

PD-AAA-292-D1

5120263-16

AID 1020-25 (7-68)		SECURITY CLASSIFICATION		001 PROJECT NUMBER	
PROJECT APPRAISAL REPORT (PAR) (U-446) See M.O. 1026.1		UNCLASSIFIED		512-11-690-263811	
002 PAR	MO.	DAY	YR.	003 U.S. OBLIGATION SPAN	004 PROJECT TITLE
AS OF:	12	04	70	FY 68 Thru FY 71	Developmental Science and Technical Research
005 COOPERATING COUNTRY - REGION - AID/W OFFICE					
Brazil					

006 FUNDING TABLE											
AID DOLLAR FINANCING OBLIGATIONS (\$000)	TOTAL	CONTRACT (NON-ADD)	PERSONNEL SERVICES			PARTICIPANTS		COMMODITIES		OTHER COSTS	
			AID	PASA	CONTRACT	DIR. PASA	CONTRACT	DIR. PASA	CONTRACT	DIR. PASA	CONTRACT
CUMULATIVE NET THRU ACTUAL YEAR (FY 19 70)	492			12	423		55			2	
PROPOSED OPERATIONAL YEAR (FY 19 71)	67			12	55						
CCC VALUE OF P.L. 480 COMMODITIES (\$000)			Thru Actual Year : 0			Operational Year Program : 0					

007 IMPLEMENTING AGENCY TABLE						
If contractors or participating agencies are employed, enter the name and contract or PASA number of each in appropriate spaces below; in the case of voluntary agencies, enter name and registration number from M.O. 1551.1, Attachment A. Enter the appropriate descriptive code in columns b and c, using the coding guide provided below.						
TYPE CODE b	TYPE CODE c	a. IMPLEMENTING AGENCY	TYPE CODE		d. CONTRACT/PASA/VOLAG NO.	e. LEAVE BLANK FOR AID/W USE
			b.	c.		
1. U.S. CONTRACTOR 2. LOCAL CONTRACTOR 3. THIRD COUNTRY CONTRACTOR 4. PARTICIPATING AGENCY 5. VOLUNTARY AGENCY OTHER:	0. PARTICIPATING AGENCY 1. UNIVERSITY 2. NON-PROFIT INSTITUTION 3. ARCHITECTURAL & ENGINEERING 4. CONSTRUCTION 5. OTHER COMMERCIAL 6. INDIVIDUAL 7. OTHER:	1. U.S. National Academy of Sciences	1	2	AID/csd 1122	
		2.				
		3.				

PART I - PROJECT IMPACT

I-A. GENERAL NARRATIVE STATEMENT ON PROJECT EFFECTIVENESS, SIGNIFICANCE & EFFICIENCY.

This summary narrative should begin with a brief (one or two paragraph) statement of the principal events in the history of the project since the last PAR. Following this should come a concise narrative statement which evaluates the overall efficiency, effectiveness and significance of the project from the standpoint of:

- (1) overall performance and effectiveness of project implementation in achieving stated project targets;
- (2) the contribution to achievement of sector and goal plans;
- (3) anticipated results compared to costs, i.e., efficiency in resource utilization;
- (4) the continued relevance, importance and significance of the project to country development and/or the furtherance of U.S. objectives.

Include in the above outline, as necessary and appropriate, significant remedial actions undertaken or planned. The narrative can best be done after the rest of PART I is completed. It should integrate the partial analyses in I-B and I-C into an overall balanced appraisal of the project's impact. The narrative can refer to other sections of the PAR which are pertinent. If the evaluation in the previous PAR has not significantly changed, or if the project is too new to have achieved significant results, this Part should so state.

008 NARRATIVE FOR PART I-A (Continue on form AID 1020-25 if as necessary): All of the Joint Study Groups recommended by the National Academy of Sciences (NAS) and National Research Council (CNPq) delegates attending general workshops in April 1966, February 1968 and April 1969 have been organized, have met one or more times and have submitted interim or final reports. The reports include recommended actions, some of which have been implemented, while others are in the process of implementation or require additional study. The goal of producing recommendations concerning a science policy for /o

SIGNATURE	DATE
Robert B. Ballentine	Dec 15, 1970
SIGN DIRECTOR APPROVAL	

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PAR CONTINUATION SHEET

This sheet is to be used for any Narrative Sections for which sufficient space has not been provided on the form. Identify each narrative by its Part and Section Designation.

008 - cont.

Brazil's development is emerging from the various study groups. A formal document outlining the influence of this project on formulation of a National Science Policy is scheduled to be presented by the CNPq during the Fourth General Workshop planned for March 1971. The Industrial Research study group published a report which is in the process of being implemented and which will reflect a position or policy in specific segments of industry.

Transference of technical and scientific knowledge from developed to developing nations is a goal which is achieving some success through the exchange of knowledge between Brazilian and U.S. scientists and through the development of specific projects, e.g. in chemistry, to upgrade research capability in Brazil.

The Government of Brazil input into research sponsored by the CNPq (Conselho Nacional de Pesquisas) has increased from Cr\$ 3 million in 1964 to approximately Cr\$ 100 million in 1970.

These achievements are in line with project goals, as follows:-

1. The identification and recommendation of meaningful research projects in areas of priority to Brazilian economic development, including the fields of health, industry, mineral resources, agriculture and transportation.
2. The encouragement of better equipped facilities and better trained scientists in these fields.
3. The stimulation of a greater injection of funds in support of Brazilian scientific research.
4. The strengthening of the CNPq as a national scientific institution.
5. The development of a national science policy, particularly with regard to the training and retention of scientists and scientific research.

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PART I-B - PROJECT EFFECTIVENESS

I-B-1 - OUTPUT REPORT AND FORECAST - (See detailed instructions)

2. This section is designed to record progress toward the achievement of each project output target which was scheduled in the PIP, Part II. Where progress toward a target is significantly greater or less than scheduled, describe reason(s) beneath the target.	ACTUAL AND PLANNED OUTPUTS (ALL DATA CUMULATIVE)				
	3. ACTUAL CUM. TO DATE	4. AS OF PRIOR JUNE 30		5. PLANNED BY NEXT JUNE 30	6. PROJECTED TOTAL FOR PROJECT LIFE
		a. PLANNED	b. ACTUAL		
1. Identify fields of science and technical research most needed for development of Brazil and appoint members of study groups, composed of Brazilian and U.S. scientists, and schedule meetings	6 Ag. Tech. Ag. Econ. Ind. Resh. Earth- Sciences Standards Chemistry Transport. Comp. Sci.	6	8	1 Reestablish Indust./Resea.	9
2. Written reports concerning recommended activity and involvement of science policy in individual research areas submitted by Brazilian-U.S. Joint Study Groups:					
Agriculture Research	3 interim	3 int.	3 int.	1 final	3 int. 1 final
Agriculture Economics	3 interim	3 int.	3 int.	1 final	3 int. 1 final
Industrial Research					
Original Group	1 final				1 final
Re-established Group	0	0	0	1 interim	1 interim
Transportation Research	1 interim	0	0	1 interim	2 interim
Computer Sciences	3 interim	1 int.	1 int.	1 final	3 int. 1 final
Chemistry	1 final	1 final	1 final		1 final
Earth Sciences	2 interim	2 int.	2 int.	1 final	2 int., 1 final
Standards, Weights & Measures	1 int.	1 int.	1 int.		1 int.
General Workshop Reports	3 final	3 final	3 final	1 final	4 final
Report on Development of a Braz. Science Policy	0	0	0	1 interim	1 interim

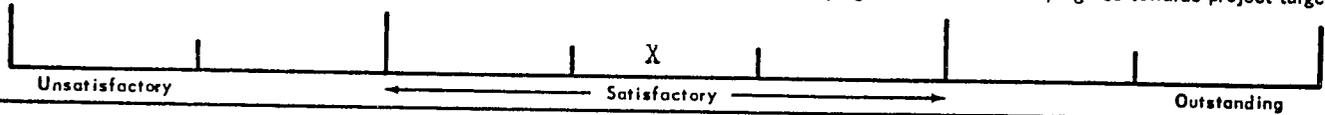
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PART I-B - Continued

010 B.2 - OVERALL ACHIEVEMENT OF PROJECT TARGETS

Place an "X" within the bracket on the following seven-point scale that represents your judgment of the overall progress towards project target



PART I-C - PROJECT SIGNIFICANCE

011 C.1 - RELATION TO SECTOR AND PROGRAM GOALS (See detailed instructions M.O. 1026.1)

This section is designed to indicate the potential and actual impact of the project on relevant sector and program goals. List the goals in col. b and rate potential and actual project impact in cols. c and d.

a. CODE NO. (AID/W USE ONLY)	SCALE FOR COLUMN c: 3= Very Important; 2= Important; 1= Secondary Importance SCALE FOR COLUMN d: 3= Superior/Outstanding; 2= Adequate/Satisfactory/Good; 1= Unsatisfactory/Marginal	c. POTENTIAL IMPACT ON EACH GOAL IF PROJECT ACHIEVES TARGETS	d. ACTUAL IMPACT ON GOAL TO DATE RELATIVE TO PROGRESS EXPECTED AT THIS STAGE
	b. SECTOR AND PROGRAM GOALS (LIST ONLY THOSE ON WHICH THE PROJECT HAS A SIGNIFICANT EFFECT)		
	(1) To improve and expand graduate level university education	3	2
	(2) To stimulate scientific research	2	2
	(3) To develop university level programs in vital areas, such as engineering and science	3	2
	(4)		

For goals where column c. is rated 3 or 2 and column d. is rated 1, explain in the space for narrative. The narrative should also indicate the extent to which the potential impacts rated 3 or 2 in column c. are dependent on factors external to the achievement of the project targets, i.e., is there a substantial risk of the anticipated impact being forestalled by factors not involved in the achievement of project targets. If possible and relevant, it also would be useful to mention in the narrative your reading of any current indicators that longer-term purposes, beyond scheduled project targets, are likely or unlikely to be achieved. Each explanatory note must be identified by the number of the entry (col. b) to which it pertains.

012 NARRATIVE FOR PART I-C.1 (Continue on form AID 1020-25 I):

The Brazilian National Research Council (CNPq) has been assigned the responsibility of coordinating Brazil's research efforts. Prior to the start of this project, no concerted efforts had been made to identify areas of research important to Brazil's development needs and goals. The general workshop meetings and joint study groups, composed of Brazilian and U.S. scientists, identified some of these goals. Subsequent joint study group meetings produced reports recommending specific actions and programs to improve and expand graduate level university education.

The NAS-CNPq project identifies and recommends research and instructional programs to strengthen "centers of excellence", particularly in those areas determined by them as priority development areas.

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PART I-C - Continued

C.2 - GENERAL QUESTIONS

These questions concern developments since the prior PAR. For each question place "Y" for Yes, "N" for No, or "NA" for Not Applicable in the right hand column. For each question where "Y" is entered, explain briefly in the space below the table.	MARK IN THIS COL.
013 Have there been any significant, unusual or unanticipated results not covered so far in this PAR?	N
014 Have means, conditions or activities other than project measures had a substantial effect on project output or accomplishments?	N
015 Have any problems arisen as the result of advice or action or major contributions to the project by another donor?	N
016 If the answer to 014 or 015 is yes, or for any other reason, is the project now less necessary, unnecessary or subject to modification or earlier termination?	N
017 Have any important lessons, positive or negative, emerged which might have broad applicability?	N
018 Has this project revealed any requirement for research or new technical aids on which AID/W should take the initiative?	N
019 Do any aspects of the project lend themselves to publicity in newspapers, magazines, television or films in the United States?	Y
020 Has there been a lack of effective cooperating country media coverage? (Make sure AID/W has copies of existing coverage.)	N

021 NARRATIVE FOR PART I-C.2 Identify each explanatory note by the number of the entry to which it pertains. (Continue on form AID 1020-25 I as necessary):

019 A description of the mechanism developed through the project to facilitate an exchange of scientific and technical information could be undertaken for use in newspapers or magazines in the U.S.

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PART II - IMPLEMENTATION REPORT

II-A - STATUS OF SCHEDULE

022 A-1 - INDIVIDUAL ACTIONS (See detailed instructions M.O. 1026.1). This is a listing of major actions or steps which were scheduled for physical start or continuing implementation in the reporting period as reflected in the Project Implementation Plan, Part I.

(a) PIP ITEM NO.	MAJOR ACTIONS OR STEPS; CAUSES AND RESULTS OF DELAYS; REMEDIAL STEPS	(b) STATUS - PLACE AN "X" IN, ONE COLUMN		
		(1) BEHIND SCHEDULE	(2) ON SCHEDULE	(3) AHEAD OF SCHEDULE
1.	Third General Workshop, April 1969, received report of Chemistry Study Group recommending a Chemistry Project. Chemistry Project ProAg signed by CNPq June 1969.		X	
2.	Contract and Letter of Commitment for Chemistry Project prepared and approved by NAS and CNPq (Letter of Commitment to NAS only).		X	
3.	Dr. Lawrence Bass, Consultant, Advisor to Industrial Research entities.		X	
4.	Agriculture Economics Joint Study Groups Meeting at Purdue University.		X	
5.	Computer Sciences Joint Study Group Meeting in U.S.		X	
6.	Earth Science Joint Study Group Meeting in Brazil.		X	
7.	Transportation Joint Study Group - preliminary meeting in Brazil		X	
8.	Agriculture Research Joint Study Group Meeting in Brazil		X	
9.	Agriculture Economics Joint Study Group Meeting in Brazil		X	
10.	Computer Sciences Joint Study Group Meeting in Brazil		X	
11.	Paleontology Symposium in Brazil		X	
12.	General Workshop - Washington, D.C.		X	
13.	Industrial Research Joint Study Group Meeting in U.S. (Re-established group)		X	

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PART II - Continued

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II-A.2 - OVERALL TIMELINESS

General, project implementation is (place an "X" in one block):

(a) On schedule	
(b) Ahead of schedule	X
(c) Behind schedule	
(1) AID/W Program Approval	
(2) Implementing Agency (Contractor/Participating Agency/Voluntary Agency)	
(3) Technicians	
(4) Participants	
(5) Commodities (non-FFF)	
(6) Cooperating Country	
(7) Commodities (FFF)	
(8) Other (specify):	

BLOCK (c): If marked, place an "X" in any of the blocks one thru eight that apply. This is limited to key aspects of implementation, e.g., timely delivery of commodities, return of participants to assume their project responsibilities, cooperating country funding, arrival of technicians.

II-B - RESOURCE INPUTS

This section appraises the effectiveness of U.S. resource inputs. There follow illustrative lists of factors, grouped under Implementing Agency, Participant Training and Commodities, that might influence the effectiveness of each of these types of project resources. In the blocks after only those factors which significantly affect project accomplishments, write the letter P if effect is positive or satisfactory, or the letter N if effect is negative or less than satisfactory.

1. FACTORS-IMPLEMENTING AGENCY (Contract/Participating Agency/Voluntary Agency)

024 IF NO IMPLEMENTING AGENCY IN THIS PROJECT PLACE AN "X" IN THIS BLOCK:		032 Quality, comprehensiveness and candor of required reports	P
025 Adequacy of technical knowledge		033 Promptness of required reports	P
026 Understanding of project purposes	P	034 Adherence to work schedule	P
027 Project planning and management	P	035 Working relations with Americans	P
028 Ability to adapt technical knowledge to local situation	P	036 Working relations with cooperating country nationals	P
029 Effective use of participant training element	P	037 Adaptation to local working and living environment	
Ability to train and utilize local staff		038 Home office backstopping and substantive interest	
Adherence to AID administrative and other requirements		039 Timely recruiting of qualified technicians	
		040 Other (describe):	P

2. FACTORS-PARTICIPANT TRAINING

041 IF NO PARTICIPANT ELEMENT IN PROJECT. PLACE AN "X" IN THIS BLOCK:	X	TRAINING UTILIZATION AND FOLLOW UP	
PREDEPARTURE		052 Appropriateness of original selection	
042 English language ability		053 Relevance of training for present project purposes	
043 Availability of host country funding		054 Appropriateness of post-training placement	
044 Host country operational considerations (e.g., selection procedures)		055 Utility of training regardless of changes in project	
045 Technical/professional qualifications		056 Ability to get meritorious ideas accepted by supervisors	
046 Quality of technical orientation		057 Adequacy of performance	
047 Quality of general orientation		058 Continuance on project	
048 Participants' collaboration in planning content of program		059 Availability of necessary facilities and equipment	
049 Collaboration by participants' supervisors in planning training		060 Mission or contractor follow-up activity	
050 Participants' availability for training		061 Other (describe):	
051 Other (describe):			

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PART II-B - Continued

3. FACTORS-COMMODITIES

PLACE AN "X" IN APPROPRIATE BLOCK:	062 FFF	063 NON-FFF	X	064 NO COMMODITY ELEMENT	X	072 Control measures against damage and deterioration in shipment.
065 Timeliness of AID/W program approval (i.e., PIO/C, Transfer Authorization).						073 Control measures against deterioration in storage.
066 Quality of commodities, adherence to specifications, marking.						074 Readiness and availability of facilities.
067 Timeliness in procurement or reconditioning.						075 Appropriateness of use of commodities.
068 Timeliness of shipment to port of entry.						076 Maintenance and spares support.
069 Adequacy of port and inland storage facilities.						077 Adequacy of property records, accounting and controls.
070 Timeliness of shipment from port to site.						078 Other (Describe):
071 Control measures against loss and theft.						

Indicate in a concise narrative statement (under the heading a. Overall Implementation Performance, below) your summary appraisal of the status of project implementation, covering both significant achievements and problem areas. This should include any comments about the adequacy of provision of direct hire technicians as well as an overall appraisal of the comments provided under the three headings (b, c & d) which follow. For projects which include a dollar input for generation of local currency to meet local cost requirements, indicate the status of that input (see Detailed Instructions).

Discuss separately (under separate headings b, c & d) the status of Implementing Agency Actions, Participants and Commodities. Where above listed factors are causing significant problems (marked N), describe briefly in the appropriate narrative section: (1) the cause and source of the problem, (2) the consequences of not correcting it, and (3) what corrective action has been taken, called for, or planned by the Mission. Identify each factor discussed by its number.

079 NARRATIVE FOR PART II-B: (After narrative section a. Overall Implementation Performance, below, follow, on form AID 1020-251 needed, with the following narrative section headings: b. Implementing Agency, c. Participants, d. Commodities. List all narrative section headings in order. For any headings which are not applicable, mark them as such and follow immediately below with the next narrative section heading.)

a. Overall Implementation Performance.

a. Six Joint Study Groups met and issued interim reports covering the April 1968 to April 1969 period. Only one Joint Study Group meeting was scheduled during the April 1969 through December 1969 period. Since January 1970, Study Group activity regained its former momentum and seven groups met and issued interim reports.

Comprehensiveness was lacking in certain reports prepared by the NAS Project Coordinator. The reports failed to note specific dates and places of Study Group meetings, as well as names of scientists who participated.

b. With exception of the period indicated in a), the implementing agency (NAS) has scheduled study group meetings jointly agreed upon by the Brazilian National Research Council (CNPq) and the NAS. All U.S. scientists and technologists are recognized experts in their individual fields, who serve without compensation, and, at times, due to their heavy professional schedules, concurrence in a common meeting date is difficult and causes unavoidable delays.

c. Not applicable - no participant training involved.

d. Not applicable - no commodities involved.

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PART III - ROLE OF THE COOPERATING COUNTRY

The following list of illustrative items are to be considered by the evaluator. In the block after only those items which significantly affect project effectiveness, write the letter P if the effect of the item is positive or satisfactory, or the letter N if the effect of the item is negative or less than satisfactory.

SPECIFIC OPERATIONAL FACTORS:	
080 Coordination and cooperation within and between ministries.	N
081 Coordination and cooperation of LDC gov't. with public and private institutions and private enterprise.	
082 Availability of reliable data for project planning, control and evaluation.	P
083 Competence and/or continuity in executive leadership of project.	P
084 Host country project funding.	P
085 Legislative changes relevant to project purposes.	
086 Existence and adequacy of a project-related LDC organization.	P
087 Resolution of procedural and bureaucratic problems.	P
088 Availability of LDC physical resource inputs and/or supporting services and facilities.	P
089 Maintenance of facilities and equipment.	
090 Resolution of tribal, class or caste problems.	
091 Receptivity to change and innovation.	P
092 Political conditions specific to project.	P
093 Capacity to transform ideas into actions, i.e., ability to implement project plans.	P
094 Intent and/or capacity to sustain and expand the impact of the project after U.S. inputs are terminated.	P
095 Extent of LDC efforts to widen the dissemination of project benefits and services.	N
096 Utilization of trained manpower (e.g., participants, counterpart technicians) in project operations.	P
097 Enforcement of relevant procedures (e.g., newly established tax collection and audit system).	
098 Other:	
HOST COUNTRY COUNTERPART TECHNICIAN FACTORS:	
099 Level of technical education and/or technical experience.	P
100 Planning and management skills.	P
101 Amount of technician man years available.	P
102 Continuity of staff.	P
103 Willingness to work in rural areas.	P
104 Pay and allowances.	P
105 Other:	P

In the space below for narrative provide a succinct discussion and overall appraisal of the quality of country performance related to this project, particularly over the past year. Consider important trends and prospects. See Detailed Instructions for an illustrative list of considerations to be covered.

For only those items marked N include brief statements covering the nature of the problem, its impact on the achievement of project targets (i.e., its importance) and the nature and cost of corrective action taken or planned. Identify each explanatory note.

106 NARRATIVE FOR PART III (Continue on form AID 1020-25 1);

The Brazilian National Research Council (CNPq) has the authority and prestige necessary to secure the services of the most able scientists and technologists in Brazil. Because the CNPq is directly responsible to the President of the Republic, solutions to most problems are readily resolved. However, governmental changes in some cases have upset the coordination between ministries. Implementation of the recommendations of two joint study groups has been hampered by lack of cooperation on the part of the ministries involved. Lack of devices and techniques to disseminate the findings and recommendations of the joint study groups has limited somewhat the potential impact of the project.

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PART IV - PROGRAMMING IMPLICATIONS

IV-A - EFFECT ON PURPOSE AND DESIGN

Indicate in a brief narrative whether the Mission experience to date with this project and/or changing country circumstances call for some adjustment in project purposes or design, and why, and the approximate cost implications. Cover any of the following considerations or others that may be relevant. (See Detailed Instructions for additional illustrative considerations.) Relevant experience or country situations that were described earlier can simply be referenced. The spelling out of specific changes should be left to the appropriate programming documents, but a brief indication of the type of change contemplated should be given here to clarify the need for change.

For example, changes might be indicated if they would:

1. better achieve program/project purposes;
2. address more critical or higher priority purposes within a goal plan;
3. produce desired results at less cost;
4. give more assurance of lasting institutional development upon U.S. withdrawal.

107 NARRATIVE FOR PART IV-A (Continue on form AID 1020-25 I):

The basic purpose and design is satisfactory. However, the project could be strengthened by building-in techniques for disseminating information to entities operating in the private sector.

The CNPq should schedule meetings and plan programs designed to inform entities affected by the recommendations of the Joint Study Groups and to secure their assistance in the implementation of recommended actions.

Provision for consultant services exists in the current contract. Short-term consultants, such as the individual sent by the NAS to assist in implementation of the Industrial Research Study Group recommendations, should be encouraged.

IV-B - PROPOSED ACTION

108 This project should be (Place an "X" in appropriate block(s)):

1. Continued as presently scheduled in PIP.	
2. Continued with minor changes in the PIP, made at Mission level (not requiring submission of an amended PIP to AID/W).	
3. Continued with significant changes in the PIP (but not sufficient to require a revised PROP). A formally revised PIP will follow.	
4. Extended beyond its present schedule to (Date): Mo. ___ Day ___ Yr. ___. Explain in narrative, PROP will follow.	
5. Substantively revised. PROP will follow.	
6. Evaluated in depth to determine its effectiveness, future scope, and duration.	
7. Discontinued earlier than presently scheduled. Date recommended for termination: Mo. ___ Day ___ Yr. ___	
8. Other. Explain in narrative.	

109 NARRATIVE FOR PART IV-B:

Inclusion of more effective information dissemination devices should be included.

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