

4920259 (4)

I. PROJECT IDENTIFICATION

1. PROJECT TITLE **PD-AAD-531-D1**
Small Farmer Income and Production
492-55-130-259

APPENDIX ATTACHED
 YES NO

2. PROJECT NO. (M.O. 1095.2)
492-55-130-259

3. RECIPIENT (specify)
 COUNTRY **Philippines**
 REGIONAL INTERREGIONAL

4. LIFE OF PROJECT
 BEGINS FY **1975**
 ENDS FY **1978**

5. SUBMISSION **Dec. 1973**
 ORIGINAL
 REV. NO. **1** DATE **Feb. 74**
 REV. NO. **2** DATE **Sept. 74**

II. FUNDING (\$000) AND MAN MONTHS (MM) REQUIREMENTS

A. FUNDING BY FISCAL YEAR	B. TOTAL \$	C. PERSONNEL		D. PARTICIPANTS		E. COMMOD- ITIES \$	F. OTHER COSTS \$	G. PASA/CONTR.		H. LOCAL EXCHANGE CURRENCY RATE: \$ US 6.7 <i>32p.</i> (U.S. OWNED)		
		(1) \$	(2) MM	(1) \$	(2) MM			(1) \$	(2) MM	(1) U.S. GRANT LOAN	(2) COOP COUNTRY	
											(A) JOINT	(B) BUDGET
1. PRIOR THRU ACTUAL FY												
2. OPRN FY												
3. BUDGET FY 75	585	392	87	113		80		312				1057
4. BUDGET +1 FY 76	690	510	124	120		60		430				1260
5. BUDGET +2 FY 77	640	470	124	120		50		425				1492
6. BUDGET +3 FY 78	600	430	100	120		50		385				1805
7. ALL SUBQ. FY												
8. GRAND TOTAL	2515	1802		473		240		1552				5614

9. OTHER DONOR CONTRIBUTIONS

(A) NAME OF DONOR	(B) KIND OF GOODS/SERVICES	(C) AMOUNT

III. ORIGINATING OFFICE CLEARANCE

1. DRAFTER
AD:KSmith AD:NUlsaker PO:RJDelaney TITLE
 DATE **Sept. 1974**

2. CLEARANCE OFFICER
John Hummon, Deputy Director, USAID TITLE **Thomas C. Niblock, Director**
 DATE **Sept. 1974**

IV. PROJECT AUTHORIZATION

1. CONDITIONS OF APPROVAL

2. CLEARANCES

BUR/OFF.	SIGNATURE	DATE	BUR/OFF.	SIGNATURE	DATE
AD/AD					
PO					

3. APPROVAL AAs OR OFFICE DIRECTORS

SIGNATURE _____ DATE _____
 TITLE _____

4. APPROVAL A/AID (See M.O. 1025.1 VI C)

SIGNATURE _____ DATE _____
 ADMINISTRATOR, AGENCY FOR INTERNATIONAL DEVELOPMENT

10/02/74

SMALL FARMER INCOME AND PRODUCTION PROJECT

Introduction

Goal and Purpose

The Government of the Philippines (GOP) seeks to achieve self-sufficiency in rice and corn production by increasing the productivity of small farmers who produce a high percentage of these crops. The development of additional sources of farm income for these farmers through crop diversification is also an aim.

The conditions necessary to achieve these goals are to be brought about by a number of GOP institutions, the most important being the Department of Agriculture and its coordinating body, the National Food and Agriculture Council (NFAC).

The Small Farmer Income and Production project directly supports the GOP by providing technical assistance to: (1) institutionalize, regularize, and upgrade the management of programs directed at expanding small farm output; (2) develop a program of research focusing on the small farm and its external linkages in order to optimize farm income and limit risk; and (3) advise on problems encountered in various elements of the small farmer production and support system and investigate opportunities for their improvement. The following are important elements of the Small Farmer Income and Production project:

Rice and Corn Production Management Activities

NFAC has demonstrated the capability to mount short-term, "crash" programs to increase both the production and income of small scale farmers as exemplified by the successful Accelerated Rice (funded under the USAID/GOP Flood Disaster Program) and Masagana 99 programs which were developed and implemented under crisis conditions. Several essential elements for an effective long-term small farmer program became apparent as a result of these short-term efforts. These include:

1. Well defined targets in terms of numbers of project beneficiaries and measurable benefits desired for them.
2. Specified levels of manpower and financial inputs commensurate with defined targets.
3. Availability of a tested package of production practices and inputs.
4. Coordination among the various government and private entities involved.
5. Use of a management system which identifies bottlenecks and acts to remove them on the basis of feedback data from the field.
6. Development of activities in attacking the various problems confronted in a production program.

These elements and national capabilities must be institutionalized and systematized on a permanent basis so that a crisis situation is not required to activate them. The four-year project described in this FROP will consolidate past progress, strengthen certain program elements, upgrade staff competency through appropriate in-service training, provide additional information for the system, and generally institutionalize GOP capability to increase small farmer rice and corn production.

"Test Bed" Research Activities

This aspect of the project will establish a mechanism for learning about the internal system characteristics of the small farm and the way they interact and link to the larger agricultural production and support system. Specific areas of investigation will include:

1. Compatibility of different crops grown in rotation with rice and corn.
2. Constraints of cropping systems, including water, fertilizer and pesticides; their economic effect and influence on risk to the producer.
3. Economic and social feasibility of alternate farmer support systems and marketing arrangements.
4. "Whole farm" financing as a means to adequately support varied multi-cropping systems.

Professional Advisory Services

The project will provide advisory services to help solve problems encountered in program implementation and to investigate opportunities for improvement of some of the major system elements. Near-term requirements include:

1. Analysis of the corn production, marketing, and processing system to better direct future program planning.
2. Conducting of a baseline survey of small rice and corn farmers.
3. Advice to the banking system, the fertilizer industry authority, and the price stabilization authority on policies and programs in their respective areas.
4. Advice on expansion and strengthening of agro-economic research.

Evaluation

The major project areas as spelled out in the output section of the logical framework (MIS, agro-economic analysis, test-bed research, corn production system) will be reviewed by the GOP and USAID at annual intervals and will be the subject of a formal review by an outside team after two years of project operation. Modifications, re-directions and/or refinements will be made in these project areas if necessary.

Organizational Acronyms and Initials

The GOP agencies shown below will play major roles in implementation of the project. A fuller description of each agency is provided in a subsequent section of the PROP.

DA	- Department of Agriculture
NFAC	- National Food and Agriculture Council
BAE	- Bureau of Agricultural Extension
BPI	- Bureau of Plant Industry
BAECON	- Bureau of Agricultural Economics
FNB	- Philippine National Bank
CB-DRB-SLA	- Central Bank Department of Rural Banks and Savings and Loan Association
NGA	- National Grains Authority
FIA	- Fertilizer Industry Authority

**SMALL SCALE FARMER INCOME AND PRODUCTION PROJECT PROPOSAL (PROP)
USAID/PHILIPPINES**

A. STATEMENT OF THE PHILIPPINE GOAL

- The Goal of the Government of the Philippines (GOP), which the USAID will support, is attainment of self-sufficiency in national rice and corn production, with special emphasis on increasing the productivity of small scale farmers 1/ and developing additional sources of farm income for these farmers through crop diversification.

2. Measurements of Goal Achievement:

The government's FY78 targets in areas covered by this project are as follows (overall national estimates).

<u>Rice</u>	<u>2/FY73 Normalized</u>	<u>3/FY78 Targeted</u>
a. Total rice production (palay/rough rice)	5.0 million MT	7.3 million MT
b. Average yield all small-scale farmers (per ha. each crop)		
Irrigated -	1850 kg.	2904 kg.
Rainfed -	1320 kg.	1848 kg.
c. Net estimated annual family income of small-scale rice farmers. Increase based on rice increment only.	\$230 (1500 pesos)	\$350 (2345 pesos)
d. Farmers participating in government rice production programs.	100,000	750,000
(# growing one crop)	(80,000)	(600,000)
(# growing two crops)	(20,000)	(150,000)
e. Participating farmer crop hectares.	200,000	1,500,000
Effective crop hectares (double cropping)	240,000	1,800,000
f. Average yield for participating farmers (per ha. per crop)		
Irrigated -	2200 kg.	3344 kg.
Rainfed -	1540 kg.	1980 kg.

PROJECT NO.	SUBMISSION	(Number)	DATE	PAGE 6 of 32 PAGES
	<input type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION		

<u>Corn</u>	<u>FY73 Normalized</u>	<u>FY78 Targeted</u>
a. National corn production (shelled)	2.0 million MT	3.0 million MT
b. Average yield all small-scale corn farmers. (per hectare).	855 kg.	1,254 kg.
c. Net estimated annual income of <u>all</u> small-scale corn farmers. (3 has. each, 2 crops) Increase derived from corn production only.	\$170 annual income/family (1,120 pesos)	\$325 annual income/family (2,144 pesos)
d. Number of participating corn farmers.	10,000	170,000
e. Average yield participating corn farmers (per hectare).	970 kg.	1,710 kg.

Intermediate Institutional Targets

a.	Amount of institutional credit extended to rice and corn farmers under government sponsored programs.		
	rice	\$14.7 million (97 million pesos)	\$110.6 million (750 million pesos)
	corn	\$1.15 million (1 million pesos)	\$21.2 million (140 million pesos)
b.	Credit repayment		
	rice	86%	97%
	corn	55%	92%
c.	Percentage of government production technicians who receive relevant periodic extension in-service technical training in rice/corn.	30%	90%

1/ For the purposes of this PRDP, the average small-scale rice farmer is defined as raising one crop of rice on 2 hectares of land annually; and the average small-scale corn farmer is defined as raising two crops of corn on 3 hectares of land annually.

2/ This is an estimate based upon averages of the preceding four fiscal years.

3/ The last year of the present GOP 4-year development plan.

PROJECT NO.	SUBMISSION		(Number)	DATE	PAGE <u>7</u> of <u>32</u> PAGES
	<input type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION			

3. Assumptions About Goal Achievement:

The targets described above are ambitious. However, the yield potential is well within the capacity of small farm production using known technology. Land and water resources suitable to production of these two crops are available but more effective control of water is desirable. The following assumptions, beyond the direct influence of this project, are important to the fulfillment of the goal:

- a. Food grain prices will provide the small-scale farmer with sufficient incentive to strive for higher productivity.
- b. Productive input supply problems will not negate efforts of the government to help small-scale farmers.
- c. Applied agriculture research, extension, infrastructure investments, agrarian reform, and credit development will be directed towards small-farm operations.
- d. The GOP will maintain staffing and morale of their field agricultural staffs.
- e. Current and capital expenditures in GOP budgets for agriculture and related infrastructure will be implemented as expressed in the 1974-77 Four-Year Development Plan.
- f. Resources will be allocated within agriculture (rice-corn versus livestock, sugar, coconuts, secondary crops) to prevent destructive competition within the sector.
- g. International assistance in the agricultural sector from other donors will be maintained at planned levels.

B. STATEMENT OF PROJECT PURPOSE:

1. Purpose:

To establish within the National Food and Agriculture Council (NFAC) and other key agencies in the agricultural sector, a management information and communications system and an analytical/technical capability for planning and implementing effective programs which will significantly increase the income and production of the country's small-scale rice and corn farmers.

The management improvements will include establishment of a data base; various approaches to target setting; assessment and recommendations regarding input levels; manpower requirements; and the review and use of research findings.

The small-scale farmer is often statistically characterized as a poor man who farms 3-5 acres, uses modern crop technology to only a limited extent, shares one carabao, finds truly productive work only about half of the

PROJECT NO.	SUBMISSION	(Number)	DATE	PAGE <u>8</u> of <u>32</u> PAGES
	<input type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION _____		

time, and has annual family income ranging from \$170 (P1,120) to \$230 (P1,500). He lives with his family of five to seven children in a very small, partially weather-proof house without plumbing or electricity, often some distance from an all-weather road and public transportation. He consumes about 1,970 calories a day, has six years of education, is indebted to the middleman, has little hope for future change and will probably be dead by the age of 55. Nonetheless, experience has shown that he will respond to economic opportunity and to sincere dedicated leadership.

Through this project, the GOP will be better equipped to remove or reduce constraints facing small-scale rice and corn farmers. It will not be possible to service all small farmers equally nor have all benefit evenly under the terms of this project. Capacity to reach small farmers is determined primarily by the rate at which they are willing to adapt the HYV technology, capability of extension staff members and financial resources. The intent, however, is that, during the term of this project, the GOP will bring about improved incomes of some 900,000 farmers, who represent approximately 75% of the total rice and corn small-scale farm families in the Philippines.

2. Conditions Expected at the End of the Project:

Management information reports and analyzes, applied research, economic analyses, and provincial program feedback reports are of high quality and are being extensively utilized at both policy and operational levels for GOP rice and corn programs. Prime indicators will be:

- a. Use by NFAC of its management information system (MIS) in planning and implementing rice, corn, and multi-cropping programs. NFAC will also refer to data and findings gathered from work undertaken in demonstration programs, reports of U.S. consultants, and test-bed activities.
- b. Development of MIS indicators: Upper limits for annual crop production targets established in the provinces; annual provincial profiles on rice and corn utilized as the base reference for planning, target setting and project implementation reporting by both NFAC and provinces; timely reporting and accurate record keeping in the provinces; systematic efforts to reduce duplicative reporting requirements among agencies; frequency of program reporting reduced to monthly basis.
- c. Agronomic and economic research findings regularly channelled to NFAC for incorporation into subsequent operational planning. These would include improved practices based on analysis of "micro-environments".
- d. Rice and corn farmers generally satisfied with the technical assistance they are receiving from extension workers in their area.

PROJECT NO.	SUBMISSION	(Number)	DATE	PAGE <u>9</u> of <u>32</u> PAGES
	<input type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION		

3. Basic Assumptions About Achievement of Purpose:

- a. That NFAC desires a workable MIS strongly enough to generate cooperation from member institutions and to maintain discipline over the system.
- b. That the GOP continues to accord high priority to the achievement of self-sufficiency in rice and corn by increasing the productivity of small farmers and allocates resources accordingly.
- c. That NFAC and USAID will conduct regular reviews of progress, and will jointly evaluate the reports of advisors, and will take appropriate corrective action.
- d. That other aspects of small scale rice/corn production which are not addressed by USAID in this project will either not be limiting or will be addressed by other means.

C. STATEMENT OF PROJECT OUTPUTS

1. Outputs:

Outputs of this USAID supported project are as follows:

- a. A Management Information System (MIS) in NFAC capable of measuring progress and performance, and identifying implementation problems in small farmer rice and corn programs. Operational reports will be supplemented by periodic provincial sample surveys and ad hoc standardized special situation assessment reports (such as reports of crop damage due to natural calamities). To complement this system, BPI and BAF operational provincial officers and BAECON field statisticians will be trained in MIS concepts and procedures. USAID staff initiated MIS assistance to NFAC in FY 1974 under the Agricultural Services project, and further progress will build upon these initial efforts.
- b. An Economic Analysis Service Unit in BAECON regularly utilizing data from the NEC and other sources to produce studies such as ones analyzing risk factors which small farmers face in production, determinants of farm profitability in various farm enterprises, supply response with respect to credit, price input availability, and marketing. The Unit will also prepare regular time-series reports on farm production and income, analyses of production campaign results, regular statistical sample surveys, and supply and demand analysis. It will perform special studies on resource utilization, effects of price supports and subsidies, land profitability and interest rates, transportation, distribution, storage, processing, etc.
- c. An analysis of existing corn production technology and other corn sector problems and recommendations for further USAID support including sub-project design.

- d. An expanded applied research network, and a series of "test-bed" research experiments for a variety of small farmer crops and farm practices. These will be carried out under actual farm conditions and test new ideas and specific variables to determine their impact on small farmer income.
- e. An effective in-service extension training program to support rice, corn and test-bed activities.
- f. Base line study on the small farmer.
- g. An expanded and improved small farmer credit system utilizing integrated "whole farm financing."

2. Objectively Verifiable Output Indicators

This is a technical assistance program which, almost by definition, excludes direct management control over the program outputs. The outputs are functioning institutions, programs and processes. Although it is possible to describe the desirable characteristics and functions of these institutions, programs and processes qualitatively, no valid quantitative targets can be established. Qualitative assessments can and will be made of progress towards attainment of the desired outputs as follows:

- a. By Dec. 1974, an analysis of the existing MIS system will have been prepared by the USAID MIS Advisor. Semi-annual progress reports will subsequently be prepared by the MIS Advisor detailing the status of development and implementation of the Management Information System in terms of these targets.
- b. By Feb. 1975, a summary report of the status of agricultural economics statistical and analytical capability in the Philippines, with particular reference to NFAC members and BAECOM, will have been prepared, indicating priority areas for improvement and selecting a limited number of specific studies for pilot analysis. Semi-annual progress reports by the Agricultural Economics Advisor will detail the numbers, types and frequencies of studies conducted during the period.
- c. By March 1975, the USAID will have: (1) tentatively identified with its Philippine counterparts the priority geographic, technological and farm system prototypes warranting early investigation, and (2) developed a two-year program describing the precise methods to be used in covering these areas and defining clearly identifiable targets and benchmarks. Subsequent semi-annual progress reports will indicate the particular tasks undertaken, the tests completed and the findings. Particular importance will be assigned to the utility of these findings in shaping the overall production and support program.
- d. Within the first year of the program, an AID funded Corn Survey Team together with a GOP counterpart team will have completed an analysis

PROJECT NO.	SUBMISSION <input type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE	PAGE <u>11</u> of <u>32</u> PAGES
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of the status of the corn production technology system, identifying weaknesses and recommending solutions and/or additional study. GOP and USAID will review this report, accept or reject the findings and develop a specific program for complying with acceptable recommendations. Accomplishments will be measured in terms of this program.

- e. Three descriptive and statistical reports on the characteristics and conditions of the small farmer. The first of these, prepared as soon as possible after project initiation, will be the Baseline Survey and will cover such personal and social indicators as age, sex, family size, educational level and housing; agricultural indicators such as farm size, condition of tenure or tenancy, land use; crops produced and production methods; economic indicators such as net worth, net income, net family income, sales and market channels, costs and input sources, labor force, etc. The second report, prepared using the same survey methods, will provide an interim report two years later. The third report, on the same basis, will be prepared upon completion of the project.

3. Basic Assumptions About Production of Outputs

- a. That detailed and analyzed management information will continue to be a priority "felt need" on the part of the National Food and Agriculture Council.
- b. That self-sufficiency in rice and corn is desirable and that there is, therefore, a need to accelerate "test-bed" research and small-farmer-oriented adaptive trials.
- c. That BFAC and USAID will continue reviewing program plans, advisory reports and recommended programs and will promptly implement agreed program modifications.

D. STATEMENT OF PROJECT INPUTS

1. USAID Inputs

2. Manpower and Budget

	FY 75		FY 76		FY 77		FY 78	
	Man-Months	\$000	MM	\$000	MM	\$000	MM	\$000
Summary								
Personnel and Consultants	87	392	124	510	124	470	100	430
Participants		113		120		120		120
Commodities		80		60		50		50
TOTAL	87	585	124	690	124	640	100	600

	FY 75		FY 76		FY 77		FY 78	
	Man-Months	\$000	MM	\$000	MM	\$000	MM	\$000
a. Personnel								
(1) Direct Hire								
Project Manager	12	40	12	40	12	45	12	45
Management Information System Advisor (Data Collection)	12	40	12	40				
Sub-total	24	80	24	80	12	45	12	45
(2) PASA								
Fertilizer Development (TVA) Consultants	5	25	4	20	4	20	4	20
Agric. Economics Advisor (USDA)	9	38	12	50	12	50	12	50
Sub-total PASA	14	63	16	70	16	70	16	70
(3) Contract								
Applied Research Advisors - Rice & Corn	12	50	60	130	60	120	48	80
Corn Production Consultants	6	30	6	30	6	30	6	30
Grain Marketing & Price Stabilization Consultants	6	30	6	30	6	30	6	30
Small Farmer Credit Consultants	4	20	6	30	6	30	6	30
Extension Training Consultants	3	15	6	30	6	30	6	30
"Test-bed" Research Consultants	6	30	12	50	12	50	12	50
Credit Management Advisor	12	14	12	15	12	20	12	20
Local Contracts								
Management Audit, Baseline Surveys, etc.		64		45		45		45
Sub-total Contracts	49	249	108	340	108	255	84	215

b. Participant Training Needs During Life of Project
(Small Farmer Support)

	FY 75	FY 76	FY 77	FY 78
<u>Man-Year</u>	<u>\$000 : MX\$</u>	<u>\$000 : MX\$</u>	<u>\$000 : MX\$</u>	<u>\$000</u>

Emphasis - primarily corn/sorghum delivery system components (production and utilization aspects); program management & analysis.

Specific training programs will be identified each year within the totals indicated below and be stated in the appropriate year Project Agreement.

Study Grant Categories 1/
(General)

Agriculture Economics Policy and Planning

Management Information Systems

Fortran Computer Programming

Grain Marketing/Credit/Storage

Fertilizer/Soils Management

Crop Protection

Adaptive Research (Corn)

Corn Production (Extension/Management)

	113 :	120 :	120 :	100
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1/ Cost Estimates

3 months East Asia Grant	-	\$1,500
3 months U.S. Grant (Observation)	-	4,500
6 months U.S. Grant (Academic/Observation)	-	6,000
6 months U.S./Mexico Grant (Academic/Observation)	-	5,500
9 months U.S. (Academic/Observation)	-	9,000
12 months U.S. (Academic)	-	10,000

	<u>FX75</u> (\$000)	<u>FX76</u> (\$000)	<u>FX77</u> (\$000)	<u>FX78</u> (\$000)
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c. Commodities

<p>Vehicles (jeeps, trucks, etc.)</p> <p>Radios</p> <p>Desk Calculators</p> <p>Film Stock, Slides and Projectors (tied to GOP pesos to develop materials)</p> <p>Specialized Equipment</p> <p>Excess Property (Office equipment, etc.)</p>	<p>Specific commodity program requirements will be identified each year within the totals indicated below and be stated in the appropriate year Project Agreement.</p>			
TOTAL	80	60	50	50

d. Development Loan Funding

Amount and projects undetermined at this time

Vehicles

The vehicles proposed for the first year of the project are to provide mobility to GOP staff for essential adaptive research activities in the field, concentrating on pest management and multi-cropping studies in association with corn and rice, and in the kit variety programs.

The vehicle support in following years will provide mobility to other staff to complement applied research activities now being developed.

Radios

A network of two-way radio communication is in place in the Department of Agriculture, linking field offices with NFAC headquarters. This was established because the telephone system is inadequate, and mail is unreliable. In several areas the radio system is not complete, and there is no backup for radio breakdown. Consequently, some provinces are completely out of touch with their region and NFAC Headquarters, without physical visitations. Some radios would be procured under the project to complete this network.

Calculators

Calculators will be provided, primarily for the NFAC Central Staff and the field staffs of the primary participating bureaus -- Bureau of Agricultural Economics, Bureau of Plant Industry and the Bureau of Agricultural Extension--to equip them

with the capability to prepare and analyze regular statistically oriented reports. At present, field personnel are laboring under great handicaps with respect to statistics because of inadequate equipment. The Bureau of Agricultural Economics does have mechanical calculators on hand. However, for the most part, they are antiquated, extremely slow, and cumbersome. In many instances these machines have broken down and cannot be repaired. Generally, BPI and BAE field staff have no calculating equipment at all. Without an improved capacity in the field to prepare accurate statistical data reports and analyze them in a timely manner, the whole MIS structure will be of uncertain value.

As the MIS system is perfected and data processing requirements increase, the need to switch from manual to Automatic Data Processing is anticipated. The extent of AID support to this will be better defined as the project develops.

Audio-Visual Equipment

A limited number of audio-visual items such as film stock and slide projectors will be acquired for field worker demonstration purposes in training and adaptive research activities. Preparation of training films on rice and corn production may be financed.

Specialized Equipment

Some equipment is necessary for corn and feedgrains work related to seed analysis and quality control, moisture control, and processing and storage.

Excess Property

Excess property items under the 607 and 608 programs will continue to be utilized with the host government agencies fully responsible for all operational maintenance and repair from the source site. Commodity items include office equipment, specialized loading vehicles, pesticides, irrigation equipment for special projects; and equipment to upgrade laboratories that deal with seed, soil, and food utilization.

In summary, USAID-funded commodities can complement and expedite our technical assistance and improve overall performance in the principal project areas.

2. Government of the Philippines (GOP) Inputs

	FUNDING SUPPORT TO PROJECT (in million pesos)			
	<u>FY 75</u>	<u>FY 76</u>	<u>FY 77</u>	<u>FY 78</u>
a. <u>SUMMARY</u>				
Total GOP Project Related Funding	1,057	1,260	1,492	1,805
b. <u>National Food and Agriculture Council (NFAC)</u>				
Personnel and Administrative Costs	24.0	27.1	30.0	32.5
Agricultural Guarantee Loan Fund	30.0	33.0	36.5	39.6
Disease and Pest Control	2.5	2.8	3.1	3.3
Demonstration, Farmer Education	4.0	4.4	4.9	5.3
Seed Production, Procurement, Distribution	4.7	5.2	5.6	6.1
Research, Evaluation & Feasibility Analysis	<u>2.3</u>	<u>2.6</u>	<u>2.9</u>	<u>2.4</u>
	68	75	83	89
c. <u>Department of Agriculture (DA)</u>				
General Operational Support	36	37	39	40
d. <u>Credit Institutions</u>				
Philippine National Bank				
Agricultural Credit Administration				
Central Bank/Dept. of Rural Banks				
Peso Requirements for credit (includes joint U.S. -GOP PL 480 and others)	500	620	750	875
Direct Agric. Total (in million pesos)	<u>604</u>	<u>732</u>	<u>872</u>	<u>1,005</u>
<u>SUPPORTIVE FUNDING</u>				
e. <u>National Grains Authority (NGA)</u>				
Price Stabilization Support	200	250	350	500
f. <u>National Irrigation Administration (NIA)</u>				
Infrastructure/Maintenance Operation	253	278	279	300

E. RATIONALE

1. General

The GOP Program. The Philippine Government is attempting to overcome the problem of low income levels in the countryside. Agriculture is the most

important economic activity in the Philippines, and rice production is the nation's current top priority concern. This project seeks to increase significantly the income of small rice and corn farmers by increasing their productivity. The anticipated expanded production -- a corollary benefit -- will help to attain national self-sufficiency in rice and corn, and thus conserve valuable foreign exchange. The GOP has decided to undertake this task by mounting a series of sustained and intensive crop production campaigns in order to extend the use of known improved practices. These campaigns are coordinated within the GOP and with key elements of the private sector through the National Food and Agriculture Council (NFAC).

The campaigns are nationwide, high visibility efforts. They are designed to make a permanent impact upon the rural scene by revitalizing government field operations and supporting services to the small farmers. The "Masagana 99" rice and "Masagana Maisan" corn programs are the two principal GOP crop production campaigns currently underway. The revised goal of the rice program is now to reach 1 million hectares directly, with extension workers providing technical assistance to participating farmers. The targets established by the GOP are ambitious. Nevertheless, we feel they are attainable over the life of the project.

Fundamental changes in attitude by government personnel towards implementation of government projects have taken place, as evidenced by the impressive effort that has gone into formulating and implementing the Masagana 99 rice program, as well as into follow-up by top management in the field. The extent of the outreach is unprecedented and is currently on target. Over 700,000 farmers have been directly reached by the program, almost a million hectares planted, and about 900 million pesos of credit extended to participating farmers since the start of the program in May, 1973.

The timeliness and quality of service being provided still needs to be improved. Farmer production constraints must be identified and reduced. The degree of farmer acceptance of technical guidance must be evaluated and an appraisal made of whether improvement occurs in both his productivity and income.

Organizations Involved:

The following brief profiles are provided to identify and describe the principal organizations of the Government of the Philippines (GOP) which play important roles in small farmer rice and corn production programs.

- DA - The Department of Agriculture will be the principal government organization under the project. Many of the functions normally associated with agriculture have been set up in separate bodies - commissions, councils semi-public agencies, etc. - outside the management control of the DA. A conspicuous example was the Agricultural Productivity Commission (APC)

which was in fact the extension service for the GOP, but in now way responsible to the DA. Reorganizations of the Department in May and September, 1974 have corrected most of these control difficulties.

- MFAC** - The National Food and Agriculture Council was established as a coordinating body, chaired by the Secretary of Agriculture, to exert some direct influence on the outside organizations which impinged upon agricultural production. This was found to be particularly useful when the Masagana 99 program was launched, because of the integrated nature of the program, requiring credit from both government and private banking institutions and the participation of the private agribusiness sector. Because of weaknesses in certain aspects of other participating agencies, the MFAC has gone beyond its initial role of coordinator and now exercises actual direction of program implementation over all participating agencies. It has a full time Director and staff - some drawn from other Bureaus and some exclusively new MFAC employees. Thus it is, in effect, a "Super-Integrated-Department" directed by the Secretary of Agriculture with strong authority over most of its members.
- BAE** - The Bureau of Agricultural Extension - formerly the Agricultural Productivity Commission (APC) - is a major bureau in the DA.
- BPI** - The Bureau of Plant Industry (part of DA) performs the important purpose of propagating and distributing seed, operating seed inspection and plant quarantine services, and providing advice and assistance in plant protection. It operates a system of experiment stations and seed multiplication farms. It also assists in extension work. In effect, the BAE and BPI field staff provide the personnel for implementing most of the MFAC directed production programs.
- BAECON** - The Bureau of Agricultural Economics, under the DA, is responsible for gathering, analyzing and preparing authoritative data on the agricultural sector. Its output is used in national and economic accounting and is used in the FAO series. However, in practice, each bureau and outside agency, as well as the MFAC itself, gathers, prepares and publishes its own set of data, which it considers authoritative and which are not always confined to its own immediate activities.
- PNB** - The Philippine National Bank is a government banking institution which cooperates with MFAC in extending supervised credit under the Masagana 99 and Masagana

Maisin programs.

- CB-DRB-SIA** - The Central Bank Department of Rural Banks and Savings and Loan Associations is the arm of the government which supervises the establishment and operation of privately owned rural banks. It too has been made member/participant of NFAC for Masagana 99 and Masagana Maisin credit programs.
- RB** - There are 446 participating rural banks, each generally servicing a municipality. Rural Banks are independent, privately owned and managed institutions located throughout the country. They are supervised and subsidized by the CB-DRB-SIA and are envisaged as the primary organization through which credit will flow to the small farmer.
- NCA** - National Grains Authority - a semi-autonomous government corporation which engages in procurement, reserve stock-piling, importing-exporting, marketing and stabilization of rice and corn supply and prices, both wholesale and retail. It is a member of the NFAC.
- FIA** - Fertilizer Industry Authority - a semi-autonomous government/private organization established to coordinate the import and control distribution of agricultural inputs by private companies - primarily Planters Products and Atlas Fertilizer companies. It is represented on NFAC.
- NIA** - The National Irrigation Administration, located in the Office of the President and created as a corporate body in June, 1963, is a single-purpose agency responsible for nationwide irrigation development. It focuses on planning, construction, operation and maintenance of national gravity irrigation systems. It is legally required to collect from water users such fees as are necessary to pay for system operation and maintenance and costs of construction. NIA also helps in the planning, design, construction and/or repair of certain communal irrigation projects built with government funds. Recently the Irrigation Service Unit (ISU), an independent government agency charged with the development of pump irrigation, was merged with the NIA, thus making NIA largely responsible for both gravity and pump irrigation. NIA has representation on the NFAC.
- DAR** - Department of Agrarian Reform. An independent government agency outside the DA which has a major impact upon small farmers through the agrarian reform program. It has a large network of field personnel for carrying out

~~land-transfer~~ activities and providing some supportive services. Although represented on NFAC, DAR personnel are participating in the Masagana 99 program only marginally.

PDAP

- The Provincial Development Assistance Project is under the Development Management Staff of the Executive Secretary of the President (not in NFAC). The PDAP works with selected provincial governments, concentrating on the development of provincial planning capabilities, infrastructure development and fiscal management, and coordinates development activities at the provincial government level.

The above list is far from exhaustive but illustrates the complexity of the organizational environment in which the project will operate.

2. USAID/GOP Objectives

USAID/Philippines supports the GOP goal of achieving self-sufficiency in rice and corn through increased productivity of small farmers as being a principle means of improving small farm income and nutritional well-being. In contributing to this goal, USAID will work through the National Food and Agricultural Council and its member organizations to help establish the managerial and analytical capability which they need to plan and manage crop production programs. More specifically, the objectives of the USAID assistance are to help the GOP create a better food-production, management capability by:

- a. Establishing a management information system and an economic analysis capability in order to manage effectively sustained rice and corn production programs of national scope.
- b. Expanding and upgrading a systematic program of farm-based, applied and test bed research covering constraints to improved farm income and reduced production risks.
- c. Obtaining expert advisory services to review and improve the sub-systems of the agricultural production and support system.

3. System Assessment

The USAID arrived at these objectives through an assessment of the small farm agricultural production and support systems, basing the assessment on available data as well as prior and current experience in the Philippines, including close involvement with the Central Luzon Disaster Rehabilitation and Masagana 99 programs. Agriculture is a location-specific science, i.e. crop production methods and material needs vary widely from place to place in response to environment. With this caveat, the essential elements of

agricultural production and support system are fairly well understood and are subject to manipulation to influence farm output. The primary elements of the system in the Philippines are the following:

- a. Water. The control of flood-water and the irrigation of crops when needed materially reduces production risks and permits the use of HYV seeds and related inputs to multiply yields. The World Bank Sector Study highlighted the need for improved irrigation as one of the most critical constraints for improving rice production in the Philippines. Irrigated acreage produces forty percent more rice than rainfed acreage, even under traditional technology, and may produce seventy percent more using available HYV technology. USAID is providing some assistance to irrigation under the Flood Rehabilitation Program but more assistance is required. USAID expects to focus increasingly on improving on-farm distribution and management of small systems through the Bicol River Basin project and a new project presently being developed. Other donors are also providing some assistance in this critical area (Annex B).
- b. Seed. A system for producing, testing, certifying, and distributing high quality rice seed for farmers in a timely manner is functioning. The system for corn seed production and distribution is less developed and is one of the constraints to be reviewed by the corn system team.
- c. Production Technology. The technological package of HYV seed, inputs, land and water management and labor and equipment use is generally in place and operating satisfactorily for rice production. The number of farmers fully participating needs to be increased. Corn technology is less well developed and is presently used by few farmers.
- d. Farm Management. The farmer must ultimately make the operational decisions and produce the crop. His success is determined by the way in which he manages the factors of production to maximize his return. The effective extension of improved production technology and "whole farm" management concepts can help the small farmer obtain more income from his efforts. Lack of understanding of the small farm management system is one of the most limiting factors in directing a program to increase productivity.
- e. Staff Training. The transformation of traditional agriculturists to highly productive small farmers requires a considerable number of competently trained extension agents, supported by research personnel, credit supervisors, and other professional and sub-professional staff. The University of the Philippines College of Agriculture (UPCA) and the private sector, in cooperation with NFAC, are upgrading professional staff.
- f. Productive Inputs. High productivity requires that farmers have access to productive inputs in adequate amounts and in a timely manner. The current rice campaign has managed to construct an

effective system for providing inputs, at least on a short-term basis. However, fertilizer and pesticide production, importation, and distribution are inadequate to satisfy the productive potential of NYV rice and corn. USAID will provide consultant services to work with NFAC and the FIA in evaluating constraints and designing programs for their elimination.

- g. Credit. Farmers need the leverage that credit provides so they can procure the necessary inputs to convert from traditional to productive farming. The Agricultural Loan Fund, financed from PL480 Pesos, has provided this leverage in the current campaign. However, the extending of credit to small producers is still not totally accepted by the rural banking community and problems of credit system viability remain. This system needs a careful review to determine factors which may limit viability and define critical points for intervention.
- h. Infrastructure. Farm-to-market roads are not well-developed. Farmers living in barrios not served by all-weather roads pay higher prices for inputs, receive less for their products and suffer more uncertainty in receiving inputs or selling products. USAID is addressing this problem through the Local Development Project. Other donors such as IBRD, ADB, and Japan are also involved in road improvement projects.
- i. Marketing and Processing. The private sector handles most of the harvesting, drying, storage, milling, transportation and other processing of rice and corn. Each of these areas can be improved technologically and managerially. Other donors are addressing these problems on a larger scale, but USAID consulting services can be provided to resolve specific problems.
- j. Price Stabilization. Under current conditions, farmers can sell paddy (or milled rice) in any barrio at any time, but the price offered is often well below the central market level, less transportation costs. The National Grains Authority was created in late 1972 to operate a national price stabilization program and support the orderly development of grain storage by the private sector. Effective price stabilization in grain crops normally requires a large volume of storage to clear the market at supply peaks. Effective price stabilization is essential to maintain farmer confidence in the ability of the market to move increased volumes of rice and corn. The management of commodities and pricing policy is not well understood in the Philippines and hard information is difficult to come by. Consulting services to review the status of this sub-system will be provided under the project.

F. COURSE OF ACTION

1. Implementation Plan

The current state of the agricultural production and support system as it exists and as it is expected to change over the next four years is

expressed in the chart below.

	<u>Now</u>	<u>75</u>	<u>76</u>	<u>77</u>	<u>78</u>
Water	D	D	D	D	C
Seed (Rice)	B	B	B	B	A
(Corn)	D	D	C	C	B
Production Technology (Rice)	B	B	A	A	A
(Corn)	D	C	C	B	B
Farm Management (Rice)	D	C	B	B	A
(Corn)	D	D	C	C	B
Staff Training	C	C	B	B	B
Productive Inputs	D	D	C	C	B
Credit	C	C	B	B	A
Communication Infrastructure	D	D	C	C	C
Marketing Processing	C	C	C	B	B
Price Stabilization	D	D	C	C	B
Project Management	C	C	B	B	A

Legend:

Program Status

- A - Highly Effective -
 B - Moderately Effective -
 C - Marginally Effective -
 D - Inadequate or Ineffective -

Technical Assistance Requirements

- No further USAID support necessary.
 Minimal USAID support desirable.
 USAID or other donor support necessary
 in key areas.
 High level of USAID and/or other donor
 assistance required.

Note: Criteria relate to general quality and volume of services in a balanced system. Related technical assistance requirements are based on need for support and not on volume of support required.

This assessment, together with an understanding of other USAID projects and those of other donors, led to the definition of this project. The elements of the project fall into three major categories. Since the program elements are initiated at different levels of effectiveness and are of different degrees of difficulty, variable progress is expected. Using the same criteria, the current state and expected change in these outputs may be estimated as follows:

	<u>Nov</u>	<u>75</u>	<u>76</u>	<u>77</u>	<u>78</u>
. Rice-Corn Production Management System					
- Management Information System	C	C	B	B	A
- Economic Analysis	B	C	B	B	B
. Operational Research Program					
- Applied Research	C	C	C	C	B
- Test Bed Studies	B	C	C	B	B
. Professional Advisory Services					
- Review of Corn Production System Technology	D	C	C	B	B
- Analysis of Credit System	D	C	C	B	A
- Analysis of Price Stabilization Program and Producer Incentives	D	D	C	B	B
- Analysis of Technology Transmission and Input Supply System	C	C	B	B	B
- Review of Staff Training	C	B	B	B	A

a. Corn-Rice Production Management System. The basic need addressed by this PROF is the institutionalization and routinization of the management of government programs to expand small farm rice and corn output. Campaigns which integrate the elements of a successful production and support system under effective management have been developed under crisis conditions. This project provides technical advisory services and limited training and commodity support to help the GOP institutionalize and regularize these elements and management techniques so that they become an integral and intrinsic part of operational rice and corn production programs. Ultimately the objective is to obviate crash production campaigns except for extraordinary reasons.

The most important pre-conditions of effective management are: (1) the ability to understand the fundamental problems to be addressed and to plan programs which will resolve them, and (2) a method for observing the execution of these programs which permits corrective action. Senior officials recognize these needs, but their full-time responsibility for political and administrative aspects of their departments prevents their personal attention to the details of their implementation at working levels.

. Management Information System. Effective management control over the implementation of program plans requires a continuous feedback of information that diagnoses the health of the program. In complex activities such as rice-corn programs the program manager must have a regular series of reports which measure details of progress of

program execution against previously selected benchmarks. This permits timely adjustment to keep the program moving forward. At the same time, he needs reports from the provinces which indicate the way the supportive system is meeting farm production needs, so that he can direct the flow of goods and services through policy and administrative means at his disposal.

The current system was developed ad hoc to fit relatively restricted crisis situations. It probably cannot be expanded indefinitely to fit sustained national programs without considerable losses in efficiency; current effectiveness is limited as it is. As with economic analysis, the development of an effective management information system and the orientation of people to feed and use it is a long term objective. The particular concern of the Small Farmer project is to improve this system enough to permit effective GOP management control of the rice-corn production support programs.

USAID will provide to NFAC a Management Systems Advisor, experienced in the design, development and implementation of agricultural management information systems, so that needed improvements in the NFAC information structure can be identified and improvements initiated. He will work primarily with selected staff members of the NFAC Reports Division and BARCON to systematically review and analyze existing information gathering and processing procedures of NFAC and its associated organizations. He will recommend improvements, including more effective channels for reporting, additional reports, and data processing methods, and will assist in the development of these improvements and the training of staff in their utilization.

- Economic Analysis. Effective management planning is limited by inadequate understanding of demand/supply relationships, the functioning of the small farm system and its support elements. It is also hampered by inadequate data which define the state of these operations, their operating ratios and interrelationships.

Empirical evidence indicates that the existing input delivery, marketing, processing and price stabilization support of the small scale farmer needs considerable improvement to encourage sustained efforts towards higher production. The new concern for increasing small farmer productivity requires a better understanding of the economics of small farm viability, and the relative importance of each part of the supporting system that serves him. The limited information on these subjects reflects the concentration of past research on maximizing crop yields, with only limited regard for the cost/benefit returns of different groups of farmers using various cropping patterns. Thus, only limited data is available upon which to base policy recommendations and systematically program their implementation.

The Bureau of Agricultural Economics (BAECON) has been designated as the organization primarily responsible for the accumulation, analysis and presentation of agricultural statistics. The start which the Bureau has made includes a daily marketing news report and a quarterly rice production survey. A small research staff works with a USDA advisor under an AID/TAB project to study regional agricultural diversification and marketing possibilities. Some work is being done on the economics of small farm production.

The full development of BAECON into a powerful tool for accumulation and analyses of sectoral economic information and the use of these analyses for guiding policy decisions and program plans is a long-term objective. The initial objective of the project is to initiate the development of a number of economic analyses on important subjects related to small farmer rice and corn production which can be used to guide program decisions.

- b. Research System. The lack of sound information on the economic effects of new technologies applied under small farm conditions and on the "whole farm" relationships of these technologies and related environmental conditions makes it imperative to develop an on-farm research program which provides the proper information to policy makers and program designers. The principal elements of such a program are; (1) the transfer of experimental technological findings to specific small farm environments, (2) the analysis of the small farm's internal system and external linkages through the systematic examination of selected factors upon groups of small farms representative of particular agricultural patterns.
- . Applied Research. Lack of technological knowledge and favorable economic prices to farmers are crucial constraints to increasing production. This is an area where basic information has been developed through research. The problem is essentially one of assembling and interpreting findings and translating the information into farmer recommendations.

The Philippines hosts the world's foremost center for rice research, IRRI, and an excellent agricultural University at Los Baños, which has also developed Asia's leading downey mildew resistant corn varieties. Linkages between centers of excellence and specific farm programs are in a developing stage and improving. Philippine institutions (Bureau of Plant Industry, Soils and Extension) carry out some applied research trials plus demonstration and field trials. In addition, the University of the Philippines conducts considerable applied research. However, further effort is needed to: (1) expand coverage of such trials in order to provide recommendations for specific micro environments; (2) expand types of trials relative to soil types, cereal varieties, fertilizer levels and especially, plant protection techniques; (3) standardize and develop applied research methodology which provides a basis for,

and the timely analysis of, field results; and (4) provide clear interpretation, publication and communication of results through extension workers to farmers through a standard system. There is an especially urgent need to develop pest-control management systems models, including training, applied research, and detailed insect, rodent, disease and weed control surveillance, which can be translated into viable national policy recommendations.

The project will continue to contract with IRRI for technical services relative to this project element. Full time technicians will be responsible for advising on (1) identification of new techniques and grain varieties and content and design of national applied research; (2) formulation of the entire applied research and training program, including (a) setting of specific "coverage" objectives; (b) staff development in applied research agencies; (c) evaluation and interpretation procedures; (d) planning of a communications network regarding findings; and (e) planning of training programs for extension workers and extension technical specialists.

- Test Bed Studies. The innovative technology of the "green revolution" is impressive, but much of it has not directly benefitted the poorer, small-scale farmer. The green revolution represents the culmination of considerable research into production technology. However, the problem of introducing complex change into traditional low-input agriculture involves a multi-disciplinary approach that takes into account social and economic as well as technical factors and which relates the change to the particular enterprise and its environment. Various cropping combinations, financing schemes, water management and cultural practices and grain processing and marketing programs have demonstrated promise in research setting. However, the slow rate of agricultural growth relative to the potential demonstrates that there still is a great deal of "slippage" between research centers and changed farm practices.

The test-bed research program provides a means for examining what happens in actual practice on a group of real farms with comparable characteristics when one or more new practices or factors are introduced. The process provides basic information about existing cropping patterns and other characteristics of regional farming models as well as information on operating ratios and input/output ratios useful for program planning. Hopefully, it will also provide empirical knowledge of the way farmers react to different types of incentives. USAID will provide consultative assistance to help the GOP design the program. This will include identification of counterpart agencies, selection of communities of comparable farm units for analysis, priority subjects for testing, and description of the procedures to be followed. A second phase will cover the execution of pilot programs to debug the design and develop the concept for further use.

Studies tentatively identified for test bed studies include:

1. Water management, operations and utilization.
2. Distribution methods and alternative uses of inputs.
3. Crop technology and alternative cropping systems which minimize the need for purchased inputs and improve small scale farmer profitability.
4. Policy implications and alternative systems for purchasing, drying, storing, transporting and pricing farm products.
5. "Whole Farm" credit financing.

c. Professional Advisory Services. Although each basic element of the agricultural production and support system is in place and functioning, considerable improvement will be required as the system seeks to achieve massive production increases on a national scale. The strain is expected to occur in different parts of each major element at different times and two types of action are planned to provide relief: (1) a systematic review of the status of major elements of the system by specialists in these elements, seeking to identify and resolve problems before they arise, with recommendations for system improvements; and (2) troubleshooting consultation to deal with specific problems as they arise. The priority elements for review in the approximate order of priority are the following:

- Review of Corn Production System Technology. Various GOP, USAID, and IBRD assessments of corn production in the Philippines indicate considerable potential for substantial increases in output if certain economic, technological and social problems can be overcome. The technological problems include: (a) determining conditions for double cropping, (b) lack of fertilizer responsive varieties, (c) lack of resistance to downy mildew, and (d) problems in cross pollination. Drying, storage, marketing and supplying of inputs to corn producers are weak links in the support system. In addition, there is the usual complex of risk aversion factors among producers, coupled with preference for certain color and hardness characteristics.

Different sets of problems face very small-scale subsistence corn farmers on the one hand and the "commercial" small-scale (5 has. maxima) producers on the other. Both domestic and international demand affect the economics of corn production and consequently the rate at which assistance, by type and scope, should be provided.

A team of corn production and support system specialists will conduct a review of the entire system to determine the adequacy of each component and establish priorities for its improvement. It is anticipated

ted that their investigation will result in recommendations for immediate action to overcome specific near-term problems. More importantly, the team will outline a longer term program which seeks to anticipate future weaknesses and thus provide a longer lead time for their solution.

- Baseline Study. A baseline study is important to the management of the overall corn-rice production programs. The study will consist of a detailed questionnaire administered to a large stratified sample of small farmers. The questionnaire will cover such conditions as the size, composition, education and age structure of the farm family, its living conditions, and the use of its labor on-farm and elsewhere. It will determine gross income, outlays and net income from the farm and from other sources. It will also determine the value of capital investments, debt structure and net worth. In so doing, it will obtain information on the farm type, land tenure and tenancy, land use, yields, prices and marketing channels. The results of this survey will be computerized to facilitate calculations and analysis. The Baseline Survey will be repeated at the end of two years and again at four years to provide inputs to the formal project evaluations and to help guide program reform.

- Review of Price Stabilization Subsystem
- Review of Credit Subsystem
- Review of Technological Transmission Subsystem
- Review of Staff Training

These four areas are accorded lower priority only because preliminary work on the first two discussed above is in a more advanced stage and results can be expected sooner. The project will move into these other areas as soon as satisfactory scopes of work can be developed with GOP counterparts. The physical limitations of the small USAID staff will necessarily limit the rapidity with which this work can move forward. Therefore, we anticipate using some short-term consultancy services to explore the major conditions of the sector and develop more precise scopes of work for the detailed reviews which are planned.

- Short Term Consultancy. We anticipate the need for quick response consultant services from time to time to help resolve problems which occur in the system and to help the limited USAID staff to plan for more detailed studies.

APPENDIX A - COMPLEMENTARY USAID/PHILIPPINE PROJECTS

Ongoing USAID/Philippines projects complementary to the Small Farmer project are identified below.

1. **Agrarian Reform** - A project to assist the GOP:
 - a. Implement a program of land transfer.
 - b. Plan and test in two pilot provinces (Nueva Ecija and Camarines Sur) small farmer support systems and models.
 - c. Develop agrarian reform research support capability.
2. **Bicol River Basin Development** - An effort to improve the standard of living of farmers within the Bicol River Basin and test the viability of the integrated area development concept in actual setting. The River Basin Program includes activities dealing with land reform and credit, water development and management, electrification, infrastructure and farm production systems.
3. **Aquaculture Production** - A project to strengthen GOP research and extension capabilities in order to expand freshwater and brackish-water aquaculture production.
4. **Local Development Project** - A project focusing on strengthening local government in the Philippines. The project concentrates on three key areas: infrastructure development, tax administration, and fiscal and planning capability.
5. **Food and Nutrition** - A project to assist the GOP in alleviating malnutrition in the Philippines with special emphasis on infants, pre-school children and pregnant mothers.
6. **Rural Electrification** - A project being carried out jointly with the National Electrification Administration to bring electricity to rural Filipinos for their direct benefit and to provide infrastructure for small-scale industry development.
7. **Irrigation Project** - Funded under the Disaster Program, the purpose of the project is to rehabilitate about 35 national and 120 communal NIA irrigation systems.

APPENDIX B - COMPLEMENTARY PROJECTS OF OTHER DONORS

Important ongoing development projects of other donors directly or indirectly related to the Small Farmer project are as follows:

I. Water Development Utilization and Management

- a. ADB Assistance Projects - Five irrigation sites in Mindanao totalling 21,000 hectares.
- b. NIA/UNDP/FAO Development Projects for ground water development which include demonstrating the feasibility of utilizing ground water as a supplementary source of irrigation water.
- c. Angat-Magat Integrated Agricultural Development Project - Subject to loan negotiation with the ADB.
- d. Magat River Feasibility Study - Completed by BUREC/USAID; implementation may take place under IBRD sponsorship.
- e. Upper Pampanga River Project - Based on a BUREC/USAID feasibility study, IBRD financed construction now virtually completed under a Filipino contract.
- f. Pampanga River Flood Control Program - USAID 1972 flood rehabilitation funds combined with other domestic and international financing are being utilized to repair and complete construction of major flood control works.
- g. Japanese Government supported development of two demonstration farms for rice production utilizing HYV technology, complete water control and Japanese manufactured machinery - Mindoro Oriental and Leyte Province - now fully operational.
- h. Israeli government development of demonstration of intensive agricultural production under Moshav concept - barrio Ricarte Nueva Ecija province - working with NFAC.

II. Grain Industries Development

- a. UNDP technical assistance and training program related to harvesting, threshing, training, storage, and marketing of grains in support of IBRD grain storage loan through the Development Bank of the Philippines (DBP).

- b. **IRRI Agricultural Engineering Project** for developing, testing and evaluating small farm equipment appropriate for small scale farmers.

III. Seed Production and Distribution

Newly developed project and commodity loan between the GOP and Japan to expand seed production and distribution based on nucleus of activities supported by USAID assistance in the past. Commenced October 1973.

IV. Rodent Research

- a. **AID supported project at Rodent Research Center in Los Baños (Funded by TAB/Washington).**
- b. **West German project with GOP in rodent protection programs. Emphasizes use of chemicals and control procedures.**

V. Infrastructure

- a. **IBRD project for primary roads in Mindanao, Central Luzon and Cotabato Port Development.**
- b. **Government of Japan project support for Pan-Philippine Highways and several other road projects.**
- c. **USAID assistance provided for feeder road development in selected provinces under the Provincial Development Assistance Project (PDAP).**