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A.I.D. Loan No. 492-T-068C
492-T-068B
492-T-068A
492-T-068
A.I.D. Project No. 492-0366

AMENDMENT NO. 11
TO THE
PROJECT LOAN AND GRANT AGREEMENT
BETWEEN THE
REPUBLIC OF THE PHILIPPINES
AND THE
UNITED STATES OF AMERICA
FOR THE
RAINFED RESOURCES DEVELOPMENT PROJECT

Dated: August 5, 1988

Loan and Grant Agreements
FM/LMD (if Loan) ✓
FM/PAFD
FM/CAD
GC/ANE
ANE/Desk
ANE/TR Officer
ANE/PD Officer & File
PPC/CDIE/DI ✓

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A.I.D. Loan No. 492-T-068C
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A.I.D. Project No. 492-0366

**RAINFED RESOURCES DEVELOPMENT PROJECT
AMENDMENT NO. 11 TO
PROJECT AGREEMENT NO. 492-0366**

THIS AMENDMENT NO. 11, entered into as of the 5th day of August, 1988 between the REPUBLIC OF THE PHILIPPINES (the "Cooperating Country") and the UNITED STATES OF AMERICA, acting through the Agency for International Development ("A.I.D.").

WITNESSETH THAT:

WHEREAS, the Cooperating Country and the A.I.D. (the "Parties") entered into Project Agreement No. 492-0366 (as amended, the "Agreement") on September 29, 1982, whereby A.I.D. agreed to provide an initial increment of \$8,985,000.00, consisting of a Loan amount of \$8,300,000.00 and a Grant amount of \$685,000.00, for the Rainfed Resources Development Project (the "Project"); and

WHEREAS, through previous amendments to the Agreement, the amount of grant funds was increased to \$22,999,600 and the amount of Loan funds was reduced to \$252,400; and

WHEREAS, the Parties desire to make certain changes in the Agreement;

NOW, THEREFORE, the Cooperating Country and A.I.D. hereby agree to amend the Agreement as follows:

1. Amendment to Annex I (Description of the Project)

Annex I to the Agreement, as previously amended, is further amended (i) by adding Supplement D (Description of Cycle II Research Component) in the form set forth in Attachment A hereto and (ii) by substituting the Summary Financial Plan set forth in Attachment B hereto for the Summary Financial Plan set forth in Attachment B to Amendment No. 10 to the Agreement.

Except as expressly amended herein, the said Agreement, as previously amended, shall continue in full force and effect in accordance with all of its terms.

IN WITNESS WHEREOF, the Parties to said Agreement, each acting through its duly authorized representative, have caused this Amendment No. 11 to be signed in their names and delivered as of the day and year first above written.

REPUBLIC OF THE PHILIPPINES

UNITED STATES OF AMERICA

By: 

Filologo Pante, Jr.

By: 

Malcolm Butler

Title: Deputy Director-General
and Officer-In-Charge
National Economic and
Development Authority

Title: Director
United States Agency for
International Development

RAINFED RESOURCES DEVELOPMENT PROJECT (492-0366)
ANNEX I
SUPPLEMENT D
DESCRIPTION OF THE CYCLE II RESEARCH COMPONENT

I. INTRODUCTION

A. Rationale

Programs and management systems for the judicious and productive utilization of scarce and marginal resources in rainfed agricultural areas should be based on a comprehensive assessment of the conditions and problems specific to the area to be developed. The Project was based on a site-specific assessment of problems in target areas.

These assessments revealed many technical and institutional problems existing at the beneficiary level which, among others, include low productivity, poor soils attributed to erosion and acidity, inadequacy in basic community support services, poor access to production inputs and credit, and a generally weak community structure and manpower for organized undertakings. All these problems were taken into account in the formulation of the Cycle I research plan for the agriculture and natural resources sectors, which was implemented from 1983 to 1986. The primary objective of Cycle I was to provide assistance to help the rural poor achieve self-sufficiency through increased productivity and income.

Although substantial accomplishments have been made during implementation of Cycle I, certain adjustments were instituted to redirect the various activities in order to render them more responsive to the needs of target beneficiaries and to improve overall coordination and management of the various projects implemented. Increasing the income of the rural poor remains the Project's primary goal for the second cycle.

B. Objectives

The Project aims to assist the Government in developing institutional capabilities and a positive policy framework and in supporting community-based approaches to the management of land, water and other resources in rainfed areas. The Project addresses these efforts within a framework of cost-effective and resource-efficient management systems for rainfed lowland, upland settled forest, and coastal area beneficiaries. These beneficiaries include farmers, artisanal fishermen, kaingineros and other upland cultivators.

C. Project Component Plan

A separate "Project Component Plan" will provide additional background information and details relating to project implementation, including the list of Grants-In-Aid (GIA) projects, detailed proposals and budgetary requirements for planned projects, an implementation schedule, a training plan, and a research facility improvement plan. A Joint Project Implementation Letter (JPIL) between the Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD) and USAID, will approve the Project Component Plan.

II. RESEARCH COMPONENT

A. Description

To address its overall goal of improving the socio-economic conditions in marginal upland forest, rainfed agricultural and coastal areas, the Research Component in Cycle II will adopt a two-pronged approach whereby funds will be provided to support:

- A program of basic and adaptive research; and

- A program for strengthening/improving the capability of selected research and teaching institutions to support the research program

These programs will be implemented by national and regional level Philippine institutions and coordinated by PCARRD. These programs are in response to the identified needs of farmers in settled upland forest, rainfed agricultural areas and coastal zones. Further, production technologies with the potential of increasing farmers'/fishermens' output and income on a sustainable basis will be developed.

B. Goal and Objectives

The research component aims to generate a sustained flow of new, improved and adapted technologies that are both responsive to the needs of small producers in the rainfed areas and compatible with Government thrusts and policies on resource management and utilization.

C. Programs

The experience gained from the implementation of Cycle I of the Project has provided insight on how to better coordinate implementation for Cycle II. In the planning phase for Cycle II, the development programs on agriculture and agroforestry were identified, evaluated and packaged by the agencies concerned (Department of Agriculture-DA and Department of Environment and Natural Resources-DENR) before the planning activities for the research component were started. The agroforestry sector has identified the promotion of technologies on soil conservation, upland farming systems and extension methodologies as priority development thrusts.

The agriculture sector has identified the application of suitable varieties and farm management options to increase farm productivity and income, establishment of viable rural enterprises as additional sources of income, harnessing community/rural organizations and strengthening production support services as development concerns for Cycle II.

Correspondingly, six research programs have been identified to support the priority development areas, as discussed below:

1. Development/Improvement and Evaluation of Varieties/Breeds/Species for Specific Needs and Environment of Rainfed Areas

In rainfed/upland and hilly areas, farmer productivity in terms of net income derived from utilization of resources like land, labor, capital and material inputs remains far below that of farmers engaged in lowland farming. Often referred to as marginal farmers, upland farmers are frequently faced with various environmental risks/stress factors like drought, shade, low soil fertility, and other adverse conditions. These farmers are generally characterized by their aversion to risk, a greater scarcity of cash and capital resources and an abundance of idle family labor compared to lowland farmers. The availability of abundant family labor and the scarcity of cash among small farmers would suggest the need to develop technologies using low levels of external inputs to improve their productivity.

Given the conditions cited, the most appropriate strategy would be to develop/improve and disseminate appropriate stress tolerant plant materials in order to uplift the present standard of living of small farmers in these areas. Towards this end, efforts are currently being undertaken to

improve farm productivity and profitability through development and evaluation of field crop and vegetable varieties which are tolerant to drought, shade, low soil fertility and acidic and saline soil conditions.

Moreover, present varieties/species of trees are not adapted to upland areas and steep slopes. Superior varieties are basic to the improvement of production systems. A goal of the selection program is to provide farmers with tree species for rapid reforestation of steep slopes and for use on agroforestry systems.

2. Improving Production Through Resources Assessment and Management

This program aims to improve production in hilly and coastal areas through the assessment and proper management of available resources. Improving crop production under the complex conditions in rainfed areas requires a multi-disciplinary approach. In hilly areas, for instance, this approach would include consideration of well-planned and constructed soil and water conservation structures as well as suitable management strategies to optimize production. Understanding the dynamics of soil moisture as affected by seasonal variations in agro-climatic conditions is a necessary step towards the formulation of efficient and effective soil and water management strategies.

Another important management scheme in the uplands is agroforestry. As a scheme, agroforestry is a promising technology that is directed toward the production of food in combination with suitable forest species, whether for reforestation or for supplemental income. Natural stands of non-timber forest species like lukmoy, nito and tikog are fast diminishing. Since these species are traditional sources of income of the

upland dwellers, technologies on propagation and management of the two species will be established to ensure a continuous supply of these forest products. Identification and utilization of indigenous medicinal herbs for medicinal and veterinary use are also thrusts of this program.

3. Technology Adaptation Trials in Rainfed Agricultural and Coastal Areas

An appropriate technology for any particular farm is one that maximizes the returns from its most limiting resources. Although land, labor and cash inputs are the major limiting resources for most farms, availability of these resources almost always varies among farms within a region. Clearly these variances make it difficult to formulate, much less recommend, any one uniform practice that can answer the host of production requirements unique for each region. It thus becomes essential that the research system be able to identify the specific technology that is appropriate for farmers' needs, resources and environment.

Many promising technologies for various crops, animals and fisheries are generated continuously by both the Philippine research system and international agricultural research centers. Many of these technologies were developed in research stations under favorable environments with liberal use of resources. However, questions arise as to whether these technologies are better than existing farm practices.

The technology adaptation program attempts to develop at the regional level a mechanism to test promising technologies (developed elsewhere) for their adaptability to the various physical and socio-economic

environments of the farmers/fishermen in the region. From the results of on-farm trials conducted by researchers, the most outstanding and appropriate components can be assembled into packages of technologies for use in ongoing technology verification trials and can eventually be recommended for adoption at the regional levels. A good many of these trials will be conducted in typical rainfed farms/coastal fishing communities of a specific region to address directly the problems of the small rainfed farmers/artisanal fisherman who are the primary beneficiaries of this research activity.

4. Technology Verification Trials in Rainfed Areas

On-farm trials are undoubtedly a valuable tool in the agricultural development process. This approach places importance not only on verifying techniques and crop/animal suitability to a given farm environment, but also on tapping farmer know-how and experience towards evolving and evaluating appropriate farming systems and resource management schemes.

Hillside or upland farms are usually marginal, susceptible to soil erosion and characterized by low fertility and productivity. The development and utilization of appropriate farming systems in these marginal hilly areas will not only improve agricultural production, but will also improve and maintain more stable production systems by minimizing erosion and increasing soil fertility.

The technology verification program is designed to verify suitable technologies that will insure economic returns while sustaining and enhancing soil fertility and productivity. The individual activities are generally carried out on farm by specially trained extension staff. In

general, the program aims to evaluate the performance of improved technologies compared with existing farmers' systems in terms of adaptability, socio-economic feasibility and impact on soil improvement and conservation.

5. Improved Handling, Processing and Utilization of Available Resources

Post-harvest losses reduce aggregate production significantly. Traditional post-harvest practices of farmers aggravate this problem. Moreover, due to the seasonality of products, oversupply often occurs which, in turn, lowers farmgate prices and results in low return or even loss to the farmers. During peak seasons excess farm produce could be processed into higher valued products. Appropriate processing technologies available at the community or household level will contribute to an increase in the economic and nutritional status of the farm household.

The post-harvest program aims to improve/develop post-harvest handling, processing and utilization techniques appropriate at the community or household level.

6. Assessment and Improvement of Support Services for the Development of Rainfed Areas

Any efforts to increase productivity in upland areas will have minimal impact on the incomes and well-being of farmers without giving attention to infrastructure, markets, and social impact. Inadequate farm-to-market roads and lack of markets have been identified as constraints to upland development. Adequate information is not available on the impact of improved farm-to-market roads and market availability on the farmers' use of

improved technology, productivity, and income. Studies in the program will address the above-mentioned issues, and results should be valuable to policy makers in the improvement of road and market networks.

Another aspect which is usually overlooked in upland development is the role of women as decision makers. Some earlier research has shown that women dominate decisions on household purchases, share decision-making power with their husbands in other household decisions, but participate minimally in farm decisions. Therefore, research will be undertaken to provide the necessary information about the roles of upland women in the implementation of development programs.

D. Implementation

1. Research Approach for Grants-in-Aid

To achieve the goal set by DA and DENR to uplift the economic situation of rainfed communities, there is a need to increase farm productivity and income as an overall strategy and to provide a policy environment that will make farming profitable and improve the delivery of services to farmers. In support of this goal and strategy, the Project, as one major program for development, has considered a location-specific, farmer-oriented and community-based development approach. The identification of needs, problems and development potentials starts at the beneficiary level. It engages the participation of various institutions including extension workers, private entities, and planners from local and regional government agencies. These comprehensive linkages provide the venue for consultation and insure the broadest possible participation and interaction between sectors and agencies involved in identifying problem areas.

Rapid Rural Appraisal provided the Project a general indication of on-site problem areas and potential entry points for improving farming systems. It described the general status of a target community as a whole and pointed out specific areas which need improvement.

Resource-based implementation approaches that consider resource limitations and harsh agro-climatic conditions prevalent in these areas will be utilized. These approaches will include optimum use of soil and water resources through conservation measures and at the same time efficient production of economic crops/commodities from these agro-environments.

Basic research will be implemented at regional research centers that are accessible to local researchers. A comprehensive inventory of research facilities and equipment in these centers will be made to determine additional support needed. The implementing agencies of the Cycle II agricultural research programs will be DA for technology adaptation (TA) and verification (TV) and selected state colleges and universities in the regions for technology generation (TG). DENR will be involved in TG, TA, and TV activities related to natural resources with some input by state colleges and universities for TG. Research outputs from various centers/stations will be field tested at the Project sites.

Technology generation, adaptation, verification and piloting will be implemented on a continuum, so that in a short time institutionalization of community-based resource management capability can be achieved by the rainfed farmers themselves.

Feedback on research results will be directed to the field level. Workshops and farmer forums will be held for this purpose. Research results will be published and disseminated in the Project sites and other places where applicable.

To achieve full impact, avoid duplication, and attain mutual sharing of resources and effective coordination, the research projects will be coordinated with ongoing projects such as the Agricultural Support Services Project of DA, the Rainfed Resources Development Project in Bicol and Panay, the Farming Systems Development Project-Eastern Visayas, and other related activities being conducted at state colleges and universities.

Complementation and linkage mechanisms will be strengthened and expanded to enable other sectors such as the non-government organizations (e.g., farmer associations, private firms) to participate effectively in project implementation.

The research component will also utilize several coordinating mechanisms which are already in place and operational. These mechanisms aim at enhancing the utilization of research-based technologies (including documented indigenous farmer technologies) relative to the management capability level of rainfed farmers. They include the Integrated Regional Research and Development Review and Planning Workshop coordinated jointly by PCARRD, DA, DENR and the regional consortia; the community-scale pilot/action project of selected crops and livestock commodities being coordinated by PCARRD in the regions; the research consortia; the TECHNOPACK Project; the Regional Applied Communication Program; and the Print Media Outreach Program.

2. Manpower

A training plan will be developed in direct support of the GIA programs of the Project. All training is to be covered by Project Implementation Orders/Participants prepared by USAID in consultation with PCARRD.

3. Facilities

A Research Facilities Augmentation/Improvement Plan will also be developed in direct support of the GIA programs of the Project. All minor construction/renovation under the project is to be covered by Fixed Amount Reimbursement Agreements (FARA) (with advances) prepared by PCARRD and approved by USAID.

4. Commodities

The procurement plan for research commodities will be developed in direct support of the GIA program. Commodity procurement will be handled by PCARRD or AID, as mutually agreed.

The authorized source/origin of the commodities for the project is the Philippines and the United States. The procurement of offshore commodities by PCARRD will be accomplished in accordance with Chapter 3 of AID Handbook 11, Country Contracting. Procurement will follow competitive bidding procedures in accordance with AID Handbook 11. Local procurement of imported shelf items will be carried out in accordance with Chapter 18 of AID Handbook No. 1(B), Policy. Standard AID Letter of Commitment/Letter of Credit financing procedures will be utilized for offshore procurement. Grant-financed, local-source commodity purchases will be

authorized for payment in local currency. All AID-financed offshore commodities for the project will be shipped on a Commodity Insurance and Freight (CIF) Port of Manila basis. Suppliers will be required to obtain all-risk marine insurance at 120% CIF value of commodity and similar coverage for inland freight. PCARRD will submit periodic procurement reports to AID. Responsibility for port clearances, payment of import duties (if any) and inland transportation in the Republic of the Philippines will be handled by PCARRD. PCARRD will also ensure that all AID-financed commodities are properly marked with the USAID sticker, inventoried, and added to its official property records.

E. Evaluation Plan and Audit Coverage

Under the Cycle II Research Component, two formal evaluations will be conducted: a mid-cycle process evaluation and an impact assessment. These evaluations are in addition to the annual Regional Integrated Research and Development Review and Planning Workshops and field evaluations conducted by PCARRD as part of its ongoing monitoring and evaluation system.

The process evaluation will evaluate the redesign structure to determine its effectiveness in achieving the research component goals that address needs of the agriculture and natural resources development components of the project. The second evaluation will assess the impact of the component in terms of stated goals and objectives.

The AID Office of the Inspector General and the GOP Commission on Audit will provide audit coverage for the Component. Funds are also provided in the overall financial plan for AID to provide non-federal audit coverage, if necessary.

Amendment No. 11
Attachment B

RAINFED RESOURCES DEVELOPMENT (492-0366)
Summary Financial Table
(In US\$)

PROJECT ELEMENT	A I D			TOTAL	GOP	TOTAL
	LOAN	GRANT	TOTAL			
Technical Assistance	\$ 10,478.04	\$ 3,633,658.71*	\$ 3,644,136.75	\$ 770,000.00	\$ 4,414,136.75	
Training	409.27	1,029,120.73*	1,029,530.00	345,000.00	1,374,530.00	
Commodities	215.71	1,382,792.29*	1,383,008.00	170,000.00	1,553,008.00	
Construction	33,939.69	2,021,871.31*	2,055,811.00	1,000,000.00	3,055,811.00	
Operating Expenses	207,357.29	1,344,039.04	1,551,396.33	4,383,950.00	5,935,346.33	
Cycle II - Agriculture***	0.00	6,294,058.96**	6,294,058.96	2,431,050.00	8,725,108.96	
Cycle II - Natural Res.***	0.00	6,294,000.00**	6,294,000.00	2,073,800.00	8,367,800.00	
Cycle II - Research Component***	0.00	2,000,058.96	2,000,058.96	2,000,000.00	4,000,058.96	
TOTAL	\$252,400.00	\$23,999,600.00	\$24,252,000.00	\$13,173,800.00	\$37,425,800.00	

*Includes earmarked funds that were not expended for Cycle I activities and that will be de-earmarked and divided between Cycle II - Agriculture and Cycle II - Natural Resources.

**Includes \$500,000 in authorized but unobligated funds.

***Funds for evaluation are included in the individual sub-components.