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UNCLASSIFIED

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DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

PROJECT ASSISTANCE PAPER

YEMEN: WATER RESOURCES PLANNING AND MANAGEMENT

279-0043

UNCLASSIFIED

(1)

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT PAPER FACESHEET

1. TRANSACTION CODE

C A ADD
C CHANGE
D DELETE

PP

2. DOCUMENT CODE
3

3. COUNTRY ENTITY

YEMEN ARAB REPUBLIC

4. DOCUMENT REVISION NUMBER

5. PROJECT NUMBER (7 digits)

279-0043

6. BUREAU/OFFICE

A. SYMBOL

NE

B. CODE

03

7. PROJECT TITLE (Maximum 10 characters)

Water Resources Planning and Management

8. ESTIMATED FY OF PROJECT COMPLETION

FY 83

9. ESTIMATED DATE OF OBLIGATION

A. INITIAL FY

79

B. QUARTER

2

C. FINAL FY

83

(Enter 1, 2, 3 or 4)

10. ESTIMATED COSTS (\$000 OR EQUIVALENT \$) -

A. FUNDING SOURCE	FIRST FY 79			LIFE OF PROJECT		
	B. FY	C. LC	D. TOTAL	E. FY	F. LC	G. TOTAL
AID APPROPRIATED TOTAL						
GRANT	1,159	531	1,690	2,552	582	3,134
LOAN						
OTHER						
U.S.						
HOST COUNTRY		238	238		2,208	2,208
OTHER DONOR(S)						
TOTALS	1,159	769	1,928	2,552	2,790	5,342

11. PROPOSED BUDGET APPROPRIATED FUNDS \$000:

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. 1ST FY 79		H. 2ND FY 80		K. 3RD FY 81	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(1) PH	750	870		1,690				1,444	
(2)									
(3)									
(4)									
TOTALS				1,690				1,444	

A. APPROPRIATION	N. 4TH FY 82		O. 5TH FY 83		LIFE OF PROJECT		12. IN-DEPTH EVAL. SCHEDULED
	P. GRANT	Q. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN	
(1)					3,134		
(2)							
(3)							
(4)							
TOTALS					3,134		

MM 017 YY 81

13. DATA CHANGE INDICATOR. WERE CHANGES MADE IN THE PID FACESHEET DATA FACESHEET DATA, BLOCK 12? IF YES, ATTACH CHANGED PID FACESHEET.

PRP

1 YES
2 NO

No PID was required per State (76) 283385

14. ORIGINATING OFFICE CLEARANCE

SIGNATURE

R. Huetteman

TITLE

Director, USAID/Yemen

DATE SIGNED

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YEMEN - Water Resources Planning and Management

Summary and Recommendations

Grantee: Government of Yemen Arab Republic

Total Life-of-Project-Costs: \$5,342,000

Grant Amount: Not to exceed \$3,134

Project Description: The Grant will finance short and long term U.S. technical assistance, commodities, and participant training to assist the Yemen Oil and Mineral Corporation (YOMINCO) establish a Department of Hydrology (DOH) capable of collecting, analyzing, utilizing storing and disseminating hydrological information.

Other Sources of Financing : No other donor has indicated an interest in financing this project.

Statutory Checklist: All statutory criteria have been met.

Issues : See p. 5 of the Project Paper.

Recommendation : Authorization of a grant in the amount of \$3,134,000 is recommended.

PART I - SUMMARY

A. Description of the Project

1. Project Purpose:

The project is intended to contribute toward the Yemen Government's (YARG) goal of efficient use of water in support of human, agricultural and industrial programs and needs.

The more immediate project purpose is the institutionalization within the Government of the Yemen Arab Republic of a Department of Hydrology which is capable of collating, utilizing, storing and disseminating hydrological information supportive of the country's development priorities.

By the end of the project the following key objectives in support of institutionalization will have occurred:

- a. An equipped building to house the Department of Hydrology (DOH).
- b. Within the DOH four fully staffed and functioning Branches - consisting of 1) groundwater, 2) surface water, 3) water quality, and 4) data collection.
- c. Creation of an interministerial organization charged with formulating policy within the Water Sector.

2. Project Scope:

The project will provide the following grant assistance totaling \$3,134,000 to the Yemen Oil and Mineral Corporation (YOMINCO) from U.S. FY 79 through FY 83:

A. U.S. technical services of 143 person months to comprise the following:

1) USGS hydrologist/Project Manager (51 pm) who will function as Project Manager and Advisor to the Director General of YOMINCO:

2) Supervisory hydrologist (51 pm) who will function as overall supervisor to the ground, surface and water quality branches and conduct on the job training under the direction of the Project Manager.

3) Short term TDY services (41 pm) in water quality analysis, surface water hydrology, sedimentology, electric logging, geophysics, satellite interpretation.

B. A total of 258 person months of long and short term training in both the U.S.A. and third countries to consist of the following:

L-T academic - 48 training months

S-T - 210 training months

C. Commodities consisting primarily of field and lab support equipment such as: water quality testing, well logging, surface water measurement, vehicle, data reproduction and filing and field geological survey equipment.

Supportive to all of the above will be certain funds set aside annually for operational expenses. Specifically, a project operating fund, originally established under the preceding (0025) activity will provide for the advance of funds to YOMINCO for support of agreed upon project related activities.

USAID assistance for operations and local staff support will be phased out as of June 30, 1980, which is the start of the YARE FY 81.

3.

The YARG will contribute through the project counterpart agency (YOMINCO) the following over life of project:

1) Construction of a water laboratory and offices to house a Department of Hydrology.

2) Total local personnel staff costs starting July 1, 1980 to June 30, 1983 (LOP).

3) Vehicles and equipment.

4) All reports, maps and serial photographs required. The YARG contribution of direct project costs will be \$2,208,000 or 41 percent of the total project cost of U.S. \$5,342,000.

3. Assumptions:

It is expected that the combined USAID-YARG contribution will lead to successful attainment of the project objectives provided that:

- a. YOMINCO retains its professional staff
- b. YOMINCO is able to recruit staff and potential USAID-funded participants in a timely manner.
- c. YOMINCO has funds to support the project and construct the facilities for the DOH and does so in a timely manner.
- d. Political, legislative support to the DOH and Water Resources Council is forthcoming.

At present, the above represent assumptions critical to project implementation. The project is so designed, however, that the majority of these requirements will be addressed under the present Project 0025 (Water Survey of North Yemen) extension. For example, prior to project start-up Mission evaluation under 0025 will gauge the degree of YOMINCO's progress/success toward satisfying the above conditions. Project initiation will be predicated upon the results of the evaluation.

The YARG and YOMINCO have given every indication of being able to fulfill their obligations as follows:

- a. The YARG successfully removed a previous obstacle to this project; that is, the placement of the prospective DOH within a viable/appropriate governmental entity (YOMINCO).
- b. The YARG has given YOMINCO the quasi-governmental status that provides for salary scales which are commensurate with employee skills/education and are competitive with the private sector and, hence, minimizing recruitment/retention problems.
- c. YOMINCO's budget clearly allocates funds for construction of a modern facility/lab which could adequately house a DOH.
- d. YOMINCO has accepted project operational responsibilities as specified in Project 0025 Agreement 78-6.

4. Issues:

The major issue that could perhaps effect the realization of the project's goal is the YARG's lack of a clear governmental policy in this area. The AID-financed Water Sector Study (7/77) addressed this issue. Based on the findings of the study, it is intended that this project will serve as a vehicle for stimulating and speeding the formation/institutionalization of an Interministerial Water Resources Council. The designation of YOMINCO as the entity charged with evolving a governmental role in the Water Sector is seen as a very positive step in this direction.

A minor issue, yet one that could eventually affect project objectives, is YOMINCO's interest and ability to properly support the DOH in the face of other commitments/priorities to oil and mineral exploration. YOMINCO has indicated there will be no conflicts, however. Obviously, progress toward realizing a YARG water resources council sector policy would ensure the DOH of a proper sphere of influence within YOMINCO. Furthermore, annual evaluation and project phase funding will serve as the means for insuring that YOMINCO provides adequate support for the DOH.

PART II BACKGROUND

A. Background

Yemen has considerable climatic variety, ranging from the hot and humid coastal plain, (40°- 50° C) bordering the Red Sea in the west to the cool, drier highlands (0-35° C) and the hot, dry eastern desert area. Precipitation is sparse over most of the country, varying from 100 mm in the North to 1500 mm along the western slopes. Most of the rainfall is absorbed in upstream reaches of wadis (water courses) in the intricate system of terraces and irrigation diversion channels. There are very few perennial streams in Yemen although some excellent ground water aquifers underlie parts of the country. However, as a whole, the majority of aquifers appear to have limited recharge potential or are too deep to economically develop.

Of even greater significance is the erratic rainfall occurrence which has been particularly disruptive to agriculture production over the past decade. Given the financial means, individual responses to the above have been an ever increasing reliance upon ground water for pump irrigation. While production has oftentimes increased in some areas, in others water and soil imbalances have led to increased salinity and decreased production. A further concern is the rapidly expanding demand for water for human and industrial consumption. Water for agricultural purposes has suffered and perhaps the availability of water for the country will be depleted seriously if unrestrained drilling continues.

The above depicts the water sector milieu as it exists in Yemen today. The basic theme is that water remains the most critical resource in Yemen's development plans. Basic human needs as well as agro and industrial production depend everywhere upon water and in Yemen the relationship is extremely precarious. Hence, Yemen's future development is largely tied to a sound understanding of both its key resources, water and soil. However, while general information is available, none of it is of sufficient reliability to develop a systematic plan for long-term economic development. Data on rainfall, run-off, stream flow and underground water use is unavailable or, if so, too sketchy to be of practical use.

3. Priority and Relevance

1. Country Development Strategy

This project is in direct support of one of USAID/Yemen's country development goals and in indirect support of others; namely, Project 0043, will be in direct support of the Mission's country development strategy to increase and restore the productivity of natural resources.

Per the CDSS, this project and the Land Classification and Soil Survey Project (0042) are seen as the means for obtaining the necessary inventory and analysis of Yemen's soil and water resources. This, in turn, is expected to yield information on the resource base and lead to more appropriate use of technology in the benefit of small farm production and over-all national growth.

Indirectly, the project will positively influence other CDSS objectives, that is...

"providing equitable and expanded access to economic opportunities and fullest possible use of resulting resources to fulfill basic human needs", and
 "development of the policy making capacity and expansion of capability to plan and manage an accelerated flow of foreign and domestic resources into areas having impact on basic human needs."

It is certain that in the case of the latter, this project will create the institutional means for positively effecting foreign and domestic investment in the most scarce and crucial national resource...water. Concomitantly, an improved understanding regarding this resource should be conducive to its utilization in the best interest of basic human needs.

2. Project Specific:

When AID resumed its activities in Yemen in 1973, of the first priority needs of the country was to develop water supplies for domestic use, agriculture and industry. Water was recognized as the ingredient to the developmental efforts of this arid country. Accordingly, the Rural Water Supply (022) and the Water and Mineral Survey of North Yemen (0025) Projects were initiated by AID to address some of the water related problems. The former project was specifically geared to supplying increased quantities of water for rural consumption.

8.

The second, and the predecessor to this activity, was designed to provide...

a) a broad geologic base in the form of 1:500,000 LANDSAT geologic maps with interpretation,

b) detailed survey and analysis of the Amran and Sana Basins with respect to water quantity,

c) the institutionalization within the YARG of the capability to conduct basic water measuring activities.

The first two objectives will soon be realized under the present Project 0025 extension. The third goal, however, has proved elusive due to the then-designated counterpart agency's (the Ministry of KAggriculture) lack of sufficient funds, staff or commitment for a long-term effort in this area. Although some progress was made, it became increasingly clear that realization of the project objective was predicated upon selecting a more appropriate government entity. In response to a mounting volume of data being collected by donors without proper storage or utilization, increasing duplication of work already done by others, and the likelihood that people already provided training under 0025 would be lost, the USAID approached the Central Planning Organization (CPC) in June 1978, with the offer to continue assistance in support of a Department of Hydrology provided that the Yemen Government would designate an appropriate parent organization to house it. Such a strategy was given further support by an AID Water Sector Study. It recommended that an entity responsible for water collection, analysis and information distribution was essential to forming the basis for efficient water use in Yemen.

With the designation of YOMINCO as the parent organization, USAID considered it appropriate to extend Project 0025 for a one year period (April 78 to March 79) and to start the development of an effective DOH by: (1) improving the availability and use of existing and future data through the development of a central repository for all water data; (2) providing a permanent organization, staffed by trained people, to assist the YARG in assuring that the Yemen's limited water resources are effectively conserved and utilized in development of the country; and (3) providing a focal point where specialized hydrological equipment from foreign aid projects will be reserved and made available for continuing professional use. This emphasis on the institution building during the Project 0025 extension has laid the groundwork for the project proposed herein.

C. YARG and Other Donor Coordination

The YARG through YOMINCO is to establish an Interministerial Council, titled Water Resources Council. Membership is to consist of Ministry of Public Works, National Water and Sewerage Authority, Ministry of Agriculture, C.P.O., Ministry of Health, Confederation of Yemen Development Associations, Civil Aviation Authority and YOMINCO representatives. The purpose of the Council is to collaborate on Water Policy in terms of allocation, data collection and interpretation.

Other than specific Wadi irrigation and water investigation by other donors, the UNDP under a U.N. World Meteorological Organization project, is currently providing technical assistance (3-man team) in the collection and interpretation of weather data for the Civil Aviation Authority. It is proposed that this project will obtain data from the WMO Project in support of DCH data collection operations. Other than the above, no other direct donor involvement is related to this project.

D. Detailed Project Description

1. A requisite for attaining the project goal...to promote efficient use of water in support of YARG's development programs in the Agricultural, Industrial and Health Sectors...is an effectively operating Department of Hydrology and eventually a Water Resources Council.

Achieving the project purpose will insure that all relevant data on water, concerning ground, surface and quality, will be available for use in arriving at rational decisions with respect to its allocation. Key assumptions in goal achievement are that the YARG will be sufficiently impressed with the DCH operations and that data accumulated by the DCH is easily obtained and used by all government entities involved in water and land development efforts. To insure that the latter occurs, short term technical assistance will be provided to assist in the establishment of a storage-distribution/user system.

2. The project purpose...to institutionalize within the YARG a Department of Hydrology, which is capable of collecting, analyzing, utilizing, storing and disseminating hydrological information in support of country development priorities...will be achieved when...

10.

a. The DOH (or a Water Resource Council) is officially recognized as the authority on Water Resource Development and adequate budget is provided to maintain/expand DOH operations under the second Yemen Five Year Plan;

b. All water related research in the Yemen is being assimilated within the DOH and analysis, recommendations actively distributed among public and private sector entities concerned;

c. The DOH is capable of providing data on flood frequencies, drought, location and extent of water bearing aquifers, precipitation, etc;

3. Realization of the project purpose will be dependent upon timely achievement of the following outputs:

a. Four* fully staffed and functioning sections within the DOH addressing ground, surface, water quality and data analysis/dissemination;

b. A constructed and equipped facility for the DOH.

Details regarding the project's proposed outputs follow:

4. An operational Department of Hydrology (DCH) has been established within the Yemen Oil and Mineral Corporation with the extension of the AID financed Project 0025, Water Survey of North Yemen (see Annex 8).

Project 0043 represents a continuation of this initial step with the major focus now being institutional development and the expansion of DOH responsibilities in YARG Water Sector Development.

The first two years (or Phase I) of this project will concentrate on organizational structure, personnel training and establishing areas of responsibilities related to verall water sector development in Yemen.

Specifically, the first phase (April 1979-July 1981) will focus on establishing a functioning institution that will have sufficient budget and staff to carry out the following in a limited manner:

a. analyze and disseminate existing data,

b. monitor other donor collection activities,

c. initiate collection of data in priority areas

* the administrative section (the 5th) is not essential, although desirable

Water Quality Branch (1 degree holder)

- | | |
|----------------------------|---|
| (d) 1-Chemist/Branch Chief | In 12 month STT |
| 2-laboratory technicians | 1 received 9 month third country training |
| 1-helper/assistant | OJT |

Data Collection Branch (1 degree holder)

- | | |
|-----------------------|--------------------------|
| (d) 1-Librarian/Chief | In 12 month STT |
| 2- Library Assistants | One received 9 month STT |
| 1- Clerk | OJT |

Administrative Branch (2 degree holders)

- | | |
|------------------------------|-----------------------|
| (d) 1 - Administrative Chief | Received 9 months STT |
| 1 - Financial Ass't. | Training in Phase II |
| (d) 1 - Economist/Legal | Training in Phase II |
| 1 - Translator/Interpreter | OJT |
| 4 - Secretaries | OJT |
| 1 - Mechanic | OJT |

It is planned by the end of Phase I (6/81) the DOH will be staffed with:

A) Eleven degree holders of which five (5) will be in out-country training.

B) Sixteen (16) semi-professional technicians of which six (6) will have received STT and be on-site with the project, and ten (10) will be in STT or scheduled for Phase II STT.

C) Twelve (12) clerks, typists, drivers and administrative support personnel receiving OJT.

Project 0043 will start (4/79) with a carry-over from Project 0025 of:

- A) 5 - degree holders
- B) 3 - semi-professional technicians
- C) 6 - clerk, typists, drivers and administrative support personnel.

DOH staff requirement start Phase I (4/79):

	<u>Degree Holders</u>	<u>Semi-professional Technicians</u>	<u>Support Personnel</u>
DOH planned staff	11	16	12
Carry-over Project 0025	<u>5</u>	<u>3</u>	<u>6</u>
Net requirement to 6/81	6	13	6

During Phase II from 7/81 to 6/83 the project will fund completion of short term and degree training for the above planned staff.

Taking into account possible resignations/attrition, this document provides for an increase of approximately 20% of positions considered necessary to operate the DOH at minimum operating level. Transfer of other qualified YOMINCO staff to the DOH will also be utilized. This source, plus the summer training program of geologists from Sana University, is expected to provide the full complement of staff that the DOH will require for meeting project objectives during life of project.

Phase II staffing requirements will only be adjusted to meet changing conditions of the DOH operations. The end of Phase I project evaluation will focus on this possibility and the project modified to meet any new requirements.

The end of Phase II will attain the following:

A DOH organization consisting of:

1. DOH Director Degree and STT
- Ground Water Branch
2. Chief Hydrogeologist Advanced degree
3. Geologist BS degree and STT
4. 6 geologist technicians STT
5. 1 geophysist STT
- Surface Water Branch
6. Chief hydrologist Advanced degree
7. Hydraulic engineer Degree with STT
8. Hydrologist Degree with STT
9. 5 technicians STT
- Water Quality Branch
10. Chemist Chief Degree with STT
11. 2 technicians STT
- Data Collection Branch
12. Librarian Chief Degree with STT
13. 2 Assistants STT
- Administrative Branch
14. Administrative Chief Degree with STT
15. Financial Assistant STT
16. Economist/Legal Degree with STT

The total Professional and Semi-Professional staff will be 27.

Organizationally, each section will be responsible for the following:

13.

Ground	familiar with the geology of the country, able to assimilate and assess data on underground water quantity via well and spring inventories, monitoring of well nets, "down the hole geophysics", seismic and resistivity surveys
Surface	capable of assimilating and assessing data on stream flow, sediment transport characteristics, irrigation potential
Water Quality	equipped to undertake standard analyses of ground and surface water from samples taken in the field by ground and surface water branches

Data Collection

The Branch will continue activities initiated under Project 0025 extension, i.e., collection and information dissemination of hydrological and geological studies undertaken by other YARG agencies and donors, including data collected within the DOH. The Branch under Phase I will coordinate data review and analysis within the DOH.

5. Outputs will be realized pending timely provision of the following USG inputs:

a. Technical assistance will consist of:

1) a project manager/hydrologist who will under the general direction of the YOMINCO Director General for Water and Geology Technical Survey:

a) advise on water policy and assist in establishing the legal framework for control of water use and collection of hydrological data in the YAR;

b) manage, control and implement 0043 with the expressed purpose of organizing and developing a Department of Hydrology;

c) train and instruct YOMINCO and project assigned staff in the operation of a DOH;

d) organize, train and administer personnel in hydrological techniques;

14.

e) continue existing monitoring programs and expand monitoring programs for ground and surface water measurements. To assist in map interpretation, remote sensing techniques and empirical techniques of water balance in semi-arid climates;

f) supervise and carry-out administrative requirements for project implementation;

g) advise all concerned organizations, as directed by YOMINCO on drilling sites, techniques, well-design and testing.

2) A hydrologist who under the supervision of the project manager will:

a) record and conduct aquifer tests (logging) on wells to determine geologic and hydrologic conditions;

b) carry out ground and surface water investigations, measurements and data collection as directed;

c) collect, compile and make preliminary review of data as to the quality and quantity of ground and surface water;

d) assist in the preparation of geological and hydrological maps;

e) assemble and make preliminary interpretation of reports and data collected; analyze and evaluate these reports and data;

f) conduct down-the-hole geophysical investigations, geochemical analysis and produce reports on the results;

g) most importantly, supervise and provide systematic on-the-job training regarding all of the above to those concerned professional and sub-professional Yemeni assigned as project staff.

3) Short-term TDY assistance will be provided in special technical areas as required (recommended by project manager).

b. Training proposed to be provided:

Long term academic:

1 MS in Hydrology

1 MS in Hydrogeology

Short term specialized:

1 Management

3 Hydrology

3 Geology

1 Hydraulics

1 Drafting

2 Chemistry

1 Surveying

2 Admin/Financial

2 Library Science

1 Law and Economics

c. Commodities will be provided as follows:

Phase I

6/79 2 Vehicles

2 Pick-ups

Aerial Photos.

Technical Books

Survey Field Books

Water Measurement Field Equipment

16.

7/79-6/80

LANDSAT imagery
seismic equipment
camp equipment
office equipment
data center equipment

7/80-6/81

water testing lab/field equipment
technical books
water measurement field

Phase II

7/81-6/81

2 vehicles
LANDSAT imagery
down-the-hole geophysical and
seismic equipment
camp equipment
geological field and lab
office equipment
survey field books

17.

data center/specialized equipment
water testing treatment lab/field

7/82-6/83

technical books

6. YARG contributions the financial details of which are contained in the Financial Plan and Detailed Budget Annex 12, will consist of YOMINCO's provision of:

- a. staff salaries
- b. limited in country on-the-job training in administration/finance
- c. commodities
- d. land, offices and lab

PART III - PROJECT ANALYSISA. Economic and Social Soundness Analysis

STATE 172811-1977 (Annex 2) approving the 0043 PRP found that the paper was wanting in sufficient data on the project's proposed economic and social impact. Consequently, AID/W recommended that the Water Sector Study Team (fielded in July 77) focus on this aspect with their findings to be subsequently incorporated in this section of the PP. Unfortunately, due to the lack of adequate data that this activity is meant to redress, the team disclaimed any capability to objectively and scientifically evaluate the economic role of water in Yemen's future.

The Mission, as the Team, believe that the importance of water in Yemen's future development is critical. Both economically and socially the degree of impact to be felt will be largely based upon how this scarce resource is ultimately allocated. For instance, water will play an increasingly precarious role in determining Yemen's development as both population and economic expansion pressures increase. Already evident in urban areas of Sana and Taiz is extreme competition between the populace and industry leading to severe water depletion in the immediate areas and consequent rising costs for both users.

Obviously, as the Team noted, Yemeni expertise will be required to make the decisions necessary for balancing/adjusting water requirements and costs for human and economic growth considerations. A prerequisite though is that a sound data base is available.

This project will resolve precisely those issues by providing both the data and trained/experienced Yemeni professionals to support and implement a water sector policy as well as the means for stimulating the creation of a representative body charged with effecting responsible water resource allocation in the country.

In sum, this activity is to serve as the stepping-stone to providing the institutional capability to economically and socially assess the impact of all future water related activities in the Yemen. Given this fact and since the nature of the activity primarily concerns research more than development implementation per se, the Mission does not believe a detailed economic/social analysis is required at this time. Nevertheless, as part of the mid-project evaluation, a Water Resource Economist will address the economic and social impact of water and if recommended the project will provide advisory assistance in this area for balance of project life.

B. Technical Feasibility

The Water Sector Study Team fully endorsed the proposed 0043 Project Review Paper. The study specifically states "the team recognizes that developing a Water and Related Land Resources Council and delineating its duties will take time. In order to preserve valuable hydrological material and to maintain the essential continuity of staff and momentum of the present hydrological effort, a division of hydrology along the lines described in the USAID PRP should be established as soon as possible."

The main concern that initially surrounded this project was the replacement/creation of a DOH within an entity that would have understanding for water activities and the expertise, budget and resolve to support such an endeavor and this project in particular.

As part of an exhaustive selection process, prime consideration was given to the two most serious constraints to date noted in USAID project assistance to Yemen: 1) personnel shortages due to a dearth of technically trained personnel coupled with low salaries and resulting retention problems, and 2) inability of the host-country counterpart agency to make any significant financial contribution. The eventual selection of YOMINCO as the parent organization was based partly on YOMINCO's having 1) already budgeted funds for construction of a facility that could house the DOH, 2) funds sufficient to cover initial staff requirements, and 3) with respect to the latter a salary scale competitive with the private sector.

Adequate numbers of personnel to staff and ultimately be trained under the activity are no longer question marks. Personnel (7) referred to in the PRP have been transferred to YOMINCO and based upon present performance give every indication of performing adequately and being retained for long-term service. Again, this area will be the subject of close scrutiny under the upcoming 0025 evaluation.

Furthermore, the proposed mode of project implementation will realize considerable U S. dollar savings as a result of...

the selection of an entity which already possesses a trained administrative staff and a budget to build a facility and begin to fully staff it;

the determination that any well-drilling requirements will be contracted outside of YOMINCO rather than developing the capability within the DOH;

the availability of commodities for equipping the DOH lab from Project 0025;

The transfer of Yemeni expertise trained under 0025 to the counterpart agency;

the accumulation of considerable amounts of data from the preceding 0025 activity as well as other donor projects;

heavy emphasis on on-the-job training to assure that only the best candidates will be selected for overseas training and that they will be well prepared prior to departure;

finally, the plan to fund the project in phases so as to assure that assistance is provided as required and is fully utilized.

On the other hand, costs attributable to partial USAID financial support of YOMINCO personnel over LOP can be justified as follows...

As early on in project life the DOH can be fully staffed the more substantive work can be done in support of project activities. It is expected that significant DOH outputs in the water sector will further reinforce YARG support and, as a corollary, DOH institutionalization.

The provision of USAID financial support for the DOH personnel is viewed as a worthwhile incentive to realize the above in as timely a fashion as possible. However, funding is geared to decreasing annual amounts so as to safeguard against jeopardizing the institutionalizing process.

C. Administrative Feasibility

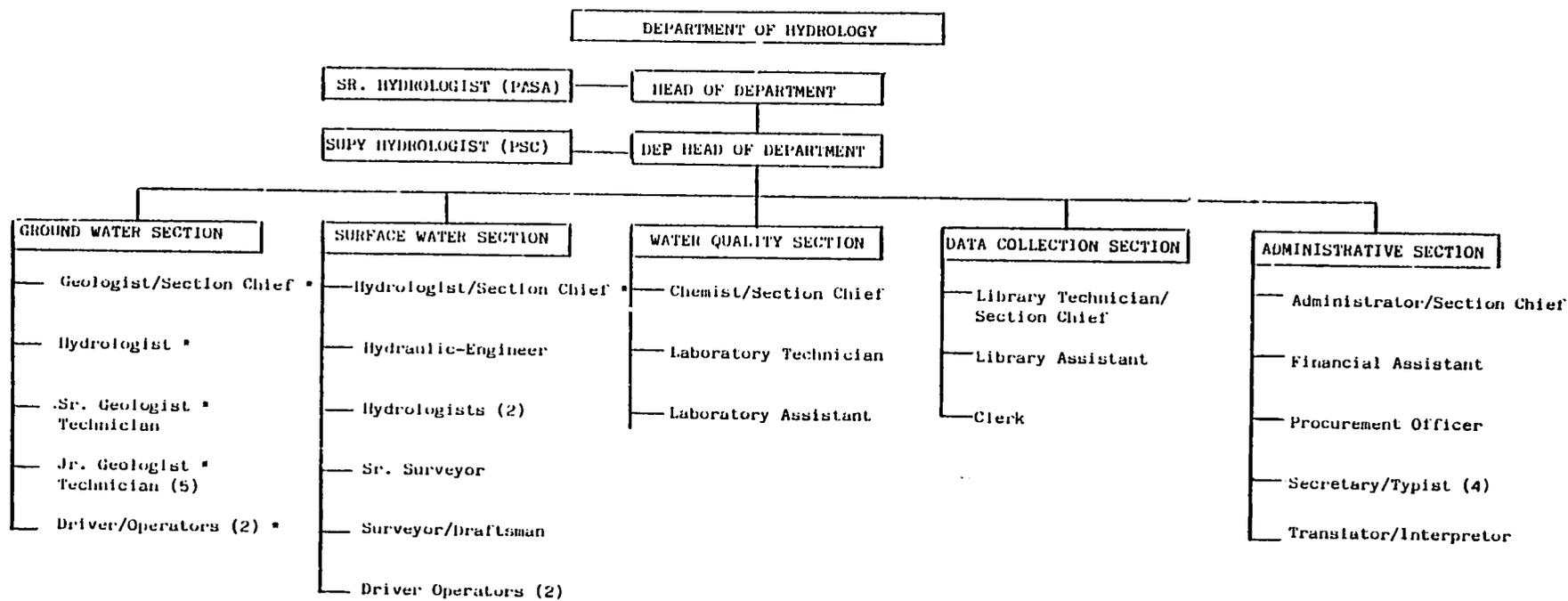
Organizational feasibility was one of the key reasons for placing the DOH within YOMINCO. Placement elsewhere, for example, Central Planning Organization, would have necessitated the project's separately addressing the formation of an administrative section. Inherent therein would have been the requirement for administrative technical assistance under this project. This would have significantly increased life of project costs.

YOMINCO presently has an operating administrative section that can backstop/support the initial DOH activities. It is understood that a separate administrative capability will be required eventually within the DOH, but its development will only entail limited recruitment outside the existing agency, and on-the-job training of recruits by existing YOMINCO staff.

The attached organizational chart delineates the various divisions/responsibilities within YOMINCO and provides evidence of the necessary direct line responsibility that the DOH must enjoy if they are to have the significant impact expected on the Water Sector in Yemen. The Water Resources Division will be the organizational unit to house the Department of Hydrology. Within this Division it is expected that the DOH will be the paramount functioning unit.

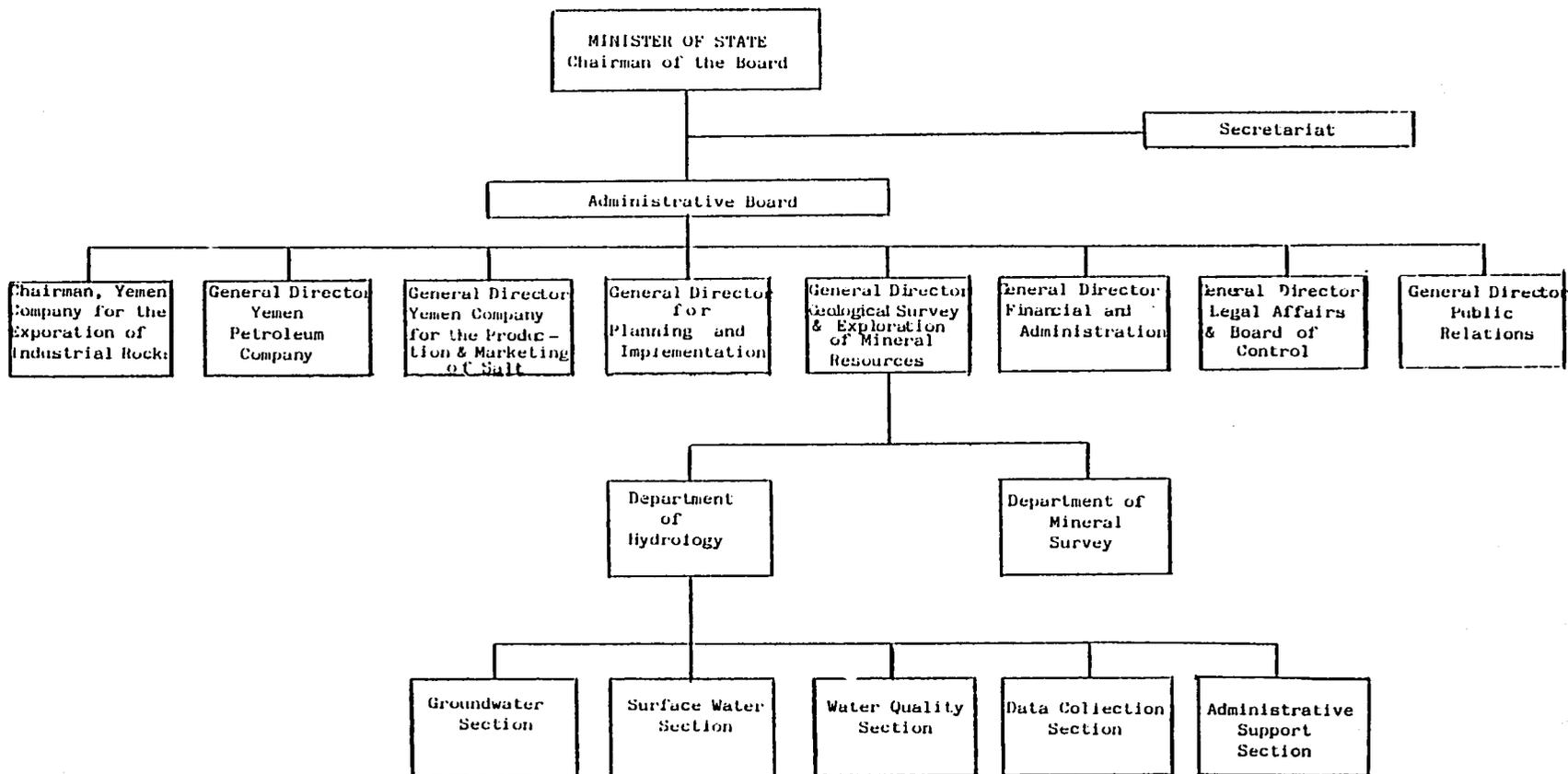
Questions of retention, salary scale and recruitment have been discussed earlier. However, it is appropriate to state here that the activity is phased so that recruitment and staff increases can be gradual; hence, manageable and budgetable.

PROJECTED ORGANIZATION CHART AND STAFFING PATTERN



* Occupied Positions

YOMINCO OIL AND MINERAL CORPORATION
(YOMINCO)



Part IV - Financial Plan and Analysis

The financial plan is based upon a four year three month life of project. The initial obligation for Phase I will fund the period from 4/79 to 6/81. The Phase II obligation will fund the project from 7/81 to 6/83. USAID will finance (A) 143 person months of long and short term expatriate technical assistance, and (B) 349 person months of local staff salaries from 4/79 to 6/80, plus training costs, specific equipment costs, housing construction and specified vehicle operation costs. YOMINCO will finance 1,542 person months of local staff costs, specific equipment and project operation costs.

Financial Plan (\$000)

<u>AID</u>	<u>Phase I</u> (4/79-6/81)	<u>Phase II</u> (7/81-6/83)	<u>Totals</u>
1. <u>Personnel</u>			
FX	790	648	1,438
LC	306	15	321
2. <u>Training</u>			
FX	390	217	607
3. <u>Housing</u>			
FX	100	-	100
LC	150	-	150
4. <u>Equipment</u>			
FX	255	152	407
LC	15	15	30
5. <u>Operating Cost</u>			
LC	<u>60</u>	<u>21</u>	<u>81</u>
TOTALS	2,066	1,068	3,134

<u>YOMINCO</u>	<u>FY-80</u>	<u>FY-81</u>	<u>FY-82</u>	<u>FY-83</u>	<u>Totals</u>
1. <u>Personnel</u>					
LC	198	562	569	570	1,899
2. <u>Equipment</u>					
LC	25	-	110	-	135
3. <u>Operating Cost</u>					
LC	<u>14</u>	<u>26</u>	<u>61</u>	<u>73</u>	<u>173</u>
TOTALS	237	588	740	643	2,208

Total Project CostAID Funding

AID	3,134	59%	<u>Phase I</u>	<u>Phase II</u>
YOMINCO	<u>2,208</u>	<u>41%</u>	2,066	1,068
Total	5,342	100%		

V. IMPLEMENTATION PLAN

The major premises upon which this project is to be implemented are as follows:

i That projected salaried positions and attendant USAID funding requirements shown in the Financial Plan represent the optimum attainable.

Targets projected in the implementation schedule and CPI chart represent the minimal acceptable four project continuation. Financial Plans reflect achievement of objectives as scheduled.

Similarly, training projections and costs are designed to provide skills upgrading if people eventually recruited show the need for further training in order to effectively carry-out their responsibilities. Ideally, recruited staff will possess sufficient experience and skills that o-j-t and/or minimal overseas training will suffice.

ii That Project 0025 should serve as the gauge for determining subsequent Project 0043 implementation procedures and targets.

It is expected that Project 0025, which is designed to lay the foundation for 0043, will provide the basis for detailing and redefining this project's implementation targets as shown herein. Such a methodology will insure maximum potential for course redirection with minimal disruption to activities/personnel involved. However, this also means that while the implementation plan detailed here is specific through Phase I, the balance of the life of project remains to be articulated via subsequent evaluations/contractor recommendations.

iii That given the variability of the Yemen working environment, specific annual quantifiable targets for field activities would be inappropriate as part of this exercise.

Rather it is planned that the annual contractor's work plan/report serve as the tool for identifying and specifying yearly targets in well-logging, stream gauging, etc.

iv That institutionalization is the prime objective with field activities only supportive of this purpose.

Hence, while field activities are minimized herein, personnel staffing, budgeting and development are clearly targeted.

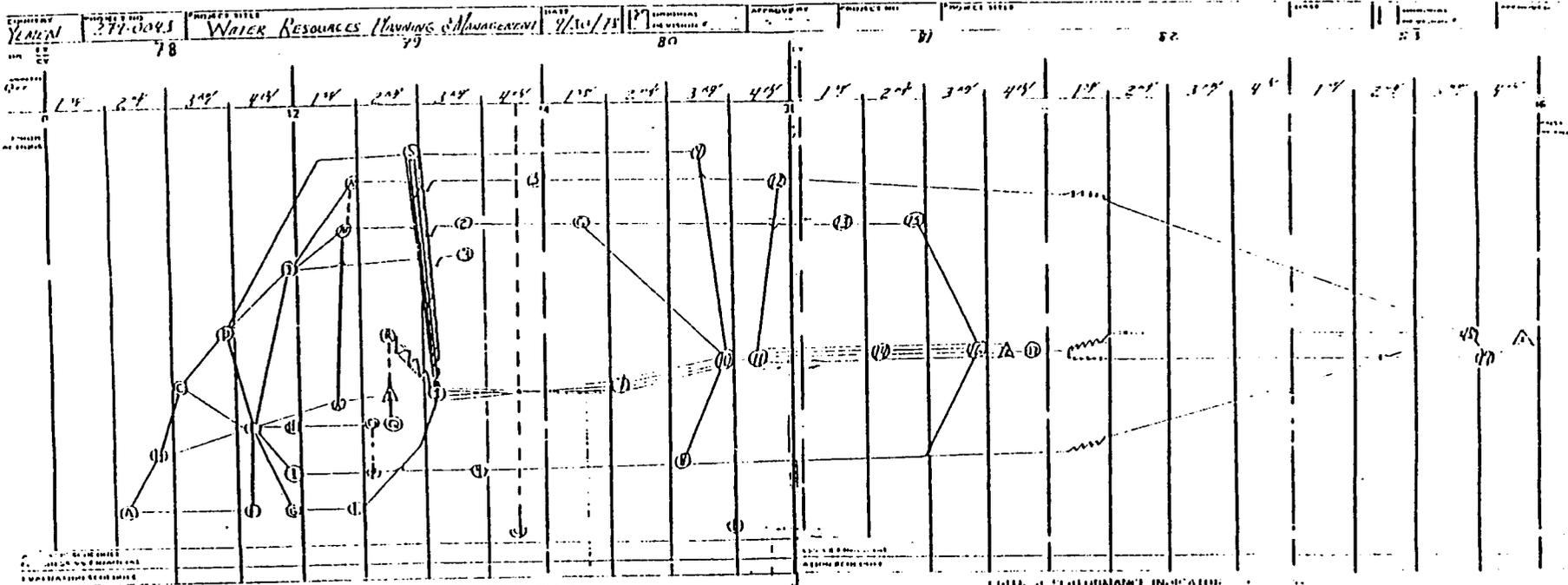
v That the project is so designed, i.e., with heavy emphasis on evaluation and subsequent incremental funding tied thereto, that sufficient safeguards exist for phasing out or terminating assistance if the objectives no longer appear viable.

vi That DOH during LOP will be concerned by priority primarily with...

Analyzing and disseminating existing data, monitoring other donor collection activities and initiation of systematic collection in priority areas not addressed by other donors, YARG institutions.

vii Major commodity procurement will be U.S. source, while vehicle support, camp and field equipment will be local source under \$2500/item.

Critical Performance Indicators



CRITICAL PERFORMANCE INDICATOR (CPI) NETWORK

CRITICAL PERFORMANCE INDICATOR

NOTES: *CPIs* *sectors of DSM Ground, Surface, Data, Water Quality*

CPI NARRATIVE 1/

The critical actions cited in chronological order on the succeeding pages are keyed to the illustrative Critical Performance Indicator Chart attached.

FY 78Prior/Past Actions

A - Mission evaluation determines need for extension of 0025 to afford time for YARG to locate DOH within appropriate entity.

B - 0025 PP revision reflects above and requests added funding to retain personnel and continue field activities, o-j-t.

C - YOMINCO selected as parent agency for DOH

D - Adequate YOMINCO budget for FY 79, project activities approved by YARG

E - PROAG for 0025 extension signed. Major emphasis of agreement is on preparing and assessing commitment of YOMINCO to support DOH and this follow-on activity in particular.

F - 0025 activities, i.e., well-logging, stream gauging continue

G - PSC negotiated with individual to monitor and supervise on-going 0025 activities for 3 months

H - PIOs submitted to AID/W for technical assistance of contractors under 0025 and 0043 Geologist/Project Manager and Supervisory Hydrologist

I - PIOs covering vehicle procurement and equipment for use under 0043 processed. Five vehicles under source origin waiver authorized

J - YOMINCO initiates recruitment process

1/ The CPI Narrative pages 29-33 is as presented in October 1978 and should be considered as illustrative only. Following project authorization USAID will revise it to correct timing and incorporate other changes such as those made in the training schedule.

FY 79Proposed Actions:

- 1st Qtr
- K - 0043 PP approved
 - L - PSC contractor departs
 - USGS fully satisfies objectives under 0025, i.e., Amran reports, publication and distribution of LANDSAT geologic maps
 - M - With approval of PP, short and long term training process begun. Assistant Librarian sent to U.S. or third country for 4-6 months
 - N - For recruitees YOMINCO identifies future long-term trainee(s) and if necessary he/she begin language training at Yemen American Language Institute
- 2nd Qtr
O&P
- Contractors and vehicles arrive
 - 1 - In-house Mission evaluation conducted to determine feasibility of initiating 0043. Specific focus on YOMINCO budget for Phase I operations, staff recruitment, building construction, contractor work plan
 - Q - Contractor Work Plan completed: Specifies field collection, training targets during ensuing year. Implementation begins
- "CONDITIONS PRECEDENT"
- R - YOMINCO provides evidence of intention to fully support project and DOH in form draft budget for FY 80
 - S - Construction or contract for construction on DOH facility initiated

- 3rd Qtr 1 - 0043 Grant Agreement signed
- PIOs for continued services of two contractors finalized and for commodities, such as replacement vehicles and field and lab equipment
- O-J-T field activities continue per the contractor's work plan vis-a-vis ground, surface, data, water quality sections
- 2 - Assistant Librarian returns from training; another short-term trainee departs
- 3 - DOH sections minimally staffed
Data - Ass't Librarian
Water Quality - lab technician
Surface - Hydrologist
Ground - Hydrologist (in-training)
- 4 - Additional vehicles (3) arrive
- 4th Qtr a - Mission evaluation to confirm adequacy YOMINCO/DOH budget and contractor operations

FY 80

- 1st Qtr 5 - Long term academic trainee for MS in hydrology or geology departs
- 6 - Short term trainee returns, another departs
- 2nd Qtr 7 - Second annual contractor work plan/report
- 3rd Qtr 8 - Lab equipment arrives/installed; new equipment ordered
- 9 - Construction of DOH facility complete
- 10 - DOH sections upgraded to include following staff
- Ground - hydrologist, geologist technician and driver
- Surface- hydrologist (in training), surveyor and driver

Water Quality - lab technician and
assistant

Data Collection-Ass't Librarian and clerk

New DOH facility being used

- 4th Qtr 11 - Agreement amended/FY 81 funds obligated
- 12 - Long term academic trainees in library
science or equivalent and hydrology or
geology depart

FY 81

- 1st Qtr 13 - Short term trainee returns, another departs
- 2nd Qtr 14 - Annual contractor's report/work plan
- 15 - Short term trainee returns, another departs
- 3rd Qtr 16 - DOH functioning institution as evidenced
by following:

Staff

- Ground - 1 hydrologist
2 geologist technicians
2 drivers
- Surface - 1 hydrologist
1 surveyor
1 hydraulic engineer
2 drivers
- Water Quality - lab technician, assistant
- Data Collection - Ass't Librarian, Clerk
- Administrative - Financial assistant

Activities

- Water Quality - ongoing water monitoring in priority areas and research to determine chemical composition of aquifers
- Ground - Through systematic well logging to monitor aquifer water quantity (recharge) in certain priority areas. Provide analysis, recommendations regarding other studies
- Surface - Through stream gauging and meteorological data collection and analysis to estimate water availability in terms of precipitation, water infiltration and evaporation
- Data - Assimilating all reports/analyses on water related activities thru 1978 and establishing rudimentary distribution/user system

Budget to carry-on Phase II activities

- ② - Special Mid-Project Evaluation to assess DOH, and Phase II course direction
- 4th Qtr 17 - Agreement Amendment - FY 82 funds obligated based upon outcome of evaluation

FY 83

- 4th Qtr 18 - All training completed, DOH functioning as fully staffed effective institution per EOP objectives
- 19 - Water Resources Council formed
- ③ - EOP Evaluation

PART VI EVALUATION PLAN

Project evaluation is an integral part of this activity as well as its predecessor 0025. As alluded to previously, two methods are intended to provide USAID with the means to assure timely application and maximum utilization of Project 0043 funds.

A. Phased funding under this activity will provide a built-in means for terminating or delaying assistance if expected objectives are not being met. It is anticipated that annually conducted USAID Project Evaluations (Reports) will provide the basis for determining the nature/amounts of continuing USG aid, if any, under this project.

B. Of critical importance will be special evaluations. Presently, three are envisioned:

1. A special in-house Mission evaluation in January 1978, will evaluate USAID, contractor and YOMINCO progress toward satisfying objectives under the Project 0025 extension. Satisfactory progress in the following areas will be sufficient grounds upon which to proceed to implementation of Project 0043

USAID's...

completion of all 0025 objectives, i.e., Amran Report, publication/distribution of 1:500,000 LANDSAT geological maps;

recruitment of qualified project manager for 043;

initiation of short term training for several YCOMINCO personnel in data collection;

o-j-t in process for operation of data collection center;

successful procurement of well-logging, field, and water quality lab equipment;

proper use of project operating fund as agreed to in Project Implementation Letters

YOMINCO's progress toward institutionalizing a DOH as evidenced by...

Office facilities for project activities;

budget to adequately staff DOH during two-year Phase I;

selection and recruitment of necessary staff and identification of candidates for long term training;

continuation, improvement and expansion of 0025 operations; namely, in the areas of collection of ground-water and geological data, measurement of hydrological sources, well logging, training of project personnel and initial efforts toward organized collection, storage and dissemination of reports originating in Yemen;

proper use of the project operating fund

Problems in any one of the above areas, particularly YOMINCO provision for construction of the DOH facility and adequately budgeting for Phase I staffing will be sufficient reason to delay start-up or cancel this activity.

Per the recent Project 0025 Agreement, YOMINCO and USAID have agreed to a comprehensive monitoring process that will provide early indications of progress toward meeting the above requirements which are essential to timely and successful 0043 start-up.

2. A special independent evaluation at mid-project FY 81, will serve as the basis for recommending continuation of Phase II activities under this project. This evaluation will be funded from Bureau funds and the evaluation team will be composed of USAID, contractor, AID/W and outside expertise.

The specific focus of this evaluation will be progress toward institutionalization with special scrutiny given to...

a. the quality, timeliness, over-all performance of the contractor, particularly with respect to o-j-t provided;

b. YOMINCO contributions in terms of staff, recruitment, administration, field support and provisions for funds to adequately fund Phase II;

c. realization of specified targets in terms of caliber/scope of work undertaken in the respective DOH sections; namely, ground, surface and water quality, as well as data analysis/dissemination.

3. An end of project evaluation will concentrate on determining the overall success of the project with respect to meeting stated objectives. Based upon degree of success, it will possibly recommend continued U.S. aid in the form of technical assistance to a Water, Land Resources Council. Ideally, accomplishments under the Land Classification and Soils Inventory (0042) project will provide complementary data so that U.S. assistance drawing upon the DOH and a Soils Division will be able to provide specific guidance, recommendations with respect to national water, land use policy formulation.

PART VII - SPECIAL CONDITIONS

A. Conditions Precedent and Covenants

The project grant agreement will contain the following CP's and Covenants:

Prior to First Disbursement

A statement of the names and specimen signatures of the persons holding or acting in the office of the grantee.

Additional Disbursements FY-80

1. Evidence that the grantee will provide adequate budget support for the project operations during grantee FY's 80, 81, 82 and 83.
2. Evidence that the grantee will provide suitable candidates for training and for filling of staff positions.

Covenant

The grantee will initiate action to establish a Governmental Water Resource Council charged with the formulation of national policy related to utilization of water resources.

B. Project Operating Fund

To provide financial assistance to the project USAID, with the signing of the Project Grant Agreement, will establish with YOMINCO a project operating fund as so specified under a Project Implementation Letter (PIL) / Funds will be specifically earmarked for project operations consisting of (a) Local personnel costs, (b) local procurement of designated project equipment, (c) vehicle operating costs, (d) local training activities, and (e) other project activities as designated by PIL's.

The fund will operate under the following procedures and conditions:

1. USAID will advance operating funds to YOMINCO to establish the fund. The specific amount of the advance will be specified by a PIL.

2. USAID will replenish the fund to a pre-established level for continued project operations.

3. YOMINCO will be responsible for disbursement of this fund against eligible items of expenditure for project support, as stated in the PIL's. YOMINCO will maintain certified records of disbursements and expenditures and make these available to USAID staff for audit and review. These records will be audited by USAID prior to any replenishment of the advance to YOMINCO. A total expenditure allowed under this fund will be established in grant agreement.

C. Project Procurement

Specific project commodity procurement will be implemented under the following procedure:

Purchase of project commodities off-shelf within the YAR will be the responsibility of YOMINCO, with USAID prior approval using PIL's, and funds from the project operating fund. Procurement will adhere to AID regulations and requirements. Procurement of project commodities from the United States will be initiated through a PIO/C, with YOMINCO responsible for custom clearance, storage and in-country transportation.

D. Project Housing

The project provides funds under Phase I for the construction of two project houses to be occupied by the expatriate technical staff (two positions) during Phase II (7/81-6/83) of the project. the project. The two houses will be constructed in a previously

designated area of the USAID compound, with design and construction the responsibility of USAID. Furthermore, the houses will remain titled to USAID for use on subsequent AID funded projects. During Phase I housing rental is included in the person month costs for expatriate technical assistance.

September, 1978

ANNEX PROJECT PAPER
PROJECT 0043
WATER RESOURCES PLANNING AND MANAGEMENT

	<u>ANNEX NO.</u>
1. PRP - 0043.	1
2. PRP - Approval, Telex.	2
3. CPO - Request for assistance.	3
4. Project 0043, Action Proposal, Telex.	4
5. Memo, USAID to CPO, Project Action C.F.O. Agreement.	5
6. Water Resources Sector Study.	6
7. Environmental Examination.	7
8. Project 0025, Revision, Extension.	8
9. PIO/T's Project 0025.	9
10. Project Agreement, 0025.	10
11. Log Frame, Project 0043.	11
12. Financial Spread Sheet, Project 0043	12
13. Statutory Checklist	13
14. Draft Authorization	14
15. Project Evaluation Summary - Project 025	15
16. Project Operating Fund	16

ANNEX 1 IS AVAILABLE IN NE/PD/NENA FILES.

Department of State

TELEGRAM *Handwritten signature*

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ORIGIN 119-11

ANNEX 2

INFO OCT-01 MEA-10 IGA-02 /044 4

2.2 MILLION OF WHICH APPROXIMATELY DOLLARS 1.8 MILLION WILL BE YARG CONTRIBUTION, I.E. 25 PERCENT.

DRAFTED BY NE/CD/MENA: BOREECE, PAL
APPROVED BY NE/CD: JOHNSON
G/NE: GIBBONS (DRAFT)
NE/MENA: EAGLAESER (DRAFT)
SER/ENGR: CHATHEWS (DRAFT)
USGS/OT: TIBBITTS (DRAFT)
NE/CD: BHPERRY (DRAFT)
NE/TECH: LKNUTSON (DRAFT)
NE/DP: RACCELIN (DRAFT)

(B) THAT A.I.D. ASSISTANCE FOR THE FIRST YEAR WILL BE LIMITED TO FINANCING THE SERVICES OF A SENIOR HYDROLOGIST AND A GEOHYDROLOGIST AND SOME LOCAL CURRENCY OPERATIONAL COSTS, I.E. NO EQUIPMENT WILL BE ORDERED DURING FIRST YEAR OF PROJECT. FUTURE YEAR FINANCING WILL BE CONTINGENT UPON:

ANNEX 2
Page 1 of 2

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FM SECSTATE WASHDC
TO AMEMBASSY SANA

(1) THE ESTABLISHMENT OF A DEPARTMENT OF HYDROLOGY IN A MINISTRY ACCEPTABLE TO A.I.D. WITH FUNCTION AND RESPONSIBILITIES SIMILAR TO THOSE DESCRIBED IN THE PRP.

(2) COUNTERPARTS DESIGNATED, POSITIONS CLASSIFIED AND STAFFED AS SUGGESTED IN PRP.

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(3) ADEQUATE FUNDS BUDGETED ON ANNUAL BASIS TO COVER OPERATIONAL COSTS AND BUILDING CONSTRUCTION AS PROPOSED IN THE PRP.

AIDAC

(4) IF THESE CONDITIONS ARE NOT FULFILLED, THE PROJECT WILL BE TERMINATED AFTER FIRST YEAR.

E.O. 11552: N/A

TAGS:

5. COMMITTEE OBSERVED THAT FIRST PHASE PROJECT AS PRESENTLY DESIGNED IS ESSENTIAL CONTINUATION OF EXISTING PROJECT AND ONLY IN SECOND PHASE DOES THE PROJECT'S ORIENTATION CHANGE. DEPENDING ON OUTCOME OF DISCUSSIONS PARAS 3 AND 4 ABOVE, IF MISSION'S ASSESSMENT OF YARG'S COMMITMENT TO THIS PROJECT IS QUESTIONABLE AND IT APPEARS YARG MAY NOT BE ABLE TO MAKE INSTITUTIONAL CHANGES TO CREATE DOH IN THE NEAR FUTURE, COMMITTEE SUGGESTS ALTERNATIVE TO A NEW PROJECT WOULD BE TO EXTEND PRESENT PROJECT FOR APPROXIMATELY ONE YEAR TO ALLOW YARG SUFFICIENT TIME MAKE INSTITUTIONAL CHANGES. COMMITTEE AWARE THIS WOULD REQUIRE CONGRESSIONAL NOTIFICATION AND NEW FUNDING BUT, EVEN SO, EXTENSION MAY BE PREFERABLE TO UNDERTAKING NEW PROJECT WITH CONSIDERABLE UNCERTAINTY. REQUEST MISSION VIEWS ON THIS ALTERNATIVE.

SUBJECT: WATER RESOURCES PROJECT - PROJECT 043

REFERENCE: (A) SANA 04254; (B) STATE 172811
(C) SANA 2959

1. PROJECT COMMITTEE MET DECEMBER 1, 1977 TO REVIEW MATERIALS PREPARED AND SUBMITTED BY TIBBITTS. MATERIAL RECEIVED CONSISTED OF TIBBITTS' COMMENTS RE ISSUES RAISED REF B, REVISED BUDGET, AND PERT DIAGRAM. COPIES OF MATERIALS POUCHED TO MISSION DECEMBER 2, 1977. TIBBITTS AND JONES ALSO ATTENDED MEETING AT COMMITTEE'S REQUEST.

2. IT WAS CONSENSUS OF THE COMMITTEE THAT PRP IS TECHNICALLY ADEQUATE AND SUFFICIENT INFORMATION EXISTS FOR THE PREPARATION OF A PP. HOWEVER, SUGGEST MISSION CAREFULLY CONSIDER POINTS MENTIONED BELOW WHICH COMMITTEE FELT NEEDED CLARIFICATION BEFORE MISSION COMMITTED ITSELF TO PREPARATION PP.

3. COMMITTEE EXPRESSED RESERVATIONS ABOUT THE YARG'S DESIRE FOR THIS PROJECT, WHETHER YARG IS IN AGREEMENT WITH PROJECT CONCEPTS, OR IF YARG IS COMMITTED TO ESTABLISHING A DOH IN THE NEAR FUTURE. UNDERSTAND YARG HAS HAD COPIES OF THE PRP SINCE LAST JANUARY AND A FORMAL PRESENTATION WAS MADE LAST JUNE BUT THE YARG HAS BEEN RELUCTANT TO FORMALLY COMMIT ITSELF TO THIS PROJECT. COMMITTEE SUGGESTS MISSION SOLICIT YARG VIEWS ON PROJECT CONCEPTS, TIME FRAME FOR CREATING INSTITUTIONAL FRAMEWORK, POSSIBLE LOCATION, FUNCTION, RESPONSIBILITIES, AND STAFFING FOR DOH AS OUTLINED IN PRP, AND INQUIRE IF ANY FUNDS FOR DOH HAVE BEEN BUDGETED FOR COMING YEAR. YARG SHOULD BE ADVISED THAT ANY FUNDAMENTAL DIFFERENCES SHOULD BE IDENTIFIED AND ADDRESSED NOW SINCE YARG WILL BE REQUESTED TO SUBMIT AN APPLICATION FOR ASSISTANCE PER HANDBOOK 1, CHAPTER 5.0.2 FOR A PROJECT ESSENTIALLY AS DESCRIBED IN THE PRP.

4. YARG SHOULD ALSO BE ADVISED THAT ANY EVENTUAL PROJECT AGREEMENT IS LIKELY TO CONTAIN FOLLOWING TERMS AND CONDITIONS:

(A) TOTAL PROJECT COST IS ESTIMATED AT DOLLAR

6. WHETHER NEW PROJECT IS PURSUED OR PRESENT PROJECT EXTENDED, TECHNICAL ASSISTANCE LIKELY TO BE A PROBLEM. USGS ADVISES THEY HAVE CEILING PROBLEM WHICH MAY PRECLUDE STAFFING NEW PROJECT UNLESS A.I.D. CAN ASSIST IN OBTAINING ADDITIONAL SLOTS FOR OVERSEAS POSITIONS. IF INCREASE IN USGS OVERSEAS POSITIONS NOT POSSIBLE, ONLY RECOURSE WILL BE TO USE PRIVATE CONTRACTOR. WE EXPLORING MEANS OF ASSISTING USGS OBTAIN ADDITIONAL OVERSEAS SLOTS AND WILL ADVISE. IN INTERIM, REQUEST MISSION ADVISE IF USE OF PRIVATE CONTRACTOR WOULD BE ACCEPTABLE TO YARG.

7. DRAFT TEE CONTAINED PRP UNDER REVIEW. WILL ADVISE WHEN REVIEW COMPLETE.

8. RE PARA 1 REF A - BRIEFLY DISCUSSED CONTENTS ABOVE WITH DEPHART. IN VIEW DISCUSSION ABOVE RE POINTS TO BE CLARIFIED WITH YARG AND UPCOMING HOLIDAYS, WE AGREED WITH DEPHART THAT LITTLE WOULD BE ACCOMPLISHED BY DELAYING HIS DEPARTURE AND HE COULD BE OF MORE ASSISTANCE IN YEMEN PARTICIPATING IN DISCUSSIONS.

9. MET WITH COM REP ON DECEMBER 1, 1977 TO REVIEW PROPOSAL. POUCHING COPY MEMO OF CONVERSATION.

BEST AVAILABLE COPY

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PAGE 02 OF 02 STATE 184272

COM WAS NOT WORKED OUT DETAILS OF PROPOSAL BUT
APPEARS ACTIVITIES WILL NOT CONFLICT ACTIVITIES
THIS PROJECT. YANCE

ANNEX 2
Page 2 of 2

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CRP Request in Project

HRG Received 16/10/77

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

الجمهورية العربية اليمنية

رئاسة مجلس الوزراء

الجهاز المركزي للتخطيط

صندوق بريد ١٧٥ - صنعاء

تاريخ: ١٦/١٠/٧٧

Yemen Arab Republic
PRIME MINISTER'S OFFICE
CENTRAL PLANNING ORGANISATION
P.O. Box 175 - SANA'A
Telig CENPLAN Phone : 2992-5

ANNEX 3

Dept

Our Ref

7518

Date

16th October, 1977.

Subject

Mr. Robert Huesmann, Director,
USAID,
Sana'a, Yemen Arab Republic.

Dear Mr. Huesmann,

We have thoroughly reviewed the project review paper (PRP) for the Water Resources Evaluation Yemen Arab Republic (AID Project 279-0043) and are in agreement with the objectives described therein. Therefore, we request USAID to provide technical and commodity assistance as well as participant training in order to develop a viable Department of Hydrology within YARG.

As YARG's commitment to this activity we shall furnish the usual assistance in custom clearances, rights of access, security for personal and equipment as well as assignment of personnel to the project as outlined in the PRP, to the extent possible, and also the funds called for as YARG's financial contribution to the project as would be agreed upon between the Y.A.R. Government and the USAID.

Yours sincerely,

Dr. Mohamed A. Al-Anisi
Deputy Chairman
C.P.O.

**ACTION
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Department of State

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PAGE 01
ACTION AID-59

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ANNEX 4

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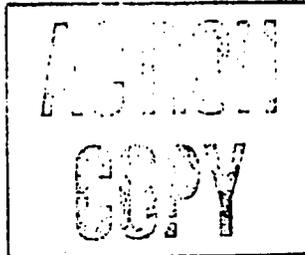
R 190500Z JAN 78
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TO SECSTATE WASHDC 3581

UNCLAS SANA 0312

AIDAC

E. O. 11652: N/A
SUBJECT: WATER RESOURCES PROJECT 043

REF: STATE 304072/1



1. THE MISSION PROPOSES TO TAKE THE FOLLOWING POSITION REGARDING PROJECT 043:

A) PROJECT 025, WATER SURVEY OF NORTH YEMEN IS FUFED UNTIL MARCH 31, 1978 (REPRESENTING A SIX-MONTH PROJECT EXTENSION). IT IS PROPOSED TO EXTEND PROJECT 025 AN ADDITIONAL 12 MONTHS FROM APRIL 1, 1978 TO MARCH 31, 1979 AT A COST AT THE LEVEL OF US DOLS 450, 000.

B) THE 025 PROJECT EXTENSION WOULD BE EXECUTED BY A PROJECT AGREEMENT BETWEEN THE PETROLEUM AND MINERAL RESOURCES CORPORATION AND USAID. THIS WOULD BE THE FIRST TRANSITIONAL STEP IN PLACING THE DOH (INITIALLY) WITH PMRC AND REMOVING IT FROM THE MIN OF AGRICULTURE.

C) THE PERIOD OF EXTENSION OF 025 (12 MONTHS) WILL INCORPORATE A MODIFIED VERSION OF THOSE INPUTS AND OBJECTIVES PROPOSED UNDER THE FIRST PHASE OF 043. THE PROJECT AGREEMENT WILL REFLECT THESE INPUTS. CONCURRENTLY, THE DATA COLLECTION, I. E., WELL OBSERVATIONS, LOGGING SURFACE WATER MEASUREMENTS, ETC., WILL CONTINUE WITH THE PRESENT 025 PERSONNEL AND EQUIPMENT. USAID PROPOSES TO CONTINUE TECHNICAL ASSISTANCE DURING THE EXTENSION BY EITHER HIRING A QUALIFIED T. C. N. NOW IN YEMEN OR BY CONTRACT ON A MONTHLY BASIS WITH THE CONSULTING FIRM HAZEN AND SAWYER TO PROVIDE ONE S QERVISING HYDROLOGIST. CON- CURRENT WITH THE PROAG AND EXTENSION OF 025, USAID WOULD SEEK THE T. A. REQUIRED FOR IMPLEMENTATION OF THE LATTER STAGE OF 025 AND FIRST STAGE OF 043 EITHER USING USGS, A PRIVATE CONTRACTOR, OR TITLE 12 SOURCE. THE MISSION WOULD THEN HAVE UP TO 10" MONTHS TO PREPARE THE PP, WHICH WOULD ALLOW SUFFICIENT TIME TO DETERMINE YARG/PMRC INTEREST AND CAPABILITY TO PROVIDE STAFF AND BUDGET FOR A VIABLE DOH AND A FOLLOW-ON 043 PROJECT.

2. USAID IS NOW SCHEDULING A MEETING WITH CPO/ARIKI TO DISUCSS THE ABOVE PROPOSAL WITH THE INTENT THAT IF THE YARG CONTINUES TO PROCRASTINATE ON THE PLACEMENT OF THE DOH AND DOESN NOT RESOLVE THIS ISSUE TO THE SATISFACTION OF USAID BY MARCH 1, 1978, USAID WILL RECOMMEND TERMINATION OF 025 ON MARCH 31, 1978 AND CANCELLATION OF 043. (WE DC NOT REGARD NWSA AS AN APPROPRIATE INSTITUTIONAL SITUS FOR 043.)

3) REQUEST AID VIEWPOINT ON ABOVE.
SCOTES

2
3
11
P

Project 0043 ANNEX ~~2~~
C.P.O. Agreement
for Project 0043

043
ANNEX 5
Page 1 of 3

March 13, 1978

Dear Dr. Arikki:

Reference is made to your letter of October 8, 1977, No. 7518 regarding the subject of AID Project 279-0043, Water Resources, successor to Project 0025, Water Survey of North Yemen.

Your letter expressed agreement with the objectives of the Project and requested USAID to provide technical and commodity assistance as well as participant training in order to develop with our Government a Department of Hydrology (DOH).

Since receipt of your October letter we have discussed with your office and more recently with the Yemen Mineral and Petroleum Authority (YMPA), the desire that the Department of Hydrology (DOH) and of Project 043, Water Resources, be placed with the YMPA, considering this to be the most viable location for the successful establishment of a DOH.

On February 28, 1978, we are pleased to receive a letter from Minister Ahmed Kaleb Berekat, Head of the Mineral and Petroleum Authority, stating that by Decision of the Council of Ministers, Article 5, dated 2/15/78, the collection and organizing studies concerning oil, Mineral and Hydrology is the responsibility of the Yemen Mineral and Petroleum Authority. This letter is in agreement with your October 8, 1977 (7518) letter gives USAID the basis to proceed with detailed planning of Project 0043.

It is our suggestion, as discussed with Minister Berekat, that we extend the present Project 0025, Water Survey of North Yemen, for a period of twelve (12) months, from April 1, 1978 to March 31, 1979. Such an extension would be effected by Project Agreement, signed by Minister Berekat and co-signed by C.P.O., as desired.

Dr. Mohamed Al Arikki
Deputy Minister for Development
Deputy Chairman, Central Planning
Organization
Sana, Yemen Arab Republic

2.

Under the Project 0025 extension the following is proposed:

- (1) USAID and the Authority will collaboratively undertake the final project design for 0043 with the intention of establishing the DOH within the Authority. It is anticipated that project design and agreement could be completed by November 1978, and that the project agreement for 0043 would be signed with the Authority.
- (2) existing 0025 activities would be continued; namely, ground water observations by means of well-net monitoring, information dissemination, borehole logging, etc. Surface water measurements would be initiated using existing stations abandoned by other donors.
- (3) a portion of the activities originally proposed to be undertaken under Project 0043 in the first year would be initiated during the final months of 0025 specifically training to consist of short term third country, start of long term U.S. and third country and on the job training of Authority personnel.
- (4) that with regard to 0025 funding USAID would fully fund the project from April through July 1978, at which time the Authority would assume a portion of project costs, mainly Yemeni personnel support, under the Authority's FY1979 budget. Total USAID and Authority funding for the remaining life of Project 0025 is estimated to be \$510,000 and YR360,000 respectively.

As we have considerable interest along with your Government and other donors in the development of water resources in Yemen, we would appreciate your concurrence in the above

3.

proposal so that we might immediately proceed with the on-going and proposal activities.

Sincerely yours,

Robert G. Huesmann
Director

cc: H.E. Minister Ahma
K. Berekat, Yemen
Mineral and Petroleum
Authority

CONCURRENCE: Signed
Dr. M. Al Ariki
Deputy Minister C.P.O.
DATE: March, 1978

H. S. phart
Drafted: ORCD: DGephart: 3/13/78

Cleared by: *shapiro/t*
wonin/t
Aubert/c
Villegas RCD

BEST AVAILABLE COPY

ANNEX 6 AVAILABLE IN NE/PD/NENA FILES.

Blank P/B

Project Location: Yemen Arab Republic

ANNEX 7

Page 1 of 5

File 003

Project Title: Water Resources Evaluation
Yemen Arab Republic

Funding:	US	YAR	Total
FY78	\$ 560,000	280,000	840,000
FY79	910,000	250,000	1,160,000
FY80	630,000	255,000	885,000
FY81	595,000	260,000	855,000
FY82	<u>595,000</u>	<u>265,000</u>	<u>860,000</u>
Life of Project:	\$3,290,000	1,310,000	4,600,000

IEEE Prepared by: Herbert G. Blank, May 10, 1977

Environmental Action Recommended: Negative Determination

Concurrence:

Aldeimo Ruiz

5/29/77
Date

FOR THE NE BUREAU

ACTION RECOMMENDED: Negative Determination

Decision

Approval: Dennis J. Brennan

1/3/78
Date

Dennis J. Brennan NE/CD

Disapproval: _____

_____ Date

D. J. Brennan, Deputy Director, NE/CD

Clearances: ENGR SRemington
NE/GC GBisson

C. Matthews for Review
GB

I. Examination of Nature, Scope and Magnitude of Environmental Impacts

ANNEX 7
Page 2 of 5

A. Description of Project:

The purpose of this project is to establish a viable Department of Hydrology capable of collecting, cataloging and interpreting water data to meet the continuing requirements for evaluation and management of water resources and projects in Yemen. During the first year the project will involve staffing and on-the-job training, in subsequent years efforts will be directed to establishment of a ground water section, surface water section and a water quality section. AID inputs to the program include USGS personnel, participant training and supply of equipment.

B. Identification and Evaluation of Environmental Impacts (see attached Impact Identification and Evaluation Form and Discussion of Impacts).

II. Recommendation for Environmental Action:

The project will not have a significant effect on the environment. The threshold decision is, therefore, that a Negative Determination is appropriate.

Identification
and
Evaluation of

Impact Areas and Sub-areas 1/

A. LAND USE

1. Changing the character of the land through:	
a. Increasing the population -----	----- N -----
b. Extracting natural resources -----	----- H -----
c. Land clearing -----	----- H -----
d. Changing soil character -----	----- H -----
2. Altering natural defenses -----	----- H -----
3. Foreclosing important uses -----	----- H -----
4. Jeopardizing man or his works -----	----- H -----
5. Other factors	
_____	----- - -----
_____	----- - -----

B. WATER QUALITY

1. Physical state of water -----	----- H -----
2. Chemical and biological states -----	----- H -----
3. Ecological balance -----	----- H -----
4. Other factors	
_____	----- - -----
_____	----- - -----

1/ See Explanatory Notes for this form.

2/ Use the following symbols: N - No environmental impact
L - Little environmental impact
M - Moderate environmental impact
H - High environmental impact
U - Unknown environmental impact

IMPACT IDENTIFICATION AND EVALUATION FORM

3

G. HEALTH

- 1. Changing a natural environment ----- NY
- 2. Eliminating an ecosystem element ----- NY
- 3. Other factors
-
-

H. GENERAL

- 1. International impacts ----- NY
- 2. Controversial impacts ----- NY
- 3. Larger program impacts ----- NY
- 4. Other factors
-
-

I. OTHER POSSIBLE IMPACTS (not listed above)

-
-
-

*See attached Discussion of Impacts.

ATMOSPHERIC

- 1. Air additives -----
- 2. Air pollution -----
- 3. Noise pollution ----- N
- 4. Other factors -----
-
-

D. NATURAL RESOURCES

- 1. Diversion, altered use of water ----- N
- 2. Irreversible, inefficient commitments ----- N
- 3. Other factors -----
-
-

E. CULTURAL

- 1. Altering physical symbols ----- N
- 2. Dilution of cultural traditions ----- N
- 3. Other factors -----
-
-

F. SOCIOECONOMIC

- 1. Changes in economic/employment patterns ----- N
- 2. Changes in population ----- N
- 3. Changes in cultural patterns ----- N
- 4. Other factors -----
-
-

ANNEXES 8, 9 AND 10 AVAILABLE IN NE/PD/NEN_a FILES.

Project Logical Framework

Water Resources 279-0043

Narrative Summary	Objectively Verifiable Indicators
<p>Program or Sector Goal: The broader objective to which this project contributes:</p> <p>To promote efficient use of water in support of YARG's development programs in the Agricultural, Industrial and Health Sectors.</p>	<p>Measures of Goal Achievement:</p> <p>Records of utilization of DOH data by YARG, e.g., MOA, MOH, etc., and other donors in compilation of Development Programs within the YAR.</p>
Means of Verification	Important Assumptions
<ol style="list-style-type: none">1. YARG five-year plan and2. DOH Record of Report Dissemination	<p>Assumptions for Achieving Goal Targets:</p> <ol style="list-style-type: none">1. YARG is sufficiently impressed by the activities of DOH.2. DOH encourages utilization of its information and maintains detailed record of its dissemination to requestors

Project Logical Framework
(cont'd)

Water Resources 279-0043

Narrative Summary	Objectively Verifiable Indicators
<p>Project Purpose:</p> <p>To institutionalize within the YARG a Department of Hydrology, which is capable of collecting, analyzing, storing, utilizing and disseminating hydrological information in support of YARG Development priorities.</p>	<p>Conditions that will indicate purpose has been achieved: End of project status:</p> <ol style="list-style-type: none"> 1. As part of 2nd five-year plan a DCH budget which covers costs of staff and activities, e.g., aquifer testing, stream gauging activities and collecting data on all new wells drilled. 2. The DOH is capable of providing data on flood frequencies, drought, location and extent of water bearing aquifers, precipitation, and irrigation. 3. Storage and assimilation within the DOH of all water related research within the Y.R. 4. Physical evidence of the data's use as evidenced by annual DCH reports citing information catalogued and making interpretation and recommendations thereof and an active DOH dissemination program. 5. Official recognition of the DCH or Water Resources Council as the authority on Water Resource Development in YAR.
Means of Verification	Important Assumptions
<ol style="list-style-type: none"> 1.) Physical on site observation, <ul style="list-style-type: none">) contractor reports, special) evaluations at EOP & mid-project 2.) 3.) 4. Official legislation 	<p>Assumptions for achieving purpose:</p> <ol style="list-style-type: none"> 1. Political, legislative and budgetary support to DCH forthcoming from YARG 2. The improved skills of trainees is applicable to YAR environment and will have a positive impact in terms of DCH capability to implement and expand their responsibilities

Project Logical Framework
(Cont'd)

Water Resources 279-0043

Narrative Summary	Objectively Verifiable Indicators
<p>Outputs:</p> <ol style="list-style-type: none"> 1. Four fully staffed and functioning sections: <ol style="list-style-type: none"> a) Ground Water b) Surface Water c) Water Quality d) Data Collection 2. Constructed Department of Hydrology (DOH) building and equipped laboratories. 	<p>Magnitude of Outputs:</p> <ol style="list-style-type: none"> 1. An entity responsible for/capable of: Analyzing and Disseminating existing data; monitoring other donor collection activities and initiating collection of data in priority areas. <ol style="list-style-type: none"> a) Four (4) geologists and hydrogeologist trained to collect and interpret ground water data; effect observation well nets data collection in all new wells drilled in country and aquifer tests conducted. b) Five (5) trained surface water engineers who install stream gaging stations and collect, interpret data there from; c) Two (2) chemists trained to make standard field and lab water analyses and maintain record thereof. d) Two (2) librarians trained to catalogue information, operate user system. 2. A building by 1980 comprising sufficient space to house the four (4) sections plus lab and library.
Means of Verification	Important Assumptions
<ol style="list-style-type: none"> 1. Headcount - organizational charts; budget; DOH annual report (operations and staffing); PASA reports; routine USAID evaluation. Specific nature and timing of training and field activities will be the subject of annual contractor work plans and reports. 2. Physical observation. 	<p>Assumptions for Achieving Outputs:</p> <ol style="list-style-type: none"> 1. Trainees will complete their training on time and be retained by DOH; DOH staff responsive to external advice and "CJT" 2. Adequate staff/budget forthcoming. 3. Construction occurs in timely manner. 4. Political, legislative support provided by YARG.

Project Logical Framework
(cont'd)

Water Resources 279-0043

Narrative Summary	Objectively Verifiable Indicators
<p>Inputs:</p> <ol style="list-style-type: none"> 1. U.S. <ol style="list-style-type: none"> a. Personnel b. Training c. Commodities 2. YARG <ol style="list-style-type: none"> a. Personnel/salaries b. In-country training c. Commodities d. Land, Office e. Building 	<p>Implementation Target (Type & Quantity)</p> <ol style="list-style-type: none"> 1.a. Two (2) hydrologists plus TDYs (total 143 mmos) b. Academic (MS) 48 mmos special short-term 210 mmos c. Transport (4 Vehicles) Geophysical equip Lab Equipment LANDSAT Imagery Tech. Books 2.a. 1,542 man-months over LCP <ol style="list-style-type: none"> b. 12 mmos c. Aerial photos, maps, reports, locally procured commodities for DOH construction d. Right of Way - Office space for PMSA e. Construction Building for DOH
Means of Verification	Important Assumptions
<ol style="list-style-type: none"> 1.a. USAID financial statements, contractor project reports - CPI reporting/evaluation b. Disbursement of USAID funds and training documents 2. Head-count, YARG budget 	<p>Assumptions for providing inputs:</p> <ol style="list-style-type: none"> 1.a. Competent U.S. consultants are available b. Facilities available 2. YARG able to provide competent personnel to initially staff DOH, find and select prospective long and short-term participants as well as budget for both of above YARG budgets for construction. 3. Training target anticipates some attrition or absorption by private and public sector.

January 6, 1979

Annex NO12

Project Paper (PP)
 Project 0043, Water Resources Planning and Management Budget
 Yemen Arab Republic (A.I.D. Funded)

Personnel	Under Project 0025	Project 0043 Phase I (27 months)	Total Phase I 4/79-6/81	Total Phase II 7/81-6/82
1. Project Manager (USGS-PASA)	1/79-3/31/79 3 mo. @ \$13,000 = \$39,900	4/1/79-6/30/79 3 mo. @ \$12,000 = \$ 36,000	7/1/79-6/30/80 12 mo. @ \$12,500 = \$150,000	7/80-6/30/81 12 mo. @ \$12,500 = \$150,000
Senior Hydrogeologist				24 mo. @ \$11,000 = 264,000
100% financed by AID				
2. Journeyman hydrologist PSC	9/78-3/79 7 mo. @ \$9000 = \$63,000	3 mo. @ \$10,000 = \$30,000 100% AID financed	7/79-6/80 12 mo. @ \$10,500 = \$126,000	7/80-6/81 12 mo. @ 11,000 = \$ 138,000
3. Short Term TDY Technical Assistance (USGS-PASA)	3 mo. @ \$5000 = \$15,000	2 mo. @ \$8000 = \$16,000	10 mo. @ \$8000 = \$80,000	8 mo. @ \$8000 = \$64,000
4. Deputy Project Manager (Yemeni)	3 mo. salary plus per diem \$8500	3 mo. salary = \$7500 per diem = \$1000 total = \$8500	Paid by YOMINCO salary and per diem	Paid by YOMINCO salary and per diem \$8500
<u>Ground Water Branch</u>				
5. Hydrogeology Branch Chief		Salary paid by YOMINCO Per diem 30 dys. @ \$33.00 = \$990	Salary paid by YOMINCO Per diem 120 dys @ \$35.00 = \$4200	Salary paid by YOMINCO Per diem 5190 paid by YOMINCO \$5190
6. Geologist	vacant	vacant	12 mo. @ \$1200 = \$14,400 Per diem \$4200	Salary paid by YOMINCO \$18,600
7. Geophysicist	vacant	vacant	6 mo. @ \$1200 = \$7200	Paid by YOMINCO \$7200

ANNEX 12
1 of 17

Personnel	Under Project 0025	Project 0040 Phase I (27 months) (A.I.D. Funded)		Total Phase I 4/79-6/81	Total Phase II 7/81-6/82
8.6 Geologist technicians	3 Vacant	2 Vacant 12 mo.= \$14,000	1 Vacant 10 mo.= \$24,000	Paid by YOMINCO \$38,000	-----
9.2 Driver operators		6 mo. incl. Salary & Per diem \$5700	Salary paid by YOMINCO Per diem paid by YOMINCO	Salary paid by YOMINCO Per diem paid by YOMINCO 5,700	-----
Surface Water Branch					
10. Hydrologist Branch Chief		Salary paid by YOMINCO Per diem= 30 dys @ 33.00= \$990	Salary paid by YOMINCO P.d.= 120 dys @ 35.00= \$4200	Salary paid by YOMINCO Per diem paid by YOMINCO 5,190	-----
11. Hydraulic Engineer	Vacant	Vacant	6 mo. @ \$1200= \$7200	Paid by YOMINCO 7,200	
12. Hydrologist		Salary paid by YOMINCO Per diem =30 dys @ 33.00= \$990	Salary paid by YOMINCO Per diem=120 dys @ 35.00= \$4200	Salary and Per diem paid by YOMINCO 5,190	-----
13.2 Hydrologist technicians		1 Vacancy 3 mo. @ = \$4050	24 mo. @ \$1200= \$28,800 P.d. = 240 dys @ 35.00= \$8400	Paid by YOMINCO Paid by YOMINCO 41,850	-----
14.2 Surveyors	Vacant	Vacant	24 mo. @ \$1000= \$24,000 plus P.d.= \$8400	Paid by YOMINCO 32,400	-----
15. Draftsman	Vacant	Vacant	12 mo. @ \$1000= \$12,000	Paid by YOMINCO 12,000	-----
6.2 Driver operators		6 mo.= \$5700	Paid by YOMINCO	Paid by YOMINCO 5,700	-----

Personnel A.I.D. Funded

	1/79-3/31/79	4/79-6/79	7/79-6/80	7/80-6/81	Total Phase I 4/79-6/81	Total Phase II 7/81 6/83
Surface Water Branch						
17. Chemist/ Branch Chief	Vacant	Vacant	12 mo. @ \$1500 = \$18,000	Paid by YOMINCO	\$18,000	-----
18.2 Laboratory technicians	Vacant	1 Vacant	1 Vacant 12 mo. @ \$1000 = \$12,000	Paid by YOMINCO	12,000	--- -
19. Helper/ Assistant	Vacant	Vacant	Vacant	Paid by YOMINCO	-----	-----
Data Collection Branch						
20. Librarian/ Chief	Vacant	3 mo. = \$3600	12 mo. @ \$1200 = \$14,400	Paid by YOMINCO	18,000	-----
21.2 Library assistants	Vacant	Vacant	1 Vacant 12 mo. @ \$1000 = \$12,000	Paid by YOMINCO	12,000	-----
22. Clerk	Vacant	Vacant	Paid by YOMINCO	Paid by YOMINCO	-----	-----
Administrative Branch						
23. Administrator/ Chief	(part time)	(part time) 3 mo. = \$1500	Paid by YOMINCO	Paid by YOMINCO	1,500	-----
24. Financial assistant	(part time)	3 mo. @ \$1000 = \$3000	12 mo. @ \$1200 = \$14,400	Paid by YOMINCO	17,400	-----
25. Legal/ economist	Vacant	Vacant	6 mo. @ \$1200 = \$7200	Paid by YOMINCO	7,200	-----

	1/79-3/31/79	4/79-6/79	7/79-6/80	7/80-6/81	Total Phase I 4/79-6/81	Total Phase II 7/81-6/83
26.4 Secretary/ Typists (part time)		Part time = \$1200	Paid by YOMINCO	Paid by YOMINCO	\$1,200	-----
27. Mechanic	Vacant	3 mo. @ 1200 = \$3600	6 mo. @ \$1200 = \$7200	Paid by YOMINCO	10,800	-----
28. Translator/ interpreter	Vacant	3 mo. @ \$1000 = \$3000	Paid by YOMINCO	Paid by YOMINCO	3,000	-----
29.5 Summer trainees			15 mm @ \$400 = \$6000	15 mm @ \$400 = \$6000	12,000	30 mm = 15,000
Totals AID funded						
Expatriate		8 m.m. = \$82,000	34 mm = \$356,000	32 mm = \$352,000	$\Sigma=74$ \$790,000	69 mm = \$648,000
Yemeni (local)		53 mm = \$57,420	251 mm = \$242,400	15 mm = \$6000	$\Sigma=319$ \$305,820	30 mm = \$15,000
Total Phase I & II						
Expatriate=	\$1,438,000					
Local	= <u>320,820</u>					
	\$1,758,820					

Training Program
 Project 0043, Water Resources Planning and Management
 1/9/79 PP

	Phase I 4/79-6/81	Phase II 7/81-6/83	mm	Totals \$
4. Deputy Project Manager	6 mo. management = \$ 15,000	6 mo. management = \$ 15,000	12	30,000
Ground Water Branch				
5. Hydrogeologist/Branch Chief	Master degree 2 yrs. 24 mo. = \$60,000		24	60,000
6. Geologist	6 mo. = \$15,000		6	15,000
7. Geophysicist	9 mo. = \$22,500		9	22,500
8. 6 Geologist Technicians	6 mo. each 12 mo. = \$30,000	24 mo. = \$60,000	36	90,000
9. Surface Water Branch				
10. Hydrologist/Branch Chief	Master degree 2 yrs. 24 mo. = \$60,000		24	60,000
11. Hydraulic engineer		9 mo. = \$22,500	9	22,500
12. Hydrologist	6 mo. = \$15,000		6	15,000
13. 2 Hydrologist technicians	9 mo. = \$22,500	9 mo. = \$22,500	18	45,000
14. 2 Surveyors	9 mo. third country \$15,000	9 mo. third country \$15,000	18	30,000
15. Draftsman	9 mo. third country \$15,000		9	15,000

Training Program

(A.I.D. Funded)

	Phase I 4/79-6/81	Phase II 7/81-6/83	mm	Totals \$
Water Quality Branch				
17. Chemist/Branch Chief	12 mo. = \$30,000		12	30,000
18. 2 Lab. technicians	9 mo. third country \$15,000	9 mo third country \$15,000	18	30,000
Data Collection Branch				
20. Librarian/Branch Chief	12 mo. = \$30,000		12	30,000
21. 2 Library assistants	9 mo. = \$22,500	9 mo. = 22,500	18	45,000
Admininstrative Branch				
23. Administrative Chief	9 mo. = \$22,500		9	22,500
24. Financial Assistant		9 mo. = \$22,500	9	22,500
25. Legal/Economist		9 mo. = \$22,500	9	22,500

Training Program

Phase I	mm	\$	Phase II	mm	\$	Totals Phase I & II	mm	\$
Degree training	48	120,000	--	---		48	120,000	
Short term (non-degree)	90	225,000	75	187,500		165	412,500	
Third country (short term)	<u>27</u>	<u>45,000</u>	<u>18</u>	<u>30,000</u>		<u>45</u>	<u>75,000</u>	
	165	\$390,000	93	217,500		258	607,000	

Back-up Support Project 0040

Geologist 2-4 yrs. undergraduate

Hydrogeologist/Civil/Hydraulic 2-4 yrs. undergraduate

Project 0043
A.I.D. Funded

Equipment	Phase I 4/79-6/81	Total Phase I (000)	Phase II 7/81-6/83	Total Phase II (000)	Totals Phase I & II (000)	FX (000)	Local Cost (000)
1. Vehicle, 4x4, Blazer type	2x\$15,000	30	2x \$20,000	40		70	
2. Vehicle, 4x4, $\frac{1}{4}$ ton pick-up	2x \$15,000	30				30	
3. Vehicle Suburban 4x4	---						
4. Aerial photos	1 set = \$15,000	15				15	
5. Landsat imagery	Lot = \$20,000	20	Lot = \$20,000	20		40	
6. Resistivity equipment	1 set = \$15,000	15	1 set = \$40,000	40		55	
7. Camp equipment	Lot = \$5000	5	Lot = \$5000	5		5	5
8. Field & Lab, geological			Lot = \$5000	5		5	
9. Office equipment	Lot = \$20,000	20	Lot = \$10,000	10		10	20
10. Technical books	Lot = \$4000	4	Lot = \$2000	2		6	
11. Survey, field equipment	Lot = \$5000	5	Lot = \$5000	5		10	
12. Data Center equipment	Lot = \$10,000	10	Lot = \$10,000	10		20	
13. Water testing equipment Lab/ field	Lot = \$35,000	35	Lot = \$5000	5		40	

Equipment	Phase I 4/79-6/81	Total Phase I (000)	Phase II 7/81-6/83	Total Phase II (000)	Totals Phase I & II (000)	FX (000)	Local Cost (000)
14. Water measurment equipment	<u>Lot = \$50,000</u>	<u>50</u>	<u>Lot = \$5000</u>	<u>5</u>	—	<u>55</u>	—
Totals		239		147		361	25
Contingency = 13%		<u>31</u>		<u>20</u>		<u>46</u>	<u>—</u>
		270		167	437	407	30

Housing and Operating Costs

Project 0043
A.I.D. Funded

US Dollars (\$)

	Phase I 4/79-6/81	Total Phase I (000)	Phase II 7/81-6/83	Total Phase II (000)	Totals Phase I & II (000)	FX (000)	Local Cost (000)
Capital Cost							
1. Housing construction for two expatriate staff ^{1/}	2 houses constructed on USAID compound @ \$125,000 ea. = \$250,000	250	-----	---	250	250	
Project Operating Cost							
1. Vehicle operating cost @ \$400 per month, to include gasoline, spares, maintainance	150 vehicle mo. = \$60,000	60	51 vehicle mo. = \$20,400	20.4	80.4		80.4
^{1/} House rental costs for first two years of project are incorporated into personnel costs.							

	Totals: USAID Funding (\$000)		
	Phase I 4/79-6/81	Phase II 7/81-6/83	Totals
1. Personnel	1,095.82 (FX 790)(LC 305.82)	663 (FX 648) (LC 15)	1,758.82
2. Training	390 (FX 390)	217.5 (FX 217.5)	607.5
3. Equipment	270 (FX 255)(LC 15)	167 (FX 152) (LC 15)	437

Totals: USAID Funding (\$000)

	Phase I 4/79-6/81	Phase II 7/81-6/83	Totals
4. Housing	250 (FX 100)(LC 150)		250
5. Operating Cost	60 (LC 60)	20.4 (LC 20.4)	<u>80.4</u>
			3,133.720

Totals: YOMINCO (\$000)

	FY 80	FY81	FY 82	FY 83	Totals
1. Personnel	198	562.2	569.4	569.4	1,899
2. Equipment	25	---	110	---	135
3. Operating Costs	14.4	26.4	61.2	72	<u>102</u>
					2,208

Total Project Cost

USAID	\$3,133,720	59%	
YOMINCO	<u>2,208,000</u>	41%	
	\$ 5,341,720		
	FX	USAID	Total
	2,552,500	LC	3,133,720
	81%	581,220	100%
		19%	

January 8, 1979 Project Paper (PP)
 Project 0043, Water Resources Planning and Management
 Budget: YOMINCO Funded

Positions	FY 80 7/1/79-6/30/80	FY 81 7/80-6/81	Phase I Totals 7/79-6/81	FY 82 7/81-6/82	FY 83 7/82-6/83	Totals Phase II 7/81-6/83	Totals Phase I & II
1. Deputy Project Manager	12 mo. @ \$2500 per month + per diem = \$33,000	12 mo. = \$33,000	66,000	12 mo. = \$33,000	12 mo. = \$33,000	66,000	132,000
2. Ground Water Branch							
2. Hydro- geologist Branch Chief	\$1500/mo. + 10 days Per diem 12 mo. =\$22,200	12 mo. = \$22,200	44,400	12 mo. = \$22,200	12 mo. = \$22,200	44,400	88,800
3. geologist	12 mo. paid by AID @ \$1200/mo.	12 mo. = \$18,600	18,600	12 mo. = \$18,600	12 mo. = \$18,600	37,200	55,800
4. Geo- physicist	6 mo. paid by AID @ \$1200/mo.	12 mo. = \$18,600	18,600	12 mo. = \$18,600	12 mo. = \$18,600	37,200	55,800
5. 6 Geo- logist Technicians	5 positions paid by AID @ \$800/mo. + 10 days Per diem	72 mo. = \$82,800	82,800	72 mo. = \$82,800	72 mo. = \$82,800	165,600	248,400
6.2 Driver Operators	24 mo.= \$22,800	24 mo. = \$22,800	45,600	24 mo. = \$22,800	24 mo. = \$22,800	45,600	91,200
Surface Water Branch							
7. Hydro- logist/ Branch Chief	12 mo. @ \$1500 + Per diem =\$22,200	12 mo. = \$22,200	44,400	12 mo. = \$22,200	12 mo. = \$22,200	44,400	88,800

Project Paper (PP)
 Project 0043, Water Resources Planning and Management
 Budget: YOMINCO Funded

Positions	FY 80 7/1/79-6/30/80	FY 81 7/80-6/81	Phase I Totals 7/79-6/81	FY 82 7/81-6/82	FY 83 7/82-6/83	Totals Phase I 7/81-6/83	Totals Phase I & II
8. Hydraulic Engineer	6 mo. @ \$1500/ mo. paid by USAID	12 mo. + P.d. = \$22,200	22,200	12 mo. = \$22,200	12 mo. = \$22,200	44,400	66,600
9. Hydrologist	12 mo. @ \$1200/mo. + Per diem = \$18,600	12 mo. = \$18,600	37,200	12 mo. = \$18,600	12 mo. = \$18,600	37,600	75,200
10.2 Hydrologist Technicians	Paid by AID @ \$1200/mo.	24 mo. = 37,200	37,200	24 mo. = \$37,200	24 mo. = \$37,200	74,400	111,600
11. 2 Surveyors	24 mo. @ \$1000/mo. Paid by USAID	24 mo. = \$32,400	32,400	24 mo. = \$32,400	24 mo. = \$32,400	64,800	97,200
12. Draftsman	12 mo. @ \$1000/mo. Paid by USAID	12 mo. = \$12,000	12,000	12 mo. = \$12,000	12 mo. = \$12,000	24,000	36,000
13. 2 Driver Operators	24 mo. @ \$600/mo. = \$22,800	24 mo. = 22,800	45,600	24 mo. = \$22,800	24 mo. = \$22,800	45,600	91,200

Project Paper (PP)
 Project 0043, Water Resources Planning and Management
 Budget: YOMINCO Funded

Positions	FY 80 7/1/79-6/30/80	FY 81 7/80-6/81	Phase I Totals 7/79-6/81	FY 82 7/81-6/82	FY 83 7/82-6/83	Totals Phase I 7/81-6/83	Totals Phase I & II
Water Quality Branch							
14. Chemist/ Branch Chief	12 mo. @ \$1500/mo. Paid by USAID	12 mo. = \$18,000	18,000	12 mo. = \$18,000	12 mo. = \$18,000	36,000	54,000
15. 2 Lab. Technicians	12 mo. @ \$1000/mo. Paid by USAID	24 mo. = \$24,000	24,000	24 mo. = \$24,000	24 mo. = \$24,000	48,000	72,000
16. Helper/ assistants	Vacant @ \$600/mo.	Vacant	---	12 mo. = \$7200	12 mo. = \$7200	14,400	14,400
Data Collection Branch							
17. Librarian/ Chief	@ \$1200/mo. Paid by USAID	12 mo. = \$14,400	14,400	12 mo. = \$14,400	12 mo. = \$14,400	28,800	43,200
18. 2 Librarian Assistants	@ \$1000/mo. 1 Paid by USAID	24 mo. = \$24,000	24,000	24 mo. = \$24,000	24 mo. = \$24,000	48,000	72,000
19. Clerk	@ \$600/mo. vacant	12 mo. = \$7200	7,200	12 mo. = \$7200	12 mo. = \$7200	14,400	21,600

Project Paper (PP)
 Project 0043, Water Resources Planning and Management
 Budget: YOMINCO Funded

Positions	FY 80 7/1/79-6/30/80	FY 81 7/80-6/81	Phase I Totals 7/79-6/81	FY 82 7/81-6/82	FY 83 7/82-6/83	Totals Phase I 7/81-6/83	Totals Phase I & II
Administrative Branch							
20. Admini- strative Chief	12 mo. @ \$1500/mo. = \$18,000	12 mo. = \$18,000	36,000	12 mo. = \$18,000	12 mo. = \$18,000	36,000	72,000
21. Financial Assistant	@ \$1000/mo. Paid by USAID	12 mo. = \$12,000	12,000	12 mo. = 12,000	12 mo. = \$12,000	24,000	36,000
22. Legal/ Economist	6 mo. @ \$1200/mo. Paid by USAID	12 mo. = \$14,400	14,400	12 mo. = \$14,400	12 mo. = \$14,400	28,800	43,200
23. 4 Secretary Typists	24 mo. @ \$800/mo. = \$19,200	48 mo. = \$38,400	57,600	48 mo. = \$38,400	48 mo. = \$38,400	76,800	134,400
24. Mechanic	@ \$1200/mo. 6 mo. paid by USAID 6 mo. = \$7200	12 mo. = \$14,400	21,600	12 mo. = \$14,400	12 mo. = \$14,400	28,800	50,400
25. Translator Interpreter	12 mo. @ \$1000/mo. = \$12,000	12 mo. = \$12,000	24,000	12 mo. = \$12,000	12 mo. = \$12,000	24,000	48,000
26. 5 Summer Trainees	Paid by USAID	Paid by USAID		Paid by USAID	Paid by USAID		
Totals:	150 mo. =\$198,000	456 mo. = \$562,200	760,200	468 mo. = \$569,400	468 mo. = \$569,400	1,138,800	1,899,000

YOMINCO Funded

Equipment	7/79-6/80	7/8--6/81	Phase I 4/79-6/81	7/81-6/82	7/82-6/83	Phase II	Total Phase I & II
1. Vehicle, Toyota type, 4x4	1-Deputy Project Manager \$15,000	---	15,000	3-replacement @ \$20,000 = \$60,000	---	60,000	75,000
2. Vehicle, pick-up truck $\frac{1}{4}$, 4x4				2-replacement @ \$17,500 = \$35,000		35,000	35,000
3. Office	Lot = \$10,000		10,000	Lot = \$15,000		15,000	25,000
4. Sub-Totals US \$ YR	\$25,000 (YR113,375)		\$25,000 (YR113,375)	\$110,000 (YR499,000)		\$110,000 (YR499,000)	\$135,000 (YR612,000)

Operating Costs

1. Vehicles @ \$400/vehicle/month	12 mo. @ \$400 = \$4800 96 vm \$9600	12 mo. @ \$400 = \$4800 108 vm 21,600	9,600	72 vm @ \$400 = \$28,800 108 vm \$32,400	180 vm @ \$400 = \$72,000	28,800	104,400	135,600
Sub-Totals	\$14,400	\$26,400	\$40,800	\$61,200	\$72,000	\$133,200	\$174,000	
Totals	\$39,400	\$26,400	\$65,800	\$171,200	\$72,000	\$243,200	\$309,000	

Project 0043 Revised Budget PP January 10, 1979

<u>I. YOMINCO</u>	<u>FY-80</u>	<u>FY-81</u>	<u>FY-82</u>	<u>FY-83</u>	<u>Totals</u>
1. Personnel	198,000	562,200	569,400	569,400	1,899,000
2. Equipment	25,000	-----	110,000	-----	135,000
3. Operating Cost	<u>14,400</u>	<u>26,400</u>	<u>61,200</u>	<u>72,000</u>	<u>174,000</u>
	237,400	588,600	740,600	641,400	2,208,000

<u>II. USAID</u>	<u>Phase I</u> <u>4/79-6/81</u>	<u>Phase II</u> <u>7/81-6/83</u>	<u>Totals</u>
1. Personnel	1,095,820	663,000	1,758,820
2. Training	390,000	217,500	607,500
3. Equipment	270,000	167,000	437,000
4. Housing	250,000	-----	250,000
5. Operating Costs	<u>60,000</u>	<u>20,400</u>	<u>80,400</u>
	2,065,820	1,067,900	3,133,720

Total Project Cost:	USAID	3,133,720	59%
	YOMINCO	<u>2,208,000</u>	<u>41%</u>
		\$5,341,720	100%

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YEMEN - WATER RESOURCES PLANNING AND MANAGEMENT
(279-0043)

6C(2) - PROJECT CHECKLIST

Listed below are, first, statutory criteria applicable generally to projects with FAA funds, and then project criteria applicable to individual fund sources: Development Assistance (with a sub-category for criteria applicable only to loans); and Security Supporting Assistance funds.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP TO DATE? IDENTIFY. HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT?

GENERAL CRITERIA FOR PROJECT.

1. App. Unnumbered; FAA Sec. 653(b)
 - (a) Describe how Committees on Appropriations of Senate and House have been or will be notified concerning the project;
 - (b) is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than \$1 million over that figure plus 10%)?
 - a. Advise of Program Change will be forwarded to Congress.
 - b. Yes.

2. FAA Sec. 611(a)(1). Prior to obligation in excess of \$100,000, will there be (a) engineering, financial, and other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?
 - a. Yes.
 - b. Yes.

3. FAA Sec. 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance?

No further legislation is required.

4. FAA Sec. 611(b); App. Sec. 101. If for water or water-related land resource construction, has project met the standards and criteria as per Memorandum of the President dated Sept. 5, 1973 (replaces Memorandum of May 15, 1962; see Fed. Register, Vol 38, No. 174, Part III, Sept. 10, 1973)?

N/A.

5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed \$1 million, has Mission Director certified the country's capability effectively to maintain and utilize the project?

N/A.

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A.

6. FAA Sec. 209, 619. Is project susceptible of execution as part of regional or multi-lateral project? If so why is project not so executed? Information and conclusion whether assistance will encourage regional development programs. If assistance is for newly independent country, is it furnished through multi-lateral organizations or plans to the maximum extent appropriate?
- Project is not so susceptible. Project will not encourage regional development programs. Yemen is not a newly-independent country.
7. FAA Sec. 501(a); (and Sec. 201(f) for development loans). Information and conclusions whether project will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.
- The project is designed to increase and restore Yemens productivity of natural resources thereby improving the efficiency of small farm production and-over-all national growth.
8. FAA Sec. 501(b). Information and conclusion on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).
- The U.S. private sector is expected to provide some of the technical assistance component of the project.
9. FAA Sec. 612(b); Sec. 636(h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized to meet the cost of contractual and other services.
- Project Agreement will so provide.
10. FAA Sec. 612(d). Does the U.S. own excess foreign currency and, if so, what arrangements have been made for its release?
- Yemen is not an excess currency country.
3. FUNDING CRITERIA FOR PROJECT
1. Development Assistance Project Criteria
- a. FAA Sec. 102(c); Sec. 111; Sec. 291a. Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production, spreading investment out from cities to small towns and rural areas; and (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions?
- a. The primary purpose of the project is to improve the small farm production through increase productivity of water resources.

b. FAA Sec. 103, 103A, 104, 105, 106, 107. Is assistance being made available: [include only applicable paragraph -- e.g., a, b, etc. -- which corresponds to source of funds used. If more than one fund source is used for project, include relevant paragraph for each fund source.]

- (1) [103] for agriculture, rural development or nutrition; if so, extent to which activity is specifically designed to increase productivity and income of rural poor; [103A] if for agricultural research, is full account taken of needs of small farmers;
- (2) [104] for population planning or health; if so, extent to which activity extends low-cost, integrated delivery systems to provide health and family planning services, especially to rural areas and poor;
- (3) [105] for education, public administration, or human resources development; if so, extent to which activity strengthens nonformal education, makes formal education more relevant, especially for rural families and urban poor, or strengthens management capability of institutions enabling the poor to participate in development;
- (4) [106] for technical assistance, energy, research, reconstruction, and selected development problems; if so, extent activity is:
 - (a) technical cooperation and development, especially with U.S. private and voluntary, or regional and international development, organizations;
 - (b) to help alleviate energy problem;
 - (c) research into, and evaluation of, economic development processes and techniques;
 - (d) reconstruction after natural or manmade disaster;
 - (e) for special development problem, and to enable proper utilization of earlier U.S. infrastructure, etc., assistance;
 - (f) for programs of urban development, especially small labor-intensive enterprises, marketing systems, and financial or other institutions to help urban poor participate in economic and social development.

Project is specially designed to increase productivity of natural resources to improve efficiency of small farm production.

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(5) [10?] by grants for coordinated private effort to develop and disseminate intermediate technologies appropriate for developing countries.

c. FAA Sec. 110(a); Sec. 208(e). Is the recipient country willing to contribute funds to the project, and in what manner has or will it provide assurances that it will provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or has the latter cost-sharing requirement been waived for a "relatively least-developed" country)?

Government's contribution is expected to be over 25% and assurances will be provided in the Project Agreement.

d. FAA Sec. 110(b). Will grant capital assistance be disbursed for project over more than 3 years? If so, has justification satisfactory to Congress been made, and efforts for other financing?

N/A.

e. FAA Sec. 207; Sec. 113. Extent to which assistance reflects appropriate emphasis on; (1) encouraging development of democratic, economic, political, and social institutions; (2) self-help in meeting the country's food needs; (3) improving availability of trained worker-power in the country; (4) programs designed to meet the country's health needs; (5) other important areas of economic, political, and social development, including industry; free labor unions, cooperatives, and Voluntary Agencies; transportation and communication; planning and public administration; urban development, and modernization of existing laws; or (6) integrating women into the recipient country's national economy.

See Project Paper. Project to some extent addresses all of the concerns listed.

f. FAA Sec. 231(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental and political processes essential to self-government.

See Project Paper Section IV Beneficiary Analysis.

g. FAA Sec. 201(b)(2)-(4) and -(3); Sec. 201(e); Sec. 211(a)(1)-(3) and -(6). Does the activity give reasonable promise of contributing to the development: of economic resources, or to the increase of productive capacities and self-sustaining economic growth; or of educational or other institutions directed toward social progress? Is it related to and consistent with other development activities, and will it contribute to realizable long-range objectives? And does project paper provide information and conclusion on an activity's economic and technical soundness?

Yes.

n. FAA Sec. 201(b)(6); Sec. 211(a)(5), (6). Information and conclusion on possible effects of the assistance on U.S. economy, with special reference to areas of substantial labor surplus, and extent to which U.S. commodities and assistance are furnished in a manner consistent with improving or safeguarding the U.S. balance-of-payments position.

The project will have little, if any, effect on U.S. balance-of-payments position.

2. Development Assistance Project Criteria (Loans only)

a. FAA Sec. 201(b)(1). Information and conclusion on availability of financing from other free-world sources, including private sources within U.S.

N/A.

b. FAA Sec. 201(b)(2); 201(d). Information and conclusion on (1) capacity of the country to repay the loan, including reasonableness of repayment prospects, and (2) reasonableness and legality (under laws of country and U.S.) of lending and relending terms of the loan.

c. FAA Sec. 201(e). If loan is not made pursuant to a multilateral plan, and the amount of the loan exceeds \$100,000, has country submitted to AID an application for such funds together with assurances to indicate that funds will be used in an economically and technically sound manner?

d. FAA Sec. 201(f). Does project paper describe how project will promote the country's economic development taking into account the country's human and material resources requirements and relationship between ultimate objectives of the project and overall economic development?

e. FAA Sec. 202(a). Total amount of money under loan which is going directly to private enterprise, is going to intermediate credit institutions or other borrowers for use by private enterprise, is being used to finance imports from private sources, or is otherwise being used to finance procurements from private sources?

f. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete in the U.S. with U.S. enterprise, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan?

3. Project Criteria Solely for Security Supporting Assistance

FAA Sec. 531. How will this assistance support promote economic or political stability?

N/A.

4. Additional Criteria for Alliance for Progress

[Note: Alliance for Progress projects should add the following two items to a project checklist.]

N/A.

a. FAA Sec. 251(b)(1), -(8). Does assistance take into account principles of the Act of Bogota and the Charter of Punta del Este; and to what extent will the activity contribute to the economic or political integration of Latin America?

b. FAA Sec. 251(b)(8); 251(h). For loans, has there been taken into account the effort made by recipient nation to repatriate capital invested in other countries by their own citizens? Is loan consistent with the findings and recommendations of the Inter-American Committee for the Alliance for Progress (now "CEPCIES," the Permanent Executive Committee of the OAS) in its annual review of national development activities?

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SC(3) - STANDARD ITEM CHECKLIST

Listed below are statutory items which normally will be covered routinely in those provisions of an assistance agreement dealing with its implementation, or covered in the agreement by exclusion (as where certain uses of funds are permitted, but other uses not).

These items are arranged under the general headings of (A) Procurement, (B) Construction, and (C) Other Restrictions:

A. Procurement

1. FAA Sec. 502. Are there arrangements to permit U.S. small business to participate equitably in the furnishing of goods and services financed? Yes
2. FAA Sec. 604(a). Will all commodity procurement financed be from the U.S. except as otherwise determined by the President or under delegation from him? Yes
3. FAA Sec. 604(d). If the cooperating country discriminates against U.S. marine insurance companies, will agreement require that marine insurance be placed in the U.S. on commodities financed? N/A
4. FAA Sec. 604(e). If offshore procurement of agricultural commodity or product is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity? N/A
5. FAA Sec. 608(a). Will U.S. Government excess personal property be utilized wherever practicable in lieu of the procurement of new items? Yes
6. FAA Sec. 501(b). (a) Compliance with requirement that at least 50 per centum of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S.-flag commercial vessels to the extent that such vessels are available at fair and reasonable rates. Yes
7. FAA Sec. 521. If technical assistance is financed, will such assistance be furnished to the fullest extent practicable as goods and professional and other services from private enterprise on a contract basis? If the facilities of other Federal agencies will be utilized, Yes

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are they particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs?

8. International Air Transport. Fair Competitive Practices Act, 1974

if air transportation of persons or property is financed on grant basis, will provision be made that U.S.-flag carriers will be utilized to the extent such service is available?

Yes

B. Construction

1. FAA Sec. 601(d). If a capital (e.g., construction) project, are engineering and professional services of U.S. firms and their affiliates to be used to the maximum extent consistent with the national interest?

N/A

2. FAA Sec. 611(c). If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable?

N/A

3. FAA Sec. 620(k). If for construction of productive enterprise, will aggregate value of assistance to be furnished by the U.S. not exceed \$100 million?

N/A

C. Other Restrictions

1. FAA Sec. 201(d). If development loan, is interest rate at least 2% per annum during grace period and at least 3% per annum thereafter?

N/A

2. FAA Sec. 301(d). If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights?

Yes

3. FAA Sec. 620(h). Do arrangements preclude promoting or assisting the foreign aid projects or activities of Communist-Bloc countries, contrary to the best interests of the U.S.?

Yes

4. FAA Sec. 636(i). Is financing not permitted to be used, without waiver, for purchase, long-term lease, or exchange of motor vehicle manufactured outside the U.S. or guaranty of such transaction?

N/A

5. Will arrangements preclude use of financing:

N/A

- a. FAA Sec. 111. to pay for performance of abortions or to motivate or coerce persons to practice abortions, to pay for performance of involuntary sterilization, or to coerce or provide financial incentive to any person to practice sterilization?
- b. FAA Sec. 520(a). to compensate owners for expropriated nationalized property?
- c. FAA Sec. 560. to finance police training or other law enforcement assistance, except for narcotics programs?
- d. FAA Sec. 662. for CIA activities?
- e. App. Sec. 103. to pay pensions, etc., for military personnel?
- f. App. Sec. 105. to pay U.N. assessments?
- g. App. Sec. 106. to carry out provisions of FAA Sections 209(d) and 251(h)? (transfer to multilateral organization for lending).
- h. App. Sec. 112. to finance the export of nuclear equipment, fuel, or technology or to train foreign nationals in nuclear fields?
- i. App. Sec. 501. to be used for publicity or propaganda purposes within U.S. not authorized by Congress?

AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT AUTHORIZATION AND REQUEST FOR ALLOTMENT OF FUNDS PART I				1. TRANSACTION CODE		1 of 4		PAF		
2. DOCUMENT CODE 5				A A ADD C CHANGE D DELETE						
						3. DOCUMENT REVISION NUMBER				
1. COUNTRY ENTITY Yemen Arab Republic				7. PROJECT TITLE (Maximum 40 characters) Water Resources Planning and Management						
5. PROJECT NUMBER (7 digits) [279-0043]		6. BUREAU/OFFICE A SYMBOL: NE B. CODE: [03]		9. EST. PERIOD OF IMPLEMENTATION YRS. [04] QTRS [2]						
8. PROJECT APPROVAL DECISION A				ACTION TAKEN A APPROVED D DISAPPROVED DE DEAUTHORIZED						
10. APPROVED BUDGET AID APPROPRIATED FUNDS (\$000)										
A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. 1ST FY <u>79</u>		H. 2ND FY <u>80</u>		K. 3RD FY <u>81</u>		
		C GRANT	D LOAN	F GRANT	G LOAN	I GRANT	J. LOAN	L GRANT	M. LOAN	
(1) PH	750	870		1,534				1,600		
(2)										
(3)										
(4)										
TOTALS				1,534				1,600		
A. APPROPRIATION	N. 4TH FY <u>82</u>		Q. 5TH FY <u>83</u>		LIFE OF PROJECT		11. PROJECT FUNDING AUTHORIZED		A. GRANT	B. LOAN
	O. GRANT	P. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN	ENTER APPROPRIATE CODE(S): 1 - LIFE OF PROJECT 2 - INCREMENTAL, LIFE OF PROJECT		2	
(1)					3,134					
(2)										
(3)										
(4)										
TOTALS					3,134		C. PROJECT FUNDING AUTHORIZED THRU		FY [80]	
12. INITIAL PROJECT FUNDING ALLOTMENT REQUESTED (\$000)						13. FUNDS RESERVED FOR ALLOTMENT				
A. APPROPRIATION	B. ALLOTMENT REQUEST NO. _____					TYPED NAME (Chw/, SER: FM/FSD)				
	C. GRANT	D. LOAN								
(1) PH	1,534					SIGNATURE				
(2)										
(3)						DATE				
(4)										
TOTALS	1,534									
14. SOURCE/ORIGIN OF GOODS AND SERVICES						<input type="checkbox"/> 000 <input checked="" type="checkbox"/> 941 <input checked="" type="checkbox"/> LOCAL <input type="checkbox"/> OTHER _____				
15. FOR AMENDMENTS, NATURE OF CHANGE PROPOSED										

FOR PPC/PIAS USE ONLY	16. AUTHORIZING OFFICE SYMBOL	17. ACTION DATE			18. ACTION REFERENCE (Optional)	ACTION REFERENCE DATE		
		MM	DD	YY		MM	DD	YY

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D. C. 20523

ASSISTANT
ADMINISTRATOR

PROJECT AUTHORIZATION
AND REQUEST FOR ALLOTMENT OF FUNDS

PART II

Name of Country: Yemen

Name of Project: Water Resources
Planning and Management

Number of Project: 279-0043

Pursuant to Part I, Chapter I, Section 104(c) (Health) of the Foreign Assistance Act of 1961, as amended (the "Act"), I hereby authorize a Grant to Yemen (the "Grantee") of not to exceed One Million Five Hundred Thirty-four Thousand United States Dollars (\$1,534,000) (the "Authorized Amount") to help in financing certain foreign exchange and local currency costs of goods and services required for the project as described in the following paragraph.

The Project will assist the Grantee to achieve its goal of efficient use of water resources in support of its agricultural and industrial programs and its population needs. The Project will assist the Grantee in establishing a Department of Hydrology capable of collecting, utilizing, storing and disseminating hydrological information supportive of the country's development priorities. The Project will finance technical assistance, training, and commodities in support of the above activities.

I approve the total level of A.I.D. appropriated funding planned for the Project of not to exceed Three Million One Hundred Thirty-Four Thousand United States Dollars, (\$3,134,000), including the funding authorized above, during the period FY 79 through FY 83. \$1,600,000 will be available for further increments during the period of Grant funding, subject to the availability of funds in accordance with A.I.D. allotment procedures.

I hereby authorize the negotiation and execution of the Project Agreement by the officer to whom such authority has been delegated in accordance with A.I.D. regulations and Delegations of Authority, subject to the following essential terms and covenants and major conditions; together with such other terms and conditions as A.I.D. may deem appropriate:

a. Source and Origin of Goods and Services

Goods and services financed under the project by A.I.D. shall have their source and origin in the Cooperating Country or in countries

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included in A.I.D. Geographic Code 941, except as A.I.D. may otherwise agree in writing.

b. Conditions Precedent to Initial Disbursement

Prior to any disbursement, or the issuance of any commitment documents under the Project Agreement, Grantee shall, except as A.I.D. shall otherwise agree in writing, furnish in form and substance satisfactory to A.I.D.:

(1) a statement of the person or persons acting as Grantee's representatives, plus a specimen signature of each such person;

(2) a request to A.I.D. in writing for the assignment of expatriate advisors under the Project;

(3) a written designation of a local counterpart to the United States expatriate advisor; and

(4) such other information and documents as A.I.D. may reasonably require.

c. Additional Disbursement

Prior to disbursement under the Grant, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, to finance the support costs of local personnel beyond June 30, 1979 and for any commodities in support of the Project, the Grantee shall, except as A.I.D. may otherwise agree in writing, furnish in form and substance satisfactory to A.I.D.:

(1) Evidence that physical facilities required for a laboratory have been made available for the Project;

(2) A YARG approved organization chart and staffing pattern for a Department of Hydrology;

(3) Evidence that funds in support of projected personnel and operations costs to be financed by the Grantee in accordance with Annex I of the Project Agreement have been budgeted by the Grantee for the year commencing July 1, 1979;

(4) A training plan and a list of candidates for training during the year commencing July 1, 1979;

(5) An equipment list and procurement plan for commodities to be purchased in support of the Project; and

(6) A detailed evaluation plan for the Project.

- 3 -

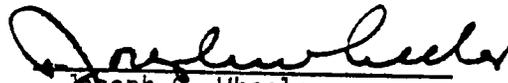
d. Covenants

The Grantee shall:

(1) carry out the project with due diligence and efficiency, including the recruitment of all necessary local staff in support of the Project;

(2) budget and provide in a timely manner all funds, in addition to the Grant, and all other resources required to carry out the project effectively; and

(3) initiate action to establish a Governmental Water Resource Council charged with the formulation of national policy related to the utilization of water resources.


Joseph C. Wheeler
Assistant Administrator
Bureau for Near East
April 17, 1979
Date

CLASSIFICATION
PROJECT EVALUATION SUMMARY (PES) - PART I

1. PROJECT TITLE PROJECT 0025 Water Survey of North Yemen			2. PROJECT NUMBER 279-11-120-0025	3. MISSION/AID/W OFFICE USAID/Yemen
			4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) <u>79-1</u>	
			<input checked="" type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION	
5. KEY PROJECT IMPLEMENTATION DATES			6. ESTIMATED PROJECT FUNDING	
A. First PRO-AG or Equivalent FY <u>74</u>	B. Final Obligation Expected FY <u>78</u>	C. Final Input Delivery FY <u>79</u>	A. Total \$ <u>2,932</u>	7. PERIOD COVERED BY EVALUATION
			B. U.S. \$ <u>2,086</u>	From (month/yr.) <u>8/77</u>
				To (month/yr.) <u>12/78</u>
				Date of Evaluation Review <u>1/79</u>

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICE RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
ACTION		
1) Contract for Journeyman Hydrologist	USAID/AID	2/79
2) Execute PASA Agreement with USGS for Proj. Manager and short-term TDY Technical Asst	AID/USGS	2/79
3) Complete Amrin Basin Water Resource Rpt.	USGS	4/79
4) Complete shipment of geological maps to Yemen	USGS	4/79
5) Authorize Proj. 0043 NLT February 1979	AID/W	2/79
6) Complete PP modification for 0043 including resolution of technician housing costs	USAID/YOMINCO	1/79
7) Continue recruitment of Yemeni Deputy Project Manager and other Yemeni staff positions	YOMINCO	3/79
8) Budget for increased Yemeni staff project support for Project 0043	YOMINCO	5/79
9) Complete construction of the Water Quality Laboratory and offices	YOMINCO	1/80

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS			10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT	
<input type="checkbox"/> Project Paper	<input type="checkbox"/> Implementation Plan e.g., CPI Network	<input checked="" type="checkbox"/> Other (Specify) PP Revision of Project 0043	A. <input type="checkbox"/> Continue Project Without Change	
<input type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T	<input type="checkbox"/> Other (Specify)	B. <input type="checkbox"/> Change Project Design and/or	
<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C		<input type="checkbox"/> Change Implementation Plan	
<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/P		C. <input checked="" type="checkbox"/> Discontinue Project - Start n follow-on Project	

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)		12. Mission/AID/W Office Director Approval	
David Gephart/ USAID/Project Manager Z. Merabet/YOMINCO/Project Manager		Signature <i>R. G. Huesmann</i>	
		Typed Name R. G. Huesmann, Dir.	
		Date January 15, 1979	

P E S - PART II

Project 025 Water Survey of North Yemen

13. Summary

The project has been extended twice, from October 1, 1977, to March 31, 1978, and from April 1, 1978 to March 31, 1979. The purposes of these extensions were to complete project objectives as well as to serve as a vehicle for a smooth transition to the proposed follow-on Project 0043, Water Resources Planning and Management. During the first extension, the project was under the direct control and management of USAID. During the second extension the project was transferred to the Yemen Oil and Mineral Corporation (August 1, 1978) where a Department of Hydrology (DOH) had been established. The project during the second extension has lacked adequate technical assistance to accomplish certain planned outputs. Nevertheless, the project purpose and goal will have been achieved with the termination of this project on March 31, 1979. The new 0043 follow-on project is to focus on institutional development, the groundwork for which has been laid by Project 025.

14. Evaluation Methodology

This evaluation addresses progress to date, accomplishments, host country inputs, USAID inputs and project issues for review and consideration by AID/W in conjunction with the authorization of the follow-on Project 0043. The evaluation also updates project evaluation requirements. The above were evaluated against stated objectives contained in the Project Agreement of July /1978 and the revised 025 SP of April/78. The evaluation was a joint effort involving collaboration between USAID and the YOMINCO, project managers.

15. External Factors

The major change, and one of considerable impact to project purpose and goal, was to transfer project operations from USAID to the control of the host government under YOMINCO. See Item 23 below. Furthermore, what was seen as a precondition to initiation and successful implementation of Project 043, namely, sufficient YAR funding to construct a DOH facility, has already been achieved.

16 - 17. Inputs and Outputs

Under Project Agreement No. 78-6 dated July 31, 1978, the project was transferred and placed under the control of the General Director of Geological Survey and Exploration of Mineral Resources, Yemen Oil and Mineral Corporation, within a newly created Department of Hydrology (DOH).

-2-

The Project Agreement provided AID funds in the amount of U.S. \$500,000 for project operations to March 31, 1978. The new follow-on Project 0043, Water Resources Planning and Management, to be authorized by 2/79, will maintain Project 0025's continuity and focus on institutional development of a DOH.

The Project Agreement called for the following accomplishments:

USAID:

1. Complete the publication of the 1:500,000 geological maps and provide 5000 copies to YOMINCO by 1/79. This has been partially fulfilled. YOMINCO has received 100 copies of the map as of 12/28/78. This will meet the immediate need until arrival of the bulk shipment estimated to be 3/79.
2. Complete the Amran Basin ground water report and provide 25 copies to YOMINCO by March 1979. Little progress has been made. No draft report has been received by 1/79 and Schedule of Completion is unknown.
3. Transfer Project 025 equipment and personnel to YOMINCO by August 1978. Completed by PIR No. 4, dated August 22, 1978.
4. Recruit a Senior Project Manager by March 1979. Unfulfilled action of USAID/AID as of 1/79.
5. Recruit a journeyman hydrologist by September 1978. Unfulfilled action of USAID/AID as of 1/79.
6. Provide short term TDY TA for data collection operations for YOMINCO by 3/79. Unfulfilled as of 1/79. This action dependent upon execution of a PASA Agreement between AID and USCS. As of 1/79 no agreement has been executed although AID/W has had the PIO/T since September 1978.
7. Initiate training of two Yemeni for six training months (three each) in operation of a data collection center, by March 1979. Unfulfilled action as of 1/79. Dependent upon presence of a Project Manager, short-term TDY TA and a USCS PASA contract.

-3-

8. Fund five Yemeni university summer interns for two months OJT. Completed as of 9/78.

9. Fund one Yemeni geophysical technician and three field assistants to 3/31/79. Underway.

10. Assist in funding of five Yemeni hydrogeologists. Only two hydrogeologists are being funded due to staff vacancies.

11. Assist in the funding of five Yemeni semi-professionals for field and data center operation to 3/31/79. Underway.

12. Assist YOMINCO in project equipment procurement to 3/31/79. Partially fulfilled. Technical equipment procurement in the U.S. is dependent upon the presence of the USGS project manager to identify and develop equipment specifications for the project.

13. Establish a project operating fund with YOMINCO. This was established with FIL No. 3, dated August 12, 1978.

YOMINCO:

1. YOMINCO will actively proceed to institutionalize a DOH. As of August 1, 1978, YOMINCO provided office space for the DOH operation and actively assumed, under direction of Mr. Ali Taber Awali, Director General, operational responsibility for the project.

2. Fund the salaries of two Yemeni Hydrologists. YOMINCO is funding the salaries of three hydrologists having hired one additional person in the build-up of the DOH.

3. Recruit and fund the salaries of three Yemeni graduate hydrologists. This was not accomplished. Two graduates were initially interested in working for YOMINCO but instead went to work for the National Water and Sewerage Authority (where three AID projects are centered) at one and one-half the salary level being offered by YOMINCO. YOMINCO did hire two technicians and one hydrologist as noted above.

4. Fund the salaries of eight Yemeni semi-professional personnel. This was not completely fulfilled. Two semi-professional technicians and one driver/field operator were hired (see above), and four YOMINCO administrative personnel assigned part-time to the DOH (two secretaries, two financial personnel). The salaries of these seven people are being paid from the AID funded project operating fund.

-4-

5. Select five candidates for training. Four candidates have been selected for subsequent training in the U.S., English language tests given, and English language training scheduled (1/79). Final selection for training is dependent upon the arrival of the USGS project manager and his concurrence of selection.
6. Funding of the DOH water quality laboratory and office facilities. YOMINCO, under their FY 78-79 budget have funded and proceeded to construct (30% complete) a new headquarters addition which includes office and laboratory space for the DOH. Approximately 150m² has already been constructed. Final interior design and construction will start in March 79 in conjunction with the West German assistance to YOMINCO. The West German project consists of T.A. and laboratory equipment for mineral and geological analysis. The YOMINCO is expected to complete construction of the facility by 1/80.
7. YOMINCO to increase salary levels to retain professional personnel. The YOMINCO had a major salary increase in 9/78. However, the increase provides a minimum salary of YR 3800 (U.S. \$838) per month for a graduate professional which is still 40% below other YARK autonomous agencies such as NWSA, etc., which get YR 5400 per month starting salaries.
8. The YOMINCO to continue Project OOM5 operations. This is being done under the supervision of a TCN engineering graduate (Fluent in Arabic). Although the TCN does not have a degree in hydrology, her background in Yemen included hydrologic work. She is proving to be capable in maintaining project activity and promoting the organizational buildup of the DOH. However, the project critically lacks the input of the Journeyman hydrologist and USGS project manager. (See comments below.)
9. YOMINCO to provide in kind contribution for project implementation. This is presently being provided through YOMINCO office facilities and supervision of DOH operations by the Director General, Ali Jaber Awali.
10. YOMINCO and USAID collaborate on preparation of the PP for Project OOM3. The Project OOM3 PP was approved by NEAS on November 8, 1978. However, project authorization is dependent upon the YOMINCO contributing to project housing support costs and in collaboration with USAID to develop a revised budget, staffing and training plan. This is proceeding satisfactorily.

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18. Purpose

The project purpose is "to develop a primary data base covering groundwater resources in North Yemen and to develop a limited capacity for Yemen to conduct water surveys in the country."

The purpose has been achieved with the turn over of the project to YOMINCO. The remainder of the project life will be directed toward the strengthening of DOH.

19. Goal

The project goal is "to promote efficient use of water in support of YARG's development programs in the agricultural, industrial and health sectors.

Data and project verifiable indicators are inadequate or nonexistent to hypothesize on the progress achieved in support of the project goal. The follow-on project CO43, having the identical goal, should provide tangible evidence to its attainment.

20. Beneficiaries

The direct and indirect beneficiaries of this project cannot be linked to the criteria contained in Sec. 102(d) of the FAA.

It is expected that indirect beneficiary linkage can be made under the follow-on Project CO43.

However, residual benefits coming from well development under this project have contributed to agriculture productivity and health-providing potable water to village populations.

21. Unplanned Effects

None noted outside of advantageous impact on agriculture and health.

22. Lessons Learned

Lessons learned are pointed out in Section 23.

23. Factors Related to Unsatisfactory Project Implementation

1. Failure to complete Amran Rain Water Resource Report. This action is the responsibility of USGS. The USGS project manager departed Yemen October 5, 1977 with the understanding that a draft report would be completed within six months. No draft report has been received by USAID or YARG as of 1/79.

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2.) Failure to contract for Journeyman hydrologist position.

This action is the responsibility of USAID and AID/W. USAID submitted a PIO/T for this position to AID/W in August 78. As of 1/79 (four months later) a possible qualified candidate has not been identified. The lack of a suitable candidate to lead this project during this interim period prior to start-up of 0043 is affecting project sub-target accomplishments.

Identifying Yemeni for out-country training procurement of equipment, on-the-job training and lower level institutionalizing of the DCH are a few of the sub-project targets not realized.

It is estimated that this position will not be filled earlier than March 1979. Target date for filing this position was October 1978.

3.) Failure to execute a PASA agreement with the USGS for a project manager and short term specialized technical assistance.

This action is the responsibility of AID/W and the USGS. Project implementation called for a USGS project manager to be on site by 1/79. As of 1/79 no agreement has been executed and no project manager identified. The PIO/T, the basis for the PASA agreement, was submitted to AID/W August 78.

The PASA agreement will also cover short term TDY technical specialist inputs to the project.

The failure to move ahead with this PASA agreement will prevent the achievement of the major inputs and outputs targets of this project, i.e., short term OJT training of Yemeni, identification of equipment and commodities to be procured under this project, the development of the DCH organization and identity of Yemeni for out-country short-term training, starting June 1979.

August 22, 1978
Implementation Letter No. 3
Water Survey of North Yemen
Project 279-0025
Project Operating Fund

Mr. Ali Jaber Alawi
Director General
YOMINCO
Sana, Yemen

Dear Mr. Alawi:

As discussed with you and Mr. Mansoor Ali Sharief, your financial manager, this implementation letter defines the procedures, requirements, and eligible items for funding in the implementation of the Project Operating Fund, as stated in Project Agreement 78-5, dated July 31, 1978, Section V, page 7.

The Project Operating Fund (POF) provides funds to YOMINCO for the following purposes:

1. Payment of salaries of YOMINCO assigned personnel to the project.
2. Payment of field per diem based upon standard YOMINCO rates, for project assigned personnel.
3. Payment of vehicle operating costs, including repairs, of vehicles assigned for exclusive use to the project.
4. Payment for off-shelf procurement of project equipment and supplies as stated in the project agreement. Project equipment, including designated office equipment and supplies require up to three price quotations and approval by the USAID project manager prior to purchase by YOMINCO for the project.
5. All expenditures disbursed under the POF shall be certified as a reasonable and allowable cost, as set forth in Project Agreement No. 78-5 and subsequent Project Implementation Letters, by one of the three authorized signatories so designated in YOMINCO's letter to USAID dated August 13, 1978.

The implementation recording and control of the POF will conform to the conditions and requirements stated under section V of the Project Agreement 78-5. In addition, the YOMINCO will:

1. Maintain a Payroll Register which will record the pay period, employee by name, rate of pay, hours worked during the pay period, and computed amount of pay/salary. The employee shall sign his/her name in a space provided next to the amount of pay as acknowledgement of receipt of pay.
2. Maintain an account for Per Diem payment. This account should indicate the name of the employee to whom payment is made, time period for which per diem was paid and amount of payment. Each payment shall be supported by a travel voucher duly signed by the traveller and approved by an appropriate authority.
3. Establish and maintain a Vehicle Operating Expense Account. This account should be so established that expenses will be recorded by each vehicle, for official use only in conjunction with project implementation, for which costs are incurred. Further, repair costs shall be recorded under separate sub-accounts. Each vehicle odometer reading shall be recorded, under this account, at the beginning and ending of each reporting period (monthly). Appropriate receipts and supporting documentation shall support all expenses recorded under this account.
4. Two separate accounts shall be maintained, one for project equipment and one for supplies. The Equipment Account shall be established to reflect the description, serial number, date acquired and the cost of each piece of equipment. Equipment acquisition shall be supported by appropriate price quotations and the USAID approval document.

The Supplies Account shall be established to reflect the description and cost of the supplies.

Appropriate receipts and supporting documentation shall support all expenses recorded under these accounts.

Upon your acknowledgement, in the space provided below, of receipt of this Implementation Letter, please return the signed original to USAID and retain one copy for your records.

If you would like to further discuss the implementation of the procedures contained herein, please feel free to contact USAID.

Sincerely yours,

Richard L. Warin
Controller

Acknowledgement of
Receipt of Implementation
Letter No. 3

_____ Date _____
Ali Jaber Alawi

Drafters: DGephart/Rwarin;db

Clearance: PROG _____
 DIR _____