

H. EVALUATION ABSTRACT (do not exceed the space provided)

A.I.D. places strong emphasis on science and technology in its development assistance planning. That emphasis involves a variety of science and technology disciplines - more disciplines than could be represented individually on the A.I.D. staff; the purpose of the project, therefore, was to establish a mechanism for providing S&T with an external review capability for proposals which involved a significant element of research. The mechanism selected was a RSSA with the National Science Foundation (NSF) which operated for three years through December 31, 1985. At that time, the activity was transferred to a contract with the National Academy of Sciences (NAS).

The purpose of the evaluation is to report on the extent to which the NSF services were utilized and how useful and effective they were in helping A.I.D. employ science and technology in LDC development. Also, any practices or procedures which caused problems in the NSF activity, and which could be avoided in the NAS operation, were to be noted.

The main conclusion is that the external review activity - both with the NSF and the NAS - has provided A.I.D. with a valuable scientific capability in carrying out the planning, design and evaluation of its projects. It has proven beneficial to A.I.D. planners and project managers, to scientists who participated on the review panels, and to some institutions, particularly institutions such as the Historically Black Colleges and Universities (HBCUs).

The transition from the NSF RSSA to the NAS contract seems to have been carried out smoothly. There were no major design or organizational problems to be corrected, but two recurring points of irritation were addressed: the "advisory" nature of the panels has been stressed and the responsibility for selection of panel experts has been authoritatively settled on the NAS. There are still matters of A.I.D. style and administration which would help the operations of the activity, as well as periodic analysis and evaluation, if they were changed or adopted. They include the use of existing planning activities to help provide more lead time for panel reviews, following up on panels to improve utility and make changes or improvements, and, reviewing the written guidance and instructions periodically to help the panels provide the most useful reviews.

ABSTRACT

I. EVALUATION COSTS

1. Evaluation Team Name	Affiliation	Contract Number OR TDY Person Days	Contract Cost OR TDY Cost (US\$)	Source of Funds
Frank Campbell	Personal Services	20 days	\$5,485	Small Activity Project

2. Mission/Office Professional Staff Person-Days (estimate) 1 day

3. Borrower/Grantee Professional Staff Person-Days (estimate) N/A

COSTS

A.I.D. EVALUATION SUMMARY PART II

J. SUMMARY OF EVALUATION FINDINGS, CONCLUSIONS AND RECOMMENDATIONS (Try not to exceed the 3 pages provided) Address the following items:

- Purpose of activity(ies) evaluated
- Purpose of evaluation and Methodology used
- Findings and conclusions (relate to questions)

- Principal recommendations
- Lessons learned

Mission or Office: S&T/RUR

Date this summary prepared: July 29, 1988

Title and Date of Full Evaluation Report: S&T EXTERNAL REVIEW PANEL ACTIVITY WITH THE NATIONAL FOUNDATION (NSF)

A.I.D. emphasizes science and technology in its planning of development assistance programs. The rationale for the project was the realization that such emphasis required a variety of disciplines - more disciplines than could be represented on the direct-hire A.I.D. staff; the purpose of the RSSA therefore, was to provide A.I.D. with an external review capability for proposals or projects with significant elements of research. The External Review Panel activity with NSF was initiated through a Resources Support Services Agreement (RSSA) dated August 13, 1982, and continued through December 31, 1985. A similar external review activity was begun under a contract with the National Academy of Science after the RSSA with NSF ended.

The purpose of this evaluation was to report on the extent to which the NSF services were utilized and how useful and effective the reviews were in helping A.I.D. in selecting among scientific alternatives to LDC development. Also, any practices or procedures which caused problems in the NSF ERPs, and which could be avoided in the transition to the NAS contract, were to be noted.

I. PERFORMANCE

Through the RSSA, A.I.D. and the NSF were to establish External Review Panels (ERPs) consisting of qualified advisors who would evaluate ongoing or completed research projects and review complex science and technology issues. The RSSA called for NSF to maintain a Special Reviewer Roster, identify other external reviewers and NSF staffers qualified to review specialized research elements, set up and administratively support meetings of the ERPs, and submit reports summarizing the major findings for each project or program reviewed after each meeting or site visit.

Level of Effort: There were several quantitative factors mentioned in the NSF RSSA, and the NSF's performance was generally satisfactory in meeting them. The RSSA estimated that 20 External Review Panels would be held each year: Although less than estimated, 12 Panels were convened in 1983, 14 in 1984 and 16 in 1985 and, in fact, NSF was able to convene all the Panels that A.I.D. requested. Seven Site Visits annually were foreseen in the RSSA and 6 were carried out in 1983, 4 in 1984 and 6 in 1985. As in the case of the ERPs themselves, the decision whether to undertake a site visit, or what sites to visit, was generally an A.I.D. decision and was requested in the Panel scope-of-work sent to the NSF.

Use of the NSF RSSA: The Science and Technology Bureau used the NSF mechanism the most - a total of 38 times. PPC used it on two occasions and the ASIA and LAC Bureaus each used it once; no AID Mission projects were reviewed but USAID/India put money into the project in anticipation of using it but did not. There was also a preponderance of use in the field of agriculture, where 15 projects of S&T/AGR were reviewed as well as four other agriculture-related activities (two from S&T/ED and one each from the PPC and LAC Bureaus).

Panels and Panelists: Shortly after the RSSA was signed, A.I.D. sent NSF a list of some 130 names for the Special Reviewer Roster but the roster appears never to have been established. Apparently there was initial consideration given to setting up "standing" panels in areas such as Food & Nutrition, Human Resources, etc., which would be comprised of experts from the Special Reviewer Roster. The "standing" panels were never constituted and, thus, the Roster, as such, was never utilized. The "expert" composition of a panel was perhaps the most contentious and recurring issue in the three years of the RSSA, yet there was virtually no complaint - in retrospect - of the qualifications or impartiality of the panels as they came to be constituted.

II. FINDINGS & COMMENT

Acceptance of ERP Advice and Judgments: In the course of this evaluation, A.I.D. project people told of projects which had been continued as a result of favorable panel opinions, of projects whose planning and implementation had been made more sound with panel advice, and of the confidence generated when panels found that A.I.D. innovations were generally on the right track. For example, the discussion of biotechnology approaches to controlling animal diseases led to an important research project on the development of vaccines against several cattle diseases. Also: There were two cases where a panel's judgment helped A.I.D. offices resist political or institutional pressures to fund outside proposals; another research proposal was dropped when a panel raised questions of human safety - an issue which had not been adequately covered in the proposal; a site visit to an A.I.D. agricultural project resulted in the NSF funding a related research activity at the same institution.

A.I.D. Backstopping Services: The availability of the NSF/RSSA (and now the NAS contract) to support operations of an external review function does not eliminate the need for A.I.D. administrative services. Planning and coordination, reports, records and filing, and follow-up, must still be done internally. In the case of the NSF ERPs, the A.I.D. files were adequate but not systematic; except in the case of the HBCU Panels, there was little follow-up either with A.I.D. technical personnel or with panelists to find ways to improve the logistics of the ERPs.

Guidance to Panels and Terms of Reference: The original RSSA contained Project Review Criteria and guidance for the ERPs on Ranking of Project Proposals and Site Visit Evaluations which are generally valid. In addition, the scopes-of-work submitted to NSF would state the purpose of the review and often contained comments on specific issues. The quality of the work-scopes varied considerably. It would have been useful to periodically review and clarify both the general criteria in the RSSA agreement and the guidance for preparation of work-scopes. The guidance affects the panel deliberations and the presentation of the panel report.

HBCUs - Historically Black Colleges and Universities: Many of the HBCU proposals were classified as falling far short of consideration for funding. However, in all cases the ERPs were enthusiastic about the A.I.D. program with HBCUs and reviewed each proposal with constructive criticism and detailed written comments they would not normally have time to give. The NSF RSSA staff wrote a report in 1984 which listed some observations and criticisms that were common to most of the weak proposals. This summary helped S&T/RUR to provide advice to HBCUs and to raise standards for proposals to pass from internal to external reviews.

Transition To The NAS Contract: The RSSA with the NSF ended on December 31, 1985, but A.I.D. negotiated a three-year contract with the NAS. The A.I.D. contract with NAS provides essentially the same scope-of-work and level-of-effort as the RSSA with NSF. There are several important differences, however:

K. ATTACHMENTS (List attachments submitted with this Evaluation Summary; always attach copy of full evaluation report, even if one was submitted earlier)

REPORT OF A REVIEW
of the
S&T EXTERNAL REVIEW PANEL ACTIVITY
WITH THE NATIONAL SCIENCE FOUNDATION (NSF)

July 1988 Report Prepared by:

Frank Campbell
Under Purchase Order
DAN-1406-0-00-8011-00

ATTACHMENTS

L. COMMENTS BY MISSION, AID/W OFFICE AND BORROWER/GRANTEE

MISSION COMMENTS ON FULL REPORT

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- The "advisory" nature of the NAS Panels is stressed. Immediately preceding the outlining of the criteria for reviewing the projects, the contract states: "any decisions on research priorities, selection among research proposals or operational adjustments to ongoing projects must be the responsibility of A.I.D. which may take into account issues beyond scientific factors". This condition, if given to each Panel, should help the Panels avoid getting into A.I.D.'s programming and priority determination processes, as did happen on occasion under the NSF RSSA.

- The Expert Membership of Panels is the Responsibility of the NAS. Under the RSSA, NSF had the responsibility of nominating the Panel and A.I.D. the authority to approve the nominations. Under the NAS contract, A.I.D. may still suggest experts for the panels but NAS is not obliged to accept them or defend its own choices. This will not eliminate all complaints over the composition of panels, but it should remove them from the bureaucratic maneuvering.

III. CONCLUSIONS AND RECOMMENDATIONS

The external review activity - both with the NSF and the NAS - has provided A.I.D. with a valuable scientific capability in carrying out the planning, design and evaluation of its projects. It has been beneficial to A.I.D. planners and project managers, to scientists who participated on the panels, and to some institutions.

The transition from the NSF RSSA to the NAS contract seems to have been carried out smoothly. There are some administrative or procedural points - items of A.I.D. managerial style - which would help the activity if they were changed or adopted:

Planning/More Lead Time - Lead times for NSF panels were frequently short, a problem that still occurs with the NAS panels. Since a lot of effort is put into annual planning exercises in the Agency and the S&T Bureau, those plans could be carried one step further by S&T/RUR to do preliminary scheduling of external reviews. This would help avoid scheduling conflicts and bunching of panel activities, as well as giving more lead time for the preparation of background materials and terms of reference.

Follow-up on Individual Panels - Two or three times a year, A.I.D. sponsors of projects ought to be asked how useful was the panel advice and to what use was it put. Panel members also ought to be asked what they thought of their service on the panel and what changes or improvements could be made. This follow-up ought to be written up in summary form but it need not be elaborate.

Periodic Reviews of Guidance to Panels and Terms of Reference - Using direct observation and what is learned from the follow-up activity, hold periodic reviews with NAS/Bostid to see if changes or clarifications in instructions to the panels are needed.

Administrative Support - The availability of the NSF/RSSA (and now the NAS contract) to support the external review function does not reduce the need for A.I.D. administrative services. Planning and coordination, reports, records and filing, and follow-up, are still internal functions. In a 1981 evaluation it was noted that NAS was unique and that A.I.D. should interact more intensely in order to take advantage of that capability. With more work and fewer people, A.I.D. has not picked up on that recommendation. Still, it ought to be possible to get some additional, periodic backstopping support (say 15 days per year) to help S&T/RUR to, for example, review Action/Implementation Plans to determine which projects should be considered for review by NAS; then do the planning for them.

Office of Research & University Relations
Bureau for Science & Technology
(S&T/RUR)

04478

EVALUATION REPORT

S&T EXTERNAL REVIEW PANEL ACTIVITY
WITH THE NATIONAL SCIENCE FOUNDATION (NSF)

EXECUTIVE SUMMARY

A.I.D. places strong emphasis on science and technology in its development assistance planning. That emphasis involves a variety of science and technology disciplines - more disciplines than could be represented individually on the A.I.D. staff; the purpose of the project, therefore, was to establish a mechanism for providing S&T with an external review capability for proposals which involved a significant element of research. The mechanism selected was a RSSA with the National Science Foundation (NSF) which operated for three years through December 31, 1985. At that time, the activity was transferred to a contract with the National Academy of Sciences (NAS).

The purpose of the evaluation is to report on the extent to which the NSF services were utilized and how useful and effective they were in helping A.I.D. employ science and technology in LDC development. Also, any practices or procedures which caused problems in the NSF activity, and which could be avoided in the NAS operation, were to be noted.

The main conclusion is that the external review activity - both with the NSF and the NAS - has provided A.I.D. with a valuable scientific capability in carrying out the planning, design and evaluation of its projects. It has proven beneficial to A.I.D. planners and project managers, to scientists who participated on the review panels, and to some institutions, particularly institutions such as the Historically Black Colleges and Universities (HBCUs).

The transition from the NSF RSSA to the NAS contract seems to have been carried out smoothly. There were no major design or organizational problems to be corrected, but two recurring points of irritation were addressed: the "advisory" nature of the panels has been stressed and the responsibility for selection of panel experts has been authoritatively settled on the NAS. There are still matters of A.I.D. style and administration which would help the operations of the activity, as well as periodic analysis and evaluation, if they were changed or adopted. They include the use of existing planning activities to help provide more lead time for panel reviews, following up on panels to improve utility and make changes or improvements, and, reviewing the written guidance and instructions periodically to help the panels provide the most useful reviews.

BASIC PROJECT IDENTIFICATION DATA

1. Region:

Worldwide

2. Project Title:

External Review of Science and Technology
Projects

3. Project Number:

936-5052 (Initial Obligation made under
Project 936-1406, Small Activities).

4. Project Dates:

Date of RSSA: August 13, 1982
RSSA Ended: December 31, 1985

5. Project Funding:

Project 936-1406	\$303,000
Project <u>936-5052</u>	<u>225,000</u>
Total	\$528,000

6. Mode of Implementation:

Through a Resources Support Services
Agreement with the National Science
Foundation.

7. Project Designers:

S&T/RUR

8. Project Officials:

Erven J. Long, Ph.D; S&T/RUR Director
Floyd E. O'Quinn, Project Manager

9. Previous Evaluations:

None

REPORT OF A REVIEW
of the
S&T EXTERNAL REVIEW PANEL ACTIVITY
WITH THE NATIONAL SCIENCE FOUNDATION (NSF)

INTRODUCTION

The Agency for International Development (A.I.D.) places strong emphasis on science and technology as it plans development assistance programs. These programs anticipate: (1) the identification of strategic problems of LDCs where research efforts are most needed; (2) an increase in the research and technically complex components of proposals and projects; (3) an enhanced effort to evaluate research results.

In 1982, with a change in the role of A.I.D.'s Research Advisory Committee (RAC), A.I.D. sought to augment its in-house technical resources by collaborating with the NSF. The rationale for the project was the realization that the increased emphasis being placed by A.I.D. on science and technology in its development programs involved a variety of disciplines - more disciplines than could be represented individually on the A.I.D. staff; the purpose of the agreement, therefore, was to establish a mechanism for providing S&T with an external review capability for proposals and projects which involved a significant element of research.

The S&T External Review Panel activity with NSF was initiated through a Resources Support Services Agreement (RSSA) dated August 13, 1982, and continued through December 31, 1985. A similar external review activity was begun under a contract with the National Academy of Science after the RSSA with NSF ended.

The purpose of this evaluation is to report on the extent to which the NSF services were utilized and how useful and effective the reviews were in helping A.I.D. in selecting among scientific alternatives to LDC development. Also, any practices or procedures which caused problems in the NSF ERPs, and which could be avoided in the transition to the NAS contract, should be noted.

PERFORMANCE ANALYSIS

Through the RSSA, A.I.D. and the NSF were to collaborate to establish External Review Panels (ERPs) consisting of qualified advisors who would evaluate ongoing or completed research projects and review complex science and technology issues, project identification documents, preliminary proposals, project proposals, and project reports which involve substantive elements of research. The RSSA called for NSF to maintain a Special Reviewer Roster, identify other external reviewers and NSF staffers qualified to review highly specialized research elements, set up and administratively support meetings of the ERPs, and submit reports summarizing the major findings for each project or program reviewed after each meeting or site visit.

Level of Effort

There were several quantitative factors mentioned in the NSF RSSA, and the NSF's performance was generally satisfactory in meeting them.

Number of External Panels: The RSSA estimated 20 ERPs would be held each year. In fact, 12 Panels were convened in 1983, 14 in 1984 and 16 in 1985. (All Panels are listed in Appendix A). A few other Panels were planned in 1983 but were not convened due, in large part, to AID decisions not to go forward with them. There are two principal points to be made about the number of Panels: 1) The NSF was able to convene all the Panels AID requested, and; 2) Each Panel was tailored individually to the subject, so they were not equal as to the the number of experts requested, the complexity of the issues involved, or the administrative support needed.

Site Visits: Seven site visits annually were foreseen in the RSSA; actual site visits carried out were 6 in 1983, 4 in 1984 and 6 in 1985. Few site visits were undertaken outside of the Continental U.S. However, the decision whether to undertake a site visit, or what sites to visit, was generally an AID decision and was requested in the Panel scope-of-work sent to the NSF. There is no recorded instance where the NSF was unable to arrange a site visit when one was requested.

Use of the NSF RSSA

As mentioned above, 12 Panels were convened in 1983, 14 in 1984, and 16 in 1985. The Science and Technology Bureau used the NSF mechanism the most - a total of 38 times. PPC used it on two occasions and the ASIA and LAC Bureaus each used it once; no AID Mission projects were reviewed by the NSF. Given the nature of program and project operations by the Missions and Bureaus other than S&T, this overwhelming use of the NSF resource by S&T should not be surprising. The breakdown by field is as follows:

TABLE 1

Uses, by Field of Activity, of the NSF/RSSA

<u>Field</u>	<u>Direct S&T</u>	<u>Related</u>	<u>TOTAL*</u>
Agriculture	15	4	19
Education	4	-	4
Energy	2	-	2
Environment	3	1	4
Nutrition	4	-	4
Population	2	-	2
Social & Inst Dev	4	1	5
Personnel Recruit	-	1	1
HBCU Research	4	-	4
TOTAL	38	7	45*

* There is some double-counting due to overlapping areas of interest.

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The table shows another preponderance of use, this time in the field of agriculture, where 15 projects of S&T/AGR were reviewed as well as four other agriculture-related activities (two from S&T/ED and one each from the PPC and LAC Bureaus). There is no discernible policy or programming reason for this pronounced tilt to agriculture; it is probable that S&T/AGR was more accustomed to using external evaluation teams and had more projects at a stage appropriate for that kind of evaluation.

As well as having a different subject each time, every panel had other qualities and circumstances that made each one different. (Some reviews - the HBCU and other research proposals for example - were carried out principally by mail; in most of these cases, primary and alternate reviewers were used for each proposal and then the reviewers would present the proposal and a critique to the panel plenary for discussion.) Nevertheless, the ERPs can be classified broadly into five categories, as shown in the following table:

TABLE 2

<u>Type of Review</u>	<u>No.</u>
Ongoing/Terminating Projects	22
New Project Planning	6
Implementation Proposals/Contracts	2
Research Proposals	7
HBCU Research	4
Other	1
<u>TOTAL</u>	<u>42</u>

Panels and Panelists

The RSSA called for NSF to maintain a Special Reviewer Roster of 50 persons, jointly endorsed by AID and NSF, who would serve on the ERPs along with other external reviewers and members of the NSF staff. At the time the RSSA was signed, NSF had an inhouse staff of approximately 500 professionals in various science and engineering disciplines, as well as professionals with work experience in many developing countries. In addition, NSF deals with approximately 10,000 external reviewers. Shortly after the RSSA was signed, A.I.D. sent NSF a list of some 130 names for the expert roster but the roster appears never to have been established. Apparently there was initial consideration given to setting up "standing" panels in areas such as Food & Nutrition, Human Resources, etc., which - apparently - would be comprised of experts from the Special Reviewer Roster. The "standing" panels were never constituted and, thus, the Roster, as such, was never utilized. Part of the problem was that the Special Reviewer Roster did not guarantee the availability of any of the experts on it for any given ERP; another point was that AID project sponsors, or panel requesters, were reluctant to leave the final selection of a panel to the NSF. The "expert" composition of a panel was perhaps the most contentious and recurring issue in the three years of the RSSA, yet there was virtually no complaint -

in retrospect - of the qualifications or impartiality of the panels as they came to be constituted.

Nevertheless, the responsibility remained for NSF to develop a slate of nominees to serve on ERPs and for SAA/S&T to make or approve the final selection of Panel members, as well as ex officio, observer and resource personnel who would attend meetings. Whether this division of labor is regarded as fostering cooperation and coordination or providing checks and balances, it did generate some apprehension and occasional contention.

One might expect a high percentage of academicians on the ERPs and that certainly is the case, as the following table shows.

TABLE 3

Occupational Sector and Gender of ERP Experts *

Panel Year	ACAD.	PRIV. ENT.	NGO	USG	NSF	INT. ORG.	M	F
1983	34	7	8	8	1	2	57	3
1984	30	16	3	10	4	2	56	9
1985	38	16	5	6	4	2	66	5
TOTALS	102	39	16	24	9	6	179	17

* Information on persons serving on one of the HBCU mail-in Panels was not available when drafting this report. Also, the occupational sector of some panelists, and occasionally the gender, was sometimes unclear.

Communications and Reporting

Virtually all of the communications and reporting requirements in the RSSA deal with panel nominations and selection, or reporting of panel reviews, evaluation and other activities. The official files do not contain a lot of formal correspondence between A.I.D. and NSF but we see evidence of many telephone calls, not only between NSF and S&T/RUR but also between NSF and A.I.D. project officers.

As indicated in the section on "Panels and Panelists", A.I.D. would send NSF a request for a panel along with a desired date, a scope-of-work and suggestions for persons to be selected to serve on the panel. NSF would acknowledge by telephone and give S&T/RUR its panel selections (possibly having discussed any changes in Panel nominations directly with the A.I.D. Project Manager). S&T/RUR would then send a memorandum to SAA/S&T asking for approval of the panel's rationale, the work-scope and the NSF's nominations of experts to serve on the panel.

The idea of having the SAA/S&T approve every panel as well as the slate of experts who would serve on it seems, at first glance, somewhat cumbersome and a potential delay. In fact, however, the

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SAA/S&T acted promptly on each panel memorandum, approving most of them in about three days. Nevertheless - and despite the utility of this step in forcing A.I.D. and NSF to pin down arrangements in order to be able to request approval - it would seem that this step could have been eliminated or SAA/S&T brought into the picture only when agreement on arrangements could not be reached (which did occur once early in RSSA operations).

The RSSA required that NSF send a report within 15 days summarizing the major findings, comments and recommendations for each project or program reviewed. With regard to the presentation of the findings and recommendations - vis-a-vis the quality of the findings and recommendations - most panel reports fall into the satisfactory-to-excellent range. One report was not much more than a transcript of notes taken at a panel meeting. Two panel reports were never delivered: One despite repeated attempts by NSF to get the panel Chairman (who was not a choice of the NSF) to write it; the other was due as the RSSA agreement terminated and seems to have fallen in the cracks when NSF support personnel dispersed.

It should be pointed out that, generally, NSF forwarded the panel report to A.I.D. without any substantive comment. In one case, however, the NSF wrote an excellent and constructive commentary on ways to improve the quality of research proposals submitted by Historically Black Colleges and Universities (HBCUs).

Administration and Procedures

The most significant problem with the RSSA and RSSA operations was the personnel cuts suffered by NSF which caused it to decide that it could not continue the project with A.I.D. Among the consequences of this is that NSF's "memory" of the activity substantially disappeared along with the employees who left the NSF's International Programs Division at that time. However, we were able to talk to the former NSF/RSSA chief and his operations assistant; both of them were able to recall the general atmosphere as well as some of the specific activities.

There seem to have been few administrative or procedural problems of any significance. The lead time allowed by A.I.D. for a few of the Panels was short, creating the possibility of problems and inconveniences for NSF and the Panelists; neither the former NSF personnel nor Panelists we talked to thought it was a major matter (although one panel stated it could not comment on parts of the activity because it hadn't received the background material in time to read it all before the evaluation). The lack of clerical support for the preparation of panel reports was also treated as a minor inconvenience. The presence of A.I.D. personnel in panel discussions and on site visit teams sometimes raised concerns about whether A.I.D. was trying to influence the judgement of the panels, but this was not a frequent charge. (The selection of panelists - as mentioned elsewhere in this report - was often a sensitive subject but never one that got in the way of actual operations.)

Finally, a note on the cost of the RSSA. NSF pays an honorarium to experts asked to serve on panels such as the ones it arranged for A.I.D. The honorarium is moderate and amounted to considerable savings to A.I.D. had it tried to arrange such Panels directly. NSF staffers claim that NSF member/experts are willing to serve NSF for modest compensation, where they would not be willing to do so for A.I.D., if they were willing to work for A.I.D. at all.

COMMENT

General

Judging from the response to the availability of the ERPs and the type of projects submitted to them, the NSF RSSA certainly filled a need for external review panels. However, there is no way of telling, in the course of the review for this report, whether the ERP subjects represent a "proper" mix of what should have been reviewed by the NSF. If we keep in mind that the purpose of the NSF Panels was to provide advice on the relevancy of science and technology proposals to LDC development and to analyze the quality of the science and the soundness of the methodology in the proposals, then we see that the issues of relevancy and quality have to first be raised within A.I.D. Such issues could be raised at regular policy, program and project reviews which A.I.D. has during the year. Within S&T, the decision to use the NSF seems to have been made at the Project Manager/Office Director levels. All recommendations to use the NSF had to be approved by SAA/S&T.

Also affecting the number and type of subjects brought before the NSF ERPs is A.I.D.'s in-house technical competence and its programming and evaluation processes, as well as the availability of other policy and program review mechanisms, e.g., the Research Advisory Committee (RAC), the Title XII CRSP External Evaluation Panels, and - to some degree - the various Agency Sector Councils. This in-house capability and A.I.D.'s own processes help explain why A.I.D. projects were generally well received by the ERPs; projects with poor planning concepts or obvious operational problems were detected beforehand and were never considered for NSF evaluation, whereas the ones that were presented had thought-provoking scientific issues. Proposals that came from outside of A.I.D., such as research proposals, did not always go through an eliminatory process and consequently some poor proposals were submitted to NSF panels.

Acceptance of ERP Advice and Judgments

As indicated in Table 2, the greatest use by far of the ERPs was to evaluate projects that had been in existence for some time and which had reached a technical or operational turning point. By their nature, these projects had more definition and information as well as more focused issues for the reviewers to consider; the panel reports reflected this most of the time. New project planning and the proposals for implementation of new projects contracts offered the possibility for wider ranges of speculation and opinion, but a fairly good consensus was arrived

at in each case. The research proposals had the widest range of quality, but the panels seemed to be able to deal with them evenly.

A brief description of each panel and its recommendations is contained in Appendix B.

In checking with A.I.D. project people in the course of this review, there were reports of projects which had been continued as a result of favorable panel opinions, of projects whose planning and implementation had been made more sound with panel advice, and of the confidence generated when panels found that A.I.D. innovations were generally on the right track. In a few cases, it was hard to pin down what was done with the advice because personnel had changed to such a degree that no one personally could track whether the advice of the panel had affected the present portfolio; this occurred more often where panels considered broad research issues or numerous research proposals. Some specific results: There were two cases where a panel's judgment helped A.I.D. offices resist political or institutional pressures to fund outside proposals; another research proposal was dropped when a panel raised questions of human safety - an issue which had not been adequately covered in the proposal; a site visit to an A.I.D. agricultural project resulted in the NSF funding a related research activity at the same institution.

Working Level Relationships

The working relationship between the NSF International Programs Division (which provided the staff for the RSSA) and S&T/RUR (the A.I.D. coordination point for the activity) was good throughout the three years of RSSA operations. There were a number of opportunities for strain - particularly because of the short lead times that NSF had in which to convoke and properly brief ERPs; one ERP planning effort early in 1983 for a review of proposals for A.I.D.'s Science Advisor almost became acrimonious because of difficulties with Panel selections and program guidelines, and was cancelled because agreement couldn't be reached in time. That degree of difficulty fortunately was not experienced again. Nevertheless, the NSF RSSA staff, and particularly operations assistant Mildred Bosilevac, were frequently pressed by deadlines and deserve praise for their patience and diligence in doing what had to be done in the course of the RSSA.

A.I.D. Participation in Panel Selection and Deliberations

As mentioned in the Performance Section, one of the recurring issues in establishing ERPs was the selection of panelists. The NSF, properly, was concerned about the integrity of its sponsorship of the ERPs and the independence of the Panelists' judgment. A.I.D. project managers, for their part, were concerned that experts be chosen who knew the problems well, particularly as they pertained to the LDC setting. (This kind of maneuvering also occurs when A.I.D. is setting up its own

evaluation teams and many project managers try to influence the selection of team members.) When A.I.D. requested NSF to establish a panel, it provided a work-scope and, in most cases, would also suggest names of persons to be invited to serve on the panels. Sometimes these nominations would be accepted, sometimes not. The official record does not show any disagreements over the expert constitution of ERPs but private conversations indicate that there was suspicion and sometimes anger over panel nominations; these discussions about nominations often took place directly between NSF staff and A.I.D. project managers and were resolved without becoming formal issues. Moreover, the concerns appear not to have carried over into the final results as the work of the panels was well regarded and appreciated, as were virtually all of the persons who served on them.

In a similar vein, it was customary for A.I.D. project people to attend panel discussions and site visits as resource persons. Once in a while these persons would be perceived as engaging in the argument rather than supplying information. Surprisingly enough, the perception applied in some cases to A.I.D. people who were too hard on the contractor or researcher, as well as to those who were too protective of the project. There appeared to be a few occasions also where panels were maneuvered by the Project Manager into making recommendations that went beyond the technical merits of a project and into A.I.D.'s programming and priority determination processes. This problem, however, appears to be more a matter of defining the proper terms of reference for a panel rather than who is present at the panel discussions and site visits.

A.I.D Backstopping Services

The availability of the NSF/RSSA (and now the NAS contract) to support the operations of an external review function does not obviate the need for A.I.D. administrative services. Planning and coordination, memo writing, approvals and clearances, reports, and filing systems and maintenance, and follow-up, must still be done internally. Despite the planning that is done annually in the S&T Bureau through such vehicles as action plans, implementation plans and evaluation schedules, each ERP seemed to be a brand new event - occasionally a crisis. Among the problems that occur in situations like that is that records maintenance may be poor and follow-up non-existent. In the case of the NSF ERPs, the A.I.D. files were adequate but not systematic; except in the case of the HBCU Panels, there was little follow-up either with A.I.D. technical personnel or with panelists to find ways to improve the substance or the logistics of the ERPs.

Guidance to Panels and Terms of Reference

The original RSSA contained Project Review Criteria and guidance for the ERPs on Ranking of Project Proposals and Site Visit Evaluations. The criteria and guidance are general but nonetheless fundamental and valid. In addition, the scopes-of-work submitted to NSF when requesting the convening of a panel would state the purpose of the review/evaluation and

frequently contained specific issues or points for comment. The quality of the scopes-of-work varied considerably from office to office, especially with regard to the specific issues. The work-scopes may have become "routinized", which is not necessarily bad, but it would have been useful to periodically review and clarify both the general criteria in the RSSA agreement and the guidance for preparation of work-scopes.

One reason for the concern over the guidance to the panels is because it affects the material and presentation of the Panel Report. Part of the reason for the range of quality in reporting that is mentioned in the Performance Section, is a general lack of instruction on the part of A.I.D. on how it wants a report constructed - whether that report is from NSF or any other source. The RSSA contained general instructions on what panels were to look for and comment on; the NSF gave panels written guidance which covered A.I.D. concerns and the panels generally covered these points in their reports. There was, however, widespread divergence in the format of the reports. Sometimes the organization of the report made it hard to locate the information; sometimes basic information, such as the names of panel members or dates of site visits, was missing from the report. Again, however, most reports were good from the point of view both of information and judgment.

HBCUs - Historically Black Colleges and Universities

There were four occasions when the NSF convened panels especially to review research proposals from HBCUs. (The Panels are listed in Appendix A.) There were some 52 proposals reviewed in 1984 and 1985 which the ERPs were asked to rank-order; no prior screening of the proposals had been done by A.I.D.

The ERPs did not compromise judgment on the quality of individual proposals and many of them were classified as falling far short of consideration for funding or rank-ordering. However, in all cases the ERPs were enthusiastic about the A.I.D. program with HBCUs and, according to NSF staffers, reviewed each proposal with constructive criticism and detailed written comments they would not normally give. Many of the written comments were suggestions on how to improve that specific proposal, making it more viable and worthy of reconsideration for funding.

The NSF RSSA staff wrote a report on December 28, 1984, which, in addition to commenting on the individual proposals, listed some general observations and criticisms that were common to most of the weak proposals. This summary has proven helpful to S&T/RUR in providing advice to HBCUs and individual researchers on the preparation of proposals.

Broadening the Scientific Community's Awareness of Foreign Aid and LDC Problems.

In addition to the AID strategy of making use of U.S. science and technology resources in specific development programs and projects, there is the implicit objective of making the broader,

scientific community aware of the U.S. foreign assistance program and the role and potential of science in it. Some random telephone interviews with NSF panelists were made in connection with this evaluation and most of them that had not had any prior connection with A.I.D. had not been aware that this type of research and technology transfer was being carried out through the foreign aid program; they were uniformly impressed with the type and quality of A.I.D. projects and willing to serve on these kinds of reviews again.

TRANSITION TO THE NAS CONTRACT

The RSSA with the NSF ended on December 31, 1985, but A.I.D. determined that the need for an external review capability still existed and negotiated a three-year contract with the National Academy of Sciences (NAS). The NAS, in association with the National Academy of Engineering and the Institute of Medicine, operates through the National Research Council (See Organization Chart at Appendix C). The NRC's Board on Science and Technology for International Development (BOSTID) is the operating arm for the contract which now runs from September 30, 1986 to September 29, 1989.

The NAS is a government-chartered, independent agency providing scientific and technical advice to the government. It values its independence highly and attracts outstanding science and technology talent on the basis of professional responsibility in providing disinterested advice on public policy. Its prestige is such that the talent it wishes to attract will provide short-term services without salary or fee.

The A.I.D. contract with NAS provides essentially the same scope-of-work and level-of-effort as the RSSA with NSF. There are several important differences, however:

- The "advisory" nature of the NAS Panels is stressed. Immediately preceding the outlining of the criteria for reviewing the projects, the contract states: "any decisions on research priorities, selection among research proposals or operational adjustments to ongoing projects must be the responsibility of A.I.D. which may take into account issues beyond scientific factors". This condition, if followed up in the specific guidance given to each Panel, should help the panels avoid getting into A.I.D.'s programming and priority determination processes, as did happen on occasion under the NSF RSSA.

The Expert Membership of Panels is the Responsibility of the NAS. Under the RSSA, NSF had the responsibility of nominating the Panel and A.I.D. the authority to approve the nominations. Under the NAS contract - and in keeping with its independence and desire for disinterested judgments - NAS does not have to get the approval of A.I.D. A.I.D. may still suggest the qualifications of experts to serve on the panels and even the names of specific persons; NAS will consider those suggestions but is not obliged to defend or explain its own choices. This will not eliminate all

complaints over the composition of panels, but it should remove them from the bureaucratic process.

Another change that A.I.D. may have to adjust its processes to is the time it takes NAS to submit a panel report. In its concern for "disinterested" judgment, NAS publications and reports are given close scrutiny to ensure that no personal biases are included. Reports sometimes take awhile to clear through the process which, if the report concerns a project for which a programming decision has to be made, could be a factor in determining whether the NAS external review mechanism should be used.

Finally, it should be noted that some of the operational problems in an external review process are due to A.I.D. management styles and practices. Some suggestions are noted in the next section.

CONCLUSIONS AND RECOMMENDATIONS

The external review activity - first with the NSF, now with the NAS - has provided A.I.D. with a valuable scientific capability in carrying out the planning, design and evaluation of its projects. It has proven beneficial to A.I.D. planners and project managers, to scientists who participated on the panels, and to some institutions (the HBCUs particularly come to mind).

This external review activity is not the only vehicle A.I.D. has for the planning, design and evaluation functions, nor should it be; in fact, some care should be exercised to avoid that it come to be used "routinely" just because the requesting technical office can avoid the need to make team arrangements themselves and because there is no cost to their office budget.

The transition from the NSF RSSA to the NAS contract seems to have been carried out smoothly. There were no major design or organizational problems to be corrected in the transition, but two recurring points of irritation were addressed. There are still a number of administrative or procedural points - items of A.I.D. managerial style - which would help the activity if they were changed or adopted:

Planning/More Lead Time - Lead times for NSF panels were frequently short, a problem that still occurs with the NAS panels. Since a lot of effort is put into annual planning exercises in the Agency and the S&T Bureau, S&T/RUR (with help from S&T/PO) could carry those plans one step further by doing preliminary scheduling of external reviews. This would help avoid scheduling conflicts and bunching of panel activities, as well as giving more lead time for the preparation of background materials and terms of reference.

Follow-up on Individual Panels - Two or three times a year, A.I.D. sponsors of projects ought to be asked how useful was the panel advice and to what use was it put. Panel members also ought to be asked what they thought of their service on the panel and what changes or improvements could be made.

This follow-up ought to be written up in summary form but it need not be elaborate.

Periodic Reviews of Guidance to Panels and Terms of Reference
Using direct observation and what is learned from the follow-up activity, hold periodic reviews with NAS/Bostid to see if changes or clarifications in instructions to the panels are needed.

Administrative Support - In the 1981 evaluation of an A.I.D./NAS activity, it was noted that NAS had unique capabilities which required a different A.I.D. management style than other contracts, i.e., much more of a collaborative style. This requires more time of the Project Manager and others, and with more work and fewer people, A.I.D. has not picked up on that recommendation. The personnel situation has not changed but it ought to be possible to get some additional, periodic backstopping support for S&T/RUR to help carry out the planning, follow-up and reviews mentioned above. It might even be added to an existing S&T/RUR contract (it would probably only require 15-20 days per year).

Appendix A

External Advisory Panels Organized Through the RSSA Agreement with the NSF1983

A-1

<u>NAME OF PANEL</u>	<u>DATE</u>	<u>SPONSOR</u>	<u>PANEL PARTICIPANTS</u>
1. Coastal Resources Mgmt.	Jan. 17	S&T/FNR	Dr. Jay Savage, Univ. Southern Cal. Dr. Edward Haude, Smithsonian Institution Dr. Ariel Lugo, USFS/Tropical Forest Inst. Dr. Howard Odum, Univ. of Florida Dr. Daniel Okun, U. of North Carolina Dr. William Patrick, LSU Dr. Alfredo Sfeir-Younis, World Bank Dr. Stella Vallejo, UN/Ocean Econ.& Tech. Br.
2. Transfer & Feedback Systems In Agriculture	Feb. 18	PPC Bureau	Dr. Glenn Johnson, Michigan State Dr. Frank Young, Cornell University Dr. Ernest T. Smerdon, U. of Texas/Austin
3. Conch Resource Management In the Caribbean	Mail Feb./July	LAC Bureau	Mail Review. The identity of the reviewers is confidential.
4. Pest Management & Related Environmental Protection (Also reviewed in 1985)	Mar. 14-16	S&T/AGR	Dr. Alton N. Sparks, USDA/So. Grain Res. Lab. Dr. Murray S. Blum, University of Georgia Dr. Elvin F. Frolik, University of Nebraska Dr. Dale N. Moss, Oregon State U.
5. Pest Management - Root Knot Nematode	Mar. 21-23	S&T/AGR	Dr. Victor H. Dropkin, Univ. of Missouri/Columbia Dr. Robert McSorley, Univ. of Florida Dr. John Ferris, Purdue University Dr. Clanton C. Black, University of Georgia
6. Entrepreneurship & Small Enterprise Development (See same project Panel Review in 1985)	June 9-10	S&T/RD	Dr. Robert M. Colton, NSF Bernard C. Rosen, Cornell University Donald Horowitz, Duke University Geald Udell, Marketing Consultant David Hull, Ohio Wesleyan U. John B. Kaatz, Georgia Inst. of Technology
7. Program for Applied Research on Fertility Regulation	Jun. 13-17	S&T/POP	Dr. Michael J.K. Harper, U. of Texas Health Sc. Cent. Dr. D.J. Patanelli, NIH/NICHD Dr. David F. Archer, U. of Pittsburgh Sch. of Med.

<u>NAME OF PANEL</u>	<u>DATE</u>	<u>SPONSOR</u>	<u>PANEL PARTICIPANTS</u>
8. Review of 46 Proposals Under The Energy Policy Development and Conservation Research Program	Jul. 12-13	S&T/EY	Dr. Charles K. Ebinger, Cent./Strat.& Int. Studies Dr. Macauley Whiting, Sun Valley, Idaho Dr. Robert Bohm, Univ.of Tennessee Dr. Franklin Tugwell, Pomona College Dr. Duane Chapman, Cornell University Dr. Basheer Ahmed, PERI Dr. Jack Fritz, NAS Mr. S. Locke Bogart, Carlsbad, CA Dr. George Hazelrigg, Jr., NSF Dr. Edward S. Cassedy, Polytechnic U. of N.Y. Dr. Alan Manne, Stanford Dr. William Barron, Oak Ridge Dr. David Green, Oak Ridge
9. Seed Program & Industry Development	Jul 19-22	S&T/AGR	Dr. Harve J. Carlson, Consultant in Science Dr. Elvin F. Frolik, University of Nebraska Dr. John M. Poehlman, University of Missouri
10. International Fertilizer Development Center	Jul 24-29	S&T/AGR	Mr. Rodger C.Smith, AMAX Chem. Corp. (Ret.) Dr. Jacob Hautaluoma, Colorado State U. Dr. David E. Kissel, Kansas State U.
11. Population Council - Contraceptive Development	Oct. 6-7	S&T/POP	Dr. Robert Williams, NIH/NICHD Dr. Michael Harper, University of Texas Dr. Felicia Stewart,
12. Urban Migrant Fertility	Oct 13-14	S&T/POP	George C. Myers, Duke U. Cent.f/Demo. Studies Francisco Alba, Overseas Dev. Council Thomas Merrick C.M. Suchindron

External Advisory Panels Organized Through the RSSA Agreement with the NSF

1984

<u>NAME OF PANEL</u>	<u>DATE</u>	<u>SPONSOR</u>	<u>PANEL PARTICIPANTS</u>
1. Nutrition: Improving Maternal & Infant Diets.	Feb. 3	S&T/N	Dr. Abraham Horowitz, PAHO Dr. Jean-Pierre Habicht, Cornell U. Dr. John Rohde, Mgmt. Sciences for Health
2. Nutrition: Surveys & Surveillance	Mar. 19	S&T/N	Dr. Abraham Horowitz, PAHO Dr. David Dapice, Tufts University Ms. Marielouise Harrell, Sigma One Corp. Dr. Wm. B. Van Robertson, NSF
3. Study on African Development Policy	Mar/July	AFR	Dr. Daniel Gross, NSF Dr. Sara Berry, Boston University Dr. David Norman, Michigan State U. Dr. Robert Netting, U. of Arizona Dr. Louise Fortman, U. of California
4. Environment & Nat. Resources: Expanded Info. Base	Apr. 12	S&T/FNR	Dr. Walter Parham, Off. Tech.Assess/Congress Prof. Bruce Nelson, Univ. of Va. Mr. Rice Odell, The Conservation Foundation Prof. Peter Ffolliott, U. of Arizona
5. Energy Policy Research Proposals	Jun 11-12	S&T/EY	There were three Panels to review 56 proposals. Because it was a review of individual proposals - rather than a review of an AID project - the NSF assured Panel members of anonymity.
6. Improvement of Postharvest Grain Systems	Jun. 11-14	S&T/AGR	Dr. Dale Anderson, Univ. of Nebraska Dr. Robert Davis, USDA/Stored Products R&D Dr. Theodore Granovsky, Buster Sunny System Prof. George Foster, Purdue University
7. Nutrition: Vitamin A Deficiency	Jun. 5 Nov. 3	S&T/N	Dr. Barbara Underwood, National Eye Institute Dr. Guillermo Arroyave, Food Res. Inst./Stanford Dr. Richard Cash, Harvard School of Public Health Dr. James Sprague, Denver General Hospital

<u>NAME OF PANEL</u>	<u>DATE</u>	<u>SPONSOR</u>	<u>PANEL PARTICIPANTS</u>
8. Aquaculture Technology Development	Jul. 9-13	S&T/AGR	Dr. James Davis, Texas A&M Prof. Gerald Klonglan, Iowa State University Mr. Charles Larsen Dr. James Storer, Rockefeller Foundation
9. Agricultural Information & Exchange Syst. (AGIES)	Jul. 16-17	S&T/AGR	Ms. Stephanie Normann, Univ. of Texas Health Sc. Cent. Dr. Mary E. Corning, Ms. Patricia W. Berger, Nat'l Bureau of Standards Mr. Carol D. Jones, Michigan State University
10. NSF Recruiting Assistance for USAID/India Scientist	Jul.-Sept.	ASIA Bureau	No Panel as such.
11. Enhancement of Lactational Infertility and Infant Nutrition Through Supplemental Feeding and/or Metoclopramide	Sept.	S&T/POP	Mail review. The identity of the reviewers is confidential.
12. Communication for Technology Transfer in Agriculture	Nov. 8	S&T/ED	Panel met again in Feb. 1985. See 1985 list.
13. HBCU Program Proposals (17)	Nov. 29-30	S&T/RUR	Reviewers names are confidential.
14. Postharvest Institute for Perishables	Dec. 3-4	S&T/AGR	Dr. Bernard A. Twigg, Univ. of Maryland Dr. Robert Bates, University of Florida Dr. Harve Carlson Dr. Jack Downey, Volunteers in Tech. Asst.

External Advisory Panels Organized Through the RSSA Agreement with the NSF1985

<u>NAME OF PANEL</u>	<u>DATE</u>	<u>SPONSOR</u>	<u>PANEL PARTICIPANTS</u>
1. Communication for Technology Transfer in Agriculture	Feb. 1 Nov. 8/84	S&T/ED	Richard R. Harwood, Rodale Research Center Howard E. Ray, Acad. for Educ. Development Delane Welsch, University of Minnesota Robert C. Hornig, Univ. of Pennsylvania Sidney Passman John Axtell
2. Nitrogen Fixation in Tropical Legumes	Feb. 5-12	S&T/AGR	Dr. Robert Miller, No. Carolina State U. Dr. Thomas LaRue, Boyce Thompson Inst. Dr. Patrick Flanagan, NSF
3. Basic Research In Education	Feb. 22	S&T/ED	Donald B. Holsinger, SUNY/Albany Kazim Bacchus, University of Alberta William Cummings, National Science Found. Stephen Heyneman, The World Bank Peter Moock, The World Bank Larry Suter, NCES
4. Institution Building	May 1	S&T/RUR	Prof. C. Ford Runge, Univ. of Minnesota Dr. D. Gale Johnson, University of Chicago Prof. Norman Uphoff, Cornell University Dr. W. Parker Mauldin, Rockefeller Foundation
5. Vaccines for Tropical Animal Diseases	May 3	S&T/AGR	Dr. Albert L. Brown, Norden Laboratories Dr. W. R. Elder, Coopers Animal Health Inc. Dr. James B. Henson, Washington State Univ. Dr. Maurice R. Hilleman, Merck Institute for Therapeutic Research Dr. Daryl King, USDA Nat'l Animal Health Dr. Frederick Murphy, CDC/Atlanta Dr. William Pritchard, SVM/U. of Calif./Davis
6. Pest Management & Related Environment Protection (Also reviewed in 1983)	June 12-13	S&T/AGR	Dr. Murray Blum, University of Georgia Dr. Walter Kaiser, Washington State Univ. Dr. Michael Dover, World Resources Institute
7. Control of Barley Diseases	July 9-12	S&T/AGR	Dr. John M. Poehlman, Univ. of Missouri Dr. Harve J. Carlson, Virologist/Consultant Dr. David A. Van Sanford, Univ. of Kentucky

<u>NAME OF PANEL</u>	<u>DATE</u>	<u>SPONSOR</u>	<u>PANEL PARTICIPANTS</u>
8. Spring & Winter Wheat	July 13-18	S&T/AGR	Dr. John M. Poehlman, Univ. of Missouri Dr. Harve J. Carlson, Virologist/Consultant Dr. David A. Van Sanford, Univ. of Kentucky
9. Entrepreneur & Small Business Development	July 16-19	S&T/RD	Robert M. Colton, NSF Donald L. Horowitz, Duke University
10. Crop Nematode Research and Control	Sep. 3-5	S&T/AGR	Dr. John M. Ferris, Purdue University Dr. Richard S. Hussey, University of Georgia Dr. A.W. Johnson, UDSA
11. Weed Control Utilization	Sep. 10-12	S&T/AGR	Dr. Edgar Kendrick, Ret. USDA Research Admin. Dr. Robert Frans, University of Arkansas Dr. Stanley F. Gorski, Ohio State University
12. Biotechnology for Plant Pest Biological Control	Oct. 9 Nov. 4	S&T/AGR	Dr. W. R. Coffman, Cornell University Dr. Charles Delp, Dupont Chemical (Ret.) Dr. Robert Goodman, Calgene Inc. Dr. A.D. Kern, Monsanto Co. Dr. George Lacy, Va. Polytech. Inst. Dr. Roger Lawson, USDA/ARS/NER Dr. Max Summers, Texas A&M
13. Role & Process of Institutional Development	Dec. 18	S&T/RD	Dr. John Barton, Intern'l Tech. Management Prof. Gary Brewer, Yale University Prof. Theodore Lowi, Cornell University Dr. John Niskanen, CATO Institute Prof. Elinore Ostrom, Indiana University Prof. Vernon Ruttan, Univ. of Minnesota Dr. Norman Uphoff, Cornell University Dr. Oliver Williamson, Yale University

1985 Review of Research Proposals from Historically Black Colleges & Universities (HBCUs).

10 Health Proposals (review by mail)	April	HBCU proposals are reviewed by primary and alternate reviewers prior to the meeting and under assurances of confidentiality. Usually Panel meetings are also held and the reviewers will give an evaluation to the Panel and respond to questions.
10 Agricultural Proposals	June 7	
15 Proposals of Various Sectors	Jan. 17/86	

ACTIVITIES REVIEWED BY THE NSF
EXTERNAL ADVISORY PANELS

1983

1. SUBJECT: Coastal Resources Management DATE: Jan. 17
PURPOSE: Provide technical advice on development of the project at the PID and PP stages.
RECOMMENDATION: The panel made many suggestions useful to refining the project design and prepared specific statements on fisheries, agriculture, and port, urban and industrial development. In addition, the Panel endorsed A.I.D. involvement in coastal resources management and concurred in the net economic importance of coastal resources in LDCs.
2. SUBJECT: Transfer & Feedback Systems in Agriculture DATE: Feb. 18
PURPOSE: Review of a research proposal submitted for funding to PPC by a non-government institution.
RECOMMENDATION: The Panel found some omissions (including references to existing models of relevant agricultural systems), loose ends and underemphasis of key points. Several suggestions for strengthening and improving the proposal were made.
3. SUBJECT: Conch Resource Management in the Caribbean DATE: Feb/July
PURPOSE: To review (by mail) a research proposal by the Marine Biological Laboratory to study the geographic population of the queen conch to obtain data for rational management.
RECOMMENDATION: The reviewers thought the description of the overall methodology was inadequate and measures to strengthen it were suggested.
4. SUBJECT: Pest Mgmt. & Related Environmental Protection DATE: Mar. 14-16
PURPOSE: Conduct a site visit and an evaluation of progress to-date of the project with the Consortium for International Crop Protection (CICP)
RECOMMENDATION: The quality of work done by CICP was found to be good and the information disseminated was sound. A more in depth look was needed at the costs-per-output and at AID/CICP understanding of some project requirements.
5. SUBJECT: Pest Mgmt. - Root Knot Nematode DATE: Mar. 21-23
PURPOSE: Site visit and in-depth review to assist AID in determining the future direction of the project and to advise on the extension of the project.
RECOMMENDATION: The project has been successful technically and administratively, and the methods used in conducting it can be used as a model for similar projects. The Panel recommended approval of an extension with major modifications and a significant reduction in the budget.

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6. SUBJECT: Entrepreneurship & Small Enterprise Dev. DATE: June 9-10

PURPOSE: To help develop an RFP for the project and to help select winning proposals from those responding to the RFP.

RECOMMENDATION: Panel did as requested. The same project was also reviewed in 1985.
7. SUBJECT: Program for Applied Research on Fertility DATE: June 13-17

PURPOSE: To conduct an in-depth evaluation of the accomplishments and future directions of the PARFR project.

RECOMMENDATION: The Panel found that the PARFR objectives of developing contraceptive modalities for use in LDCs were appropriate and were being accomplished. It made some suggestions but recommended that the programs be continued essentially in the present shape and form.
8. SUBJECT: Energy Policy Dev. & Conservation Research DATE: Jul. 12-13

PURPOSE: To review 46 responses to an RFP soliciting research proposals and to rank-order them for funding by S&T/EY.

RECOMMENDATION: In all, 17 proposals were found to be worthy of consideration for funding and were so reported to S&T.
9. SUBJECT: Seed Program & Industry Development DATE: July 19-22

PURPOSE: To conduct a site visit and in-depth evaluation of the quality and progress of the Mississippi State seed activity and to make recommendations on its direction.

RECOMMENDATION: The Panel strongly recommended continuation of the project.
10. SUBJECT: International Fertilizer Development Center DATE: July 24-29

PURPOSE: To conduct site visits, evaluate progress to date and assess on-going activities, particularly research activities.

RECOMMENDATION: Although there was some concern and suggestions about planning for the LDC perspective in research and for shortfalls in outside budgetary contributions, the evaluation was "extremely positive". The quality and amount of work done is of a high level and the IFDC is producing substantial benefits in LDCs.

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11. SUBJECT: Population Council - Contraceptive Development DATE: Oct. 6-7

PURPOSE: Evaluate how well the Population Council is meeting the objective of developing promising leads for new contraceptive methods for LDCs.

RECOMMENDATION: This program was judged to be one of the most successful in the contraceptive R & D field and the Panel was enthusiastic about the quality and relevance. A number of general and specific recommendations were made.

12. SUBJECT: Urban Migrant Fertility DATE: Oct. 13-14

PURPOSE: Provide recommendations to the contractor on 1) revising the draft Mexicc report, 2) conducting the third and final study on the Cameroon, and 3) synthesizing the three (Korea was completed) country studies.

RECOMMENDATION: The Panel thought that good progress was being made and had 12 recommendations addressed to the concerns stated in the purpose.

ACTIVITIES REVIEWED BY THE NSF
EXTERNAL ADVISORY PANELS

1984

1. SUBJECT: Nutrition-Maternal & Infant Diets DATE: Feb. 3

PURPOSE: Evaluate the progress to-date and the lessons learned from past activities, as well as comment on a proposed scope for a comprehensive evaluation in 1985.

RECOMMENDATION: The Panel never issued a final report or findings. S&T/N personnel had attended Panel deliberations (but not site visits) and were able to draw on enough information to satisfy the purpose.
2. SUBJECT: Nutrition-Surveys and Surveillance DATE: Mar. 19

PURPOSE: Assess current activities and progress to-date and to make recommendations as to the current design and whether the project should go beyond 1987.

RECOMMENDATION: While some mid-course corrections are needed, the Panel was impressed with the importance of the topic, the quality of the work to-date, the management of the activity, and the prospects for success. Support should be increased and sustained beyond 1987.
3. SUBJECT: Study on African Development Policy DATE: Mar./July

PURPOSE: To review, at the request of the Africa Bureau, an unsolicited research proposal which would analyze, for policy implications, data collected in surveys in African countries.

RECOMMENDATION: The Panel was unanimous that the proposal was not well suited to African problems today. The Panel identified several technical and methodological shortcomings and expressed concern that the proposal was costly and of little policy relevance.
4. SUBJECT: Environment & Nat. Res.: Expanded Info. Base DATE: Apr. 12

PURPOSE: To conduct an in-depth, interim review of the activity, including performance, design, management and usefulness of the information developed.

RECOMMENDATION: The Panel's conclusion was favorable but it made 25 recommendations, many of which involve micro-management or assigning a higher priority relative to other development areas.
5. SUBJECT: Energy Policy Research Proposals DATE: June 11-12

PURPOSE: To evaluate and rank-order 56 research proposals submitted to AID in response to an RFP.

RECOMMENDATION: The Panel(s) grouped the proposals into 5 categories and ranked the proposals from best to worst in each category; 15 proposals were deemed "not fundable".

6. SUBJECT: Improvement of Postharvest Grain Systems

DATE: June 11-14

PURPOSE: To conduct an in-depth assessment of the project which will assist AID to determine the direction and magnitude of support.

RECOMMENDATION: The basic design of the project is sound and the inputs of high quality. With some modifications the project should be extended. There is a need for more efficient provision of services and for improved communications with AID/W and Missions.

7. SUBJECT: Nutrition-Vitamin A Deficiency

DATE: June 5-Nov. 3

PURPOSE: To evaluate project activities and accomplishments and to recommend future direction and support.

RECOMMENDATION: Generally favorable recommendations directed to improving project outputs and operations.

8. SUBJECT: Aquaculture Technology Development

DATE: July 9-13

PURPOSE: Evaluate performance under the Cooperative Agreement and provide guidance regarding renewal or extension of the project.

RECOMMENDATION: Project performance has been consistently outstanding. The Panel recommended increased funding support and continuation of the project beyond the present agreement.

9. SUBJECT: Ag. Info. & Exchange System (AGIES)

DATE: July 16-17

PURPOSE: Review project activities, client demand and the practicality of user-financed services, and make recommendations on the appropriate budget and level of effort.

RECOMMENDATION: The AGIES project should be continued and its budget increased. There were program and management suggestions for all institutional participants in the project.

10. SUBJECT: NSF Recruiting Assist.: USAID/India Scientist

DATE: July-Sept.

PURPOSE: USAID/India needed a science generalist for 4-6 weeks to help design a science and technology development project.

RECOMMENDATION: NSF arranged for C.V.s to be reviewed and acceptable ones forwarded for USAID consideration.

ACTIVITIES REVIEWED BY THE NSF
EXTERNAL ADVISORY PANELS

1985

1. SUBJECT: Communication for Tech. Transfer in Agric. DATE: Feb. 1
PURPOSE: To review a draft Project Paper and provide advice on the technical aspects of the project's design.
RECOMMENDATION: The Panel had reviewed a prior document (the PID; see 1984 listing). The Panel was pleased with progress in designing the project and had a number of suggestions which would help it.
2. SUBJECT: Nitrogen Fixation in Tropical Ag. Legumes DATE: Feb.5-12
PURPOSE: To provide guidance on project continuation and direction.
RECOMMENDATION: There were suggestions/recommendations on Project Administration, Research, Travel & Communications, and Outreach Programs, but the overall evaluation was that NIFTAL is of high quality and has made significant progress in attaining its goal.
3. SUBJECT: Basic Research in Education DATE: Feb. 22
PURPOSE: To review project design documents (PID & PP) which would direct AID research focus on a few basic education problems.
RECOMMENDATION: The Panel rank-ordered 8 subjects for AID to consider as research topics.
4. SUBJECT: Historically Black Colleges & Universities DATE: April
PURPOSE: To review, by mail, 10 health research proposals from HBCUs.
RECOMMENDATION: The Panel rank-ordered the proposals; some were recommended for funding, others for revision and resubmission, and a few found too poor for consideration.
5. SUBJECT: Institution Building DATE: May 1
PURPOSE: To review an AID draft proposal on institutional development research.
RECOMMENDATION: The Panel supported AID's effort to make institutional development a research topic and focus of analysis in its own right. The area is of critical importance to project design and implementation. There were several specific recommendations.
6. SUBJECT: Vaccines for Tropical Animal Disease DATE: May 3
PURPOSE: To advise AID on the value and direction of animal vaccine research.
RECOMMENDATION: AID should support research directed toward the development of vaccines with first priority given to exploring the potential of vaccinia virus as a vector for vaccines against many important livestock diseases.

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7. SUBJECT: Historically Black Colleges & Universities DATE: June 7

PURPOSE: To review 10 agricultural research proposals from HBCUs.

RECOMMENDATION: The Panel heard presentations by the Principal Reviews and had the opportunity to discuss the proposal and question the reviewers.

8. SUBJECT: Pest Mgmt. & Related Environmental Protection DATE: June 12-13

PURPOSE: To conduct a technical review of a terminating project for insight into the design/management of a new project.

RECOMMENDATION: Due to time constraints and the lack of feedback from project service end-users, the Panel declined to judge the overall quality of the project. It did offer observations on specific issues that it became aware of.

9. SUBJECT: Control of Barley Diseases DATE: July 9-12

PURPOSE: Conduct final technical evaluation of the project, which is being picked up by an International Ag. Research Center (ICARDA) after termination.

RECOMMENDATION: The Panel found "solid evidence" of accomplishments and was concerned about the wisdom of ending AID sponsorship of the project.

10. SUBJECT: Spring and Winter Wheat DATE: July 13-18

PURPOSE: Conduct final technical evaluation of the project, which is being picked up by an International Ag. Research Center (CYMMIT).

RECOMMENDATION: The project has accomplished a lot but there are areas where changes are needed; the Panel had reservations about ending AID sponsorship of the project.

11. SUBJECT: Entrepreneur & Small Business Development DATE: July 16-19

PURPOSE: To review and evaluate overall progress and performance by the contractors.

RECOMMENDATION: There has been excellent progress toward achieving many program objectives. The experimental design developed by the contractors is logical and good; however, its implementation has not met targets set the year before. (This activity was also reviewed in 1983).

12. SUBJECT: Crop Nematode Research and Control DATE: Sept. 3-5

PURPOSE: To assess progress to date under the Cooperative Agreement and to suggest possible changes in methods or activities to make it more effective.

RECOMMENDATION: Commendable progress has been in training and technology transfer in the initial months of the project. The project budget seems underfunded and AID ought to see that the difference is made up.

13. SUBJECT: Weed Control Utilization

DATE: Sept. 9-12

PURPOSE: To assess the progress that has been made over the life of the project and to suggest possible improvements in methods or activities.

RECOMMENDATION: The Panel had many comments and suggestions but was favorably disposed to project activities. Funding is, and probably will be, a problem; the Panel suggested reducing project dependence on AID support.

14. SUBJECT: Biotechnology for Plant Pest Bio. Control

DATE: Nov. 4

PURPOSE: Assist S&T/AGR to identify the 4-10 priority plant diseases/pests affecting LDC farmer's crop production.

RECOMMENDATION: The Panel recommended that bio-technology related to genetic engineering and to the detection of microbes, pests or their host plants would be most suitable for research support. Gene transfer activities would also be helpful to LDCs.

15. SUBJECT: Role and Process of Institutional Development

DATE: Dec. 18

PURPOSE: To assist S&T/HRD in the design of a long-term research program on the role & process of institutional development in economic growth.

RECOMMENDATION: No final report from Panel.

16. SUBJECT: Historically Black Colleges & Universities

DATE: Jan. 7, 1986

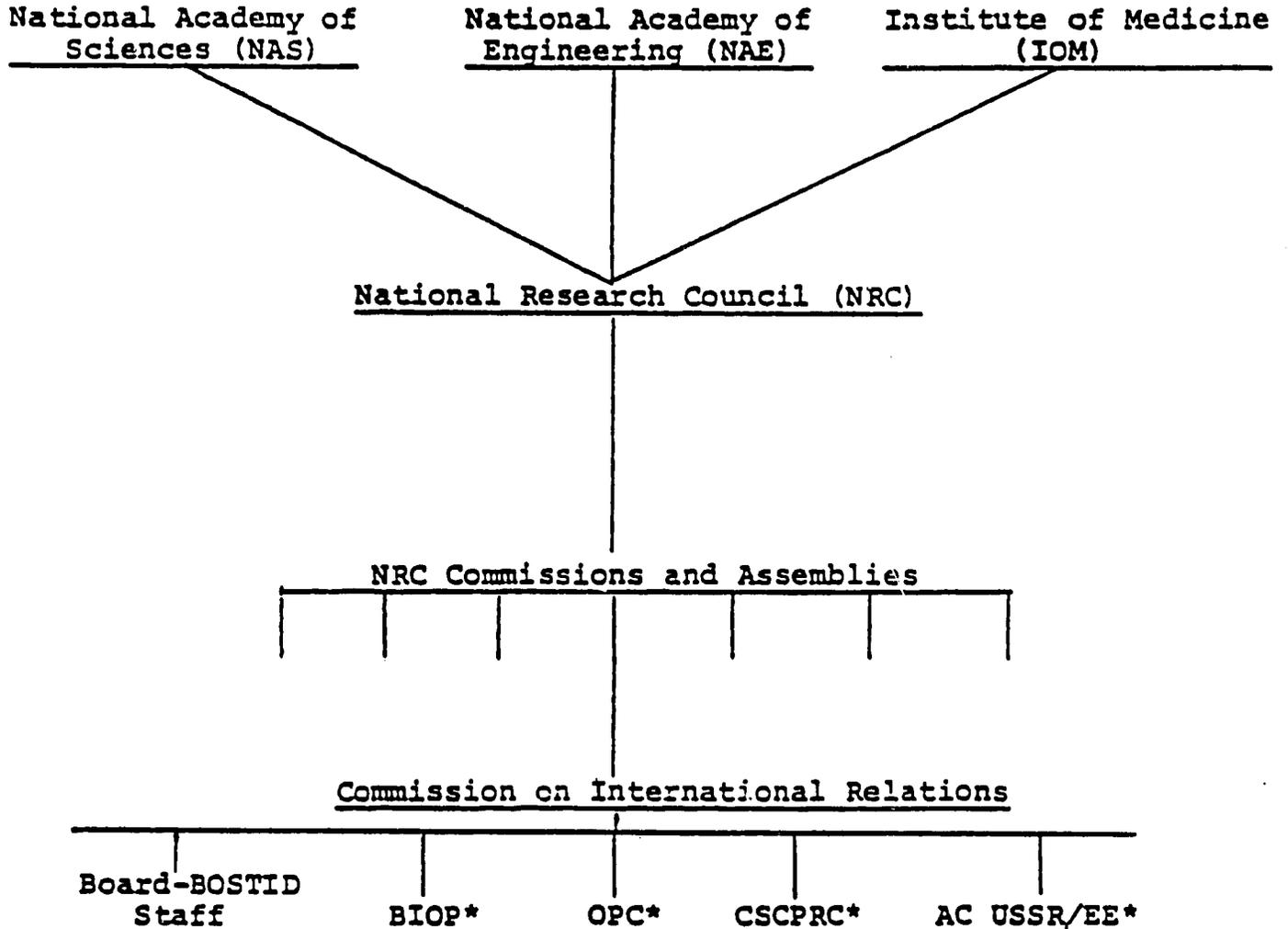
PURPOSE: To review 15 proposals for research in various sectors from HBCUs.

RECOMMENDATION: The Panel rank-ordered the worthy proposals. Individual reviewers provided written comments and suggestions for improvements of proposals when the research idea is sound but the presentation inadequate.

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APPENDIX C

ORGANIZATIONAL RELATIONS OF THE
BOARD ON SCIENCE AND TECHNOLOGY FOR INTERNATIONAL
DEVELOPMENT (BOSTID)



- * Board on International Organization and Programs (BIOP)
- * Ocean Policy Committee (OPC)
- * Committee on Scholarly Communication with the PRC (CSCPRC)
- * Advisory Committee on the USSR and Eastern Europe (ACUSSR/EE)

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11. SUBJECT: Enhancement of Lactation Infertility and Infant Nutrition Through Supplemental Feeding and/or Administration of Metoclopramide. DATE: Sept.

PURPOSE: To review, by mail, a research proposal submitted for funding.

RECOMMENDATION: Most reviewers thought the proposal had research merit but that it lacked sufficient experience and information on toxicology of the drug, especially on lactating mothers and suckling infants. Other technical and budget modifications were suggested.

12. SUBJECT: Communication for Tech. Transfer in Agricult. DATE: Nov. 8

PURPOSE: To review project design documents and assist in developing the technical basis for the project.

RECOMMENDATION: Panel reviewed the PID and made recommendations for inclusions in the PP. The Panel met again in Feb. 1985. See 1985 listing.

13. SUBJECT: HBCU Program Proposals DATE: Nov.29-30

PURPOSE: Evaluate 17 research proposals for possible funding through AID's HBCU program.

RECOMMENDATION: Suggestions for strengthening 10 of the proposals were offered by the Panelists. Seven proposals were considered too weak to support.

14. SUBJECT: Postharvest Institute for Perishables DATE: Dec. 3-4

PURPOSE: To evaluate progress to date.

RECOMMENDATION: The Panel noted that very little had been accomplished in the first 20 months of operations; however, the quality of PIP/Idaho staff and AID/W staff are positive signs. A number of operational and administrative recommendations to improve accomplishments were made by the Panel.

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