PD-AAZ-031
ISN = 22423

AID 1020-28 (10-70) REPORT [illegible]

PROJECT APPRAISAL REPORT (PAR)

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1. PROJECT NO.	2. PAR FOR PERIOD:	3. COUNTRY	4. PAR SERIAL NO.
279-11-120-025	Sept. 2, 1974 to Aug 1, 1975	Yemen Arab Republic	76-025A

5. PROJECT TITLE

Water and Mineral Survey of North Yemen

6. PROJECT DURATION: Began FY 74 Ends FY 76	7. DATE LATEST PROP	8. DATE LATEST PIP	9. DATE PRIOR PAR
	Nov. 28, 1973	-	Sept. 1, 1974

10. U.S. FUNDING	a. Cumulative Obligation Thru Prior FY: $[illegible]	b. Current FY Estimated Budget: $ 430,000	c. Estimated Budget to completion After Current FY: $1,428,000

11. KEY ACTION AGENTS (Contractor, Participating Agency or Voluntary Agency)

a. NAME	b. CONTRACT, PASA OR VOL. AG. NO.
United States Geological Survey (USGS)	PASA

I. NEW ACTIONS PROPOSED AND REQUESTED AS A RESULT OF THIS EVALUATION

A. ACTION (X) GRAID	AID/W	HOST	B. LIST OF ACTIONS	C. PROPOSED ACTION COMPLETION DATE
x			Revise PROP	December 1975
	x		Review and Approve PROP Revision	January 1976
		x	Assign additional Counterparts to the Project	January 1976

D. REPLANNING REQUIRES REVISED OR NEW: [X] PROP [ ] PIP [ ] PIO AG [ ] PIO/T [ ] PIO/C [ ] PIO/P

E. DATE OF MISSION REVIEW: September 1975

PROJECT MANAGER: TYPED NAME, SIGNED INITIALS AND DATE	MISSION DIRECTOR: TYPED NAME, SIGNED INITIALS AND DATE
G. C. Tibbits, Jr. [signature]	Aldelmo Ruiz, Director [signature]

Best Available Document

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II. PERFORMANCE OF KEY INPUTS AND ACTION AGENTS

A. INPUT OR ACTION AGENT: CONTRACTOR, PARTICIPATING AGENCY OR VOLUNTARY AGENCY	B. PERFORMANCE AGAINST PLAN: UNSATISFACTORY 1	2	SATISFACTORY 3	4	5	OUTSTANDING 6	7	C. IMPORTANCE FOR ACHIEVING PROJECT PURPOSE (X): LOW 1	MEDIUM 2	3	4	HIGH 5
1. USGS				X								X
2.												
3.												

Comment on key factors determining rating: This project is behind schedule, but recent performance shows that project objectives are being accomplished. Observation well nets are established in both the Sana and Amran Basins, and well inventory north of 15 degrees North Latitude is progressing. The construction of test wells is moving forward since YARG assigned drilling rigs in January and March 1975. The ground truth for ERTS study leading to the production of geologic map of YAR was completed July 1975.

4. PARTICIPANT TRAINING	1	2	3	4	5	6	7	1	2	3	4	5
		X									X	

Comment on key factors determining rating: YARG has failed to assign professional counterparts to the project, and only in-country training limited to sub-professional personnel is taking place. No training has been conducted abroad.

5. COMMODITIES	1	2	3	4	5	6	7	1	2	3	4	5
			X									X

Comment on key factors determining rating: Most US commodities necessary for project implementation have arrived but only within the past three months.

6. COOPERATING COUNTRY		1	2	3	4	5	6	7	1	2	3	4	5
	a. PERSONNEL		X								X		
	b. OTHER Commodities						X						X

Comment on key factors determining rating

a. Personnel. Although the sub-professional are making satisfactory progress within their limited fields, a major component of the project, that of training professional geohydrologists, is dependent on YARG assigning qualified counterparts.

b. Commodities.

YARG continues to provide 2 drilling rigs with required logistic support.

7. OTHER DONORS N/A	1	2	3	4	5	6	7	1	2	3	4	5

(See Next Page for Comments on Other Donors)

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V. 7. Continued: Comment on key factors determining rating of Other Donors

Although other donors are not directly involved in the project, work done by the Italconsult Firm in the Sana Basin indicates that the planned groundwater studies scheduled fo r th is area should be limited to the northern and southern parts of the Basin. This will be reflected in the PROP revision.

III. KEY OUTPUT INDICATORS AND TARGETS

A. QUANTITATIVE INDICATORS FOR MAJOR OUTPUTS		TARGETS (Percentage/Rate/Amount)					
		CUMULATIVE PRIOR FY	CURRENT FY TO DATE	CURRENT FY TO END	FY 70	FY 77	END OF PROJECT
a) TEST WELLS	PLANNED a)	-	-	18	4	14	46
b) ERTS STUDY	PLANNED b)	1 Continuing		-	-	-	1
(5,000 copies Geologic map)	ACTUAL PERFORMANCE a)	7	9				
	ACTUAL PERFORMANCE b)	1	1				
	REPLANNED a)			0	-	-	0
	REPLANNED b)			0	-	-	0
OBSERVATION WELL N ET MONITORING	PLANNED	No target measurements, observations are made on those available and practical.					
	ACTUAL PERFORMANCE	-	37				
	REPLANNED			50	50	Number available over 100	
INVENTORY OF EXISTING WELLS a) Amran Basin	PLANNED a)	50% of area					
b) Elsewhere northern Yemen	PLANNED b)	5% of area					
	ACTUAL PERFORMANCE a)	75% complete					
	ACTUAL PERFORMANCE b)	5% complete					
	REPLANNED a)			0	-	-	0
	REPLANNED b)			0	-	-	0
TRAINING a) Professional	PLANNED a)	2	-	-	-	-	2
b) Sub-professiona l	PLANNED b)		-				
	ACTUAL PERFORMANCE a)	0	0				
	ACTUAL PERFORMANCE b)	3	3				
	REPLANNED a)			0	-	-	-
	REPLANNED b)			5	-	-	5

B. QUALITATIVE INDICATORS FOR MAJOR OUTPUTS	COMMENT:
Geologic Map	Ground truth and imagery study complete. Printed maps expected by January 1976.
Groundwater Studies: Completed studies indicating groundwater potential.	COMMENT: Studies being conducted in the Amran Valley indicate there is sufficient groundwater for agriculture and municipal use while studies in the Sana Basin indicates Municipal Water supply only.
Test wells suitable for conversion to prod uction wells.	COMMENT: Most test - [illegible]
4. Network f or monitoring ground water levels	Nets have been established in Amran and Sana Basins and observations are being conducted.
5. Yemeni personn el trained to sta ff Dept. of Hydrology.	Training on basic data collection and drilling techniques is progressing for sub-professionals.
6. Well inventory	Inventory for Amran Basin is 75% complete.

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IV. PROJECT PURPOSE

A. 1. Statement of purpose as currently envisaged. 2. Same as in PROP? ☐ YES ☒ NO

The mineral port ion of the project will be dropped from the revised PROP. Otherwise the pr oject purpose remains:

a) Develop a primary data base covering groundwater resources in north Yemen.

b) Assure that Yemen has a limited capability to conduct water surveys in the country.

B. 1. Conditions which will exist when above purpose is achieved.	2. Evidence to date of progress toward these conditions.
a) Sufficient dat a existing which will serve a s basis for planning initial d evelopment of water resources, and/or for further study.	a) Plans and priorities developed for further studies of groundwater resources.
b) Data compiled to make recommendations to YARG on projects and progr ams needed for further evaluation of water resources of the country.	b) Research data is being compiled and an ERTS study was completed which will provide geologic maps for use in the hydrologic investigation.
c) YARG agency ha ving the capability (1) to monitor water levels and invento ry existing wells and spr ings, and having limited capability to make their own groundwa ter studies; and (2) to drill a nd/or contract to drill explorato ry wells.	c) On-the-job training is underway for project personnel.

V. PROGRAMMING GOAL

A. Statement of Programming Goal

Provide the YARG w ith the technical information needed to make decisions concerning the most rational and effective use of available groundwater resources for economic development.

B. Will the achievement of the project purpose make a significant contribution to the programming goal, given the magnitude of the national problem? Cite evidence.

It will provide both the necessary data and trained personnel to collect and evaluate the data.