

PROJECT APPRAISAL REPORT (PAR)

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1. PROJECT NO. 386-11-120-368	2. PAR FOR PERIOD: 7/1/1971 TO 6/30/1973	3. COUNTRY India	4. PAR SERIAL NO. FY 74-1
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5. PROJECT TITLE
**This is a Terminal PAR
Soil & Water Management - Central Team**

6. PROJECT DURATION: Began FY 1967 Ends FY 1973	7. DATE LATEST PIP 6/17/1969	8. DATE LATEST PIP 7/20/1970	9. DATE PRIOR PAR 10/21/1971
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10. U.S. FUNDING	a. Cumulative Obligation 1972 Thru Prior FY: \$ 1,830,000	b. Current FY Estimated Budget: \$ 77,000 1973	c. Estimated Budget to completion After Current FY: \$
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11. KEY ACTION AGENTS (Contractor, Participating Agency or Voluntary Agency)	
a. NAME SOIL CONSERVATION SERVICE	b. CONTRACT, PASA OR VOL. AG. NO. PASA-NESA(AJ)-16-67

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

A. ACTION (X)			B. LIST OF ACTIONS	C. PROPOSED ACTION COMPLETION DATE
USAID	AID/W	HOST		
			No action required as the project phased out as of June 30, 1973.	

ASIA Routing;
ACT INF

AA	
AF	1
DP	3
CD	
ENG	
I	
ID	2
KFA	
MGT	
NE	
PME	
SA	1
SPP	1
TECH	1

D. RE-PLANNING REQUIRES REVISED OR NEW: <input type="checkbox"/> PROP <input type="checkbox"/> PIP <input type="checkbox"/> PRO AG <input type="checkbox"/> PIO/T <input type="checkbox"/> PIO/C <input type="checkbox"/> PIO/P	E. DATE OF MISSION REVIEW August 8, 1973
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PROJECT MANAGER: TYPED NAME, SIGNED INITIALS AND DATE Ervin T. Bullard <i>ETBullard</i>	MISSION DIRECTOR: TYPED NAME, SIGNED INITIALS AND DATE H. E. Houston
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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							C. IMPORTANCE FOR ACHIEVING PROJECT PURPOSE (X)					
	UNSATISFACTORY		SATISFACTORY			OUT-STANDING		LOW		MEDIUM		HIGH	
	1	2	3	4	5	6	7	1	2	3	4	5	
1. Soil Conservation Service					X								X
2.													
3.													

Comment on key factors determining rating: The US/SCS made available competent technicians with good understanding of the project purpose and provided adequate technical backstopping. The team members developed effective relationship with their Indian associates and field workers and were instrumental in bringing about greater coordination between the various agencies, departments and ministries concerned with soil and water management problems and development programs. The team also brought about considerable change in the thinking of GOI regarding the importance of soil and water management.

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

Comment on key factors determining rating

No participants were trained in FY 72 and FY 73 as their training program was discontinued by the GOI from December 1971. Most of the 139 participants trained under the project continued to work in the fields in which they had been trained. Shortage of trained specialists is being felt in the states.

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

Comment on key factors determining rating

Not applicable to project.

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

Comment on key factors determining rating

The importance of efficient use of water resources in relation to crops and soils is now fully realized in India. The suggestions made by the U.S. technicians were well received and in most cases put into practice. The program, however, continued to suffer from delays in making staff appointments and paucity of trained hands, coupled with discontinuation of participant training program. The premature and abrupt termination of the project on political grounds also contributed to the set-back. This accounts for lower rating for personnel.

7. OTHER DONORS	1	2	3	4	5	6	7	1	2	3	4	5

(See Next Page for Comments on Other Donors)

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

Not applicable to the project.

III. KEY OUTPUT INDICATORS AND TARGETS

A. QUANTITATIVE INDICATORS FOR MAJOR OUTPUTS		TARGETS (Percentage/Rate/Amount)					END OF PROJECT
		CUMU- LATIVE PRIOR FY	CURRENT FY 73		FY 74	FY 75	
			TO DATE	TO END			
1. 165-175 trained technical officers.	PLANNED	140	23	23	12	-	175
	ACTUAL PERFORMANCE	139	*				
	REPLANNED						
2. Procedure manual for land resource inventory and guidelines for watershed delineation and coding system.	PLANNED	80%	15%	15%	5%	-	100%
	ACTUAL PERFORMANCE	80%	20%				
	REPLANNED						
3. Checklists and evaluation guidelines for evaluation of new and existing irrigation projects for adequacy of soil and water management.	PLANNED	100%	-	-	-	-	100%
	ACTUAL PERFORMANCE	100%	-				
	REPLANNED						
4. Three sets of technical guides for Pilot Projects. Contd.	PLANNED	70%	15%	15%	15%	-	100%
	ACTUAL PERFORMANCE	90%	10%				
	REPLANNED						
B. QUALITATIVE INDICATORS FOR MAJOR OUTPUTS		COMMENT: One of the most tangible results of the USAID assistance under this project was the development and widespread distribution of as many as 61 technical papers, guides and handbooks. These documents were developed in conjunction with the Indian associates in various divisions of the MOA, ICAR, Central Board of Irrigation and Power. A motion picture entitled, "Soil Survey					
1. Technical releases and reports to provide guidance to tubewell drilling operation and maintenance to Central Ground Water Board and Irrigation Division of Ministry of Agriculture.		COMMENT: Handbook of Sedimentation was prepared and given to the Central Unit for Hydrology and Sedimentation for distribution. Proforma were also developed and circulated to assist with the collection and evaluation of of sedimentation data from various sources.					
3.		COMMENT:					

v)

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

III. KEY OUTPUT INDICATORS AND TARGETS

A. QUANTITATIVE INDICATORS FOR MAJOR OUTPUTS		TARGETS (Percentage/Rate/Amount)					END OF PROJECT
		CUMU- LATIVE PRIOR FY	CURRENT FY 73		FY 74	FY 75	
			TO DATE	TO END			
5. Fifteen technical bulletins and five technical releases as needed by state organizations.	PLANNED						
	ACTUAL PERFORMANCE	13	4	4	3		20
	REPLANNED	15	5				
6. Hydrology handbook and procedure and guidelines for sedimentation evaluation.	PLANNED	85%	15%	15%	-	-	100%
	ACTUAL PERFORMANCE	80%	20%				
	REPLANNED						
7. Soil Survey Manual and other technical releases concerning modern soil and land use survey program.	PLANNED	63%	12%	12%	25%		100%
	ACTUAL PERFORMANCE	75%	25%				
	REPLANNED						
8. 7 Technical reports on special studies concerning research programs, ground and surface water assessment and flood control.	PLANNED	4	2	2	1	-	7
	ACTUAL PERFORMANCE	4	2				
	REPLANNED						
B. QUALITATIVE INDICATORS FOR MAJOR OUTPUTS		COMMENT:					
1.							
2.		COMMENT:					
1.		COMMENT:					

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IV. PROJECT PURPOSE

A. 1. Statement of purpose as currently envisaged. 2. Same as in PROP? YES NO
 To develop within GOI Soil and Water Management agencies (Water Management Division, Soil Conservation Division and Minor Irrigation Division within the Ministry of Agriculture and the Indian Agricultural Research Institute), the capability to bring about effective utilization of India's soil and water resources, both developed and undeveloped.

/ All-India Soil Survey Organization and

<p>B. 1. Conditions which will exist when above purpose is achieved.</p> <p>1. Coordination among the several departments concerned with soil and water resource management.</p> <p>2. Soil Survey data from State and Central sources is being correlated by the All-India Soil Survey Organization.</p> <p>(continued on next page)</p>	<p>2. Evidence to date of progress toward these conditions.</p> <p>1. The Ministry of Agriculture has brought about consolidation of soil and water resources functions by placing Water Management Division, Soil Conservation Division, Minor Irrigation Division and the newly created Resource Inventory Center under one administrative leadership. The relationships between the Ministry of Agriculture, Ministry of Irrigation and Power and the ICAR continued to improve in regard to multi-disciplinary approach for tackling inter-related soil and water management activities.</p> <p>2. The All-India Soil and Land Use Survey Organization has adopted USDA/SCS system of comprehensive soil classification and increasing emphasis is now being laid by the Central and State organizations on soil mapping, comprehensive classification, multi-purpose interpretation and soil correlation. The role of aerial photography in soil surveys is well understood. Some of the soil scientists have already begun to carry out multi-purpose interpretation of the soil data currently collected under soil survey.</p>
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V. PROGRAMMING GOAL

A. Statement of Programming Goal

Continuing rapid growth in agricultural production in India.

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.

Since water is one of the most important limiting inputs in the Indian agriculture, the efficient use of available water resources is of great significance in progressive agricultural growth. The U.S. experts under the project were successful in bringing home to the administrators and technicians, the need to devote greater attention to the proper management and use of water supplies, in addition to extension of irrigation, in attaining steady increase in agricultural output. In accordance with the suggestion of the Soil and Water Team, all water activities in the Ministry of Agriculture, excepting conventional extension and research work, have been placed under one administrative head and satisfactory progress has been made in accepting the concept of inter-disciplinary approach in solving water management problems. Organizational problems have not been completely solved, but some steps have been taken to bring about greater coordination between various ministries and agencies concerned with this work. Systematic collection and correlation of scattered data on land and water resources has been started and comprehensive system of soil classification and interpretation is being adopted. If such programs continue to develop as envisaged, they will have a marked impact on agricultural production in India.

B. 1

3. Suitable procedure for hydro-logic and sedimentation studies are being used by the Soil Conservation Division.

4. Coordinated soil and water management research program in effect in Indian Council of Agricultural Research.

5. Additional Pilot Projects in operation under GOI direction and management.

6. GOI Soil and Water agencies have adequate staff.

3. The collection and evaluation of all available data on hydrology and sedimentation from various agencies was started. Handbooks on hydrology and sedimentation were prepared and distributed for use by the supervisory and field staff. Adequate measurements of sediment in reservoir and of suspended load in streams from small catchment areas are however not yet available in India.

4. Notable progress has been made by the Indian Council of Agricultural Research in planning and executing all-India Coordinated Research Projects including those in the field of soil and water management, such as agronomic experiments (41), water management and soil salinity centers (26), soil conservation research centers (8), dry-land agricultural centers (24), and micronutrients research scheme.

5. Twenty-four additional Pilot Projects, similar to USAID assisted projects, but staffed entirely by the Indian nationals, have been started by the GOI in different states. The target is to have 50 such centers in due course (3-4 centers in each state).

6. The staff is adequate for the on-going activities. Problems arise when additional staff is to be recruited or vacancies have to be filled up. Generally the technical heads are academically well qualified and competent, but they often lack field experience and confidence in practical implementation of programs.