

PROJECT APPRAISAL REPORT (PAR)

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1. PROJECT NO. 386-11-660-226	2. PAR FOR PERIOD 1/1/72 TO 6/30/73	3. COUNTRY INDIA	4. PAR SERIAL NO. FY 74 - 8
5. PROJECT TITLE			

**THIS IS A TERMINAL PAR
SCIENCE EDUCATION IMPROVEMENT**

6. PROJECT DURATION: Began FY 1964 Ends FY 1973	7. DATE LATEST PROG 6/11/71	8. DATE LATEST REP	9. DATE REEVAL 5/9/72
10. U.S. FUNDING	a. Cumulative Obligation 1972 Thru Prior FY: \$ 6,755,000	b. Current FY Estimate Budget: \$ (59,000)	c. Estimated Budget to completion After Current FY: \$ -

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

a. NAME NATIONAL SCIENCE FOUNDATION	b. CONTRACT, PASA OR VOL. AG. NO. PASA - 34 - 66
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I. NEW ACTIONS PROPOSED AND REQUESTED AS A RESULT OF THIS EVALUATION

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

D. REPLACEMENT OF CODES							F. DATE OF MISSION REVIEW	
REVISED OR NEW	<input type="checkbox"/> PROJ	<input type="checkbox"/> PIP	<input type="checkbox"/> PROJ A	<input type="checkbox"/> COST	<input type="checkbox"/> MID C	<input type="checkbox"/> PROJ	Oct. 12, 1973	
G. PROJECT MANAGER: TYPE NAME, SIGN, INITIALS AND DATE				H. AID/DIRECTOR: TYPE NAME, SIGN, INITIALS AND DATE				
Robert L. Friedline <i>RF</i> 10/24/73				Howard 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. National Science Foundation					X							X
2.												
3.												

Comment on key factors determining rating: **During the evaluation period the NSF Staff consisted of six Staff Scientists upto June 30, 1972 and thereafter reduced to three including the Chief of Party. The last Staff Scientist departed India on June 30, 1973. Despite staff limitations, the NSF staff continued to provide sustained assistance to key GOI agencies engaged in improving the quality of science education in India. The staff fielded by the Contractor was of high quality with good understanding of the project purpose. The NSF team had excellent working relations with their counterparts.**

4. PARTICIPANT TRAINING				X								X	
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Comment on key factors determining rating: **Training program was discontinued by the GOI in December 1972. During the evaluation period no new participants were selected for training. In all 77 participants have been trained in the U.S. during the life of the project. The returned participants, primarily administrators/supervisors and subject matter specialists, are being effectively utilized and they are holding important positions in key GOI agencies. (Contd. on next page 7-A)**

5. COMMODITIES					X							X	
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Comment on key factors determining rating: **Procurement of commodities has been timely and has supported project needs. All the equipment and teaching and demonstration materials procured during the operational period of this project have been turned over to the GOI agencies for use in the on-going activities in different areas.**

6. COOPERATING COUNTRY	a. PERSONNEL				X								X
	b. OTHER			X									X

Comment on key factors determining rating: **Two of the key agencies of the GOI-UGC and NCERT -- have effectively used their good offices and financial support to implement the various programs of the project. The UGC has incorporated a number of new national programs in its own programs. The NCERT has assumed direct responsibility for an expanded summer institutes program. Both these agencies have trained staff to administer programs intended to improve science education. However the third key agency, NCSE, has thus far remained an unregistered quasi-government agency with limited potential for becoming a viable institution. Local leadership in SSI, COSIP/University Leadership and BMC projects have been outstanding.**

7. OTHER DONORS	United Nations			X								X	
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(See Next Page for Comments on Other Donors)

4. Participant Training (contd.)

There continues to be, however, considerable need for training high and middle-level advisors and managers who are assigned to Central and State educational agencies that are now implementing indigenous SEI programs.

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

UNESCO assisted NCERT projects for the development of new textbooks and auxiliary teaching aids for the secondary schools. Many of the materials are now completed and are receiving limited tryouts throughout India.

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. Staff Trained in U. S.		PLANNED	90	20	20	20	20	150
Specialists in SSI Programs	: 55	ACTUAL PERFORMANCE	77	-				
Supervisors-COSIP/UL	: 15	REPLANNED						
Administrators-UGC/NCSE/ BMC	: 7							
2. Program Implemented		PLANNED	929	14	14	14	-	957
SSIs	: 905	ACTUAL PERFORMANCE	933	*				
COSIP/UL Programs	: 24	REPLANNED						
RCE/Mysore	: 2							
BMC/Bombay	: 2							
3. Materials prepared:		PLANNED	86	6	6	-	-	92
SSIs	: 50	ACTUAL PERFORMANCE	63	*				
COSIP/UL Programs	: 7	REPLANNED						
RCE/Mysore	: 2							
BMC/Bombay	: 4							
4. Supplementary Projects:		PLANNED	6	1	-	-	-	7
Sc. Binational Conferences	: 4	ACTUAL PERFORMANCE	4	1				
Entrepreneurship Trng.	: 1	REPLANNED						
Super-8 Projectors	: 1							
Library Dev. Project	: 1							
B. QUALITATIVE INDICATORS FOR MAJOR OUTPUTS		COMMENT: The concept of in-service training of teachers through short courses offered during the summer has been widely adopted in India. Over 200 school/college and polytechnic level teacher retraining courses were held in summer of 1973 without foreign aid. The UGC continued to grant						
1. Continuous Teacher Training and Curriculum Development Programs.		(contd. on page 3-A)						
2. Continuous Curriculum Materials Production		Each of the key agencies with whom the NSF liaison staff has worked has sought to encourage the design, development, production, use and evaluation of new science curricular materials.						
3. Continuous Conferences Planned.		COMMENT: The last USAID/NSF assisted bi-national conference was held in 1973. It is expected that the MOE/NSF will cooperatively engage in planning future binational conferences after direct U.S. support for these conferences has phased out in CY 1973.						

B. Qualitative Indicators for Major Outputs

1. Comment (contd.)

funds to key college/university research development programs which were assisted by NSF long and short-term consultants.

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IV. PROJECT PURPOSE

1. Statement of purpose as currently envisaged.

2. Same as in PROP? YES NO

Develop self-sustaining state and national capacities to improve science curricula at all levels.

B. 1. Conditions which will exist when above purpose is achieved.

2. Evidence to date of progress toward these conditions.

I. Key Central, State and Municipal educational agencies (UGC, NCERT) have trained staffs for maintaining curricula research and improvement programs.

II. NCSE, UGC and NCERT continue to implement SEI programs on a permanent basis.

III. Improved materials being prepared

UGC, NCSE&NCERT have conducted summer institutes, short courses/seminars and workshops for college, technology and school level teachers. These agencies have also supported a number of new programs of summer institutes for college teachers; the College Science Improvement Program through which University Departments are given science development grants; and a program for the support of writing new science textbooks. (See "Project Completion Report", Science Education Improvement Project.)

A number of publications, journals, curriculum/textbooks have been initiated by key Central and educational agencies. During the current year, an additional 15 university departments will be chosen for COSIP/ULP grants. Over 200 teacher re-training institutes and selected elementary/secondary programs were instituted by the key agencies during the summer of 1973. (Also see "Project Completion Report", Science Education Improvement Project.)

V. PROGRAMMING GOAL

A. Statement of Programming Goal

Improve the quality of science education 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: Yes.** This project has been remarkably successful in invigorating the enthusiasms of a very large number of key persons involved in science education in India. The overall success of the SEIP can be judged from the fact that there continues a self-sustaining national program for the training of science teachers at the conclusion of U.S. assistance. The summer institutes have been improved and adapted to local needs; the pioneering project in school development is generating materials including textbooks and teachers guides which are published in five different languages and are in use in one of the largest school systems in the world; the college development activity has expanded at a significantly greater rate than anticipated; a large number of novel science teaching kits and materials are now manufactured in India. In addition there have been improvements in various institutions. The UGC has incorporated a number of new national programs into its own program. The NCERT has assumed direct responsibilities for an expanded summer institute program.