PROJECT EVALUATION SUMMARY PD-AAM-238

1. Mission or AID/W Office Name	2. Project Number
USAID/JAKARTA	497-0260

3. Project Title

AGRICULTURAL EDUCATION FOR DEVELOPMENT

4. Key project dates (fiscal years) a. Project Agreement Signed: T.Q.	b. Final Obligation : T.Q.	c. Final input delivered FY 81	5. Total U S. funding - life of project
			$ 5,500,000

6. Evaluation number as listed in Eval. Schedule	7. Period covered by this Eval. From: 5/77 (Month/year)	To: 6/78 (Month/year)	8. Date of this Evaluation Review
78-14			6/9/78 Month/Day/Year

9. Action Decisions Reached at Eval. Review, including items needing further study (Note--This list does not constitute an action request to AID/W. Use telegrams, airgrams, SPARS, etc., for action)	10. Officer or Unit responsible for follow-up	10. Date action to be completed
Revise Logical Framework	C.B. Green	June 12, 1978

12. Signatures:

Project Officer	Mission or AID/W Office Director
Signature: Charles B. Green	Signature: Sarah Jane Littlefield
Type Name: Charles B. Green	Typed Name: Sarah Jane Littlefield
Date: 6-13-78	Date: June 21, 1978

Acting Evaluation Officer

A.M. Withers

A.M. Withers

13. SUMMARY - Summarize in about 200 words the current project situation, mentioning progress in relation to design, prospects of achieving purpose, major problems encountered, etc.

This project is to develop and strengthen selected institutions of higher learning into mature scientific agricultural centers promoting national development programs. Two of the universities were selected to play the major roles: the Bogor Agricultural University (IPB) and Gadjah Mada University (GMU) in Yogyakarta. These two were to start pilot projects and programs which could, if proved successful, be replicated in six provincial universities (Padjadjaran University, Bandung; Brawijaya University, Malang; North Sumatra University, Medan; Andalas University, Padang; Udayana University, Denpasar; and Hasanuddin University, Ujung Pandang). IPB and GMU were also to start graduate programs to provide qualified staff for the other universities as well as to provide top agricultural leaders for the country.

The need for professional resources is acute in Indonesia particularly in the agriculture sector. A study in 1975 showed that almost 20,000 professionals were needed for important agricultural positions in the government and private sector, but less than 7,000 professionals were available. This project is to help Indonesia to develop the institutional capability to produce the quality and the quantity of professionals needed to fill this vital manpower gap.

The project has 5 sub-projects or programs: (1) to develop a 4 year under-graduate curriculum; (2) to develop graduate programs (primarily at IPB and GMU); (3) to upgrade the university administrative organization; (4) to help develop effective community service programs, and (5) to develop practical agricultural research programs.

It was to accomplish its objectives by training university professors to the M.S. and Ph.D. levels in the U.S., in Third-Countries, and in-country. It was to offer U.S. expertise through long and short-term consultants, and to support the programs with necessary research, laboratory, and library materials.

This past year the emphasis has been on developing the 4 year curriculum in all the universities and the graduate programs at IPB and GMU. So that the participant program could finish by the end of the project, stress was put on getting these people recruited and placed. So that the equipment would arrive while there was still project personnel in-country, a push was made to get at least 2/3 of the remaining equipment ordered.

As for the four year curriculum, IPB has a successful program in place and GMU is about to come to such a program, and the other 6 institutions are close behind. IPB has both a M.S. and Ph.D. program operating well. GMU has a Ph.D. program. Although the other programs have not been stressed, the universities have continued to

strengthen administrative apparatus, mostly to consolidate and coordinate the Agricultural Faculties (GMU has formed an Agro-Complex to coordinate its 6 Agricultural Faculties, Hasanuddin has consolidated its two Agricultural Faculties into one. The student community service program has been strengthened in all 8 institutions. The Research function has been strengthened so that USAID has been able to call on the universities for special research assistance, such as a planned Agriculture-Forestry Project at GMU. All the participants for the remainder of the project have been recruited, though 20 still have not been placed in U.S. institutions. All the 54 in-country doctoral participants are started. Two-thirds of the remaining equipment was ordered.

The inputs and outputs are proceeding then pretty much as planned, and the project should achieve its purpose.

14. EVALUATION METHODOLOGY - Describe the methods used for this evaluation, i.e. was it a regular or special evaluation? Was it in accordance with the Evaluation Plan in the PP with respect to timing, study design, scope, methodology and issues? What kinds of data were used and how were they collected and analyzed? Identify agencies and key individuals participating and contributing.

This was a regular annual evaluation in accordance with the Evaluation Plan in the Project Paper which calls for an Annual Review of the project in the spring of each year. For the review, each of the eight universities included in the project makes a report of the progress it made in the 5 development plans under the project (undergraduate curriculum, graduate curriculum, research, community service, and short-term diploma courses). The Consortium for Agricultural Education of the Directorate General for Higher Education and the Contractor (MUCIA) make reports concerning the overall project inputs and outputs for the year. The Annual Review then is a meeting of leaders from the Consortium, the Directorate General, the 8 universities, with representatives from MUCIA and A.I.D. to analyze the reports on the basis of the findings to plan the project activities for the coming year. The review is published in an Annual Report which is to be included as an attachment to the Project Evaluation Summary.

The Project Evaluation Summary was prepared by the Project Manager, Dr. Charles B. Green, in consultation with the MUCIA Project Leader, Dr. John T. Medler, and Dr. Yuhara Sukra, Counterpart Officer from the Directorate General for Higher Education. During the year these three visited IPB and Gadjah Mada on several occasions and at least two of them visited the other six universities one or more times.

15. Documents to be revised to reflect decisions noted page 1 (other side:)

/ / Project Paper (PP) /X/ Logical Framework / / CPI Network

/ / Financial Plan / / PIO/T / / PIO/C / / PIO/P / / Project Agreement

/ / Other

/ /This evaluation brought out ideas for a new project a Project Identification Document (PID) will follow.

16. Evaluation findings about EXTERNAL FACTORS - Identify and discuss major changes in project setting which have an impact on the project. Examine continuing validity of assumptions.

ASSUMPTIONS

"The higher agricultural education institutions are able to initiate and maintain the systematic plans."

This has proved completedly valid as the institutions have initiate and implemented plans and programs. For example, IPB has done an excellent job in planning for its graduate programs. The other universities have shown their abilities to plan in reports they turned in for the Annual Review giving their plans for the coming year.

"Governmental financial support to agricultural universities are provided."

The support increased each year.

"Agriculture retains the high level of interest for both undergraduates and graduate students and the national sector continues to require graduating students."

The interest has been maintained since all the institutions report an increase in enrollments. The graduate program at IPB which enrolls the largest number of graduate students has reached its planned enrollment each year.

The need for graduating students is shown by the fact that most graduating students have offers of positions before they complete their studies. Figures are not available for all universities, but at IPB and GMU about 25% are hired by the Ministry of Agriculture, another 25% by other ministries, about 10% by the universities, and the remaining 40% by the private sector.

17. Evaluation findings about GOAL/SUBGOAL - For the reader's convenience, quote the approved sector or other goal, (and subgoal, where relevant) to which the project contributes. Then describe status by citing evidence available to date from specified indicators and by mentioning progress of the other projects (whether or not U.S.) which contribute to same goal. Discuss causes -- can progress toward goal be attributed to project, why shortfalls?

The goal to which this project is to contribute is, "An indigenous Indonesian integrated agricultural capability for undertaking and maintaining national agricultural development (productions, employment, and income distribution)."

It is, of course, understood that there are several projects (USAID, World Bank, et.al.) in addition to this one which are to contribute to the overall goal.

This project goal in regard to this specific project is primarily to develop "an integrated agricultural capability." This capability will depend to a very large extent on the quantity and quality of the agriculturists who are trained under this project or who will train the others. Both IPB and GMU graduates are eagerly bid for by both the government and private sectors showing that they indeed have made an excellent reputation. The six provincial universities have now been improved so that their graduates are making important contributions. In the cases of all 8 universities, the number of graduates is increasing.

Verified indicators of the overall goal are:

Increased production up to 4.6% annually.
Real income increased in agricultural sector up to 5% annually.
Increases in rural sector job opportunities up to 13% by 1979.

1. Production increases have held at only about 3% for the last three years. Though this is disappointing, it is understandable since there have been serious pest infestations (particularly the brown leaf hopper which attacked the miracle rice varieties) and three years of very bad climatic conditions with both floods and droughts.

2. Real increases in the agricultural sector were between 4 and 4.5% annually. This, of course, is related to the failure to meet production goals.

3. Increases in rural job sector opportunities have just kept pace with the growth of the agricultural sector economy.

Although the progress is not as expected, it should be pointed out that because of the creative leadership provided by research and

governmental agencies, the serious climatic and pest problems have been ameliorated and, for example, there have been developed high producing rice varieties which are resistant to the hopper.

16. Evaluation findings about PURPOSE:
(a) Quote the approved project purpose. Cite progress toward each End-of-Project Status (EOPS) condition. When can achievement be expected? Discuss causes of progress or shortfalls.

Purpose is, "To establish a nuclear group of agricultural universities with the capacity to provide highly qualified agricultural manpower, research, and public services activities appropriate to Indonesia's needs."

(a) EOPS 1. At two leader universities fully established graduate programs with 100 graduate degrees each year.

IPB has taken the lead in this and started a M.S. program in 1975 and a doctoral program in 1977. It started out with 100 M.S. candidates and 15 doctoral candidates. GMU started just a doctoral program in 1977 and has a capacity of 15 new candidates each year. By the end of the project IPB alone should be producing at least 100 ~~graduate degrees per year and GMU should~~ be producing at least 10 doctorates.

(b) EOPS 2. Basic 4 year B.Sc. curriculum fully established at a minimum of 4 schools with annual graduation of at least 600 students.

This hits at the problem of the arbitrary requirement of 5 years for a Sarjana Degree and the repetition rate is so high in many universities that it may take an average of 7 or 8 years for a student to reach the degree objective. The idea is to set up a reasonable 4 year curriculum which will prepare the students for the priority jobs in agriculture which can indeed be completed by most students in 4 years. IPB has established such a curriculum and the Directorate General has ruled that all the programs in all the universities should develop a similar curriculum. GMU agro-complex has its 4 year program tentatively established and the other 6 universities in this project are moving in that direction rapidly. MUCIA has a short-term consultant to help plan the curricula. The Consortium is working on suggested curricula and a meeting of all the agricultural deans is planned for September. Under these circumstances, it is anticipated that all 8 universities will have the 4 year program by the end of the project and that the number of graduates will far exceed 600 per year.

IPB has had two classes of graduates now using the 4-year curriculum, and the 4-year graduates have been as well received and are performing

as well as those who graduated from IPB or other universities under the longer curriculum. The experience is,perhaps, the main reason why the Directorate General is so optimistic about the establishment of the 4-year program, not only for agriculture but for all basic subject areas.

(c) EOPS 3. Targeted increase in percentage of faculty with Ph.D. qualifications:

a. IPB up to 25% by 1981.

Now up to 12%. With the in-country and out-of-country participants, figure could reach 18% by 1981.

b. GMU up to 20% by 1981.

GMU had 1% when loan paper was written. The figure is now up to 8%. It could reach 15% by 1981.

c. Provincial Universities up to 3% by 1981.

There is considerable variation in the percentagesfor the 6 universities from 1% to 8%. The overall average could be close to 3% by 1981.

The targeted increases were unrealistic and should have included Masters as well as Doctors degrees. The estimate of number of doctorates at IPB runs too high for 1976, and the estimates for % growth did not take into account the growth in faculty numbers. The attached chart which gives the figures for graduate training under this project, both abroad and in-country, and under the auspices of other donors shows that the universities should have the quality staffs by 1981 that were originally envisioned, though some of the professors will have Masters rather than Doctors degrees.

The logframe is to be changed to make the percentage of Ph.D. targets more realistic.

(d) EOPS 4. Group of project universities serving as base for upgrading entire higher agricultural education system according to well-coordinated national plan.

The plan as originally established in the late 1960's was to develop two centers of excellence, IPB and GMU and the MUCIA contractor and the Consortium for Agricultural Education limited their project activities to those two institutions until 1972. In that year the six provincial universities were added. The work of the Consortium and the contractor up to this year was primarily with the individual institutions. The MUCIA consultants worked at a

AGRICULTURE EDUCATION FOR DEVELOPMENT

GOI/USAID/NUCFA

Institution	Actual Phase I (1970-1976)		Projected Phase II (1977-1981)		Total		In-country
	M.Sc.	Ph.D.	M.Sc.	Ph.D.	M.Sc.	Ph.D.	Ph.D.
IPB	15	20	6	40	21	60	13
GMU	21	4	4	25	25	29	11
UNPROPS	3	3	4	20	7	23	30
	39	27	14	85	53	112	54

GOI/Other Donors (Estimated)

	1972-1976		1977-1981		Total	
IPB	1	3	6	3	7	6
GMU	17	3	18	6	35	9
UNPROPS	10	12	3	6	15	18
	28	18	27	15	57	33

university to help it upgrade its program. This year the program was changed to use the consultants to develop the national program and to work at several institutions. The project universities are to serve as the growth universities to help the surrounding universities. The project universities are to be, for example, the growth universities or the base universities for the Eastern Island Association Project and the Sumatra Association Project. The Consortium has enlarged its field of activities to cover all the universities which have agricultural programs. Thus the progression of events is much that which was originally envisioned.

One of the end of project conditions is that there is to be a master plan for higher agricultural education. Pieces of this plan are in place as shown by the above, but there is need for the collection of more data and the formulation of a complete plan. These activities are planned for this coming year.

19. Evaluation findings about OUTPUTS and INPUTS - Note any particular success or difficulties. Comment on significant management experiences of host contractor and donor organizations. Describe any necessary changes in schedule or in type and quantity of resources or outputs needed to achieve project purpose.

Inputs:

Consultants: One long-term consultant for full year. Short-term consultants in Curricula arrived for 3 month visit near end of year and participated in Annual Review.

Training: 70 participants carried over from previous year.
16 participants returned during the year (5 Ph.D.'s, 8 M.S.'s and 3 non-degree). 11 new participants started training.
54 participants started in-country doctor degree programs.

Remainder of participants (20) for study abroad recruited and awaiting placement in U.S. institutions.

Commodities: Orders placed for about two-thirds ($650,000) of commodities.

Outputs:

1. Sixteen participants have come back and returned to teaching at the universities from which they were sent. Returned participants from previous year have started to move into leadership positions: at Syiah Kuala one was appointed Vice Rector; at Padjadjaran the new Agronomy Dean is a Ph.D. who returned also a year ago. The returned Ph.D. at Medan is now the senior professor of the Faculty and Head of the Soils Department.

2. Some $100,000 worth of commodities arrived and were sent to the universities and are ready to use. In IPB and Gadjah Mada the equipment is in use. In some of the provincial universities, returned participants from IPB and GMU are to give assistance on the proper use of the equipment.

3. For the Consortium for Agricultural Education, a new Chairman was appointed since the former Chairman was too busy with his job as Assistant to the Directorate General (Research). The new Chairman has strengthened his secretariat. The Consortium has met on a more regular basis including a special meeting in November to plan for the Annual Review.

4. The Project Leader for MUCIA accompanied by a Consortium counterpart visited each of the eight member universities to give advisory services, to meet with the returned participants, and to help in the selection of new participants.

The inputs and outputs were about as planned. The only major change was that the short-term consultant for curricula was delayed so as to be able to plan for his visit more effectively and so that he could participate in the Annual Review. This experience indicated that the proper utilization of short-term consultants normally requires considerable preparation and planning, with at least 6 months lead time.

19. (b) What is current priority of Project with the GOI? Do USAID and GOI share common perception of Project Purpose? How is this priority and common perception manifest in project implementation?

Priority of Project with the GOI

The GOI gives the project high priority as shown by the fact that the counterpart organization to the contractor, the consortium for Agricultural Education, has the full support of the Ministry of Education. Up to this year the project was considered so important that the Consortium was headed by the Assistant Director General of Research in Higher Education Dr. Achyani. He recognized that the project needed someone who could devote more time to the project and a senior professor and returned USAID participant from IPB was named to head the Consortium. Dr. Achyani continued to give the project his full support and the budget was enlarged this year to provide for a larger secretariat for the Consortium.

Perception of the Project Purpose

The loan project which was made in 1976 was the product of discussions among Dr. Achyani of the Consortium, his assistant

Dr. Yuhara, Dr. Clodius, Mucia Project Leader, and USAID representatives so that there was a common understanding as to the original project purpose.

This close relationship among the partners in the project has continued and there are weekly meetings among them. The Annual Review each year gives a chance to review the perceptions of the project to be sure that there is a concensus as to the aims and objectives.

20. Evaluation findings about UNPLANNED EFFECTS - Has project had any unexpected results or impact, such as changes in social structure, environment, health, technical or economic situation? Are these effects advantageous or not? Do they require any change in plans?

There were no unplanned effects.

21. Does this project have any impact on the five development criteria outlined in Section 102(d) of the FAA (i.e.: a. increasing agricultural productivity through small farm labor intensive agriculture; b. reduce infant mortality; c. control population growth; d. promote greater equality in income distribution; and e. reduce rates of unemployment and underemployment). Explain.

a. Increasing agricultural productivity through small farm labor intensive agriculture.

A major focus of this project is to get the agricultural universities to give greater attention to increasing the productivity of the small farmer. The agricultural programs are trying to produce agriculturalists who understand and are concerned about the plight of the rural poor. The universities have been helped to strengthen their rural sociology departments. Each university has a community service program in which the students actually live and work three months in a rural village to try to help solve the village problems. About 10% of the students are prepared for and upon graduation enter the BUTSI program, a peace-corps type program to provide assistance to the rural poor.

c. Control population growth.

IPB has been encouraged and assisted in setting up a special graduate program in Reproductive Biology which aims to provide leaders for phases of the family planning program.

d. Promote greater equality in income distribution.

The universities are challenged to find ways through which the Indonesian small farmers can improve the productivity of their crops so as to improve their incomes.

The universities are also doing research on the other factors which influence the small farmers' incomes, such as farm-to-market transportation, marketing, past-harvest food losses, etc.

IPB has inaugurated a special scholarship program to bring in the better students from the smaller, provincial high schools. With the recommendation of their principals such students can enter without taking the entrance test, which tends to give advantage to the students who are more effluent and who have attended larger, better equipped urban schools.

The project aims to help the universities to educate agriculturists who are creative and knowledgeable in dealing with the problems of the poor; to help the universities to better serve their communities particularly through the community service programs such as the KKN where the students go out and live in villages and try to help the poor farmers; to help the universities develop research programs which deal with ways to assist the rural poor.

22. Who are the direct and indirect beneficiaries of this project? (Identify, describe nature of benefits and number of those benefiting). Finally, do the benefits justify the costs?

This is essentially an institutional building program so that the primary concern is whether the 8 institutions involved are really gaining the capability to turn out agriculturists who serve their country well in agricultural and rural development programs, so the immediate direct beneficiaries of this project are the faculty members (1250) and the students (current enrollment 12,000) in the agricultural programs, and the estimated 200,000 poor farmers who will benefit directly from the community service programs of the universities. The ultimate beneficiaries will be the multitude of small farmers who receive better service from their government because of more concerned and better trained leaders.

23. CHANGES IN DESIGN OR EXECUTION - Explain the rationale for any proposed modification in project design or execution which now appear advisable as a result of the preceding findings (items 16 to 20 above) and which were reflected in one or more of the action decisions listed on page 1 or noted in Item 15 on page 3.

No additional changes in design or execution appear to be needed.

24. LESSONS LEARNED - What advice can you give a colleague about development strategy -- e.g., how to tacke a similar development problem or to manage a similar project in another country? What can be suggested for follow-on in this country? Similarly, do you have any suggestions about evaluation methodology?

This project has moved along very well despite the fact that it went through a rather difficult time while it was being converted from

grant to loan funding. This would point up the fact that if a project is well planned and well conceived it will be able to weather minor difficulties.

Although the project is doing well, it would have lost less momentum had the loan project also had some grant financing. It was a big step for the GOI to move from grant funding to loan funding for participant training, and it was not possible to include as much technical assistance as would have been desirable for the transition period. The change from grant to loan funding was more abrupt than it, perhaps, should have been.

Projects involving technical assistance are more flexible and easier to manage if there is a grant as well as a loan component. This project also would move faster if there were more input from expert consultants, but the cooperating country had difficulty using their loan dollars for the high cost of foreign experts; and when the project was changed from a grant to a loan project, the expert consultant input was greatly reduced.

This project has confirmed that institution building takes a long time, and the 10 year term for this project when it began was not at all unreasonable.

This project is under an Institutional Development Agreement and has considerable flexibility. This has made it possible for the project to evolve, which perhaps is a necessity under institutional building projects.

The evaluation through the Annual Review has proved to be a very successful device in keeping all parties on the same wave length as to the project purposes and activities. At the Annual Review all those involved are invited and urged to participate - the Directorate General for Higher Education, the Consortium for Agricultural Education, the universities, the contractor MUCIA with both its field and U.S. components, AID/W, and USAID. It is a mechanism that is recommended for projects of this type.

25. (a) SPECIAL COMMENTS or REMARKS (For AID/W projects, assess likelihood that results of project will be utilized in LDC's)

Main points have been covered in previous sections.

(b) Overall assessment of project performance.

Unsatisfactory		Satisfactory			Outstanding	
1	2	3	4	5	6	7
					X	

Narrative statement explaining ranking:

The GOI, the contractor, and USAID have had a clear and common perception of this project so that there has been close cooperation at all times. The contractor has provided highly competent expert consultants and has been diligent in placing and monitoring the participants. The GOI has given the project high priority and has given it suitable support.