should be set up for all countries already involved in the ITN.

41. Depending on the country, it should take from three to five years to achieve reasonably these short-term objectives. During this period, financial assistance will be needed to train Center staff, to prepare work plans, implement activities, and support other action. A maximum of five years of progressively decreasing financial assistance, as originally proposed in the project concept, is necessary and should be sufficient to achieve short-term objectives. Beyond this stage, the achievement of long-term objectives is essentially the host government's responsibility, including the provision of resources to support regular activities and cover recurrent costs.

42. A coordination unit, reestablished within the UNDP-World Bank Program, should be responsible for the ITN overall management and expansion. It should also supervise ITN global collaboration and promotion of technical cooperation among developing countries. For this task, the coordination unit should lean on reputable international institutions, specializing in information and documentation (such as IRC); training, research, and development (IDRC for one); and training and exchange (such as CEFIGRE). Professionals from participating countries should be employed and trained within those institutions to ensure proper communication within the ITN. These institutions would be responsible, under the coordination unit's supervision, for preparing new basic training materials, training Center staff, collecting and circulating information and documentation, issuing newsletters, coordinating and promoting research activities, preparing and organizing regular meetings, and so on. In other words, these institutions would be responsible for animation of the whole network, cooperating closely with ITN Centers as well as with "non-ITN institutions" (such as UNICEF, WHO, AIT), international professional associations (IWSA, IWRA), and NGOs.

X

Program Priorities in the 1990s

The Challenges of the 1990s

1. At the end of the International Drinking Water Supply and Sanitation Decade it is apparent that there are still very large numbers of people without safe drinking water and sanitation. During the Decade, however, important lessons have been learned. These are well described in a number of reports, including the background paper for the Global Consultation on Safe Water and Sanitation for the 1990s, held in New Delhi in September 1990, and in the official statement resulting from that meeting. The challenge now facing governments, the international community, and the Program in particular, is to apply the experience gained during the 1980s on the scale required to reduce the number of unserved families significantly by the end of the 1990s.

2. As the New Delhi Statement aptly notes, the challenges are formidable:

Population growth continues apace. Infrastructure in many cities is stretched to the breaking point. Uncontrolled pollution is putting greater stress on the living environment. Depletion and degradation of water resources are causing the costs of new water supplies to escalate. Without fundamentally new approaches, the broad-scale deprivation will turn into unmanageable crises. Creating the right conditions for accelerated progress will often involve profound institutional, economic, and social changes, as well as reallocation of resources and responsibilities at all levels.

Implications for the Program

3. The Program represents only one effort among many, and its role in helping to meet these challenges must not be exaggerated. It is, nevertheless, one of the leading instruments at the disposal of governments and the international community for fostering sector development. To make a significant contribution in the years ahead, the Assessment Team believes that the Program's priorities should be established according to the principles discussed below.

Immediate Objectives: "Scaling-Up" of Operations

4. The present Program management sees the next stage of its work as a "scaling-up" phase. This means several things:

- (a) At the country level — moving from small-scale local demonstration projects to larger-scale investment programs;
- (b) Geographical expansion of the Program to include more countries, particularly in Africa, the neediest region; and,
- (c) Expansion of "global" research and other activities needed to support a larger country and regional effort.

5. Given the extent of the need, the Assessment Team concurs that "scaling-up" is a high priority for the Program in the early 1990s. But the rate at which scaling-up is achieved — particularly as regards increased investment — and the means by which it is done, must vary considerably

with regional and country circumstances. Moreover, scaling-up must be set in the context of the Program's long-term objectives: it is not an end in itself, but part of an overall process intended to increase developing countries' capacity to help themselves.

Long-Term Objectives: Increase Developing Country Capability

6. The Program's impact as a technical assistance unit will always be limited, whatever level of scaling-up is achieved, if it relies solely on its own resources. It is now recognized that effective sector development depends on making the best use of the capabilities of many different groups: public sector agencies, private sector entrepreneurs, community groups (with emphasis on the participation of women), NGOs, and the users themselves. The Program therefore needs to devise the best way to use available resources in order to assist each of these groups to play its role more effectively.

7. There is no doubt that, in the long run, the most cost-effective contribution that the Program can make is in training. This permits a multiplier effect that is far greater than can be achieved by the efforts of staff working on individual projects. It was for this reason that the International Training Network was conceived as the only long-term element of the overall Program — the other elements would lay the policy and the intellectual, operational, and institutional foundations on which the ITN would build, and then be progressively phased out or absorbed by other activities. However, over the past few years, the ITN has been the least visible element of the Program's activities, and changing this will require a long-term, carefully managed effort. Nevertheless, in the opinion of the Assessment Team, this must be attempted.

Program Evolution to Meet Long-Term Objectives

8. The next few years should see a marked evolution of Program activities. The precise details will need to be worked out by Program management to match resources and country interest and commitment, but the general sequence is likely to be similar to the following:

(a) Development of case studies, guidelines, and information of immediate operational application.

- (b) Revitalization of the ITN, and the addition of more Centers, to train key personnel in applying these concepts.
- (c) Movement from limited-scale demonstration projects to larger-scale projects or programs.
- (d) Refinement of case study and other materials, supported by basic research as needed.
- (e) A progressive shift of resources into the ITN Centers, increasing their capacity for building technical cooperation among developing countries, retaining a small headquarters core staff to assist in synthesis, liaison with World Bank-sponsored research, and support.
- (f) Progressive phasing out of project preparatory work by Program staff, as the new approaches become accepted as routine and so funded through normal project preparation channels.

Expansion of Country-Level Operations

9. It is important to be clear about what scaling-up at the country level entails. In a poor country with a weak public sector and an undeveloped private sector, successful scaling-up is likely to require great institution- and capacity-building activities, quite different from those possible in small demonstration projects. External technical assistance, such as that available from the Program, can no longer be applied directly at the community level, but has to be directed towards helping local intermediary institutions perform more effectively. There are clearly greater risks involved, not only because the scale of investment is much larger but also because close operational linkages are no longer feasible. These risks are most acute on the software side (most evaluations find that "people problems" are the root cause of failures in urban and rural development projects), but the possible technical difficulties should not be underestimated.

10. Scaling-up has important implications for the Program. Instead of "feeling its way" on small projects, the Program will have to give clear guidance to national staff who, for example, will be responsible for planning and designing projects, engaging and supervising external consultants, or regulating and assisting private sector efforts. The Program may also have to deal with a wider range of institutions and agencies: not just one or two agencies — carefully selected because they most closely meet the Program's ideal standards — but many that have to be included because of their

mandate or because of the scope of their activities. Therefore, on both hardware and software aspects (but especially the latter, since they are more critical to success and generally far less well understood) the Program needs to prepare itself for operating in a quite different way. Monitoring and evaluation and effective action to adjust approaches as needed should be much more thorough than previously. It is suggested that extensive upgrading of the tools available to the Program should be given priority, and that the ITN might take the lead in this (see "Research and Development Needs" below).

11. An important strategic decision in scaling-up will be the selection of the country and subsector (urban/rural; water supply/sanitation) on which to focus efforts. While this selection has always formed part of the Program planning process, it now takes on additional significance if the Program is to play a larger role in the country concerned. The judgment will need to be based not only on the Program's assessment of the likely cost-effectiveness of its inputs but also on the receptiveness on the part of the country concerned, and the ESAs active there, to the proposition that a significant section of infrastructure investment should be heavily affected by Program activities. The decision on the role of the Program will also have to take account of the larger issues posed by the rate of urbanization and the need to improve urban infrastructure services in general, discussed below ("The Urban Challenge").

12. In the particular case of Africa, the most needy region, AFTIN has stated (as noted in Chapter II) that the broadening of the Program impact, from research and pilot projects to countrywide sector development, will have to take place under the framework of externally supported operations that deal with policy changes and institutional reform. In most countries this will call for Bank involvement, and the accompanying experience in sectoral policy reform and coordination of multi-donor efforts.

13. The Assessment Team finds much to agree with here, but believes that the rural water supply sector in sub-Saharan Africa poses rather special problems for the World Bank. It is apparent from its recent policy statements that the need for a poverty focus is now emphasized; and in the contest of structural adjustment lending, the water supply sector may be seen as a priority. But the World Bank has rather little experience both in this sector (certainly in comparison with many

other ESAs, especially the European bilateral agencies, and in comparison with its urban water supply and sanitation operations) and with the low-cost technology, community-based approach that the Program and the great majority of sector specialists advocate. The World Bank's experience with rural development projects in Africa, which has been rather mixed, may be leading to a greater recognition of the need for community involvement, but its views with regard to community-based approaches are not yet fully developed. In this region in particular, the Program has to balance the possibly conflicting priorities of the Bank, the other ESAs supporting sector development (and contributing to Program funding), and the countries concerned.

14. Within the World Bank, the Program has a combination of knowledge and country-based activities that give it a clear comparative advantage in the rural water supply and sanitation sector. If the World Bank, through its operational divisions, does become heavily involved in this sector, it will badly need the assistance of the Program; not to spend money (other donors have learned from the Decade that this is all too easy), but to spend it in a way that achieves sustained benefits — which is likely to mean a selective and situation-specific approach. It is also likely to mean that, in any given project, the amount of money that can be lent will not be large. But the financial resources of the World Bank are considerable, and if the Program can contribute to ensuring that they are well used, this will be a valuable achievement.

15. The World Bank's influence is not, however, derived only from the provision of loans, and the Program should seek to convince through the force of its knowledge rather than through the power of the Bank's pocket — especially in this sector in which an excess of investment funds has often been the problem rather than the solution. If the World Bank is seen to endorse the approach advocated by the Program, its impact is likely to be very substantial.

16. Very generally, when all these circumstances are taken into account, Asian and Latin American countries appear to be readier for the scaling-up of Program activities than those in Africa, and sub-Saharan Africa in particular. But final strategy decisions must be based on a more detailed country-by-country appraisal.

Cost and Sustainability of Systems

17. The rate at which service coverage can be "scaled-up" is directly related to the cost of water and sanitation systems and their sustainability after construction. The New Delhi Statement notes that "to achieve full coverage by the year 2000 using conventional technologies and approaches would require five times the current level of investment."

18. Whatever their accuracy, these investment figures understate actual financial needs. Past emphasis has been on new construction, much to the detriment of funding for operation and maintenance. As a result, many systems are inoperative or have serious deficiencies and will need to be rehabilitated. Rehabilitation costs will add substantially to financial requirements.

19. The conclusion is inescapable: more effective and less expensive solutions must be adopted based on developing countries' real needs and realities. The Program has done important and pioneering work in developing both the technology and the delivery systems for low-cost water supply and sanitation services in both urban and rural areas. What is now required is to refine these approaches and to make the information more widely available; this is discussed below under "Research and Development Needs."

Community Involvement

20. Important as low-cost technologies and community-based approaches are for holding down the *cost* of water and sanitation systems, they are even more important for the *sustainability* of services. Probably the most important lesson to emerge from the Decade experience is that, unless user communities themselves are actively involved in the planning, financial support, operation, and maintenance of systems, these systems cannot be sustained and will break down within a fairly short period of time. (Some people claim that conventional urban piped water and sewerage systems in major cities managed by well-organized utilities are exceptions to this general conclusion; however, most of these systems are also in technical and financial trouble, both in the industrialized world and in developing countries, and it can be argued convincingly that these utilities should also spend more time on consumer relations to build a constituency for the tariff revisions or other changes needed in order to rehabilitate the systems and restore viability.)

21. This shift towards low-cost, sustainable projects and community involvement implies a corresponding shift in government's role: less emphasis should be placed on government's function as a *provider* of water and sanitation services, through public investment and management of public utilities, and more on the goal of *enabling users* — in particular, poorer communities — to develop, finance, manage, and then maintain their own systems. During the 1980s, the Program and its partners helped develop and demonstrate water and sanitation technologies that are both technically and financially within the self-help capacities of communities. The problem now is to devise institutional frameworks to match these technological shifts and to build on the increased understanding of the essential role of the community. These frameworks will need to draw upon all the resources available (for example, sector agencies and other government institutions, private sector entrepreneurs, NGOs, and community-level organizations and individuals). The particular institutional "mix" will usually have to be location-specific, and so, as part of its move towards scaling-up, the Program needs to prepare illustrative case studies and also to provide more general guidance on designing and implementing appropriate institutional arrangements. All of which may require attention to a variety of different aspects, from human resources development to legislative amendments.

22. Achieving an automatic and widely usable formula for matching users to delivery systems remains problematic. Two techniques appear particularly promising. The first is the use of "effective demand" (the subject of an ongoing Program research effort), which encourages the intended users to specify the level of service they will receive and will be prepared to pay for. This is a good example of the sort of approach that should be pursued more widely in government-assisted programs. The second approach that seems especially relevant to the Program's work is the use of "social marketing," which focuses on "the four Ps: Product, Price, Place, and Promotion."* Social marketing uses modern marketing principles to increase the acceptability of a socially beneficial idea, commodity, or practice. It has been used successfully in generating demand for

* These ideas on social marketing are developed in detail in a paper by Cecilia Caballero-Verzosa entitled, *Strategies for Scaling Up Water and Sanitation in Rural Areas*.

social services such as immunizations or family planning; in persuading populations to change health practices; and in helping shape social behavior. (The Program had initiated work in social marketing in India, but this now seems to be in abeyance. In the opinion of the Team, work in this area should now be reactivated.) In the words of the Asia Team, the Program should take the following action:

- (a) Develop a social marketing strategy to determine expected demand, product availability, acquisition price, and compelling consumer benefits that can be articulated in promotional campaigns.
- (b) Implement an integrated program based on consumer needs, making the products available to the low-income communities at a price they can afford.
- (c) Undertake a sustained communication campaign to increase awareness about the health practices related to safe drinking water and proper sanitation.

23. Whatever processes are developed for community involvement, they must take full account of the needs and concerns of a key segment of the consumer population: women. Program staff should bear this need in mind at all stages, as they evaluate the appropriateness of water and sanitation technologies, as they develop financing schemes to make the technologies affordable to low-income communities, as they design instructional materials (appropriate for women who are largely semi-literate to understand and use), and as they design logistics systems for these technologies (aware that women in the community will also be involved in operation and maintenance). Because women are the main users and beneficiaries of water and sanitation systems, it is critical that the Program make them active partners in decision making in all aspects of its work. The Team considers that PROWESS can and should be a major support element in this process, with ever closer connections to the Program.

Research and Development Needs

24. As described in Chapter I of this report, important progress has been made in developing and promoting low-cost sustainable water and sanitation techniques, first by the World Bank in the late 1970s, and subsequently by the Program and its predecessor projects. An extensive series of publications on both hardware and software

components was developed through the predecessor projects and widely disseminated, and the knowledge available at that time formed the basis for the initial set of training modules used by the ITN Centers.

25. This work was deemphasized around the mid-1980s, and it does seem clear that really innovative research and development work came largely to a halt some years ago. This hiatus has left a gap in the Program's spectrum of activities and may have had some undesirable side effects. In particular, many of the "state of the art" documents available through the Program are now a number of years old, while the shifts in emphasis and country focus after reorganization have left some research topics unresolved and have resulted in missed opportunities to evaluate the long-term impact and sustainability of some of the Program's initial activities. For example, the urban sanitation program in India was an early attempt to "scale up" operations and could have produced valuable lessons. In general, there does not seem to have been sufficient attention given to evaluating past experience and "learning by doing." If those early efforts were not successful, why not? If they were successful, why did attention move elsewhere? What are the implications for the future?

26. Research, however, is once more on the rise with the establishment of the Policy and Research Unit in INUWS, which has the dual responsibility of serving both the World Bank's main line divisions and the Program. The current agenda of the Policy and Research Unit is focused on three areas: water resources, environmental sanitation, and institutional issues. In the Team's view, the Program-funded research and development effort should be prioritized to support the agreed long-term strategy. As mentioned above, the Team does not consider that the Program has any comparative advantage in water resources research, nor does it see this topic as central to the Program's objectives, with the exception of three topics narrowly focused on more efficient use of water resources: water conservation, water reuse, and leakage control. The second two themes should respond to the Program's need for more systematic and operationally focused research on both hardware and software, and the Assessment Team strongly endorses expanded research and development in these areas as a priority activity for the Program in the next phase.

27. Definition of these research needs requires careful thought. There are both short-term needs,

with an immediate operational focus and application, and more fundamental questions that require long-term studies. Agreeing on the priorities in these two distinct areas requires consultation both with the academic research and development community and with the people more immediately concerned with project promotion and implementation: Program field staff, sector agencies, and supporting ESAs. In both cases, the Team suggests that more scientists from participating countries be drawn into the effort. The model of the earlier Program activities — a broad program of research into key issues, conducted by a number of institutions in both developed and developing countries, with support from various ESAs, and coordinated but not necessarily managed by the headquarters units — may prove suitable.

28. As discussed above (“Community Involvement”), two key topics in the Program’s research agenda should be the refinement of institutional frameworks suited to community-based projects and the development of techniques for encouraging participation and determining what service standards will be acceptable and sustainable (“effective demand” estimation and “social marketing” being two candidates). Finding solutions to these issues is fundamental to any attempt to scale up Program activities.

29. Questions have been raised whether sufficient rigorous cost data (covering all software and hardware costs) have been assembled to persuade traditionalist policymakers and engineers that the technologies developed earlier (chiefly several types of handpumps and on-site latrines and alternative types of sewerage) can be safely recommended for large-scale application. The Assessment Team did not include the expertise to evaluate this contention, but it is clear that credibility of the Program’s claims concerning the potential for low-cost solutions remains an important issue, affecting the Program’s impact both within the Bank and elsewhere. Producing sound data based on over 10 years’ experience is critical to winning the support of senior decisionmakers, which is required if the programs are to “go to scale.” This implies independent engineering evaluations, carefully designed cost comparisons between conventional and alternative solutions, and an assessment of the institutional and software costs associated with community-based schemes. This has been a known deficiency since at least 1984, when it was raised at the Water and

Sanitation Decade strategy meeting held at the Bank, and it should now be addressed.

30. While there may at this stage in the Program’s evolution seem to be a need for more research into institutional issues, technical problems must not be neglected. To take an example that some dismiss as trivial, it is irresponsible to promote on-site sanitation if the Program cannot provide a convincing and reliable method of servicing latrines. Resource recovery, which is at present peripheral to the Program’s work, needs to be brought into heightened focus as a valuable means to make sanitation more affordable, to provide alternative water sources in arid regions or countries, and to protect the environment. Also, a number of recent technical developments have not been fully covered by earlier Program research efforts, such as various forms of alternative sewer systems, or sewage treatment by means of artificial wetlands, or more effective lagoon systems. The potential application of these techniques in developing countries where the Program is active needs careful evaluation.

31. There is some suggestion that dissemination of the Program’s findings has been inhibited because much of the work lacks the rigor that the Bank expects in its publications. While fundamental research and development should be subjected to rigorous peer review, in the view of the Team this process is not so critical for case studies, working papers, and the like; in these cases, because the Program is almost the only source of guidance, it is more important to have materials available in the field as soon as possible to help project staff. A possible solution appears to be to use the rejuvenated ITN Centers as the prime agencies for preparing and disseminating this type of more ephemeral material. The Centers are advantageously located in the regions, aware of critical problems, and able to form close contacts with both public and private sector experts while regularly updating, replacing, or discarding material as needed for their training and dissemination functions.

The Urban Challenge

32. The Decade of the 1990s will without doubt be a decade of accelerating urbanization. All forecasts are daunting.

33. The repercussions of the population onslaught are already being felt and have been succinctly summarized in the New Delhi Statement

quoted above: overstretched urban infrastructure; uncontrolled pollution; stress on the living environment; depletion and degradation of water resources; and, as a result of these other impacts, serious adverse effects on health.

34. What does this imply for the future development and orientation of the Program? As a "poverty-oriented" effort dedicated to bringing safe water and sanitation to unserved low-income communities, the Program cannot ignore the trends. The numbers of urban poor are multiplying rapidly, and in some countries, will soon approach, if not exceed, the numbers of rural poor. Governments are increasingly concerned over this trend, especially in Asian and Latin American countries, as evidenced at the New Delhi Consultation and in other meetings. In these circumstances, the Assessment Team recommends that the Program increase its activities in urban areas as a matter of high priority, without, however, abandoning rural work, particularly in Africa.

35. The urban components of the Program should continue to be focused on the periurban, intra-urban poor neighborhoods that are not adequately served by existing conventional systems and/or that are outside the jurisdiction of the established utilities. The effort should continue to bring to these communities the affordable, low-cost, community-planned and managed systems in which the Program has a demonstrated comparative advantage. In this work, careful attention needs to be given to the issue of how these systems can be linked to the city's existing and expanding conventional water supply and sanitation systems, both technically and financially, to achieve maximum benefits for the poor.

36. While recommending increased Program activity in urban areas, the Team does not recommend that the Asia Water and Sanitation Sector Development Team (SDT) be merged with the Program under the management of INUWS. The SDT is presently supported by UNDP's Regional Bureau for Asia and the Pacific (RBAP) and several bilaterals. Since the establishment of the RWSGs and with the approval of participating governments, it has increasingly focused its assistance on larger cities and towns in Asia, on the strengthening of urban sector utilities, and on the identification and preparation of investment projects based on conventional and intermediate technologies, all of which are recognized needs in rapidly growing cities. To merge the two initiatives would impose large additional management

functions on INUWS and, more importantly, would seriously dilute the present identity of the Program, which is clearly focused on poor unserved communities, low-cost nonconventional techniques, and community-based approaches.

37. The Team also notes the recommendations of the evaluation mission that reviewed the SDT in January and February 1990, which propose broadening the SDT into an Urban Environmental Services Team (UEST) that would deal not only with water and sanitation in the narrow sense but also with related issues, including drainage, wastewater management, water pollution, and solid waste disposal. While this recommendation has not yet been accepted by RBAP, the Asia SDT and the Program are clearly developing separate identities. While working in complement in larger urban centers, each program has its distinct staffing and management requirements. The Team believes that the kinds of assistance that would be provided by transforming the SDT into a UEST in Asia are also needed in cities of Latin America, and to some extent in some African and Arab countries. It is therefore suggested that serious consideration be given to converting the SDT to an interregional program with core support from DGIP, RBLA, RBA, and with continued support from RBAP for the Asia component.

Sector Policy Issues

38. The decision to expand water and sanitation coverage for the poor and the rate at which this is to be done is ultimately a government responsibility. Experience to date has shown that a growing number of governments have welcomed Program assistance in developing their sector policies and strategies. Experience has also shown that in a number of countries the Program has begun to have an influence in gaining a higher priority for poverty-oriented sector strategies. This effort should be intensified during the next phase (always, however, without attempting to impose policies from outside). On the basis of the evidence to date, it is likely that the Program as such and by itself can have only a limited and slow impact on sector policies: the support of the Bank is needed to accelerate the required policy and institutional reforms. It is suggested that the Program management review this matter with the Bank's technical departments, to determine the appropriate structures for closer cooperation in this area.

39. The point has also been made to the Assessment Team that Program activities directed to low income periurban and intra-urban communities must be closely linked with overall urban policy if they are to produce a substantial impact in terms of increased coverage. This is the strong view of the Bank's Urban Development Division (INURD), a unit of the Infrastructure and Urban Development Department of the PRE complex. In INURD's view, the Program's present focus on specific individual neighborhoods cannot solve the problem in large and growing cities because it does not address the larger picture. By the time demonstration work has been carried out and a program implemented in a particular neighborhood (a time-consuming process), three or four more poor urban communities will have sprung up, or existing ones grown larger. It is argued that the micro-level neighborhood-by-neighborhood approach has not worked in the case of low-cost housing and will not work with water and sanitation. A citywide approach is needed, and this requires linking Program activities more closely with overall urban policy and planning.

40. The Assessment Team believes that this position makes a great deal of sense, although it is not entirely clear at this time just how the Program can integrate its operations with citywide urban development policies. An initial entry point into this area could possibly be provided through a closer linkage between the Program and the Interregional Urban Management Program, now entering its second phase, which is managed jointly by INURD and the United Nations Centre for Human Settlements (HABITAT), with substantial financial support from a number of ESAs in addition to UNDP. Consultations between the Program and INURD have recently been increased, and the Team suggests that these be intensified and possibly expanded to include Program collaboration at the field level. Other important programs with which the Program might usefully link up are the Municipal Program for Sub-Saharan Africa managed by the World Bank and by "Asia-Pacific 2000," an initiative of UNDP's Regional Bureau for Asia and the Pacific to support NGOs in addressing the urban environmental challenge in Asia.

41. Finally, for maximum impact in urban areas, close cooperation between the Program and the proposed Urban Environmental Services Team (UEST) is essential. If the recommendation to broaden the scope of the SDT as suggested proves

acceptable, consideration should be given to locating the management of the UEST in INURD, thus facilitating liaison with INUWS as well as linking UEST's activities more closely with overall urban policy and research.

A New Approach to Sector Planning

42. The New Delhi Statement emphasizes the need for "fundamentally new approaches" to sector development if the goals of "Safe Water 2000" are to be achieved. Possibly the most basic requirement is the need for a new approach to sector planning. At present, the typical planning process assumes that the entire community will have a single service standard and be served by one central system. The planners then focus more on the issues affecting the rate at which the selected technology can be extended, rather than on the more fundamental question of how best to provide people with service. This approach disregards differences in socioeconomic conditions of users in different localities and neglects the potential savings that could be achieved by using a mixture of technologies, both conventional and nonconventional, as well as by using different institutional arrangements suited to local conditions.

43. Experience during the Decade has shown that this "single service standard" approach is now outmoded. It should be replaced by a planning system based on the following principles:*

- (a) Determination in every case of the appropriate solution on the basis of effective local demand, to achieve technical and financial viability.
- (b) Employment of a combination of measures, such as demand management, water conservation, on-site and off-site water reuse, and decentralized wastewater collection and disposal.
- (c) Use of a circular, rather than a linear, flow model to emphasize sustainability within a given area and to avoid the export of environmental problems to other, downstream communities.
- (d) Definition of achievable standards appropriate to local conditions, rather than the adoption of unrealistic and inappropriate ones

* See "Quo Vadis, Sanitary Engineer," by John M. Kalbermatten; available through the UNDP - World Bank Water and Sanitation Program.

simply because industrialized countries are capable of achieving them or find them necessary or desirable under their own local conditions.

- (e) Assessment of what environmental services, such as water supply, human waste disposal, storm drainage, and garbage disposal, are needed, and in what priority, to solve a given problem and to optimize the use of available investment funds.
- (f) Creation of the necessary institutional framework, particularly arrangements that encourage needed community participation in project development and subsequent community management of assets, to make this approach feasible.

44. These considerations appear to the Team to have a direct bearing on the scaling-up of Program activities during the next phase, particularly in larger urban areas. It is suggested that the issues be reviewed by the Program management for possible application at field level in collaboration with the proposed UEST.

Conclusion

45. The general conclusion of the Assessment Team is that the UNDP-World Bank Program is sound and deserves continued support, and that its impact can be materially increased during its next phase in accordance with the guiding principles of the New Delhi Statement. These principles were endorsed by the United Nations General Assembly at its 45th session:

- (a) Protection of the environment and safeguarding of health through the integrated

management of water resources and liquid and solid waste.

- (b) Institutional reforms promoting an integrated approach and including changes in procedures, attitudes, and behavior and the full participation of women at all levels.
- (c) Community management of services backed by measures to strengthen local institutions in implementing and sustaining water and sanitation programs.
- (d) Sound financial practices, achieved through better management of existing assets and widespread use of appropriate technologies.

46. Achievement of the goals of "Safe Water 2000" in accordance with the above principles will require closer collaboration among ESAs, and between them and governments, than has generally prevailed during the International Drinking Water Supply and Sanitation Decade. With its many interagency connections, and reinforced by the Review Board recommended in this report, the Assessment Team believes that the Program can serve as an effective instrument for helping to achieve this collaboration, provided certain conditions are met.

47. These are (a) a serious desire on the part of ESAs to coordinate their assistance programs more closely at the country level in support of government- and poverty-oriented sector policies and objectives; (b) willingness of ESAs to exchange timely information with one another on the assistance they plan to provide; and, (c) continuing consultation between ESAs and the Program management to identify ways in which activities can be more closely dovetailed to the mutual benefit of all.

Annexes

ANNEX 1: REGIONAL AND IN-COUNTRY STAFF

March 1, 1991

Region	Title/Discipline	Recruitment Type	Funded by
RWSG East Africa			
<i>Regional</i>	Regional Manager	International	UNDP/RAF
	Sector Planning Engineer	International	Denmark
	Sector Planning Engineer	International	Finland
	Sector Planning Engineer	International	Norway
	Social Scientist	International	Canada
	Community Dev. Specialist	International	UNDP/RAF (PROWESS)
	Water Resources Engineer	International	Sweden
	Financial Analyst (Vacant)	International	UNDP/RAF
	Mechanical Engineer	Local	UNDP/RAF
	Researcher	Local	UNDP/RAF
<i>In-Country</i>			
Ethiopia	Sanitary Engineer	International	UNDP/IPF
	Financial Analyst (Vacant)	International	UNDP/IPF
Rwanda	Sanitation Adviser	International	UNDP/IPF
Zimbabwe (Advisory Team)	Rural Sanitation Coordinator	International	Norway
	Sanitation Adviser	International	Norway
Zimbabwe (Training Center)	Training Center Manager	Local	Norway, UNDP/IPF
	Sanitary Engineer	Local	Norway, UNDP/IPF
RWSG West Africa			
<i>Regional</i>	Regional Manager	International	UNDP/RAF
	Sanitary Engineer	International	UNDP/RAF
	Sanitary Engineer	International	UNDP/RAF
	Sanitary Engineer	International	Switzerland
	Community Dev. Specialist	International	UNDP/RAF
	Financial Analyst	International	UNDP/RAF
	Sanitary Engineer	Local	UNDP/RAF

Region	Title/Discipline	Recruitment Type	Funded by
<i>In-Country</i>			
Burkina Faso	Project Coordinator	International	UNDP/IPF
Ghana	Country Coordinator*	International	UNDP/RAF
	Production Engineer Adviser*	International	Switzerland
	Project Manager (Kumasi Sanitation Project)	Local	UNDP/IPF
Nigeria	Project Coordinator	International	UNDP/IPF
	Training Adviser	International	UNDP/IPF
	Water Supply Adviser	International	UNDP/IPF
	WID Adviser	Local	UNDP/IPF
	Community Dev. Adviser	Local	UNDP/IPF
	Sanitation Adviser	Local	UNDP/IPF
	Hydrogeologist	Local	UNDP/IPF
	Hygiene Education Adviser	Local	UNDP/IPF
Mechanical Engineering Adviser	Local	UNDP/IPF	
RWSG East Asia and Pacific			
<i>Regional</i>	Regional Manager	International	UNDP/DGIP
	Engineer (Training Specialist)	International	UNDP/DGIP
<i>In-Country</i>			
China	Chief Technical Adviser	International	UNDP/DGIP; UNDP/IPF
	Sanitary Engineer	International	UNDP/DGIP
	Sanitary Engineer	Local	UNDP/DGIP
Indonesia	Project Manager	Local	Netherlands;UNDP/IPF
	Community Dev. Adviser	International	Netherlands;UNDP/IPF
	Sanitation Adviser	International	Netherlands;UNDP/IPF
	Sanitation Adviser	Local	Netherlands;UNDP/IPF
	Sanitary Engineer	Local	Netherlands;UNDP/IPF

* Regional Staff not located in the RWSG Office

Region	Title/Discipline	Recruitment Type	Funded by
RWSG South Asia			
<i>Regional</i>	Regional Manager	International	UNDP/DGIP
	Sr. Sanitary Engineer	International	Norway
	Sector Planning Engineer	International	Denmark
	HRD Specialist	International	United Kingdom
	Production Engineer (Technology Unit)	Local	UNDP/DGIP
	Sanitary Engineer	Local	UNDP/DGIP
	Finance & Inst. Specialist	Local	UNDP/DGIP
	Communications Specialist	Local	UNDP/DGIP
<i>In-Country</i>			
Pakistan	Country Coordinator	International	Norway
	Financial Analyst	Local	UNDP/DGIP
	Engineer	Local	UNDP/DGIP
Bangladesh	Country Program Manager	Local	UNDP/DGIP;UNDP/RAS
	Researcher	Local	UNDP/DGIP
Latin America			
Bolivia	Country Coordinator	International	Netherlands
	Project Manager	Local	Netherlands
	Planning & Monitoring Engineer	International	Netherlands
	Water & Sanitation Adviser	Local	Netherlands
	Community Dev. Adviser	Local	Netherlands
	Provincial Supervisors (3 - Vacant)	Local	Netherlands
	Hydrogeologists (3-Vacant)	Local	Netherlands

**ANNEX 2: UNDP-WORLD BANK WATER AND SANITATION PROGRAM
EXTERNALLY FINANCED INVESTMENT PROJECTS IN WHICH THE PROGRAM IS INVOLVED**

West Africa RWSG

NO	COUNTRY	NAME OF PROJECT	OBJECTIVE	EXT FUND-ING	PROJECT SIZE (US\$ mln)	AREAS COVERED	NO OF BENEFICIARIES	ROLE OF PROGRAM	REMARKS	STATUS
1.	Benin	First Urban Project, Cotonou	Improve the environment in Cotonou Support to community management with a focus on solid wastes	IDA		Cotonou (one neighborhood)	20,000	Assistance in project preparation and appraisal including community management with a focus on solid waste	Appraisal mission scheduled for April 1991	Under prep.
2.	Guinea	II Urban Project	Improve Conakry's environmental sanitation	IDA	70	Conakry	1.1 mln	Assistance in project preparation and implementation	Pop. of Conakry: 1.1 mln in 1990; est. 2 mln by 2000	Under impl.
3.	Guinea	National Rural Infrastructure Project	Rural water supply and sanitation (RWSS)	IDA	88.55	140 villages	Water supply, 60,000; sanitation, 7,000	Assistance in project preparation, appraisal and supervision		Under impl.
4.	Ghana	Rural Water Supply	RWSS	IDA/ESAs	54	Ghana	Approx. 6 mln	Assistance to Govt and the Bank to prepare sector strategy and action plan	The SSAP draft to be discussed by donors in Feb 1991	Under prep.
5.	Ghana	II Urban Project	Development of Urban Infrastructure	UNDP/ ODA/ IBRD	0.9 (WSS component)	Kumasi (one neighborhood)	2,500	Execution of Demo Project which is part of the Kumasi Project		Under impl.
6.	Nigeria	Multistate Water Supply	Urban WSS & RWSS	IDA	400	Rural areas of Katsina and Kaduna States	5.1 mln	Supervision of consultant-identification of RWSS component	Appraisal mission Feb 1991	Under prep.
7.	Nigeria	Rural Water Supply Lending Program	RWSS	IDA/ESAs	350	Unserviced population	Approx. 7 mln but yet to be determined	Assistance to Govt. in defining policy as basis for RWSS programs. Draft sector strategy and action plan being prepared	Unserviced rural population.	Under prep.

West Africa RWSG (Continued)

NO	COUNTRY	NAME OF PROJECT	OBJECTIVE	EXT. FUNDING	PROJECT SIZE (US\$ mln)	AREAS COVERED	NO OF BENEFICIARIES	ROLE OF PROGRAM	REMARKS	STATUS
8.	Côte D'Ivoire	Rural Water Points Rehabilitation Project	Piped water supply in large villages	IBRD (Loan 2130-IVC)	25	3 large villages in southern regions	10,000	Assistance in preparation and implementation of RWS component	The project covers 13,500 water points. Program to study RWS component of new Infrastructure Project. Focus will be on village management	Under impl.
9.	Côte D'Ivoire	Rural Infrastructure Project	RWS	IBRD	5 (WSS component)	80 villages country-wide	160,000	Assistance in project preparation		Under prep.
10.	Mali	Rural Development Project (Mali Sud III)	Rural water supply	IDA		389 villages in southern Mali (Fana, Sikasso, Koutiala)	200,000	Evaluation of community management and O&M of Mali Sud II and preparation of Action Plan for Mali Sud III. NGO identification, supervision, TOR preparation for health education; supervision of consultants working on reorganization of maintenance system		Proposed

East Africa RWSG listing follows on next page.

**ANNEX 2: UNDP-WORLD BANK WATER SUPPLY AND SANITATION PROGRAM
EXTERNALLY FINANCED INVESTMENT PROJECTS IN WHICH THE PROGRAM IS INVOLVED**

East Africa RWSG

NO	COUNTRY	NAME OF PROJECT	OBJECTIVE	EST. FUNDING	PROJECT SIZE (US\$ mln)	AREAS COVERED	NO OF BENEFICIARIES	ROLE OF PROGRAM	REMARKS	STATUS
11.	Ethiopia	Addis Abbaba Infrastructure	Infrastructure development	IDA	35	Addis Abbaba	1.7 mln	Assisted in the preparation of project	Bank loan to be approved in FY91	Under impl.
12.	Ethiopia	Market Towns Project	Water supply and sanitation in urban areas	IDA	40	Provincial towns	1.6 mln	Assisted in preparation of project	Bank loan approved in FY 90	Under impl.
13.	Ethiopia	Urban Sanitation	Demonstration project	NORAD	Not yet determined	2 neighborhoods in Asella	10,000	All aspects from planning through supervision	Results will be incorp in future Bank operations	Under prep.
14.	Madagascar	Water Supply Project	Sector loan for WSS	IDA	157.7	Country wide strategy	Not yet determined	Development of sector strategy and action plan	Bank loan under preparation FY 92	Under prep.
15.	Malawi	Infrastructure Project	Upgrading infrastructure: principally roads and water supply	IDA/ADF UNCDF/ UNDP/ USAID GTZ	66.2	Country wide project	7.9 mln	Assisted in preparation of borehole rehabilitation component	Bank loan approved in FY 90	Under impl.
16.	Rwanda	Urban Institutions Project	Improvement in urban management	IDA/ UNCDF/ FAC/ UNDP	0.6	Country wide project	6.4 mln	Assisted in preparation of project	Bank loan approved in FY 89	Under impl.
17.	Rwanda	Urban Demonstration Project	Demonstration of low-cost sanitation	UNDP	20	Urban areas	Not yet determined	Identification and supervision of demo project	Future Bank lending to sector	Under impl.
18.	Uganda	Second Water Supply Project	Water supply in urban areas	IDA/ECC Italy/ Austria/ GTZ	36	Seven major towns	1.2 mln	Assisting in preparation of project	Bank loan approved in FY 90	Under impl.
19.	Uganda	Small Towns Water Supply Project	Water supply small towns	IDA	67	20 small towns and 20 growth centers	0.6 mln	Assisting in the preparation of project	Bank loan scheduled for FY 92	Under prep.

East Africa RWSG (Continued)

NO.	COUNTRY	NAME OF PROJECT	OBJECTIVE	EXT. FUNDING	PROJECT SIZE (US\$ mln)	AREAS COVERED	NO OF BENEFICIARIES	ROLE OF PROGRAM	REMARKS	STATUS
20.	Uganda	Northern Reconstruction Project	Reconstruction and social economic infrastructure	IDA	35 (approx.)	Northern region	Not yet determined	Assisting in preparation of project	Bank loan scheduled for FY93	Under prep.
21.	Uganda	PAPSCA Project	Mitigating social costs of adjustment	IDA	37	National	N.A.	Assisted in preparation of periurban component	Bank loan approved in FY90	Under impl.

South Asia RWSG listings follow on next page.

**ANNEX 2: UNDP-WORLD BANK WATER SUPPLY AND SANITATION PROGRAM
EXTERNALLY FINANCED INVESTMENT PROJECTS IN WHICH THE PROGRAM IS INVOLVED**

South Asia RWSG

NO	COUNTRY	NAME OF PROJECT	OBJECTIVE	EXT. FUNDING	PROJECT SIZE (US\$ mln)	AREAS COVERED	NO OF BENEFICIARIS	ROLE OF PROGRAM	REMARKS	STATUS
22	Bangladesh	Third Dhaka Water Supply & Sewerage Project	Improved water supply and sanitation	IDA	41.4	Dhaka	5 mln	Assistance in implementation of project	Bank credit approved in FY 85	Under impl.
23*	Bangladesh	Fourth Dhaka Water Supply & Sewerage Project	Improved water supply and sanitation	IDA	300	Dhaka	9 mln	Assistance in project preparation	Bank credit approved in FY 91	Under impl.
24*	Bangladesh	Third Chittagong Water & Sewerage Project	Improved water supply and sanitation	IDA	55	Chittagong	2.1 mln	Preparation of strategy paper and project identification		Under prep.
25	Bangladesh	Urban Low Cost Sanitation Project	Development of low cost sanitation	UNDP/DANIDA	0.95	84 Towns	10,000	Assistance in preparation and implementation of low cost sanitation and solid waste management component		Under impl.
26	Bangladesh	Mirzapur Handpump Project	Handpump testing and health impact study (which is already published)	CIDA	0.38	Mirzapur	5,000	Planning and implementation of demo project. Project is complete and Handpump report is published.		Under impl.
27	Bangladesh	Mirzapur Comm Management Project	Development of comm Impl capability	CIDA UNICEF and NGOs	0.06	Mirzapur and new villages are being identified	5,000	Planning and implementation of the project.	Project completed and case study is being prepared	Under prep.
28	Bangladesh	Tara Pump Performance Monitoring Project	Establish monitoring system	CIDA	0.04	Country wide	20,000	Planning and implementation	Terminal report is being prepared	Under impl.

South Asia RWSG (Continued)

NO	COUNTRY	NAME OF PROJECT	OBJECTIVE	EXT FUND-ING	PROJECT SIZE (US\$ mln)	AREAS COVERED	NO OF BENEFICIARIES	ROLE OF PROGRAM	REMARKS	STATUS
29	India	Maharashtra RWSS Project	Improved water supply and sanitation	IDA	125	Maharashtra State	4 mln	Assistance in project preparation	Bank credit approved in FY 91	Under impl.
30	India	Karnataka RWSS Project	Improved water supply and sanitation	IDA	80	Karnataka State	1 mln	Preparation of strategy paper and project identification	Bank credit scheduled for FY 93	Under prep.
31	India	Second Madras Water Supply & Environ Sanitation Project	Improved water supply and environment	IDA	240	Tamil Nadu State	Not yet determined	Assistance in project preparation of low cost sanitation and solid waste management components	Bank credit scheduled for FY 93	Under prep.
32	India	RWSS Project-West Bengal	Demonstration	NORAD	0.6	Moh Bazaar Block	120,000	Planning and implementation of demo project		Under impl.
33	India	Solid Waste Management Project	Demonstration	NORAD	0.1	One city	100,000	Planning and implementation of project	Results will be used in future Bank credit	Under prep.
34*	Pakistan	Rural Water Supply Project	Provision of RWSS in 3 Districts	IDA	194	3 provinces	3 mln	Assistance in preparation of project	Bank credit approved in FY 90	Under prep.
35*	Sri Lanka	RWSS Project in 3 Districts	Provision of RWSS in 3 Districts	IDA	20	3 districts	2 mln	Assistance in preparation of project	Proposed Bank credit	Under impl.

* In collaboration with the Asia Sector Development Team (SDT).

**ANNEX 2: UNDP-WORLD BANK WATER SUPPLY AND SANITATION PROGRAM
EXTERNALLY FINANCED INVESTMENT PROJECTS IN WHICH THE PROGRAM IS INVOLVED**

East Asia and Pacific RWSG

NO	COUNTRY	NAME OF PROJECT	OBJECTIVE	EXT. FUNDING	PROJECT SIZE (US\$ mln)	AREAS COVERED	NO OF BENEFICIARIES	ROLE OF PROGRAM	REMARKS	STATUS
36.	China	RWSS II	RWSS in 6 Provinces	IDA	140	5 provinces	10 mln	Assistance in preparation of project	Bank credit scheduled for FY 91	Under prep.
37.	China	Beijing Env Project	Environment improvement	IDA	120	Beijing	4 mln	Assistance in solid waste management component	Bank credit scheduled for FY 92	Under impl.
38.	Indonesia	East Java WS II	Improved water supply	IBRD	43.3	East Java Region	N.A.	Support to ITN center for training	Provides training input into Bank loan	Under impl.
39.	Indonesia	East Java/Bali Urban Dev	Urban infrastructure improvement	IBRD	260	East Java/Bali	180,000	WSS demo project in two cities	Bank loan approved in FY 91	Under impl.
40.	Indonesia	Jakarta Sewerage and Sanitation Project	Sanitation in Jakarta	IBRD	80	Jakarta	10,000	Development of low cost sanitation options	Bank Loan approved in FY 89	Under impl.
41.	Indonesia	WSS for the poor	WSS in poor areas	IBRD	160	Sulawesi, Timur Irian Jaya	1 mln	Assistance in project preparation	Bank loan scheduled for FY 93	Under prep.
42.	Indonesia	Third Health Project	Improvement of health	IBRD	60	Nation wide	300,000	Assistance with project preparation	Bank loan approved in FY 85	Under impl.
43.	Indonesia	JUDP III	Improvement of urban infrastructure	IBRD	97	Jakarta, Bogor, Tangerang, Bekasi	500,000	Technical support for low cost sanitation	Bank loan approved in FY 90	Under impl.

East Asia and Pacific RWSG (Continued)

NO	COUNTRY	NAME OF PROJECT	OBJECTIVE	FUNDING (EXT)	PROJECT SIZE (US \$ millions)	AREAS COVERED	NO OF BENEFICIARIES	ROLE OF PROGRAM	REMARKS	STATUS
44.	Philippines	First Water Supply and Sanitation Project	RWSS	IBRD	132.8	Several provinces	3 million	Assistance in project preparation and implementation	Bank loan approved in FY 90	Under impl.

Latin America and the Caribbean listings follow on next page.

**ANNEX 2: UNDP-WORLD BANK WATER SUPPLY AND SANITATION PROGRAM
WORLD BANK FINANCED PROJECTS IN WHICH THE PROGRAM IS INVOLVED**

Latin America and Caribbean Region

No.	COUNTRY	NAME OF PROJECT	OBJECTIVE	EXT. FUNDING	PROJECT SIZE (US\$ mln)	AREAS COVERED	NO. OF BENEFICIARIES	ROLE OF PROGRAM	REMARKS	STATUS
45	Bolivia	Potosi Rural Water Supply and Sanitation Project	Assistance to the Govt of Bolivia to develop implementation strategies to reach the dispersed rural population of the Altiplano with adequate WSS	Netherlands	3.29	3 provinces around Potosi	75,000	Project preparation, community management and supervision with technical assistance to the government	Follow-up Bank loan scheduled	Under impl.
46	Bolivia	Cochabamba Peri-Urban Water Supply and Sanitation Project	Development of WSS strategies for low-income areas with active involvement of the communities and the private sector	Netherlands	0.83	Cochabamba, El Alto and Santa Cruz (urban and peri-urban areas)	3,800 (pilot) 43,000 (final)	Preparation and execution of pilot projects designed to reach 43,000 inhabitants with follow-on projects. Also assist in the preparation of national sector strategies	Financed out of an IDA loan to the 'Integrated Health Project'	Under impl.
47	Brazil	North East Brazil Rural Development Program	Mid-term technical appraisal of the project's Water Supply component	IBRD	144.9	10 States in the North East of Brazil	17.8 mln (rural)	Provide technical assessment of the project's water supply component and assess the sustainability and viability of the approach	LAC agricultural sector loans negotiated with each State	Under impl.
48	Brazil	National Plan for Rural water Supply and Sanitation	Formulation of national policy based on the findings of regional pilot projects	IBRD	16.3	National	146,000 (pilot)	Provide technical review and assessment on the status and future of the pilot program	Direct assistance to LAC Technical Department under loan LN-2532	Under impl.

Latin America and Caribbean Region (Continued)

NO	COUNTRY	NAME OF PROJECT	OBJECTIVE	EXT. FUNDING	PROJECT SIZE (US\$ mln)	AREAS COVERED	NO. OF BENEFICIARIES	ROLE OF PROGRAM	REMARKS	STATUS
49	Brazil	Water sector project for municipalities and low income areas	Collaborate with LAC and Govt agencies to evaluate appropriate institutions for WSS systems	IBRD	150.00	National	Several millions	Provide assistance to project implementation of Bank loan LN-2983	Direct assistance provided to Bank loan LN-2983	Under impl.
50	Central America	Collaborative Program for Technical Assistance in Central America	Program for collaboration and information exchange between all sector agencies and institutions in Central America	To be determined	N/A	Initially: El Salvador Guatemala Honduras Nicaragua	The rural population of Central America	Coordination of participating agencies and organization of an Identification Mission to the region	Assistance to the Bank in the preparation and implementation of Social Investment Funds in 3 countries	Under prep.
51	Guatemala	Social Investment Fund	To make available low-cost, sustainable water supply and sanitation projects to rural communities with direct aid and technical assistance	IBRD	24.00 (WSS component)	Rural Guatemala	440,000	Provide technical assistance in the preparation of the program	Bank loan currently being scheduled with the government	Under prep.

**ANNEX 2: UNDP-WORLD BANK WATER SUPPLY AND SANITATION PROGRAM
EXTERNALLY FINANCED INVESTMENT PROJECTS IN WHICH THE PROGRAM IS INVOLVED**

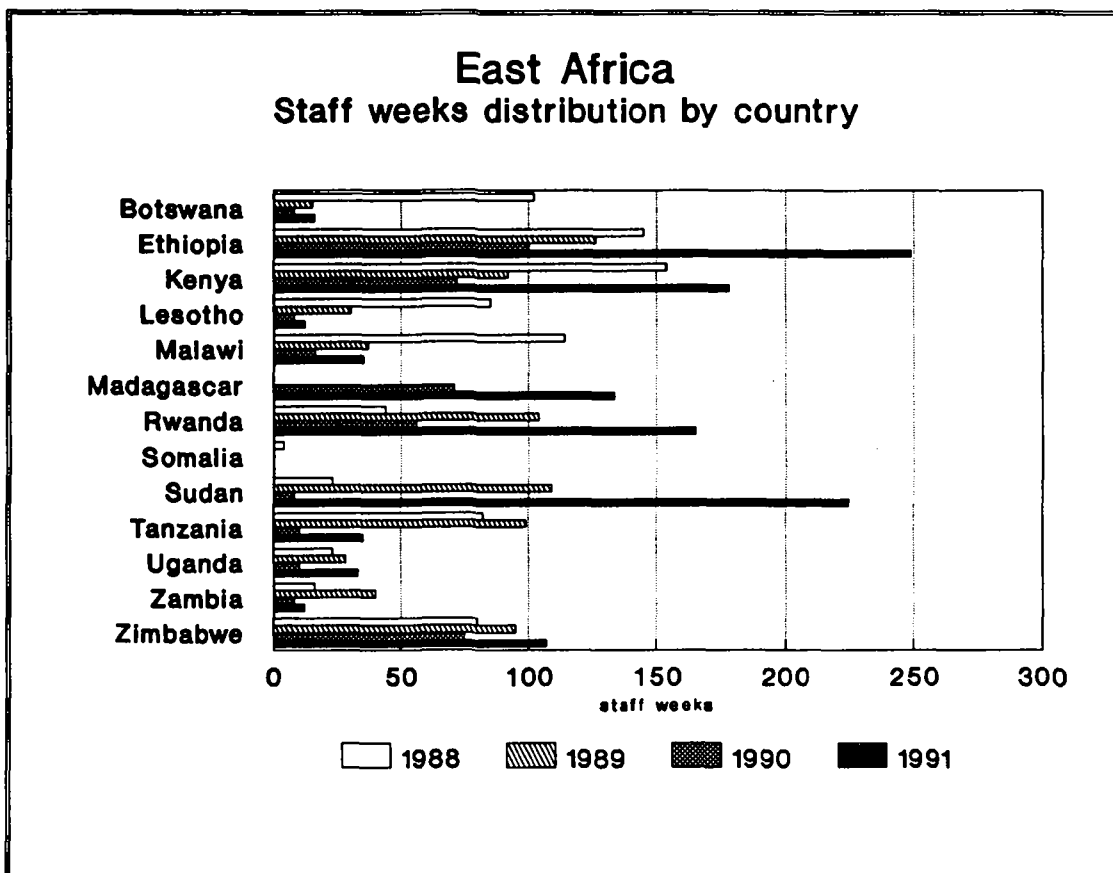
Europe, Middle East, and North Africa Region

NO	COUNTRY	NAME OF PROJECT	OBJECTIVE	EXT. FUNDING	PROJECT SIZE (US\$ mln)	AREAS COVERED	NO OF BENEFICIARIS	ROLE OF PROGRAM	REMARKS	STATUS
52	Morocco	Sewerage and Wastewater Irrigation	Wastewater reuse from 4 urban areas	IBRD	120	Casablanca Agadir Rabat Marrakech	4 mln	Assistance with project preparation on wastewater reuse aspects	Bank loan scheduled for FY 93	Proposed
53	Algeria	Local Govt Development Project	Solid and liquid waste management	IBRD	100	Blida Tlemcen Wilayas	0.87 mln	Project preparation assistance with respect to solid and liquid waste management and resource recovery aspects	Bank loan scheduled for FY 92	Under prep.
54	Cyprus	Limassol Amathus Sewerage	Treatment and reuse of urban wastewater	IBRD LN32220	69	Limassol- Amathus	120,000	Assistance with project implementation concerning wastewater reuse and low cost sanitation technology	Mission scheduled for March 1991 to finalize site selection for wastewater treatment plant	Under impl.

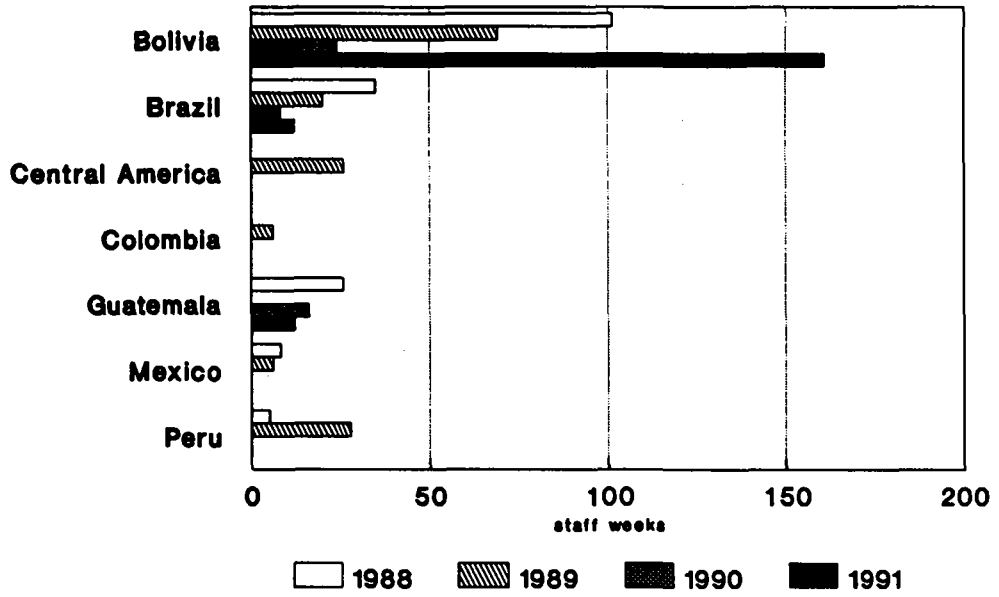
ANNEX 3: DISTRIBUTION OF PROGRAM SERVICES BY COUNTRY : 1988-1991

Explanatory Notes

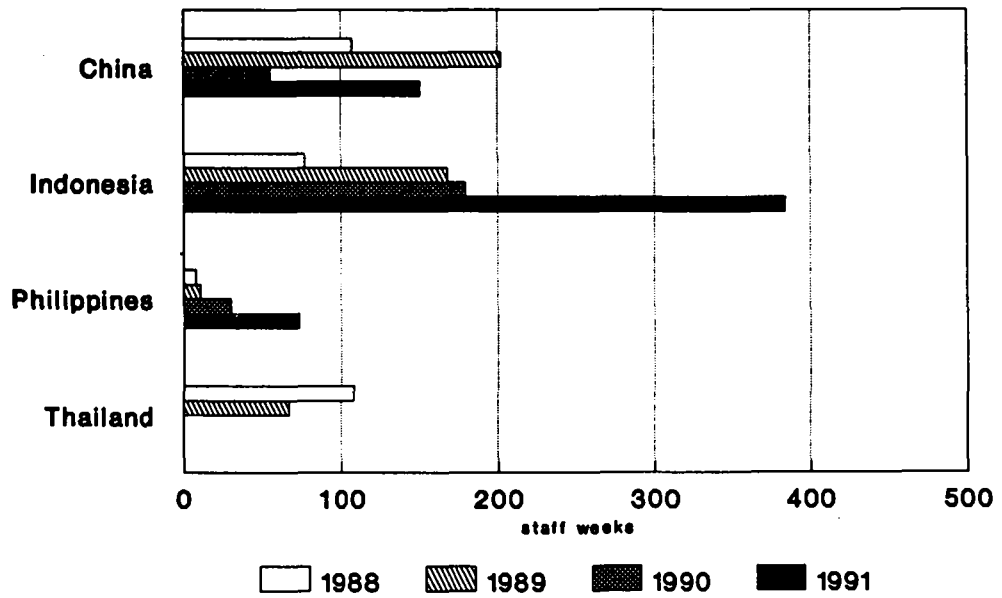
1. The following charts and tables show the number of staff weeks allocated to participating countries, by subregion, in the Country Work Programs over the four-year period 1988-1991. They do not represent the services actually delivered because the latest (and only) progress report on service delivery is for the year 1989.
2. Investigations by the Assessment Field Teams show the following:
 - (a) In East Africa the assistance delivered to countries has been in close conformity to the work programed;
 - (b) In West Africa the actual distribution of staff team by country has diverged significantly from the work programs. These are the most notable cases:
 - (i) In Niger and Zaire there has been no program activity thus far; and
 - (ii) In Côte d'Ivoire the difference between programed and actual activities has been +10%; in Benin +5%; in Ghana -10%; and in Mali -11%.
 - (c) Data are not available on the correspondence between programed and actual activity in Asia.
3. The data in the following charts and tables should therefore be interpreted as the best indicative figures available regarding country distribution of Program activities rather than as a fully accurate report.



Latin America Staff weeks distribution by country

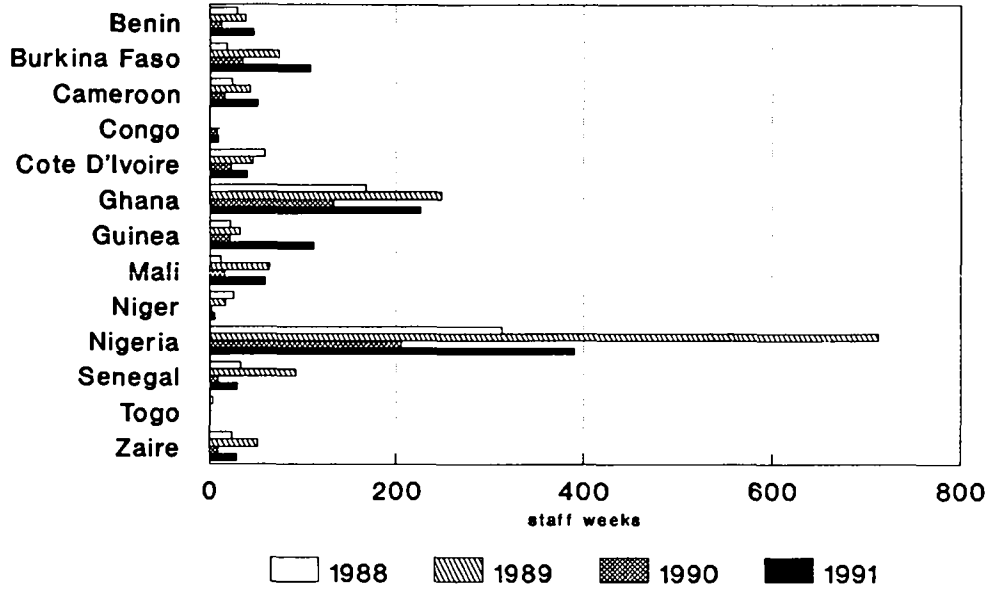


East Asia Staff weeks distribution by country



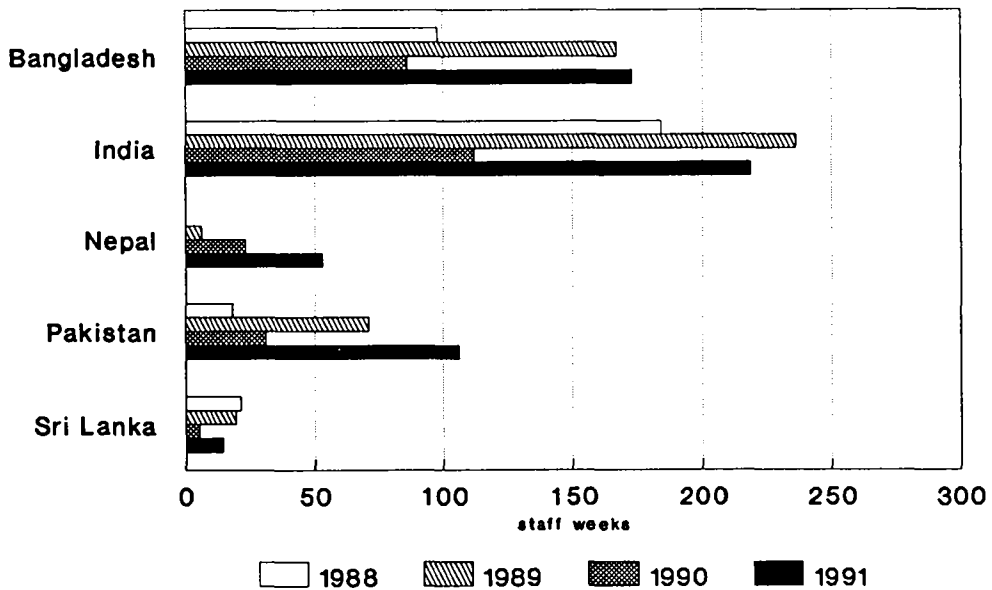
West Africa

Staff weeks distribution by country



South Asia

Staff weeks distribution by country



**ANNEX 4: UNDP-WORLD BANK WATER AND SANITATION PROGRAM COSTS
1990 (\$'000)**

Countries	Projects	Estimated expenditures
RWSG-East Africa		
Ethiopia	BKF/85/019	570
Lesotho	LES/86/011	18
Madagascar	MAG/89/001	10
Rwanda	RWA/89/001	385
Sudan	SUD/88/040	126
Uganda	UGA/84/008	5
Tanzania	URT/84/004	70
Zimbabwe	ZIM/88/006	205
	INT/87/014	85
Subtotal		1,474
RWSG-West Africa		
Burkina Faso	NKF/89/016	20
Congo	PRC/88/018	43
Ghana	GHA/87/016	260
Nigeria	NIR/87/011	1,400
Subtotal		1,723
RWSG-South Asia		
Bangladesh	BGD/85/004	200
Pakistan	INT/87/014	175
Subtotal		375
RWSG-East Asia		
China	CPR/88/011	100
Indonesia	INS/88/005	300
Thailand	THA/87/002	46
Subtotal		446
TOTAL		4,018

NOTE: These project costs are the costs of country-specific demonstration and other projects managed by the Program. They are funded through UNDP Country IPFs.

**ANNEX 4: UNDP-WORLD BANK WATER AND SANITATION PROGRAM COSTS
1990 (\$'000)**

Categories	HQ	RWSG-EA	RWSG-WA	RWSG-SA	RWSG-EAP	Total
Experts	720	750	1,061	525	266	3,322
Travel	182	115	90	73	45	505
Consultants	630	50	50	50	55	835
Administrative support	551	100	128	20	106	905
Local staff and consultants		10	35	20	20	85
Subcontracts	175					175
Training	45	10	10	5	5	75
Equipment	50	50	25	40	50	215
Office main-tenance		65	100	35	35	235
Other	250 ^a	20	30	20	15	335
TOTAL	2,603	1,170	1,529	788	597	6,687

^a Of which \$200,000 is for the Program Assessment.

Note: Program costs include personnel costs, travel, office premises and services, and consultancies. They are funded by UNDP's DGIP and Regional Bureaux and supporting bilateral donors.