

PROJECT DATA SHEET

TRANSACTION CODE

A = Add
C = Change
D = Delete

Amendment Number

PD-AAP-826

DOCUMENT CODE

3

2. COUNTRY/ENTITY

WORLDWIDE

3. PROJECT NUMBER

936-5942

150.000/30869

4. BUREAU/OFFICE

S&T/H

5. PROJECT TITLE (maximum 40 characters)

Water and Sanitation for Health II

(WASH II)

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)

MM DD YY
07 31 90

7. ESTIMATED DATE OF OBLIGATION

(Under 'B' below, enter 1, 2, 3, or 4)

A. Initial FY 84

B. Quarter 4

C. Final FY 89

8. COSTS (\$000 OR EQUIVALENT \$1 =)

A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total	1,000		1,000	19,700		19,700
(Grant)	(1,000)	()	(1,000)	(19,700)	()	(19,700)
(Loan)	()	()	()	()	()	()
Other U.S.						
1.						
2.						
Host Country						
Other Donor(s)						
TOTALS						

9. SCHEDULE OF AID FUNDING (\$000)

A. APPROPRIATION PURPOSE	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) HEA	519	540				19,700		19,700	
(2)									
(3)									
(4)									
TOTALS									

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)

541 545 549

826

11. SECONDARY PURPOSE CODE

519

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code

B. Amount

13. PROJECT PURPOSE (maximum 480 characters)

In conjunction with USAID-assisted/financed LDC projects, to establish (or improve/improve) effective, replicative, self-sustaining water supply and sanitation systems in some 50 countries during the life of the project.

14. SCHEDULED EVALUATIONS

Interim MM YY MM YY Final MM YY
0 1 8 7 0 7 8 9

15. SOURCE/ORIGIN OF GOODS AND SERVICES

000 941 Local Other (Specify) 935

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a _____ page PP Amendment.)

17. APPROVED BY

Signature

George T. Durkin

Title

Director, Office of Health

Date Signed

MM DD YY

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION

MM DD YY

AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

MAY 7 1984

ACTION MEMORANDUM FOR THE SENIOR ASSISTANT ADMINISTRATOR

FROM: S&T/HP, James E. Sarn *Herder*
SUBJECT: Water and Sanitation for Health II (WASH II) Project
(936-5942)

Problem: Your approval is requested to authorize S&T Bureau funding in the amount of \$19,700,000 for the new Water and Sanitation for Health II Project, 936-5942.

Discussion: Diseases related to contaminated water and poor sanitation practices are among the major causes of illness and death in the developing world. Waterborne and sanitation related diseases, particularly diarrheal disease and parasitic infections, are principal causes of morbidity and mortality among infants and children.

Less than half of the people in developing countries have access to safe drinking water or a satisfactory means for excreta disposal. Providing these basic facilities requires a major effort by host countries and the various donor groups which provide technical and financial assistance. Over the years A.I.D. has contributed to improved water and sanitation through direct bilateral projects. Since 1980, A.I.D. has used the worldwide WASH I Project to provide state of the art technical knowledge and skills to developing countries, using the talents of the U.S. private sector. WASH II will continue, with new procurement, our successful WASH I Project until 1990.

WASH II will include the maintenance of a technical resource base to provide access to state of the art information and the sharing of experiences on a worldwide basis. A roster of expert staff and consultants will be maintained to provide short term technical assistance in the design, construction, operation, maintenance, and financing of community water and sanitation systems. Specialized training materials and institutional development resources will be prepared to meet the needs of these systems. One important new emphasis of WASH II will be "generic packages" of technical assistance and information to deal with common technical and managerial problems.

b

PROJECT AUTHORIZATION

Country: Worldwide

Project Title: Water and
Sanitation for Health II

Project No.: 936-5942

1. Pursuant to Section 104 of the Foreign Assistance Act of 1961, as amended, I hereby authorize \$19,700,000 in grant funding over the six year period FY 1984 - 1989 for the centrally-funded Water and Sanitation for Health Project II, (WASH II). Project funding will be in annual increments and will be subject to the availability of funds, in accordance with normal A.I.D. OYB/allotment procedures.

2. The purpose of the project is to increase access to safe drinking water and adequate sanitation facilities for LDC populations by providing short-term technical assistance and training in the design, implementation, operation and maintenance of such systems.

3. The contract or other agreement(s) which may be negotiated and executed by the officer(s) to whom such authority is delegated in accordance with A.I.D. regulations and delegations of authority shall be subject to the following terms and conditions together with such other terms and conditions as A.I.D. may deem appropriate.

4. Source and origin of goods and services

a. Commodities financed by A.I.D. under the project shall have their source and origin in the cooperating country* or the United States, except as A.I.D. may otherwise agree in writing. Except for ocean shipping, the suppliers of commodities or services shall have the cooperating country or the United States as their place of nationality, except as A.I.D. may otherwise agree in writing.

b. Ocean shipping financed by A.I.D. under the project shall, except as A.I.D. may otherwise agree in writing, be financed only on flag vessels of the United States.

May 16, 1984

Date

N. C. Brady

N. C. Brady

Senior Assistant Administrator, S&T

*Each cooperating country where research, training, technical, or other assistance takes place under the project shall be deemed to be a cooperating country for the purpose of permitting local cost financing.

You are authorizing the full \$19.7 million LOP funding at this time. However, we expect that Mission and A.I.D./W Bureau contributions over the six years of the Project will amount to at least \$6.4 million thus reducing the actual amount of S&T obligations to \$13.3 million. WASH II will provide services worldwide at about the same rate as those developed during the final two years of WASH I. The difference in cost (\$13.1 million versus \$19.7 million) reflects inflation and the longer life of Project under WASH II.

Justification to Congress: An Advice of Program Change has been drafted and is in the clearance process.

Clearances Obtained: WASH II was developed in close collaboration with regional bureaus and PPC and has been reviewed and strongly endorsed at all levels of the Agency. The Health Sector Council unanimously endorsed the Project on March 5, 1984.

Recommendation: That you sign the attached Project Authorization.

Attachments:

1. Project Authorization
2. Project Paper (936-5942)
3. Minutes of the Health Sector Council Meeting, March 5, 1984

Clearances:

ST/H, GCurlin	<u>[Signature]</u>
ST/PO, GEaton	<u>[Signature]</u>
ST/HP, JESarn	<u>[Signature]</u>
GC/CP, JRClyne	<u>[Signature]</u>
PPC/PDPR, ABloom	<u>[Signature]</u>

ilw
ST/H:Woglesby:wo:ddc:4/25/84:W1125u:235-9823

2

WATER AND SANITATION FOR HEALTH II (WASH II)

Table of Contents

<u>Section</u>	<u>Page</u>
Project Data Sheet	i
1. Summary.....	1
2. Project Description.....	3
2.A. Background.....	3
2.B. Experience with WASH I.....	5
2.C. Project Mechanism and Operations Under WASH II....	10
2.D. Project Procedures.....	11
2.E. Project Inputs Through the Prime Contractor.....	13
2.F. Crucial Project Assumptions.....	14
3. Project Specific Analysis.....	15
3.A. Economic Feasibility.....	15
3.B. Technical Feasibility.....	16
3.C. Environmental Concerns.....	17
3.D. Financial Plan.....	17
3.E. Implementation Plan.....	20
3.F. Evaluation Arrangements.....	21
Tables	
1. WASH Activities by Technical and Geographic Areas.....	7
2. Financial Plan/Budget Tables.....	18
3. Budget/Level of Effort.....	19
Annexes	
1. A.I.D. Projects in Water Supply and Sanitation.....	23
2. Availability of Water Supply in Developing Countries.....	32
3. Excerpts from the External Evaluation of WASH I.....	40
4. Types of Technical Assistance to be Available Through WASH II.....	42
5. Key Personnel.....	45
6. Special Conditions.....	47
7. Log Frame.....	49

PROJECT PAPER

Title: Water and Sanitation for Health II (WASH II)

1. Summary

The Bureau for Science and Technology proposes a six year extension of the Water and Sanitation for Health project, WASH, at an estimated cost of \$19.7 million. WASH plays a key role in A.I.D.'s health assistance program by helping developing countries meet the need for safe, accessible domestic water supply and sanitation. By providing a comprehensive series of technical assistance, technology transfer, information collection and dissemination and human resource and institutional development services, WASH makes available to LDC leaders and program managers the best available technical information and skills to assist in the design, implementation and monitoring of water and sanitation projects. A number of evaluation studies and GAO reports on LDC water and sanitation programs have suggested that such expert assistance is essential if LDC water and sanitation projects are to be implemented in a timely and effective fashion.

The demand for WASH services has grown rapidly in the five years since the project was initiated as more and more LDCs become aware of WASH resources. WASH technical resources are often used to facilitate the design and implementation of A.I.D.-assisted bilateral or regional water and sanitation projects. Direct A.I.D. support for community water and sanitation projects ranges from \$200 to \$250 million per year. In 1983 A.I.D. provided assistance to 70 water and sanitation projects in 40 countries. Host countries and other donor groups such as the World Bank, of course, invest millions more in water and sanitation systems. WASH resources have provided much valued technical backstopping not only to LDC governments and community groups but also to other donors, particularly WHO and the World Bank, technical assistance agencies and non-governmental organizations. Technical assistance, primarily training, has been provided to the Peace Corps. Since the WASH project activities were started in late 1979, WASH personnel have responded to more than 200 requests for technical assistance from 50 countries. WASH has also answered 2,500 technical information requests and provided 18,000 documents.

The proposed follow-on project, WASH II, will continue to provide these important technical services on a worldwide basis to improve the design, construction and operation of rural and urban community water and sanitation systems. There will be a moderate change in the mix of technical activities in WASH II.

Greater emphasis will be placed on meeting LDC needs for trained personnel and improved management and logistics systems and less on the development and marketing of new technologies. Since many management and operational problems are common to more than one system, generic approaches to meeting training and other management needs will be developed. A.I.D. and WASH staff are working with the World Bank, WHO, PAHO, ILO, UNICEF, UNEP, FAO, CIDA, IRC, and IDRC to identify needs, develop appropriate materials and avoid duplication of effort.

This project is directly responsive to agency policy in health and water and sanitation. As the A.I.D. Policy Paper for Domestic Water Supply and Sanitation points out, "Safe convenient water supply and adequate sanitation is a fundamental component of broad-based economic growth strategies. Lowering mortality and morbidity from water and sanitation-related diseases is a goal in itself; it can also lead to increased productivity and decreased absenteeism among members of the labor force and can reduce the time and energy burden on the household..." The policy paper goes on to identify the provision of expert technical assistance, the strengthening of local and national institutions and the promotion of private sector involvement as key areas for A.I.D. support. Since A.I.D. currently has only seven full-time water supply and sanitation technicians worldwide, the WASH project which draws upon the private sector to make additional technical resources available is essential in implementing A.I.D.'s water and sanitation policy.

The project requires access to broad-based multidisciplinary skills available on a quick response basis for technical assistance, technology assessment and human and institutional development and to a comprehensive, up-to-date technical information base and clearing house. Thus, the project will be implemented primarily through a contract with a contractor with extensive experience and in-house expertise in the area of water and sanitation. The contractor will have a Washington-based operations and information center. Contractor services will be procured through open competition with preference given in the selection process to those groups who include minority or disadvantaged groups or firms as prime or subcontractors. Some project resources will be retained outside the prime contract to maintain the present flexibility to use indefinite-quantity contracts, RSSAs and other procurement mechanisms when appropriate to obtain specialized resources.

The cost for increased technical assistance activities to meet field demand; maintenance of the technical information center; and other training and technology assessment activities is estimated at \$19.7 million. The Bureau for Science and Technology will authorize the total amount but expect other

bureaus and missions to continue to provide significant annual incremental funding. Such non-S&T incremental funding has increased steadily over the life of the present project as more and more offices and missions have drawn upon WASH resources to assist in the implementation of regional and bilateral projects. In the past six months this funding has been about 25 percent of the total budget. A 1983 external evaluation (See Annex 3) found that "the WASH Project was doing an extremely effective job, especially in providing quality technical assistance to Third World countries in a timely manner". WASH activities have also been strongly endorsed by LDC officials and A.I.D. Bureaus and field missions. Of the 38 missions which were queried by the Evaluation Team and which had had direct experience with WASH services, the majority rated these services as "superior" or "outstanding". A number of the evaluation team's recommendations such as increased emphasis on assistance in training and the development of management systems; continued support for urban systems; the extension of project activities; and more collaborative WASH project management procedures have been incorporated in the design of this follow-on project. These and other recommendations which were not adopted such as the appointment of an external advisory panel and the hiring of a larger A.I.D. direct hire staff are discussed in subsequent sections of the project paper.

2. Project Description

2.A. Background

There are over one billion rural people and 200 million urban people in A.I.D.-assisted countries who lack reasonable access to clean water supply or satisfactory disposal of human excreta. These circumstances inevitably spread water-borne and water-related diseases, contribute to vector-borne diseases, and result in high infant and child mortality. They reduce labor and economic productivity, decrease the effective utilization of available calories, and increase the time spent in collecting water-primarily by women and girls, often from long distances, and impose severe burdens on the poor. Inevitably, the lack of reliable, accessible, safe water supplies limits the quantities of water collected, as well as the quality, to less than the requirements for a hygienic environment.

The United Nations Water Conference demonstrated increasing national and international concerns about inadequate community water supply and sanitation in developing countries. There was unanimous agreement that greater attention should be given to this problem. The U.S. supported these conclusions at the

Conference and later in the U.N. General Assembly and indicated that A.I.D. would increase its activities in this area during the U.N. Water Supply and Sanitation Decade (1981-1990).

Substantial progress toward the goal of water supply and sanitation for all people by 1990 is dependent on overcoming a number of constraints. Much depends on the commitment of the LDCs themselves and the priorities and the resources which they attach to water supply and sanitation activities. Progress also depends on developing better methodologies for design, implementation, management, financing, operation and maintenance. Greater institutional and human resources are needed almost every where. Innovative application, improvement, and adaptation of existing technologies and the development of promising new technologies are needed.

The U.S. through A.I.D. is providing direct assistance to developing countries to support the development and maintenance of improved water and sanitation systems. Another area where the U.S. has been especially effective is in marshalling technical resources to help host countries deal with their problems. These countries need assistance in assessing the current situation, analyzing their problems, designing programs and projects, building institutional infrastructures, developing necessary staff and skills, and identifying, developing and using appropriate technologies.

A.I.D.'s response to date has included:

(1) support of the establishment of the "Water Decade" within the United Nations system,

(2) issuance of a domestic water and sanitation Policy Paper,

(3) support of the Water and Sanitation for Health Project (WASH I), and

(4) annual support of approximately \$200 to \$250 million for LDC water and sanitation projects.

A.I.D. assistance in the water and sanitation subsector has not been restricted to that funded out of the health account in development assistance. Much assistance has been provided through economic support funding (ESF), housing investment guarantee funds (HIG), disaster assistance, Sahel development, rural development, multisectoral development, operational program grants (OPGs), and other accounts. Multiple-source funding of water and sanitation activities has made it possible to meet health objectives with other resources. For example, U.S.A.I.D./Cairo plans to use \$1 billion in ESF over the next

five years in the water and sanitation subsector. The recent A.I.D. health assessment for Egypt ranked disposal of urban sewage as the number one Egyptian health problem.

2.B. Experience with WASH I

The Water and Sanitation for Health project (WASH I) was designed to draw upon the private sector to meet the technical skill and information needs of the developing countries. A.I.D. direct-hire then as now was too small to do this. The project has had four major components: the provision of expert technical services on a world wide basis to assist LDCs in the design, construction and management of community water and sanitation systems; technology assessment, development and transfer; assistance in institutional and human resource development; and technical information collection and dissemination. Project activities began in late 1979 with field technical assistance provided by the American Public Health Association. In early 1980 Georgia Tech began helping with technology. In August 1980 a contract to provide comprehensive services was awarded to a single contractor, Camp Dresser and McKee, Inc. This contract runs through September 1984 at a cost of approximately \$13 million. An additional \$750 thousand in other project funds has been used to provide technical resources through other procurement mechanisms such as IQCs, the ADDS Project, cable obligations to Missions for local contracting.

Demand for WASH I technical assistance and information services has been heavy. Over the past 40 months, the project has responded to over 200 requests for technical assistance from some 50 missions and host governments and nine A.I.D. bureaus; has met 2,500 technical information requests; and has undertaken numerous Washington-based "in-house" activities in the subsector. Table 1 shows the pattern of this assistance. This demonstrates both the range of demand for WASH services and the responsiveness of the project. Often such assistance has required both a rapid response and a high level of technical expertise.

In WASH I there has been particular emphasis on the provision of short-term, quick response, multidisciplinary technical assistance and expertise to backstop LDC programs. This is probably the most familiar and visible WASH element. WASH I technical assistance has helped LDC governments, community groups and donor agencies design, implement and evaluate water supply and sanitation projects; troubleshoot projects; investigate or apply new technologies and develop human and institutional resources. Technical advisors and consultants

have been provided from many disciplines: engineering, public health, training, economics, anthropology, epidemiology, management, vector control, community organization and health education.

By the end of FY 1983 WASH I had provided technical assistance to the field on more than 120 occasions. These included 44 assignments in Latin America, 18 in the Near East, 35 in Africa, and 23 in Asia. Representative of such field support are the following:

a. assistance in the design and implementation of water and sanitation programs and projects such as the assistance to Governments of Sri Lanka and of the Central African Republic in development of national water plans, to Haiti and Ecuador in the review of rural water systems, to Jordan in the review of wastewater treatment plans, to Bolivia in the development of a private sector potable water and rural sanitation project and to Swaziland in the evaluation of a rural water-borne disease control project and to Tunisia in the evaluation of water supply, sanitation and health aspects of spring-fed irrigation project and to Yemen in the evaluation of the water supply systems management project.

b. emergency relief such as disaster assistance in developing emergency water supplies in Tunisia and Ecuador after flooding and disaster recovery planning in Lebanon.

c. technology assessments or technology transfer activities such as the assistance in the development of local capacity for manufacture of hand pumps provided the Dominican Republic, Ecuador, Indonesia, the Philippines and Honduras or of technical equipment specifications, testing procedures or local studies of groundwater hydrology and well technologies, of life cycle costs and of appropriate technologies such as the assistance provided Tunisia, El Salvador, and Lebanon.

d. assistance in human resource development and the design of training and other management materials such as the assistance provided Indonesia in designing and implementing its rural sanitation manpower development program, Tanzania in water supply and sanitation manpower training, Jordan in human resource development needs assessment and Guatemala in training paraprofessionals in small water supply systems design, construction and management, Zaire in training village health workers and spring cappers, and Malawi in training health educators.

TABLE 1
 WASH ACTIVITIES BY TECHNICAL AND GEOGRAPHIC AREAS, 1979-1983

GEOGRAPHIC AREA	TECHNICAL AREAS*						
	Local Manufacturing	WS&S Engineering	Health & Community Participation	Policy & Procedure	Training	Technology Transfer	Information
WORLDWIDE	--	15	14	21	17	19	17
AFRICA	9	21	22	7	15	21	29
ASIA	8	42	19	11	19	5	10
NEAR EAST	5	15	24	10	22	9	16
LATIN AMERICA	7	34	27	9	25	4	38

*Many activities involve more than one technical area.

In addition to the numerous country-specific technology review and adaptation activities, the WASH project has carried out a number of technology assessments designed for more general use. These include such activities as the development of testing procedures for mobile water treatment and disinfection, analysis of the life cycle costs of alternative handpump designs, comparative review of A.I.D.'s experience in supporting handpump technology transfer programs in Sri Lanka, Philippines, Indonesia, Honduras, and the Dominican Republic and examination of alternative water supply and sanitation technologies.

Increasingly an attempt has been made to make WASH more effective by developing prototype training and management materials that may be used in more than one setting. Examples of this include the development of training courses for sanitarians, PCVs, and community health workers, "generic" training "packages" for common subjects, e.g., latrine construction, hand pump maintenance, rainwater harvesting, and spring capping; development of "generic" health education studies; the development of operations manuals for water supply equipment and the training of trainers in water supply and sanitation.

WASH has played an important role in meeting the continuing need for specialized information by officials and managers, donors and A.I.D. bureaus and missions. While A.I.D. and its predecessor agencies have gained much experience in the subsector sectors over the last forty years.* Substantive technical and program information on this experience with developing countries is widely diffused, difficult to come by, and all too often unavailable to those who need it most--the people working in the field. In spite of efforts by the World Health Organization and its collaborating centers, there is currently no adequate systematic worldwide collection, synthesis, and dissemination of information on water supply and sanitation for developing countries.

Under WASH I effective mechanisms for collecting and disseminating relevant information to users have been developed. This includes the establishment of a technical library specializing in water supply and sanitation technology, institutional development, human resources development (including training), hydrology, source development (including wells, springs, and rainwater harvesting), environmental health

*Beginning with programs in Latin America during World War II, particularly institutional development and training associated with creation of "Servicios".

and epidemiology, economics and finance, health education, community participation, women-in-development, technology transfer, and other relevant subjects.

Other specialized technical resources which have been developed include consultant rosters which contain information on a worldwide basis of specialists with their names, specialties, experience, language(s), and availability; country "boxes" with country specific information such as project design papers, evaluations, and information on other donor activities; information and publication exchange programs with other donor organizations such as the World Bank, WHO, UNICEF, UNEP, UNDP, PAHO, ILO, IRC, and IDRCIDA, ODA, Peace Corps, VITA, ITDG, CARE, CRS, and numerous others; and master lists of A.I.D. projects in the sector. The WASH information center also works collaboratively with PPC/DIU and its contractors. The information and library developed under WASH I will be carried over to WASH II.

In 1983 the WASH project was extensively evaluated by an external panel. This panel reviewed the WASH "concept", contractor performance, and LDC and A.I.D. experience with and perception of WASH. The evaluation team found "that the WASH Project (was) doing an extremely effective job, especially in providing quality technical assistance to Third World countries in a timely manner". The team recommended that the project be continued without interruption, that an external expert advisory board be appointed, that the project have some "general reorientation" with more support for projects in sanitation and more emphasis on technology transfer and longterm preinvestment assistance; that a more collaborative contract management approach be adopted; and that A.I.D. increase its development assistance and direct-hire staff in water and sanitation (See Annex 3).

Technology transfer lessons learned in WASH I will be incorporated in WASH II. These include:

(1) The objectives, responsibilities, resources, and schedules of S&T/H/WS, the WASH contractor, the U.S.A.I.D., the host government, and other entities which may be involved (e.g., Peace Corps, PVOs) will be fully considered by S&T/H/WS and U.S.A.I.D.s before field activities are initiated;

(2) U.S.A.I.D. Mission support, not mere acquiescence, will be a prerequisite for all activities in host countries;

(3) Research and development or experimental activities shall be clearly and explicitly identified as such. Consent of responsible Mission and host government authorities will be mandatory for such activities.

(4) Collaboration with other national and international agencies will be actively sought.

(5) Local "markets" (including demand and competition), procurement constraints, "software" aspects, institutional constraints (e.g., on operation and maintenance) will be fully and objectively weighed.

(6) Functional approaches to problem solving will be emphasized. A prior commitment to particular technologies or devices will be avoided.

(7) Priority will be given to near-term activities supportive of U.S.A.I.D. supported or endorsed projects.

Coordination and Collaboration Among Donors: there are over 30 U.N. specialized organizations, development banks, international agencies and bilateral donors supporting the efforts of the International Decade for Drinking Water and Sanitation. In addition, numerous private voluntary and non-governmental organizations are active in the field. The need for coordination at all levels to maximize the efforts of all and to prevent overlap or duplication is obvious.

2.C. Project Mechanism and Operations Under WASH II

S&T/H/WS proposes to contract in the private sector for environmental engineering-based, multi-disciplinary services for technical assistance, information exchange, technology transfer, and training services in water supply and sanitation to assist Bureaus, Missions, and other organizations, such as the Peace Corps and PVOs, engaged in water and sanitation projects.

Upon initiation of the contract, S&T/H/WS will continue its active liaison with Bureau health, engineering, and programming counterparts and with country desk officers to ensure that Bureaus maintain active involvement in decisions and issues of substance, policy, scope, timing, coordination, and implementation. The A.I.D. Project Officer will be an S&T/H/WS staff member. Other S&T/H/WS staff will be actively involved in their subject and area specialities, in backstopping various sub-elements of the project, and insuring continuity of services.

In addition to S&T/H management reviews at least annually, a formal evaluation of WASH contractor performance, with external input, will be undertaken not later than February 1987.

2.D. Project Procedures

Basic core services will be available to Missions at no cost to Bureaus and Missions. Where Missions or Bureaus fund specific activities, these will generally be undertaken. WASH will generally respond to emergency, unanticipated, or "crisis" needs. However, S&T-funded WASH services are not intended to replace routine project implementation by USAIDs, their contractors, or host government agencies. WASH will not station staff overseas other than on temporary duty. At the discretion of S&T/H/WS, some monitoring activities, if funded by the requesting A.I.D. Bureau, Mission, or Office may be undertaken.

Procedures for providing technical assistance will be as follows:

1. S&T/H/WS will contact each Bureau and each Mission not less than once a year and determine their longterm and shortterm needs for WASH technical assistance. S&T/H/WS in concert with the Contractor shall develop an "Annual Work Plan" with budgets and with contingency provisions. Each quarter, S&T/H/WS in concert with the contractor shall systematically update the work plan to accommodate requests which were not included in the annual canvass for anticipated WASH II services. This will integrate follow-on WASH II services, which were initiated through the "quick response" mechanism, into the work plan and will facilitate efficient planning of WASH II services. In some instances development of the plan may include direct contractor travel and contact with A.I.D. "clients" to define scopes of work.

The contractor shall maintain a roster of personnel adequate to insure "quick responses" to crises and emergency needs overseas, particularly for disaster assistance, but also for urgent implementation problems in USAID projects. This roster shall be "preapproved" by the A.I.D. Project Manager and the A.I.D. Contracts Officer and shall include key personnel, other contractor and subcontractor staff, and consultants as required to insure needed competence in both disciplines and languages. Preapproved personnel shall include engineers, plant and equipment operators, disaster assistance specialists, sanitarians, health educators, logistics specialists, trainers, and public health specialists.

2. Requests for such technical assistance may be received directly by the contractor or may be generated by A.I.D./W or U.S.A.I.D. Missions. The contractor may also call to the A.I.D. Project Officer's attention needs for technical assistance which emerge during project development, implementation assistance, and evaluation activities. No technical assistance will be authorized without the prior written approval of the Project Manager.
3. To accomplish each technical assistance task, the contractor will, in consultation with the A.I.D. Project Officer and Bureau, U.S.A.I.D. and requesting organization as appropriate: define the purpose, scope and scheduling of technical services needed; the type of personnel and special skills required; and any special conditions relative to the task assignment such as briefing/debriefing, in-country, logistical support, particular working conditions or schedules.
4. The contractor will then: nominate and arrange for the appointment of core staff or consultant advisors; obtain U.S.A.I.D. and Bureau clearance through the Project Manager; plan and implement orientation and briefing of technical advisors as needed; prepare and monitor travel schedules; arrange debriefings as needed; ensure that reports are prepared and submitted on schedule; negotiate level of effort and pay consultant fees, travel, and other expenses; edit, reproduce and distribute final reports; and evaluate the performance of the technical advisors.
5. Significant changes in the approved workplan must be approved by the S&T/H/WS Project Officer and coordinated with the requestor.
6. The contractor will not have authority to commit A.I.D. resources without advance approval from the S&T/H/WS Project Officer or designee.
7. All domestic and international travel supported under this project must be cleared in advance by the Project Officer. Travel to A.I.D.-assisted countries must be cleared in advance by the relevant Bureau and U.S.A.I.D. Office.

The project is meant to be an Agency-wide project with requests for water supply and sanitation support services coming in from any Bureau and its Missions. S&T/H/WS will serve as a focal and coordinated point for WASH technical assistance services within the Agency. No pre-allocation of S&T/H funds will be made to any one Bureau, Office, or Mission. All Offices, Bureaus, and Missions will have the opportunity to have their requests for WASH services addressed. Although no formal ranking system for requests is proposed, all requests must meet the tests of need, relevance, and cost-effectiveness. The size of the request, source of funds, equitable distribution between requestors, and previous WASH services may be factors in shaping responses.

For each overseas activity (or domestic activity exceeding \$1,000 in estimated cost), the contractor will be required to submit a schedule of resources to be used and to provide curricula vitae for all personnel proposed to the S&T/H/WS Project Officer. The S&T/H/WS Project Officer, will in turn verify acceptability of team members to Bureaus and Missions involved and provide recommendations to the M/SER/COM/COD Contracts Office as appropriate (e.g., approval of subcontractors and consultants). A roster of "pre-approved" subcontractors and consultants should be maintained to facilitate rapid response.

Upon approval by the S&T/H/WS Project Officer of the scope, budget, team composition, and schedule proposed by the contractor, either in the work plan or separately, the contractor will coordinate directly with the relevant Mission(s) or Bureau(s) in working out the myriad of coordination details involved.

S&T/H/WS will provide at least one full time direct-hire sanitary engineer to coordinate and manage the project for A.I.D. Other S&T/H/WS staff will be available, as needed, on a parttime basis to backstop the Project Officer(s). Experience with WASH I indicates that such assistance is needed to plan, coordinate, and provide technical input and backstopping for the wide array of the numerous WASH activities.

2.E. Project Inputs Through the Prime Contractor

Estimates of quantifiable services through FY 89 are based on historical demand and trends for WASH I assistance, projected A.I.D. activities in relevant sectors and subsectors, discussions with other Bureaus and with Missions, and our assessment of unmet needs.

- (1) Approximately 200 to 300 person-months per year of technical assistance in water supply and sanitation. (See Table 2) Experience with WASH I indicates that

approximately 70 percent is for "general" technical assistance, 15 to 20 percent for training assistance, 10 to 15 percent for technology transfer assistance, and 10 to 15 percent for information services.

Obviously many of these activities to be undertaken are relevant to more than one category. Person-months is the primary measure of level of effort. Annex 4 describes the types of technical assistance anticipated.

(2) \$200,000 per year of commodities and equipment for appropriate technology activities, training, and information activities.

(3) As part of (1), approximately 20 to 30 person-months per year for information services, including special studies, information gathering, literature research to support subject syntheses and bibliographies, and for dissemination of information materials on water supply and sanitation to Missions, Bureaus, et al. Estimated demand is 700 information requests per year and approximately 5,000 documents per year.

(4) Also as part of (1), 100 to 120 person-months per year of technical-professional contractor core manpower for management, coordination, A.I.D./W and U.S.A.I.D. consultancies, direct services, and operation of the operations and information center. See Annex 5, "Key Personnel."

(5) Ninety to one hundred and twenty-five person-months per year for non-technical supporting staff in the operations center.

(6) Sufficient "other direct costs" and U.S./international travel and per diem estimated at \$3,455,000 to support the man-months of technical assistance specified.

2.F. Crucial Project Assumptions

Two assumptions are crucial to the success of the project:

a. That LDCs are aware of the water supply and sanitation problem(s) of poor majorities and will provide adequate political commitment. Current evidence suggests that commitment of developing countries to the U.N. Water and

Sanitation Decade and the W.H.O.-UNICEF goal of primary health care (PHC)* for all by the year 2000, although affected by the recent world recession, is a valid assumption in many A.I.D. assisted countries.

b. That the U.S. (and in turn A.I.D.) intends to continue support of water supply and sanitation programs as a component of basic human need and of the Congressional Mandate described in the Foreign Assistance Act, as amended. This is the intent expressed by the U.S. delegation to U.N. Water Conference, in the U.N. General Assembly in response to the U.N. Drinking Water and Sanitation Decade, and A.I.D.'s Policy Paper on Domestic Water Supply and Sanitation. Funding in the water supply and sanitation subsector over the last several years ranged from \$200 to 250 million per year.

3. Project Specific Analysis

3.A. Economic Feasibility

A.I.D. Handbook No. 3 guidance for project preparation for public health type activities, where benefits are often impossible to measure, requires only that "the analysis should only be as penetrating as good common sense permits..." S&T/H/WS has not attempted a detailed economic analysis for this project. WASH II is by nature an umbrella, technical assistance project to provide flexible access to short-term expert technical assistance.

Possible alternatives are: (1) increase direct-hire level of A.I.D. water supply and sanitation personnel in the numbers and expertise projected under the contract, (2) increase the utilization of existing IQCs for much broader application of expertise to water supply and sanitation technical assistance needs, and (3) do nothing. None of these alternatives are realistic.

Option (1), is unlikely because A.I.D. policies on increasing direct-hire manpower ceilings for A.I.D. are not likely to change. Further, A.I.D.'s current ratio of hiring "technicians" to "generalists" is unlikely to change in favor of technicians.

Option (2), an increase in IQC's to provide services "equal" to those proposed under WASH II, would not be as effective or efficient. As IQCs are presently structured, the Project Manager is required to insure that the scope of work and budget in the PIO/T are correct and reasonable and that the requested

*WHO and UNICEF include water supply and sanitation as an integral component in their definition of primary health care.

IQC contractor is capable of performing the services adequately with the selection of consultants proposed by the contractor. For each IQC activity considerable effort on the part of the Project Manager is required to prepare a work order with a satisfactory scope of work and budget. The IQC's are also hampered by the maximum time limitation of four months available to the contractor to perform a coherent scope of work. Many of the technical assistance activities currently requested by the Missions require short term assistance on a repeated basis. These requirements, as well as numerous other technical assistance situations, do not lend themselves to IQC contracting. Under WASH, the contractor may only be putting two or three man-months of effort into a discrete activity that will take 8-18 months, depending upon the progress of the Mission and the host government organizations involved. The WASH Contractor can also combine services to several Missions. Further, the use of IQCs requires long term planning on the part of Missions to reserve adequate and timely amounts of project development and support funds for the proposed technical assistance services. Such support in the water supply subsector has been problematic.

Option (3), to do nothing would ignore the many field service support problems previously identified, would ignore the continuous needs and requests from Missions and Bureaus for expert technical assistance services in the subsector, and would ignore the findings of recent evaluations by A.I.D., GAO, et al.

Any economic analyses involve alternatives. There are no currently acceptable, achievable, realistic alternatives. Benefits as measured by WASH I project utilization rates have been proven in the crucible of the field.

3.B. Technical Feasibility

WASH I experience indicates that: (1) the WASH II project resources are needed and wanted by the Missions and the Bureau technical offices, (2) the project is appropriate for the purposes proposed, and (3) the project is reasonably designed, feasible to implement and cost effective for the magnitude of the services provided.

Technically appropriate equipment and methodology are to be applied and the cost estimates for services to be performed are based upon sound and reasonably firm experience, including that from the WASH I project. Experience with WASH I and the analysis of the external evaluation team indicates that technical feasibility is being met with WASH I. WASH II will be

sufficiently similar to justify extrapolation of WASH I experience, assuming equally good performance by the contractor selected.

The S&T/H/WS Division staff represents the largest single concentration of expertise and experience in water supply and sanitation within the Agency and is fully capable of managing the WASH II Project.

3.C. Environmental Concerns

Inasmuch as WASH II does not directly construct or provide capital assistance for water and sanitation activities or projects but, rather, provides technical services and information, WASH II will have little significant, direct effect on the environment. No significant, adverse environmental effects have been evident during WASH I.

Field activities and projects, assisted by WASH (both I and II) normally have undergone environmental review procedures during their own project development phase. In the event that WASH II assistance leads to significant redesign of field projects, normal A.I.D. environmental procedures will be followed for that particular project or activity*. Should WASH II directly undertake any field installation, e.g., a small demonstration or pilot activity, an Initial Environmental Examination (IEE) will be prepared and cleared with the appropriate Mission and Regional Environmental Coordinator.

No environmental examination will be undertaken for the WASH II Project per se.

3.D. Financial Plan

Table 2 shows planned financing of the project by fiscal year. Financial participation by the S&T Bureau is \$13.3 million; financial participation by other Bureaus, Offices and Missions is projected at \$6,400 million over the life of the project. Total funding is projected at \$19,700,000.

Table 3 shows a projected annual contract budget by category of service.

*WASH II may also directly undertake environmental examinations or studies for field projects when requested and included in the WASH II Annual Work Plan.

Table 2

Financial Plan/Budget Tables

(a) Total A.I.D. financing required to carry out projected project			\$19,700,000
(b) Source of Funds:	S&T/H FY 84		1,000,000
	S&T/H FY 85		2,400,000
	S&T/H FY 86		2,500,000
	S&T/H FY 87		2,500,000
	S&T/H FY 88		2,600,000
	S&T/H FY 89		2,300,000
	S&T/H TOTAL	LOP	\$13,300,000
	Regional Bureaus, Missions, and others.	LOP	\$ 6,400,000
TOTAL FUNDING			\$19,700,000

Table 3
BUDGET/LEVEL of EFFORT
(\$000/person-months)

Category	Year 1	Year 2	Year 3 *	Year 4	Year 5	TOTAL
Technical Assistance:	\$1,840/250	2,050/270	2,400/300	2,550/300	1,900/200	\$10,740/1,330
- project identification, design implementation, and evaluation human resources development, training assess- ment, conference and seminars institu- tional development, management, technology transfer - public health, environmental health, epidemiology, vector control, environmental assessment - special studies - other						
Operations and Information Center	600/100	675/125	700/125	725/125	600/ 90	3,300/ 565
- supporting staff and services, space rental utilities, communications, reproduction						
Commodities, Supplies, Equipment	180/ -	190/ -	200/ -	210/ -	100/ -	880/ -
Travel	450/ -	470/ -	500/ -	535/ -	480/ -	2,435/ -
Other Direct Costs	200/ -	200/ -	200/ -	220/ -	200/ -	1,020/ -
Sub-Total	3,270/ -	3,585/ -	4,000/ -	4,250/ -	3,280/ -	18,375/ -
Fee @ 6%	200/ -	215/ -	240/ -	250/ -	200/ -	1,105/ -
TOTAL CONTRACT	3,470/350	3,800/395	4,240/425	4,500/425	3,480/300	19,480/1,895
Evaluations	0/ -	0/ -	30/ -	0/ -	70/ -	100/ -
Use in Other Implementation Mechanisms	30/ -	0/ -	30/ -	0/ -	50/ -	110/ -
TOTAL PROJECT	\$3,500/350	3,800/395	4,300/425	4,500/425	3,600/300	\$19,700/1,895

Notes: Inflation projected at 5 percent per annum, 10 percent contingencies in each category.
This five year level of effort overlaps six fiscal years beginning with \$1 million in late FY 84.

3.E. The Implementation Plan

The AID/W, S&T/H/WS Project Officer will provide general technical guidance, direction, and scope to the contractor for services performed by the contractor. The S&T/H/WS Project Officer will serve as a coordination point for interactions between the contractor and A.I.D. Missions, Bureaus, and other Agency organizations requesting services under the contract. The Project Officer will also serve as the approval point for all requests for WASH services. The contractor will not be authorized to meet requests for services without prior approval, supported by a memorandum, from the A.I.D. Project Officer to the contractor approving and transmitting the request for services. The Project Officer will receive performance reports from Missions, Bureaus, and offices of A.I.D. following provision of the contractor services. The S&T/H/WS Project Officer will seek to ensure that the contractor uses and acts on Agency critiques and recommendations where appropriate.

Cooperation and assistance to the contractor by Missions requesting WASH services will be needed. When a request for services comes in, a Mission WASH liaison officer should be identified to the S&T/H/WS Project Officer and the Contractor for each separate request. Upon arrival of WASH staff/consultants in the host country, the Mission WASH liaison officer and other appropriate Mission personnel should brief the WASH staff/consultants and insure that they understand exactly what is expected from them. Where possible, the WASH team should have access to Mission/Embassy cable facilities. The WASH contractor will have contract funds for long distance phone calls or other communications as necessary. The Mission should allow WASH use of Mission or Embassy facilities including vehicles if available and if it would not constitute a hardship on the Mission.

Some Mission assistance may be requested by the WASH contractor team leader to establish initial contact with appropriate LDC or international organization personnel having influential bearing on the subject of the request for services.

The A.I.D. time required to coordinate the WASH project would be initially one full time S&T/H/WS staff member as Project Officer, supported and backstopped by other S&T/H/WS staff. For each request for services by a Mission or Bureau, there would be a varying amount of Mission manpower liaison and coordination involved, depending upon the task. WASH I experience indicates that this is the practical minimum. Paper work by other A.I.D. offices is basically the necessary communications for requests and clearances, the contractor performance checklist, and PIO/Ts for Mission or Bureau co-funded activities.

Total A.I.D. manpower requirements over the six year length of the project are estimated at 90 man-months of direct-hire S&T/H/WS project management and 30 man-months of Bureau, Mission or S&T/H direct-hire manpower coordination time interacting with the contractor over a 60 month project period.

Water and Sanitation for Health II (WASH II): Proposed Project Implementation Plan:

Project Implementation Period - 60 months with 12 months renewal option

Project Funded July 1984 - July 1989

<u>Action</u>	<u>Date</u>
1. Approval of PP and Authorization	27 April 1984
2. Approval of PIO/T FY 84 Funds	27 April 1984
3. Initiation of RFP	30 April 1984
4. Receipt of Proposals	18 June 1984
5. Completion of Technical Evaluation Board Review of Proposals	16 July 1984
6. Selection of Competitive Range by SER/CM	23 July 1984
7. Initiation of Negotiation by SER/CM	23 July 1984
8. Selection of Contractor	15 August 1984
9. Signing of Contract	16 August 1984
10. Contractor Initiates Services	1 September 1984
11. Approval of FY 85 funds of PIO/T	15 November 1984
12. Approval of FY 86 Funds PIO/T	15 November 1985
13. Approval of FY 87 Funds PIO/T	15 November 1986
14. Evaluation	1 February 1987
15. Approval of FY 88 Funds PIO/T	15 November 1987
16. Approval of FY 89 Funds PIO/T	15 November 1988
17. End of Project without renewal option	1 January 1990

3.F. Evaluation Arrangements

The contractor's performance and the degree of success of the field technical assistance support activities will be evaluated in several ways by different groups during the course of the project. The contractor will provide the Mission, Bureau, and other relevant entities with standard A.I.D. forms for evaluation of the contractor's services at the end of the contractor's involvement with each separate scope of work requested. The Mission or other "client" will be requested to fill out the performance critique and send copies to the contractor's operation center and to the S&T/H/WS project manager.

An annual management review, chaired by the Director, S&T/H, and including the Associate Director, S&T/H, S&T/H/WS technical staff, and a representative of S&T/PO will also review the project. The S&T/H/WS Division Chief will aperiodically review contractor performance. The S&T/H/WS Project Officer will meet weekly with the Contractor's Project Manager.

A formal evaluation of services rendered will be performed in early 1987. A specific set of evaluation criteria for the in-progress evaluation would be developed during late 1986. The evaluation team would have not less than two A.I.D representatives and one external evaluator.

The midpoint and final evaluations will focus on:

- Appropriateness of project design.
- Effectiveness of project in achieving project outputs.
- Adequacy and quality of A.I.D. and contractor resources, including budget.
- Adequacy of contractor performance, management, and implementation.
- Adequacy of A.I.D. management and coordination.
- Recommendations for modification or extension of project design, management, implementation, budget or time period.
- Value of the project to A.I.D.
- Lessons learned for use in follow-on or subsequent projects.

A specific set of criteria for the final evaluation will be developed in March 1989. The evaluation team will have two A.I.D. representatives and two external evaluators. The evaluation will assess the overall performance of the contractor and the appropriateness of the original project design, appropriateness of operating modifications, and the value of the project to A.I.D.

In reality, S&T/H/WS anticipates a continuous evaluation taking place, one which develops out of close working relationships between the various Bureaus involved and the contractor. The continuing critiques, in-progress evaluation in 1987 and the management reviews may result in slight changes in direction, emphasis, administrative procedures, or even changes in methodology of provision of services.

ANNEX 1

A.I.D. Projects*
in
Water Supply and Sanitation
by
Region

*N.B. = Does not include water and sanitation components of multiple-purpose projects.

AFRICA WATER SUPPLY AND SANITATION PROJECTS

DATE: 11/01/83

PAGE: 1

COUNTRY	TITLE	PAOJ#	APPR	BEG	END	AGENT	ACT. CODE	SUBCAT	LOP#	FY73	FY74	FY75	FY76	FY77	FY78	FY79	F180	F181	F182	F183	F184					
Botswana	Environmental Sanitation	6 633608A	HE	79	83	LDC	HR,CP,HE	EVI	499	0	0	0	0	0	0	0	499	0	0	0	0					
								Subtotal	499	0	0	0	0	0	0	0	0	499	0	0	0	0	0	0	0	
								WAT,WSS,EVI	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Burundi	Community Water & Health	6 6950107	HE	83	86	MLT	TI,HE,HR	WAT,WSS,EVI	500	0	0	0	0	0	0	0	0	0	0	0	0	350				
								Subtotal	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	350
								WSS,EVI,WAT	1400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	554	925	425
Cameroon	M'pouri-Mardala Water Supply	6 6310025	HE	80	82	PVO	HR,TI,CP,HE	WAT	4	0	0	0	0	0	0	0	0	0	0	0	0	0				
								Subtotal	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
								WAT	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cape Verde	Mindelo Desalination	6 6550004	SH	81	82	LDC	TI,CP,HR	WAT	127	0	0	0	0	0	0	0	0	0	0	0	0	0				
								Subtotal	127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
								WAT	666	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cape Verde	Sal/Desalination/Power	6 6550005	HE	78	83	LDC	TI,HR,LD	WAT	525	0	0	0	0	0	0	0	0	0	0	0	0	0				
								Subtotal	1259	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
								WAT	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chad	Rural Sanitation & Water	6 6770022	SH	70	81	PSC	TI,CP,HR	WAT,WSS	1669	0	0	0	0	0	0	0	0	0	0	0	0					
								Subtotal	1669	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
								WAT	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ghana	Rural Dev. Village Water	6 6410073	FN	77	77	PVC	TI,CP	WAT	500	0	0	0	0	0	0	0	0	0	0	0	0					
								Subtotal	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
								WAT	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kenya	Water Development (Care)	6 6150166	FN	75	76	PVO	TI,CP,HR	WAT	300	0	0	0	0	0	0	0	0	0	0	0	0					
								Subtotal	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
								WAT,WSS	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kenya (K)	Water Supply, (IRT 30)	6 6900407	FN	82	82	PVO	TI,HE	WAT,WSS	35	0	0	0	0	0	0	0	0	0	0	0	0					
								Subtotal	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
								WAT	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lesotho	Rural Water and Sanitation	6 6520088	HE	79	85	PVC	CP,LD,HR	WSS,WAT	12142	0	0	0	0	0	0	0	0	0	0	0	0					
								Subtotal	12142	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
								WAT	267	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Liberia	Hand dug Wells	6 6690157	HE	78	81	PVC	CP,TI,HR	WAT	267	0	0	0	0	0	0	0	0	0	0	0	0					
								Subtotal	267	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
								WAT,EVI,EHS	6000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Omani	Rural Water	6 6170207	HE	80	84	LDC	CP,TI,LD,HE	WAT,EVI,EHS	6000	0	0	0	0	0	0	0	0	0	0	0	0					
								Subtotal	6000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
								WAT,WSS,EVI	259	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sahel	Sahel Wells	6 6580229	SH	81	81	PVO	CP,TI	WAT	405	0	0	0	0	0	0	0	0	0	0	0	0					
								Subtotal	405	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
								WAT	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sahel	Self-Help: Ouasso Wells	6 6802599	SH	82	82	PVC	CP,TI	WAT	1	0	0	0	0	0	0	0	0	0	0	0	0					
								Subtotal	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
								WAT	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sahel	Self-Help:Balabana Wells	6 6880300	SH	82	82	LDC	TI,CP	WAT	1	0	0	0	0	0	0	0	0	0	0	0	0					
								Subtotal	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
								WAT	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sahel	Self-Help:Kourale Wells	6 6651700	SH	82	82	PVC	TI,CP	WAT	1	0	0	0	0	0	0	0	0	0	0	0	0					
								Subtotal	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
								WAT	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sahel	Self-Help:Sana and Niani Wells	6 6981200	SH	82	82	PVC	TI,CP	WAT	2	0	0	0	0	0	0	0	0	0	0	0	0					
								Subtotal	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
								WAT	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sahel	Self-Help:Tronquasse Well	6 6802300	SH	82	82	LDC	TI,CP	WAT	3	0	0	0	0	0	0	0	0	0	0	0	0					
								Subtotal	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
								WAT	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sahel	Self-Help:Yema Here Well	6 6691300	SH	82	82	PVC	TI,CP	WAT	683	0	0	0	0	0	0	0	0	0	0	0	0					
								Subtotal	683	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
								WAT	259	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AFRICA WATER SUPPLY AND SANITATION PROJECTS

DATE: 11/01/83

PAGE: 2

COUNTRY	TITLE	PROJ#	APFR	BEG	END	AGENT	ACT.CODE	SUBCAT	LOW#	FY73	FY74	FY75	FY76	FY77	FY78	FY79	FY80	FY81	FY82	FY83	FY
Mali (SI Reg)	Yellouane-Tabacara Wells (9)	6 6250937	SH	81	81		TI,CP,IE	WAT Subtotal	155	0	0	0	0	0	0	0	155	0	0	0	0
								WAT Subtotal	155	0	0	0	0	0	0	0	155	0	0	0	0
Reunited (Reg)	Bicye Water (IRT25)	6 6980407	FN	81	81		TI	WAT Subtotal	60	0	0	0	0	0	0	0	0	0	60	0	0
								WAT Subtotal	60	0	0	0	0	0	0	0	0	0	60	0	0
Sonalia	Compreh. GROWER Development	6 6490104	IE	79	83	PVD	FE,TD,HR	WHD,WAT,GWD	6556	0	0	0	0	0	0	757	2400	2200	1199	0	0
Sonalia	Mogadiscio Water Supply	6 6490037	FN	82	75	LDC	TI,FE,HR	WAT,WHD	970	0	0	0	0	0	0	0	0	0	0	0	0
Sonalia	Mogadiscio Water Supply	6 6490037	BL	82	75	LDC	TI,TD,HR	WAT,WHD	7150	0	0	0	0	0	0	0	0	0	0	0	0
								Subtotal	14676	0	0	0	0	0	0	757	2400	2200	1199	0	0
Sudan	BERADEF Municipal Water Supply	6 6500045	F0A	83	84	PVC	TI,TD	WAT	6445	0	0	0	0	0	0	0	0	0	0	0	4445
Sudan	Fort Sudan Water Supply	6 6500050	F0A	81	83	LDC	TI,TD	WSS,WAT	2000	0	0	0	0	0	0	0	0	2000	0	0	0
Sudan	Water & Sanitation Project	6 6500045	MRA	82	85	PVD	FE,TT,TD	WAT,WSS,EVH	6000	0	0	0	0	0	0	0	0	0	0	0	6000
								Subtotal	14445	0	0	0	0	0	0	0	0	0	2000	6000	6445
Swaziland (K)	Water Filtration (IRT 17)	6 6980407	FN	80	80		TI,CP,HR	WAT Subtotal	29	0	0	0	0	0	0	0	0	29	0	0	0
								WAT Subtotal	29	0	0	0	0	0	0	0	0	29	0	0	0
Tanzania	Self-Help:Kaswa Water Reserv.	82-6	SD	82	82	PVD	TI,CP	WAT	3	0	0	0	0	0	0	0	0	0	0	3	0
Tanzania	Self-Help:Zanzibar Water Works	82-5	SD	82	82	LDC	TI,CP	WAT	4	0	0	0	0	0	0	0	0	0	0	4	0
								Subtotal	7	0	0	0	0	0	0	0	0	0	0	7	0
Togo	Rural Water and Sanitation	6 6970710	IE	80	85	LDC	CP,IE,HR	WAT,EVH,WSS Subtotal	11739	0	0	0	0	0	0	0	0	1560	3248	1000	659
								WAT Subtotal	11739	0	0	0	0	0	0	0	0	1560	3248	1000	659
Togo (R)	Spring Water (IRT 17)	6 6980407	FN	81	82		TI,CP	WAT Subtotal	75	0	0	0	0	0	0	0	0	0	61	15	0
								WAT Subtotal	75	0	0	0	0	0	0	0	0	0	61	15	0
Upper Volta	Rural Water Supply	6 6860228	SI	79	84	LDC	IE,HR,TT	WSS,EVH,WAT Subtotal	12286	0	0	0	0	0	0	0	3500	2277	4003	0	0
								WAT Subtotal	12286	0	0	0	0	0	0	0	3500	2277	4003	0	0
Zaire (Reg)	Kionoro Water (IRT27)	6 6980407	FN	82	82		TI	WAT Subtotal	25	0	0	0	0	0	0	0	0	0	0	25	0
								WAT Subtotal	25	0	0	0	0	0	0	0	0	0	0	25	0
	Total								79322	0	0	360	500	500	1992	7528	9373	15015	17888	10974	7

25

COUNTRY	TITLE	PROJ#	APPR	BE6	END	AGENT	ACT.CODEE	SUBCAT	LDP#	FY73	FY74	FY75	FY76	FY77	FY78	FY79	FY80	FY81	FY82	FY83
Indonesia	Surakarta Water Supply	L 4970262	HE	77	83	PVC	FE,TT,HR	MSS,MAT,ESD Subtotal	6800 6800	0 0	0 0	0 0	0 0	0 6800	0 6800	0 0	0 0	0 0	0 0	0 0
Korea	Chung Gye Chun Sewage	L 4990089	DL	74	74	LEC	TT	SST Subtotal	2517 2517	0 0	2517 2517	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Korea(R)	Potable Water Systems (CARC)	6 4980025	HE	76	78	PVO	TT,HE,CP	MAT,MSS,EVH Subtotal	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Philippines	Barangay Water I	6 4920291	HE	78	79	LDC	TT,IO,HR	MAT	184	0	0	0	0	0	184	0	0	0	0	0
Philippines	Barangay Water I	L 4920291	HE	78	82	LDC	TT,IO,HR	MAT	6000	0	0	0	0	0	3000	3000	0	0	0	0
Philippines	Barangay Water II	6 4920333	HE	80	84	LEC	IO,TT,HR	MAT	2537	0	0	0	0	0	0	0	0	0	0	0
Philippines	Barangay Water II	L 4920333	HE	80	84	LDC	IO,TT,CP	MAT	19600	0	0	0	0	0	0	0	0	0	0	0
Philippines	Local Water Development	6 4920309	HE	76	83	LDC	IO,PV,TT	MAT,HRH	500	0	0	0	0	0	500	0	0	0	0	0
Philippines	Local Water Development	6 4920309	SD	76	79	LDC	IO,PV,TT	MAT,HRH	500	0	0	0	0	0	0	0	0	0	0	0
Philippines	Local Water Development	L 4920169	HE	76	77	LDC	IO,PV,TT	MAT,HRH	20000	0	0	0	0	0	0	0	0	0	0	0
Philippines	Provincial Waterworks	6 4920263	HE	74	77	PVC	IO,TT,HR	MAT,HRD	750	0	750	0	0	0	0	0	0	0	0	0
Philippines	Provincial Waterworks	L 4920263	HE	74	77	PVC	TT,FE,IO	MAT,HRD	14000	0	14000	0	0	0	0	0	0	0	0	0
								Subtotal	84071	0	750	14000	20000	0	3684	3500	8387	9950	2550	0
Regional	Rural Water Supply	6 8790269	HE	81	84	LEC	TT,CP,HE,HR	MSS,EVH,MAT Subtotal	600 600	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	200 200
Sri Lanka	Market Town Water Supply	6 3830063	HE	80	82		TT,IO	MAT	2000	0	0	0	0	0	0	0	0	0	0	0
Sri Lanka	Market Town Water Supply	L 3830063	HE	80	82		TT,IO	MAT	6000	0	0	0	0	0	0	0	0	0	0	0
Sri Lanka	Water Supply & Sanitation Sect	6 3830088	HE	84	86		IO,HR,TT,HE	MAT,MSS,EVH	5000	0	0	0	0	0	0	0	0	0	0	0
Sri Lanka	Water Supply & Sanitation Sect	L 3830088	HE	84	87	LDC	IO,HR,TT,HE	MAT,MSS,EVH Subtotal	13000 26000	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Thailand	Potable Water Project	6 4930186	HE	66	73	LDC	TT,IO,HR	MSS,MAT	2989	0	0	0	0	0	0	0	0	0	0	0
Thailand	Rural Water Supply (PHHA)	L 4930331	HE	83	88	LDC	TT,HR,IO	MAT	6000	0	0	0	0	0	0	0	0	0	0	0
								Subtotal	8989	0	0	0	0	0	0	0	0	0	0	0
								Total	108977	0	3267	14000	20000	6800	3684	3500	15984	10150	3733	5200

CTRY	TITLE	PROJ#	APPR	BEG	END	AGENT	ACT.	CODE	SUBCAT	LOP4	FY73	FY74	FY75	FY76	FY77	FY78	FY79	FY80	FY81	FY82	FY83	FY84
ivya	Potable Water	6 5110195	HE	79	83	PVO	HR,HE,IT		WSS,EVH,WAT	329	0	0	0	0	0	0	0	329	0	0	0	0
ivya	Rural Sanitation	6 5110458	HE	77	84	PSC	TI,CP,HE		WSS,EVH,SS1	310	0	0	0	0	54	100	35	121	0	0	0	0
ivya	Rural Sanitation	L 5110458	HE	77	84	PSC	TI,CP,HE		WSS,EVH,SS1	4000	0	0	0	0	4000	0	0	0	0	0	0	0
ivya	Rural Water Systems	6 5110479	HE	77	79	PVO	HR,CP,HE		WAT	450	0	0	0	0	450	0	0	0	0	0	0	0
	Subtotal								Subtotal	5089	0	0	0	0	4504	100	364	121	0	0	0	0
ztl	Urban Sanitation	L 5120291	HE	71	77	LDC	TI,HR		SS1	24991	0	0	0	0	0	0	0	0	0	0	0	0
ztl	Urban Water and Sewage	6 5120067	SD	61	75	LDC	TI,IO,HR		WSS,SS1,WAT	3102	0	0	0	0	0	0	0	0	0	0	0	0
	Subtotal								Subtotal	28173	0	0	0	0	0	0	0	0	0	0	0	0
zmbia	Environmental Sanitation	L 5140103	HE	75	75	LDC	TI,HR,IO		WSS,EVH,SS1	7500	0	0	7500	0	0	0	0	0	0	0	0	0
	Subtotal								Subtotal	7500	0	0	7500	0	0	0	0	0	0	0	0	0
zrepublic	Health Sector II	L 5170120	HE	79	84	LDC	TI,HR,HE		WSS,EVH,PHC	80000	0	0	0	0	0	0	0	80000	0	0	0	0
	Subtotal								Subtotal	80000	0	0	0	0	0	0	0	80000	0	0	0	0
zrib.Reg.	Antigua Water Supply	6 5380098	ES	83	86	PVC	IO,HR,IT		WAT,EMP,HRD	9700	0	0	0	0	0	0	0	0	0	0	0	9700
	Subtotal								Subtotal	9700	0	0	0	0	0	0	0	0	0	0	0	0
zror	Rural Potable Water	6 5180020	HE	81	82	PVO	CP,TT,HE		WSS,EVH,WAT	181	0	0	0	0	0	0	0	0	0	111	70	0
	Subtotal								Subtotal	181	0	0	0	0	0	0	0	0	0	111	70	0
zalvador	Rural Potable Water & Sanit.	6 5190209	HE	79	81	LDC	HR,IT,CP		WSS,EVH,WAT	390	0	0	0	0	0	0	0	390	0	0	0	0
	Subtotal								Subtotal	390	0	0	0	0	0	0	0	390	0	0	0	0
zmalta	Rural Potable Water & Latrines	6 5200241	HE	77	77	PVO	TI,HR,CP		WSS,SS1,WAT	24	0	0	0	0	24	0	0	0	0	0	0	0
zmalta	Village Water & Latrines	6 5200231	HE	75	76	PVO	TI,CP,HR		WSS,EVH,WAT	260	0	0	268	0	0	0	0	0	0	0	0	0
	Subtotal								Subtotal	292	0	0	268	0	0	0	0	0	0	0	0	0
zmalta	Water Supply	L 5200048	AL	69	78		TI,HR,IO		WAT	5000	2400	0	0	0	0	0	0	0	0	0	0	0
	Subtotal								Subtotal	5000	2400	0	0	0	0	0	0	0	0	0	0	0
zmalta	Community Water System Develop	6 5210155	FM	84	88	PVO	TI,IO,HR		WAT,IRG	7000	0	0	0	0	0	0	0	0	0	0	0	0
zmalta	Potable Water II	6 5210117	SD	78	78	PVO	FE,TT,CP		WAT,IRG	101	0	0	0	0	0	101	0	0	0	0	0	0
zmalta	Potable Water III	6 5210117	FM	81	83	PVO	TI,CP,HR		WAT,HRD	495	0	0	0	0	0	0	0	0	0	175	0	0
zmalta	Potable Water Supply	6 5210076	SD	75	76	PVO	TI,HR,CP		WAT,IRG,HRM	171	0	0	171	0	0	0	0	0	0	0	0	0
zmalta	Water Resources Develop. II	6 5210101	FM	78	81	PVO	TI,CP,HR		WAT	490	0	0	0	0	0	100	0	0	0	240	0	0
	Subtotal								Subtotal	8707	0	0	171	0	0	0	0	0	0	415	0	0
zmalta	Bay Island Development	6 5220233	HE	83	84	PVO	TI,PU,IO,HR		WSS,WAT,PHC	245	0	0	0	0	0	0	0	0	0	0	0	243
zmalta	Municipal Development II	L 5220165	HE	80	81	LDC	TI,IO		WSS,SS1,WAT	3000	0	0	0	0	0	0	0	3000	0	0	0	0
zmalta	Rural Water and Sanitation	6 5220166	HE	80	85	LDC	TI,HR,HE		WSS,SS1,WAT	500	0	0	0	0	0	0	0	500	0	0	0	0
zmalta	Rural Water and Sanitation	L 5220166	HE	80	84	LDC	TI,HR,IO,HE		WSS,SS1,WAT	20000	0	0	0	0	0	0	0	10000	0	0	0	0
zmalta	Special Development Activities	6 5220073	SD	78	78	LDC	TI,CP		WSS,WAT	50	0	0	0	0	0	50	0	0	0	0	0	0
	Subtotal								Subtotal	23795	0	0	0	0	0	0	0	13500	0	0	0	243
zpanama	Panama City Water Supply	L 5230138	HE	68	76	LDC	TI		WAT	20000	0	0	0	0	0	0	0	0	0	0	0	0
zpanama	Sewerage Facility	L 5230134	HE	67	73	LDC	TI,IO		SS1	6600	0	0	0	0	0	0	0	0	0	0	0	0
	Subtotal								Subtotal	26600	0	0	0	0	0	0	0	0	0	0	0	0
zpanama	Rural Water & Health Services	6 5270177	HE	77	80	PVO	TI,CP,HR		WSS,SS1,WAT	450	0	0	0	0	0	220	230	0	0	0	0	0
zpanama	Rural Water System/Sierra	6 5270221	HE	81	83		HR,TT,HE		WSS,EVH,WAT	1000	0	0	0	0	0	0	0	0	0	150	450	200
zpanama	Rural Water System/Sierra	L 5270221	HE	80	82	LDC	HR,TT,HE		WSS,EVH,WAT	10000	0	0	0	0	0	0	0	0	5000	0	5000	0

COUNTRY	TITLE	PKOJ#	APPR	BEG	END	AGENT	ACT_CODE	SUBCAT	LOP	FY73	FY74	FY75	FY76	FY77	FY78	FY79	FY80	FY81	FY82	FY83	FY	
ghanistan	Special Devel:thermal Water	6 3040103	50	65	73	FE, TI			32	0	0	0	0	0	0	0	0	0	0	0	0	0
									32	0	0	0	0	0	0	0	0	0	0	0	0	0
pt	Alexandria Sewage I	L 2630489	ES	77	84	PVC	TI, ID, HR	SST	15000	0	0	0	0	15000	0	0	0	0	0	0	0	0
pt	Alexandria Sewer Expansion II	6 2630100	ES	79	86	PVC	TI, ID	SST	167000	0	0	0	0	0	0	0	0	0	0	0	0	0
pt	Cairo Sewage	6 2630091	ES	78	86	PVC	TI, ID, HR	SST	129000	0	0	0	0	0	25000	0	0	0	0	0	0	0
pt	Cairo Water System	6 2630038	ES	77	86	PVC	CP, HR, TI	WAT, EVH, PWC	81400	0	0	0	0	39000	0	0	0	0	0	0	0	0
pt	Cairo Water System	L 2630938	ES	77	86	PVC	CP, TI, HR	WAT, EVH, PWC	36000	0	0	0	0	36000	0	0	0	0	0	0	0	0
pt	Canal Cities Water & Sanit.	6 2630048	ES	79	86	PVC	TI, HR, ID	WAT, SST, WSS	123000	0	0	0	0	0	0	36000	0	0	0	0	0	0
pt	Canal Cities Water & Sanit.	L 2630048	ES	78	82	PVC	TI, HR, ID	WSS, SST, WAT	60000	0	0	0	0	0	60000	0	0	0	0	0	0	0
pt	Provincial Cities	6 2630177	ES	91	87	PVC	ID, TI, PV	WAT, HIG, SST	20000	0	0	0	0	0	0	0	0	0	0	0	0	0
pt	Water Sewerage Program Support	6 2630668	ES	84	87		TI, ID, PV	WAT, WSS, SST	1000000	0	0	0	0	0	0	0	0	0	0	0	0	0
								Subcat	1605400	0	0	0	0	75000	85000	123321	23500	125100	0	0	0	0
el	Desalting Plant	6 2710005	ES	75	85	PVC	TI, RD, FE	WRD, WAT	20000	0	0	20000	0	0	0	0	0	0	0	0	0	0
								Subcat	20000	0	20000	0	0	0	0	0	0	0	0	0	0	0
an	Aqaba Water and Sewerage	L 2780270	ES	78	84	PVC	TI, HR	WSS, SST, WAT	39000	0	0	0	0	0	28500	10500	0	0	0	0	0	0
an	Aqaba Sewerage	L 2780208	ES	79	84	PVC	TI	SST	7500	0	0	0	0	0	0	7500	0	0	0	0	0	0
an	Irbid Water and Sewerage	6 2780233	ES	80	89	PVC	TI, ID	WSS, SST, WAT	2500	0	0	0	0	0	0	0	2500	0	0	0	0	0
an	Irbid Water and Sewerage	L 2780233	ES	80	95	PVC	TI, ID	WAT, SST, WSS	21000	0	0	0	0	0	0	0	21000	0	0	0	0	0
an	Water Systems and Services Hgt	6 2780259	ES	83	88		TI, PV, HR	WAT, WSS, SST	4000	0	0	0	0	0	0	0	0	0	0	0	0	0
an	Water Systems and Services Hgt	L 2780259	ES	83	88	LDC	TI, PV, ID	WAT, SST, WSS	17000	0	0	0	0	0	0	0	0	0	0	0	0	0
an	Zarqa-Kuseifa Water	6 2780234	ES	83	83	PVC	TI, ID	WSS, SST, WAT	5000	0	0	0	0	0	0	0	0	0	0	0	0	0
an	Zarqa-Kuseifa Water Supply	L 2780234	ES	82	82	PVC	TI, ID	WSS, SST, WAT	10000	0	0	0	0	0	28500	18000	23500	0	0	0	0	0
								Subcat	186000	0	0	0	0	0	28500	18000	23500	0	0	0	0	0
on	Polable Water:Envir.-Sanitation	6 2680330	IDA	83	83	PVC	TI, FE, ID	WAT, WSS, SST	2800	0	0	0	0	0	0	0	0	0	0	0	0	0
on	Polable Water:Envir.-Sanitation	6 2680330	ES	83	84		TI, PV, ID	WAT, SST, WSS	430	0	0	0	0	0	0	0	0	0	0	0	0	0
on	Rural Potable Water	6 2680306	ES	78	81	MLT	TI, HR	WAT	6500	0	0	0	0	0	6500	0	0	0	0	0	0	0
								Subcat	9730	0	0	0	0	0	6500	0	0	0	0	0	0	0
gal	Basic Sanitation I	L 1500005	ES	76	76	PVC	TI, ID	WSS, SST	8000	0	0	0	8000	0	0	0	0	0	0	0	0	0
gal	Basic Sanitation II	L 1500010	ES	77	82	LDC	TI, ID, HR	WSS, SST	12000	0	0	0	0	12000	0	0	0	0	0	0	0	0
								Subcat	20000	0	0	0	8000	12000	0	0	0	0	0	0	0	0
	Deasous Water I	L 2760068	HE	75	84	PVC	TI, ID	WAT	48000	0	0	48000	0	0	0	0	0	0	0	0	0	0
	Deasous Water II	L 2760010	ES	76	81	PVC	TI, ID	WAT	14500	0	0	0	14500	0	0	0	0	0	0	0	0	0
	Provincial Water Supply	L 2760024	ES	79	84	LDC	TI, HR, ID	WAT	17600	0	0	0	0	0	0	17600	0	0	0	0	0	0
								Subcat	80400	0	0	48000	14500	0	0	17600	0	0	0	0	0	0
	Bierete Wells (CPRE)	6 6640286	HE	75	76	PVO	TI, HE, HR	WAT	154	0	0	105	50	0	0	0	0	0	0	0	0	0
	CIRO:Kasserine(IV)	6 6640312	HE	80	80	PVO	TI, HR, CP	WAT, EVH, WSS	1050	0	0	0	0	0	0	0	1050	0	0	0	0	0
	CIRO:Potable Water (04)	6 6640312	HE	79	83	PVO	TI, HR, HE	WSS, WAT	750	0	0	0	0	0	0	750	0	0	0	0	0	0
	CIRO:Siliana Water (05)	6 6640312	HE	79	83	PVO	TI, CP	WAT	492	0	0	0	0	0	0	492	0	0	0	0	0	0
	CIRO:Well Drilling (07)	6 6640312	HE	79	84	PVO	TI, CP	WAT	2190	0	0	0	0	0	0	1050	0	0	0	0	0	0
	Kairoon Water Facility	6 6640278	HE	77	78	PVO	TI, HE, HR	WSS, WAT	345	0	0	0	0	220	118	0	0	0	0	0	0	0
	Letef Potable Water	6 6640313	HE	78	79	PVO	TI, HE, HR	WSS, WAT	344	0	0	0	0	0	344	0	0	0	0	0	0	0
	Letef Wells Rehabilitation	6 6640288	HE	76	78	PVO	TI, CP, HR	WAT	45	0	0	0	45	0	0	0	0	0	0	0	0	0
	Siliana Rural Centers	L 6640318	HE	78	84	LDC	TI, CP	WAT	3500	0	0	0	0	0	3500	0	0	0	0	0	0	0
	Siliana Water Project	6 6640299	HE	76	77	PVO	TI, CP, HR	WAT	267	0	0	0	267	0	0	0	0	0	0	0	0	0
								Subcat	9137	0	0	105	362	228	3862	2272	1650	0	0	0	0	0

COUNTRY	TITLE	PROJ#	APFR	BEG	END	AGENT	ACT.CODE	SURCAT	LOPF	FY73	FY74	FY75	FY76	FY77	FY78	FY79	FY80	FY81	FY82	FY83	
ecen	Rural Water Supply	6 2790022	HE	74	79	PVC	TI,LP,HR	WAT	4094	0	795	1217	1725	890	210	0	0	0	0	0	0
ecen	Sanaa Water Supply	6 2790021	HE	73	75	PSC	TI,LD	WAT	743	300	160	283	0	0	0	0	0	0	0	0	0
ecen	Small Rural Water Systems	6 2790044	HE	79	83	PVC	TD,HR,HE,LP	WAT,EVH	7477	0	0	0	0	0	0	144	1527	658	1500	3636	0
ecen	Taiz Water & Sewer Design	6 2790027	HE	76	78	FE	FE	WSS,SSI,WAT	185	0	0	0	65	0	0	0	0	0	0	0	0
ecen	Taiz Water & Sewer Design	6 2790027	FM	76	78	FE	FE	WSS,SSI,WAT	1475	0	0	0	1475	0	0	0	0	0	0	0	0
ecen	Taiz Water and Sewers	6 2790039	HE	77	83	PVC	TI,LD,HR	WSS,SSI,WAT	11200	0	0	0	0	10000	0	0	0	0	0	1760	0
ecen	Taiz Water and Sewers	6 2790039	HE	81	83	PVC	TI,LD,HR	WAT,SSI,HSS	5000	0	0	0	0	0	0	0	0	0	0	0	0
ecen	Taiz Water Rehabilitation	6 2790017	FM	73	74	PVC	TI,HR	WAT	457	330	161	0	0	0	0	0	0	0	0	0	0
ecen	Water Supply System Management	6 2790038	HE	77	82		HR,TI,PP	WAT	6100	0	0	0	0	620	1580	2014	768	0	0	1100	0
								Subcat	37531	630	1116	1500	3265	11510	1790	2150	2313	5650	2800	2656	
	Total							Subcat	1807930	630	1116	6965	26127	98738	125752	163371	24063	130750	13800	331386	

30

LINE	TITLE	PRDJA	APPR	BEG	END	AGENT	ACT. CODE	SUBCAT	LOPA	FY73	FY74	FY75	FY76	FY77	FY78	FY79	FY80	FY81	FY82	FY83	FY8	
01	CES Matching Grant:Water	6 9301035	HE	83	05	PVO	TI,CF,IO	WAT	1250	0	0	0	0	0	0	0	0	0	0	0	0	100
								Subtotal	1250	0	0	0	0	0	0	0	0	0	0	0	0	400
	Innovat. Screen. Res. (Belbony)	6 9365542	SO	81	85	NGO	RD, TI	WAT	167	0	0	0	0	0	0	0	0	0	167	0	0	0
								Subtotal	167	0	0	0	0	0	0	0	0	0	167	0	0	0
CSR	Area Development	6 9311135	FM	78	80	UNC	FE, TI	WAT	1414	0	0	0	0	0	0	0	1414	0	0	0	0	0
								Subtotal	1414	0	0	0	0	0	0	0	1414	0	0	0	0	0
CIU	Knowledge Synthesis:Policy/FS	6 9310993	FM	77	82	PVC	TI,FE	WSS,WAT	1655	0	0	0	0	0	335	347	360	366	0	0	0	0
								Subtotal	1655	0	0	0	0	0	335	347	360	366	0	0	0	0
EE	Approp. Well Drilling Technol.	6 9310987	HE	78	78	PVC	TI	WAT	5	0	0	0	0	0	5	0	0	0	0	0	0	0
EE	Batterie Water Pumps	6 9310454	HE	68	76	PVC	RD, TI	WAT	118	0	0	0	0	0	0	0	0	0	0	0	0	0
EE	Level. & Test. Ebovalve	6 9310461	HE	77	77	PSC	RD, TI	WAT	32	0	0	0	0	32	0	0	0	0	0	0	0	0
EE	Develop. of Robometer	6 9310003	HE	77	77	UNC	TI, RD	WAT	40	0	0	0	0	40	0	0	0	0	0	0	0	0
EE	Develop. of Roboscreen	6 9310005	HE	79	79	UNC	TI, RD	WAT	40	0	0	0	0	40	0	0	0	0	0	0	0	0
EE	Evaluation & Util. of Handpump	6 9310079	HE	77	79	UNC	TI, RD, IO	WAT	247	0	0	0	0	181	0	66	0	0	0	0	0	0
EE	Internat. San. Eng. Program/HC	6 9310204	HE	63	75	UNC	HR	WAT, SST, EWH	1405	0	0	0	0	0	0	0	0	0	0	0	0	0
EE	Low Cost Meth. /Mir. Mst. Treat.	6 9310653	HE	73	75	UNC	TI, RD, HR	WSS, SST	265	66	121	0	0	0	0	0	0	0	0	0	0	0
EE	Manufacture of Robovalves	6 9310997	HE	79	79	UNC	TI	WAT	20	0	0	0	0	0	20	0	0	0	0	0	0	0
EE	Test. Predictive Sanit. Model	6 9310597	HE	79	80	UNC	RD, HR, TI	EWH, WSS	489	0	0	0	0	0	0	489	0	0	0	0	0	0
EE	Water & Sanitation for Health	6 9311176	HE	80	89	PVC	TI, HR, IO, HE	WAT, WSS, PWC	17000	0	0	0	0	0	0	0	0	2652	3179	2450	2100	2400
								Subtotal	19661	82	66	121	0	253	5	615	2652	3179	2450	2400	2400	2400
IF	Foodwaste and Sanitation	6 9310687	HE	71	78	UNC	RD, TI, HE	WAT, WSS, WAT	1815	0	0	0	0	0	0	0	0	0	0	0	0	0
IF	Improved Water Supply	6 9310592	HE	76	78	PAS	TI, RD	WAT, WUI	241	0	0	241	0	0	0	0	0	0	0	0	0	0
								Subtotal	2056	0	0	241	0	0	0	0	0	0	0	0	0	0
	Total							Total	26203	82	66	121	241	253	340	962	4426	3706	2450	2800	2800	2800

31

ANNEX 2

AVAILABILITY OF WATER SUPPLY AND SANITATION
IN DEVELOPING COUNTRIES

AFRICA: AID ASSISTED COUNTRIES

Country	GDP Per Capita in U.S. Dollars		Estimated Population Having Reasonable Access to Safe Water in 1975 (MIID)				Estimated Population Having Access to Sanitation Facilities in 1975 (MIIO)				Infant Mortality Per 1,000 Live Births		Population Per Physician		Adult Literacy (Percent)				
	1981	1980	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	1960	1981	1960		1980			
Benin	320	570	100	500	20	1,074	34	345	83	17	1	362	14	206	152	23,030	17,050	28	
Botswana	*	73	95	242	39	315	45	*	*	*	*	*	*	*	*	*	*	*	*
Burundi	230	*	*	*	*	*	*	94	96	*	*	*	*	150	120	96,570	45,000	25	
Cameroon	880	*	*	*	*	*	*	*	*	*	*	*	*	162	106	48,110	13,670	*	
Cape Verde	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
C.A.R.	320	*	*	*	*	*	2,250	100	750	100	3,000	100	195	146	49,610	27,050	33		
Chad	110	249	43	814	23	1,063	26	37	9	18	1	55	1	195	146	72,190	47,530	15	
Comoros	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Congo (Brazzaville)	1,110	444	81	74	9	518	38	54	10	70	9	124	9	171	127	16,100	5,510	*	
Djibouti	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Gabon	*	6	6	*	*	7	1	*	*	*	*	*	*	*	*	*	*	*	*
Gambia	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Ghana	400	2,428	86	973	14	3,401	35	2,769	95	2,780	40	5,459	56	143	101	21,600	7,530	*	
Guinea	300	613	69	16	-	629	14	451	70	60	2	511	13	208	163	26,900	16,630	20	

AFRICA: AID ASSISTED COUNTRIES

Country	GNP Per Capita in U.S. Dollars	Estimated Population Having Reasonable Access to Safe Water in 1975 (MILO)				Estimated Population Having Access to Sanitation Facilities in 1975 (MILO)				Infant Mortality Per 1,000 Live Births	Population Per Physician	Adult Literacy (Percent)						
		Urban 000's	Rural 000's	Total 000's	%	Urban 000's	Rural 000's	Total 000's	%									
Guinea-Bissau	*	*	*	*	*	*	*	*	*	*	*	*						
Ivory Coast	1,200	*	*	*	220	23	*	220	5	173	29,190	21,040	35					
Kenya	420	1,780	100	420	4	2,220	17	1,750	98	5,500	48	7,250	55	138	85	10,690	10,500	47
Lesotho	540	37	65	155	14	192	17	19	51	130	12	149	13	144	113	23,490	18,640	52
Liberia	520	*	*	*	*	*	*	121	100	100	9	221	19	194	152	12,600	9,610	25
Madagascar	330	1,121	76	950	14	2,071	25	*	585	9	*	109	69	109	8,900	10,170	50	
Malawi	200	*	*	*	*	*	*	*	*	*	*	207	169	207	32,250	40,950	25	
Mali	190	*	*	*	*	*	*	390	63	*	390	8	195	152	64,130	22,130	10	
Mauritania	460	*	*	*	*	*	*	88	100	*	88	7	185	141	40,420	14,350	17	
Mauritius	*	440	100	100	22	540	60	277	63	465	100	742	82	*	*	*	*	*
Niger	330	162	36	1,100	26	1,262	27	135	30	21	1	156	3	191	143	62,170	38,790	10
Rwanda	250	113	84	2,700	68	2,813	68	116	87	2,240	56	2,356	57	147	137	143,290	31,510	50
Senegal	430	714	56	*	*	*	*	*	*	*	*	*	182	145	24,940	13,800	10	
Seychelles	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

AFRICA: AID ASSISTED COUNTRIES

Country	GNP Per Capita in U.S. Dollars	Estimated Population Having Reasonable Access to Safe Water in 1975 (WHO)			Estimated Population Having Access to Sanitation Facilities in 1975 (WHO)			Infant Mortality Per 1,000 Live Births		Population Per Physician		Adult Literacy (Percent)						
		Urban 000's	Rural 000's	Total 000's	Urban 000's	Rural 000's	Total 000's	1960	1981	1960	1980							
Sierra Leone	320	*	*	*	*	*	*	234	205	20,420	18,280	15						
Somalia	280	*	6,945	43	9,332	50	*	175	145	36,570	14,290	60						
Sudan	380	2,387	96	*	*	*	*	168	122	33,420	8,800	32						
Swaziland	*	58	83	118	29	176	37	69	99	100	25	169	36	*				
Tanzania	280	600	88	5,085	36	5,685	39	600	88	1,940	14	2,540	17	152	101	18,220	17,560	79
Togo	380	152	49	203	10	355	16	116	36	230	12	346	15	182	107	47,060	18,100	18
Uganda	220	983	100	3,057	29	4,040	35	811	82	10,000	95	10,811	94	139	96	15,050	26,810	52
Upper Volta	240	256	50	1,300	23	1,556	25	242	47	9	-	251	4	252	208	81,650	48,510	5
Zaire	210	2,515	38	2,250	12	4,765	19	4,327	65	1,138	6	5,465	22	150	110	79,620	14,780	55
Zambia	600	1,632	86	500	16	2,132	42	1,652	87	513	16	2,165	42	151	104	9,540	7,670	44
Zimbabwe	870	*	*	*	*	*	*	*	*	*	*	*	*	118	72	4,790	6,580	69
Totals**	***	14,940	68	20,551	21	34,783	29	15,134	75	26,489	28	41,038	38	***	***	***	***	***

SOURCES: World Health Statistics Report: Water and Sanitation, Vol. 29, No. 10, 1976. WHO

World Development Report 1983, World Bank

* Data not available from above sources

** Includes some countries not listed above, i.e., Angola, Mozambique, and Nigeria

*** Aggregate data not available from sources shown

35

ASIA: AID ASSISTED COUNTRIES

Country	GMP Per Capita in U.S. Dollars 1981	Estimated Population Having Reasonable Access to Safe Water in 1975 (WHO)						Estimated Population Having Access to Sanitation Facilities in 1975 (WHO)						Infant Mortality Per 1,000 Live Births		Population Per Physician		Adult Literacy (Percent)	
		Urban		Rural		Total		Urban		Rural		Total		1960	1981	1960	1980	1980	
		000's	%	000's	%	000's	%	000's	%	000's	%	000's	%						
Bangladesh	140	2,002	22	43,350	61	45,352	56	3,805	40	112	*	3,917	5	159	135	*	10,940	26	
Burma	190	2,159	31	3,324	14	5,483	17	2,720	38	7,844	32	10,564	33	158	98		15,560	4,660	66
Fiji	*	202	89	200	56	402	69	226	100	331	93	557	96	*	*	*			*
India	260	107,000	80	86,000	18	193,000	31	116,500	87	8,700	2	125,200	20	165	121		4,850	3,640	36
Indonesia	530	9,510	41	4,825	4	14,335	11	14,429	60	5,635	5	20,064	15	150	105		46,780	11,530	62
Nepal	150	450	85	542	5	992	8	75	14	5	*	80	1	195	148		73,800	30,060	45
Pakistan	350	14,728	75	3,200	5	17,928	25	4,200	21	*	*	4,200	6	162	123		5,400	3,480	244
Philippines	790	13,545	82	9,031	31	22,576	50	12,425	76	12,797	44	25,222	56	106	53		6,940	7,970	75
Sri Lanka	300	1,447	36	1,477	13	2,924	19	2,737	68	6,269	55	9,006	59	71	43		4,490	7,170	85
Thailand	770	4,936	69	5,600	16	10,536	25	4,150	58	13,000	36	17,540	40	103	53		7,950	7,180	86
TOTALS**	***	156,259	59	157,549	19	313,808	27	161,267	51	54,693	19	215,960	35	***	***	***	***	***	***

SOURCES: World Health Statistics Report: Water and Sanitation, Vol. 29, No. 10, 1976. WHO

World Development Report 1983, World Bank

* Data not available from above sources

** Also includes Mongolia

*** Aggregate data not available from sources shown

LATIN AMERICAN & CARIBBEAN: AID ASSISTED COUNTRIES

Country	GNP Per Capita in U.S. Dollars 1981	Estimated Population Having Reasonable Access to Safe Water in 1975 (WHO)						Estimated Population Having Access to Sanitation Facilities in 1975 (WHO)						Infant Mortality Per 1,000 Live Births		Population Per Physician		Adult Literacy (Percent)
		Urban		Rural		Total		Urban		Rural		Total		1960	1981	1960	1980	1980
		000's	%	000's	%	000's	%	000's	%	000's	%	000's	%					
Barbados	*	112	100	134	100	246	100	112	100	134	100	246	100	*		*		*
Bolivia	600	1,667	81	190	6	1,604	33	433	25	127	4	560	12	167	129	3,830	1,850	63
Costa Rica	1,430	747	100	712	56	1,459	72	702	94	1,184	93	1,886	93	83	27	2,700	1,470	90
Dominican Republic	1,260	1,874	88	699	27	2,573	55	1,567	74	420	16	1,987	42	119	66	8,220	4,020	67
Ecuador	1,180	2,128	67	289	8	2,417	36	*		254	7			140	80	2,670	1,620	81
El Salvador	650	1,505	89	699	28	2,204	53	1,192	71	416	17	1,608	39	136	75	5,260	3,040	62
Guatemala	1,140	1,836	85	535	14	2,371	39	*		642	16	*		92	66	4,420	8,600	*
Guyana	*	270	100	400	75	670	84	268	99	500	94	768	96	*		*		*
Haiti	300	445	46	112	3	557	12	*		43	1	*		182	112	9,230	8,200	23
Honduras	600	891	99	248	13	1,139	41	473	53	245	13	718	26	145	86	12,620	3,120	60
Jamaica	1,180	618	100	1,131	79	1,749	86	618	100	1,300	91	1,918	94	52	16	2,590	2,830	90
Nicaragua	860	1,136	100	172	14	1,308	56	*		295	24	*		144	88	2,690	1,800	90
Panama	1,190	843	100	454	54	1,293	77	664	78	634	76	1,298	77	68	21	2,730	980	85

LATIN AMERICAN & CARIBBEAN: AID ASSISTED COUNTRIES

Country	GNP Per Capita in U.S. Dollars		Estimated Population Having Reasonable Access to Safe Water in 1975 (WHO)				Estimated Population Having Access to Sanitation Facilities in 1975 (WHO)				Infant Mortality Per 1,000 Live Births		Population Per Physician		Adult Literacy (Percent)				
	1981	1980	Urban 000's	Rural 000's	Total 000's	Urban %	Rural %	Total %	Urban 000's	Rural 000's	Total 000's	1960	1981	1960	1980	1980			
Paraguay	1,630		248	25	92	5	340	13	280	28	*	280	10	86	46	1,810	1,710	84	
Peru	1,170		6,361	72	1,000	15	7,361	47	3,800	52	1,000	16	4,800	36	163	85	1,910	1,390	80
TOTALS**	***		146,715	81	23,722	32	107,125	58	47,943	80	15,898	25	53,637	63	***	***	***	***	***

SOURCES: World Health Statistics Report: Water and Sanitation, Vol. 29, No. 10, 1976. WHO
World Development Report 1983, World Bank

* Data not available from above sources

** Includes some countries not listed above, i.e., Argentina, Bahamas, Brazil, Chile, Colombia, Cuba, Grenada, Mexico, Trinidad and Tobago, Uruguay, and Venezuela

*** Aggregate data not available from sources shown

NEAR EAST: AID ASSISTED COUNTRIES

Country	GNP Per Capita in U.S. Dollars 1981	Estimated Population Having Reasonable Access to Safe Water in 1975 (WHO)						Estimated Population Having Access to Sanitation Facilities in 1975 (WHO)						Infant Mortality Per 1,000 Live Births		Population Per Physician		Adult Literacy (Percent)
		Urban 000's	%	Rural 000's	%	Total 000's	%	Urban 000's	%	Rural 000's	%	Total 000's	%	1960	1981	1960	1980	1980
Egypt	650	*		*		*		*		*		*	128	110	2,550	970	44	
Jordan	1,620	*		*		*		*		*		*	47	62	5,800	1,890	70	
Lebanon		*		*		*		*		*		*	68	40	1,210	530	*	
Morocco	860	*		*		*		*		*		*	161	104	9,410	11,200	28	
Oman		70	100	450	48	520	52	70	100	50	5	120	12	*	*	*	*	
Portugal	2,520	*		*		*		*		*		*	82	26	1,250	540	78	
Tunisia	1,420	2,554	93	*		*	2,235	100	1,005	34	3,240	52	159	88	10,030	3,690	62	
Yemen Arab Republic	460	*		*		*		*		*		*	212	190	130,090	11,670	21	
TOTALS**	***	46,272	80	23,955	16	67,673	74	34,304	63	20,515	14	54,819	27	***		***		***

SOURCES: World Health Statistics Report: Water and Sanitation, Vol. 29, No. 10, 1976. WHO

World Development Report 1983, World Bank

* Data not available from above sources

** Includes some countries not listed above, i.e., Afghanistan, Cyprus, Ethiopia, Iran, Iraq, Kuwait, Libyan Arab Republic, Pakistan, Qatar, Saudi Arabia, and Syrian Arab Republic

*** Aggregate data not available from sources shown

ANNEX 3

Excerpts from WASH EVALUATION

The WASH project was recently evaluated by a six-member (4 external, 2 internal) "Board" chaired by Ambassador John W. McDonald. The evaluation report, dated August 11, 1983, supports the WASH concept, AID's need for the project, and implementation of the project by both S&T/H/WS and the current contractor. The following excerpted comments are indicative:

"The Board concluded the the WASH project is doing an extremely effective job, especially in providing quality technical assistance to Third World countries in a timely manner", and "The Project should be continued without interruption in Service throughout the Decade". (The UN International Drinking Water and Sanitation Decade). (from "Executive Summary").

"The Evaluation Board finds this task management system to be effective and innovative. In addition, the Coordination and Information Center set up by the Contractor appears to be well managed and organized." (p. 9)

In the course of the evaluation, AID Missions were asked...how they rated WASH services. The WASH Project received very high marks in this survey. All responding Missions rated WASH services they had used as at least "completely satisfactory," while the majority of the Missions called them "superior" or "outstanding." The majority of respondents also said that WASH services should be expanded. Similarly, host government and AID officials that the Evaluation Board interviewed in Egypt, Sudan, Jordan, Dominican Republic, Honduras, Ecuador, and Panama generally complimented the WASH Project." (pp. 15-16)

"The Board finds the training program designed and implemented by the WASH contractor to be excellent." (p. 21)

"...the activities of the clearinghouse are highly regarded. AID Mission and Washington personnel are major users of clearinghouse services, along with developing countries..." (pp. 22-23)

"The Board reviewed a representation sample of these (WASH) reports and found them generally to be impressive and to be held in high regard by experts outside of AID." (p. 23)

The Evaluation Board's Report presents numerous specific examples of WASH's utility to AID, further, many of the Board's recommendations for changes in the project are excellent. Some have already been implemented and others will be incorporated during the next contracting cycle. A copy of the 50-page Report of Evaluation of the Water and Sanitation for Health Project on request.

ANNEX 4

Types of Services Under WASH II

The Contractor could expect the following types of services requested during the WASH project involving four general headings of services with specific anticipated types of services specified. The listing is not intended to be comprehensive but rather to be illustrative of types of services envisioned under the project. Any discrete scope of work as a result of a request from within the Agency could involve anything from a few work days to many man-months effort over an 8-12 month period.

Category I - General Water Supply and Sanitation Technical Assistance Services

1. Project identification in host countries
2. Project planning in host countries
3. Subsector studies and plans
4. Provision of specialized project design
5. Provision of evaluation services
6. Development of generic evaluation methodologies.
7. Data collection, syntheses, analyse, and evaluations.
8. Provision of special technical or management studies to support proposed or ongoing projects.
9. Provision of trouble-shooting services.
10. Assistance to Regional Bureaus, PPC, and others for strategy and policy development in the subsector.
11. Provision of infrastructure and institutional development planning in the substructure.
12. Public information services on request.
13. Design and execution of small field pilots for Missions.
14. Assistance to A.I.D. in analysis of research proposals in the sector.

15. Collaborative national, regional or international planning and programming with LDC's and other donors (multi-lateral or bilateral).

Category II - Technology Transfer in Water Supply and Sanitation

1. Provision of assessment and evaluation services.
2. Analyses of private sector role.
3. Design and execution of small pilot technical assistance activities in host countries at request (or with endorsement) of Missions.
4. Development of protocol designs or methodologies for field and laboratory development or testing of water supply and sanitation technologies .
5. Development of strategies for improving technology and technology transfer activities in either specific country situations or for the Agency in general.

Category III - Information Clearinghouse Services for Water Supply and Sanitation

1. Provision of technical, programmatic, "lessons learned", and other subsector information; provision of searching, collection, syntheses, reproduction, and dissemination services to Missions, Bureaus or others requesting special subsector information; and backstopping of WASH Center and of S&T/H/WS operating activities.
2. Provision of coordination and information service to interface with U.N. and other bilateral donor systems in water supply and sanitation.

Category IV - Human Resources Development

1. Training of managers of training and of trainers of trainers for water supply and sanitation subsector.
2. Provision of technical expertise to support A.I.D. field activities
3. Short term technical training of water supply and sanitation staff of A.I.D., host countries, Peace Corps, PVOs, consultants, et al.

4. Development of "generic" training modules and packages for multiple use.
5. Development of human resources development components of institutional development projects in the subsector.
6. Development of operations and maintenance capacity in host countries.

ANNEX 5

Key Personnel

General

All key personnel proposed by the contractor are subject to approval by A.I.D. Key personnel should have LDC experience in water supply and sanitation in rural and urban settings. Fluency in foreign languages--Spanish, French, Arabic, Portuguese, Swahili, et al. is desirable. Key personnel should also be able and prepared for temporary duty under hardship conditions. Writing ability highly desirable. Experience and competence in institutional development and management in water and sanitation, including large systems, should be represented in the mix of personnel proposed.

Project Director

Should combine broad environmental engineering experience and recognized competence with proven management ability, both technical and administrative, and ability to work with "clients".

Deputy Director

Similar to the Director, preferably with complementary experience, not necessarily engineering. Day to day technical manager.

Officer Manager

Counterpart of Deputy Director for all supporting, administrative activities in the Operations Center. Must be competent in contract management and in accounting. Foreign experience useful but not critical.

Associate Director for Engineering and Technology

Environmental engineer with strength in economics and with ability to work across disciplines as diverse as marketing and tribology. Will manage predominately engineering and technology transfer tasks. Field experience highly desirable. Groundwater development a plus.

Associate Director for Human Resources Development

At least 4 years of experience as an HRD manager in international development programs, preferably long-term assignments in the water and sanitation sector. Direct, personal experience needed in design and delivery of workshops, development of training materials and job aids, HRD needs

assessment, training system development, job description/task analysis, and project design and evaluation. Foreign language ability mandatory. Competence in institutional analysis and development desirable. Will manage HRD tasks.

Associate Director for Information Services

Experience required in developing and managing technical information services. Writing ability mandatory. Knowledge of water and sanitation sector desirable as is knowledge of information systems of A.I.D., World Bank, WHO, EPA, et al. Will manage information services.

Associate Director for Environmental Health

Requires broad expertise and background in public health in LDCs including strong working knowledge of environmental sanitation, health education, vector control, diarrheal disease control, and epidemiology. Field experience in project implementation and fluency in foreign language(s) required.

Operation and Maintenance Specialist

Must have broad, varied, "hands-on" experience in operation and maintenance under difficult conditions and with limited resources, experience in trouble-shooting, development of maintenance plans, and HRD and institutional development of effective maintenance, technical background, e.g., mechanical engineering desirable.

Librarian

Graduate librarian, experienced in developing and operating working technical libraries. Ability to translate French or Spanish useful.

ANNEX 6

Special Conditions

In addition to the standard provisions of A.I.D. contracts, the contractor shall satisfy the following requirements:

1. To enable the contract core staff to work closely with A.I.D. personnel and files, the contractor shall be located near A.I.D.
2. The contractor must be able to respond promptly to field requests for technical assistance by mobilizing the appropriate resources.
3. All domestic and international travel supported under this project shall be cleared in advance by the Project Manager. Travel to A.I.D.-assisted countries shall also be cleared in advance by the relevant Regional Bureau and U.S.A.I.D. Office or Mission.
4. Copies/transcripts of all correspondence, written or verbal, pertaining to substantive project matters between the contractor and persons or institutions in the U.S. or other countries shall be forwarded to the project manager on a current, regular basis.
5. When specialized services/commodities in support of Project activities are required, but are not available within the Contractor's organization, they may be procured elsewhere, in accordance with standard guidelines and procedures and subject to the written approval of the S&T/H/WS Project Manager.
6. The contractor shall be authorized to enter into sub-contracts with U.S. and LDC organizations and consultants when within the scope of work and in accordance with the review and approval procedures described in the General Provisions of the contract.
7. The contractor shall be prepared to work collaboratively, when appropriate, with other U.S. Government agencies (e.g., the Peace Corps) and international agencies (WHO, World Bank, et al.) when requested by the Project Manager for a coordinated country assistance effort.

8. The contractor shall acquire or possess a microcomputer and modem compatible with existing A.I.D. microcomputers for storage and retrieval of project related data. Note: This item may be made available by A.I.D.
9. The contractor shall segregate A.I.D. all project development work from other, non-WASH activities, in the contractor's and sub-contractor's organizations.
10. All key personnel must meet security requirements necessary to qualify for building passes to State Department Buildings.
11. All key personnel, at the time of appointment, must physically qualify for field work under hardship conditions.

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project:
From FY 84 to FY 89
Total U.S. Funding: \$19,700,000
Date Prepared: 4/23/81

Project Title & Number: Water and Sanitation for Health II (WASH II) 931-1176

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program or Sector Goal: The broader objective to which this project contributes:</p> <p>Program Goal: Better health, productivity, and quality of life for populations, especially children and women, of IDCs.</p> <p>Sector goal: Increased availability and use of safe, adequate, reliable, and cost-effective water supply and sanitation in AID-assisted countries.</p>	<p>Measures of Goal Achievement: Increased numbers of people in IDCs who have access to adequate water supply and sanitation facilities. General improvement in health and well being.</p>	<p>Statistics compiled by host countries, USAIDs, WIO, and other development organizations. End of project reports by USAIDs.</p>	<p>Assumptions for achieving goal targets: WSGS will continue to be given priority by USAIDs, IJC governments, other donors/leaders, IVOs, NGOs, et al. and will be supported by complementary programs (e.g., health education).</p>
<p>Project Purpose: In conjunction with USAID-assisted/financed IDC projects, to establish (or improve) effective, replicative, self-sustaining water supply and sanitation systems in some 50 countries during the life of the project.</p>	<p>Conditions that will indicate purpose has been achieved: End of project status. IDCs and USAIDs will have effectively implemented WASH-assisted programs and projects. Viable, permanent facilities will be in place, in order, and in use. Trained operational cadres and appropriate technologies in use and spreading.</p>	<p>Changes observed by local and WIO sector studies, continuing, replicative indigenous activities, review of Mission records. Spot inspection during WASH II evaluation.</p>	<p>Assumptions for achieving purpose: Funds will be available (from AID or elsewhere) to carry out WSGS activities in IDCs. Technical project management available and effective. Field requests forthcoming. Populations will use new/improved facilities. Adequate post project O&M and financial support.</p>
<p>Outputs: Water supply and sanitation institutions, facilities, technologies, and personnel in-place, and operating in a systematic manner on a short term basis:</p>	<p>Magnitudes of Outputs: Improved water and sanitation projects or components of projects (housing, multipurpose development, et al.) in some 50 countries; 10-20 "generic training packages" developed, several new technologies introduced, technical assistance backstopping in support of over one billion dollars of water and sanitation investments.</p>	<p>USAID field monitoring and evaluation, AID/W records, host government records, WIO/DEH records and surveys, selected field evaluations.</p>	<p>Assumptions for achieving outputs: Operation water supply facilities will become "institutionalized" and self-sustaining after two or three years.</p>
<p>Inputs: 1. Technical Assistance: a. Direct hire (SET/II/As) b. Contractor staff/consultants c. Information services 2. Participants: a. Short term training, IDCs b. U.S. Training-conferences 3. Commodities a. Technology pilots/demonstrations b. Training materials 4. Other a. Travel b. Project Facilities</p>	<p>Implementation Target (Type and Quantity) 1330 person-months for 500+ technical assistance activities in some 50 countries, 565 person-months of staff support; 25,000 documents, plus necessary travel and other costs, IOP Budget estimated at \$19,700,000 (see Table 3 for breakdown).</p>	<p>Contractor, M/SET/COM/PE, and staff records; financial audits; annual project review by project committee (including SET/PO); and scheduled mid-project and EOP external evaluations.</p>	<p>Assumptions for providing inputs: Continuing budgetary support by SET/II and others. Effective AID management. Satisfactory contractor performance.</p>