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PROJECT PAPER AMENDMENT
RAINFED RESOURCES DEVELOPMENT PROJECT

Project No. 492-0366

Rainfed Resources Research
Concept Paper

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Rainfed Resources Development Project
Rainfed Resources Research
Concept Paper Outline

Table of Contents

	<u>Page</u>
I. Summary and Recommendation	1
A. Cost	1
B. Purpose	1
C. Description	1
D. Recommendation	2
II. Background	2
A. Relationship of RRD to the CDSS	2
B. The Natural Resource Management Problem	3
C. The AID Response	3
D. Prior AID Assistance for Agricultural Research	5
III. Rainfed Resources Research Rationale	5
IV. Detailed Description	6
A. Grants-in-Aid for Biotechnical Research	6
1. Rainfed Lands Research	7
2. Coastal Zone Research	9
B. Strengthening Research Capability	10
1. Training	10
2. Facilities and Equipment	11
3. Technical Assistance	11
4. Strengthening Grants	11
5. Planning and Implementation Workshops	12
C. Data Management	12
V. Administrative Arrangements	13
VI. Budget	13
VII. Annexes	
A. Project Authorization Amendment	
B. Host Country Letter of Request	

I. Summary and Recommendations

A. Cost (Five-year LOP)

<u>AID:</u>	Loan	\$ 9,500,000
	Grant	\$500,000
	Sub-Total	\$10,000,000
<u>GRP:</u>		\$ 4,000,000
<u>Total Cost:</u>		\$14,000,000

B. Purpose

The purpose of the on-going Rainfed Resources Development Program (RRD) is to assist the Government of the Republic of the Philippines (GRP) in developing institutional capacities and policy frameworks to support a community-based approach to land and water resource management in settled upland forest, rainfed agricultural areas, and coastal zones. The objective of the Rainfed Resources Research (RRR) add-on to the RRD proposed herein is to enable the Philippine Council for Agricultural and Resources Research and Development (PCARRD) and its network of cooperating institutions to respond more adequately to the needs of small producers in rainfed areas for technologies which are both more productive and protective of the natural resource base.^{1/}

C. Description

The RRR add-on will finance an expansion of biotechnical (agricultural) research and supporting activities over the coming five years. The additional funds will be managed by PCARRD under arrangements already established under the RRD. The primary use of the funds will be to cover the direct costs of research, although a portion will be needed to support the development of capacity in the PCARRD network to carry out research in rainfed areas. Research institutions in Regions I, II, V, VI, and VIII will be eligible to participate in the program.

Grants-in-aid will be provided to qualifying institutions for research related to rainfed farm systems (including agroforestry), agro-technology transfer, and coastal zone management. Training will be provided to better equip personnel of the Ministry of Agriculture (MA), Ministry of Natural Resources (MNR), and PCARRD to support or implement community-based rainfed-area development programs. A limited amount of facilities and equipment will be financed to enable the PCARRD network to establish research sites in new agroclimatic and socioeconomic environments. Short-term technical assistance will

^{1/} "Rainfed Resources Research" refers only to activities and the associated funding increment to be added to the RRD Biotechnical Research component. It is not a new RRD component.

be financed to support project implementation in such areas as data management, map preparation, and monitoring and evaluation. Strengthening grants will be provided to develop and expand the capacities of resource institutions which have (or could play) a supportive role in the program. Planning and implementation workshops will be financed with the objectives of defining and (as necessary) redefining rainfed research priorities, and improving the implementation of the RRD's Biotechnical Research component. Finally, the RRD add-on will help to establish a data management system designed specifically to support implementation of the RRD. These activities will be funded using standard AID methods of financing.

D. Recommendation

USAID and the GRP collaborated closely in the design of the RRD and are continuing that relationship during implementation. This Concept Paper likewise is based upon inputs from both Mission staff and the GRP. USAID finds that the activities proposed herein are consistent with both GRP and AID policy and priorities and can be expected to contribute significantly to attainment of the RRD purpose. USAID recommends, therefore, that \$10 million in AID funds (\$9.5 million loan, \$0.5 million grant) be added to the Biotechnical Research component of the RRD to support an expansion of the component's research and research-related activities.

II. BACKGROUND^{1/}

A. Relationship of RRD to the CDSS

As described in the 1982 and 1983 Country Development Strategy Statements (CDSSs), AID's strategy for assistance to Philippine development focuses on the alleviation of rural poverty. The Mission has developed this strategy based on an identification of the major poverty groups and the causes of their poverty. The strategy emphasizes increasing opportunities for productive employment and increased incomes among the rural poor which respond to their differing needs.

Further analysis of rural poverty has led the Mission to conclude that the standard of living of rural people is greatly influenced by the degree of their access to natural resources and how they manage these resources as a source of income and employment. Moreover, it is clear that differences in the natural resource base available to the rural poor account in large part for differences in their survival strategies. For example, the dependence of the coastal people on the sea as their main source of income and employment has resulted in their adopting a strategy quite different from that of the upland groups, who depend primarily on upland

^{1/} Source: RRD Project Paper

subsistence crops and forest products for their livelihood. Consequently, the Filipinos, assisted by AID and others, must tailor their efforts to generate productive employment around increasing the ability of the rural poor to make the most productive use of the specific rainfed and coastal resources on which they depend, whether by improving traditional systems or by introducing alternatives.

B. The Natural Resource Management Problem

The productivity and integrity of the country's natural resources is deteriorating at an alarming rate. For example, recent estimates indicate that between 1970 and 1979, 3.2 million hectares of forests were lost.^{1/} This is equivalent to an annual depletion rate of 2.1 percent.

Although commercial users seeking short-term profits are partly responsible, the rural poor as well, forced by growing population pressure, have adopted strategies that threaten sustained resource productivity. Declining resource productivity exists throughout the country, but it is particularly severe in the coastal zones and the upland areas. The challenge, therefore, is to develop systems of resource management that not only increase the employment and incomes of poverty groups in the short run, but which are sustainable over time.

C. The AID Response

The Rainfed Resources Development Program was initiated to assist the GRP in developing institutional capacities and policy frameworks to support a community-based approach to management of land and water resources in rainfed areas. It is also intended to generate a sustained flow of new and adapted technologies both responsive to needs of small producers in these areas and compatible with the objective of arresting and, where possible, reversing environmental degradation. It is planned as AID's major initiative in assistance to Philippine development in natural resource management and agriculture over at least the next ten years, responding to the need for greater attention to development of renewable natural resources in non-irrigated areas.

The RRD is funding a series of activities through the Ministry of Agriculture, the Ministry of Natural Resources, and the Philippine Council for Agriculture and Resources Research and Development (PCARRD), intended to focus government attention on the resource management needs of rainfed areas. These activities will provide a data base for policy discussions; develop systems for generation of agricultural technologies responsive to the needs of rainfed farmers and artisanal fishermen; develop viable approaches to community-based

^{1/} Lanley, J.P. 1981. Forest Resources of Tropical Asia. Tropical Forest Resources Assessment Project. FAO Technical Report No. 3 Rome, 475 pp.

resource management supportive of effective private initiative by individual small producers; and, develop capacities at both regional and national levels to support expanded application of these new approaches. The program consists of three distinct yet mutually supportive components:

1. Resource monitoring and policy analysis: The RRD is assisting the MNR and MA in developing capacities to: a) monitor the extent, condition, and productivity of renewable natural resources; b) assess the present and future demands on these resources arising both from populations which depend directly on them for their livelihoods and from requirements to supply national markets; c) carry out directly or through contracts analyses of important policy issues; and d) establish effective systems to utilize the data generated to develop responsive national policies. Initial policy studies will be concerned with such areas as land and water access rights, availability and productivity of factor inputs, commodity pricing, and market development. The results of these studies will be combined with information and experience generated by other project components to make the GRP more effective in formulating policies supportive of productive, community-based resource management programs.
2. Biotechnical research: RRD funds are being provided to support a program of basic and applied agricultural research coordinated by PCARRD, carried out by national and regional level Philippine institutions, and addressed to the needs of small producers in settled forest, rainfed agricultural, and coastal zones. The research topics are being selected in accordance with priorities and criteria established by the MNR and MA in consonance with national research priorities under PCARRD's coordination.

Research funds are to be used primarily for developing agricultural production technologies with the potential for increasing small producers' output and income on a sustainable basis. Such technologies will enable increased yields, lower unit production costs, and higher cropping intensities.

Additional funds from this component are being provided for a limited amount of research equipment and for "strengthening grants" to selected participating institutions. These grants are intended to build the capacity of Philippine research and teaching institutions to develop capacities responsive to the needs of the small rainfed producer.

3. Community-based resource management programs: The RRD will support MA and MNR efforts to develop and test new, community-based approaches to natural resource management while simultaneously developing institutional capacities to support their broader application. The need for such approaches is indicated by the failure of centralized management to accomplish either production or conservation objectives in rainfed areas, especially the uplands.

RRD funds are supporting implementation of three major activities within the component, i.e. Agroforestation Program Development, Farming Systems Development-Bicol, and Management Systems Development. The focus of all these activities is on enabling the MA and MNR to become more responsive to their clients through a learning process based directly or indirectly on field-based experience.

D. Prior AID Assistance for Agricultural Research

AID has been assisting the Philippines in strengthening its agricultural research capacity since 1975. In that year the Agricultural Research I Project was initiated with the primary objective of improving the agricultural research capability of four major research centers in Regions III, V, VI, and XI. This represented an attempt to expand research capability beyond the Los Banos-Manila area, where it had been concentrated, to other regions. A secondary objective was to strengthen the leadership role of PCARRD, the project implementing agency, in the administration and management of agricultural research resources. In 1979 a follow-on Agricultural Research II Project, also managed by PCARRD, was initiated to improve the research capability of an additional six research centers in Regions I, II, IV, VIII, and XII. The project was also aimed at further developing PCARRD's research administration and management capacity. The major inputs financed by both projects were infrastructure, equipment, and training.

III. Rainfed Resource Research Rationale

The AID Agricultural Research I (1975-80) and Agricultural Research II (1979-1984) projects have helped to establish significant capacity in the PCARRD network to carry out basic and applied agricultural research. However, the orientation of this capacity has been toward crops grown primarily in the lowlands, especially the major grains (rice and corn) and the major export crops (sugar, coconut and coconut products, and fiber crops). Less emphasis has been placed on the agriculture of the uplands and coastal zone, including fisheries, and on developing production technologies which conserve the soil, water, and forests. In addition, and as PCARRD acknowledges, there has been insufficient recognition of the need for a resource-based (rather than single-commodity) approach to research in areas where farming systems are complex (and this is the rule in rainfed areas).

The Biotechnical Research component of the RRD is intended to strengthen the PCARRD network's capacity to respond to the needs of small producers in rainfed areas for technologies which are both more productive and protective of the natural resource base. This is to be accomplished through greater investments in research and a shift to a resource-based (or farming systems) approach to the conduct of research.

The initial obligation of funds for the RRD included a modest \$1.545 million for biotechnical (agricultural) research. These funds were intended to finance the initial research program to be developed by PCARRD with further funding for biotechnical research dependent upon the formal completion of arrangements for management of the research program through the PCARRD network. These steps have now been completed, and an initial research program proposal has been developed at a requested funding level of \$2.55 million.

In our judgment, the initial \$1.545 million for biotechnical research needs to be substantially augmented in order to adequately fund (a) high priority research projects over the coming five years and (b) supporting activities such as training and expansion of research sites to new agroclimatic and socioeconomic environments. Annual funding requirements for both research and supporting activities can be expected to increase rapidly as the initial PCARRD research program is implemented, gaps in that program are filled in,^{2/} and new research needs and opportunities are identified as the result of the first cycle of RRD-financed farming systems research and agroforestry pilots. Part of the additional funding will be needed to support research in Regions I and II, which are to be added to the program's current geographic coverage of Regions V, VI, and VIII.

Based on the foregoing assessment, USAID recommends that \$10 million in AID funds be added to the Biotechnical Research component of the RRD. Authorization of the additional amount will further the CDSS objective of capitalizing on existing Philippine research capacity and the RRD objective of reorienting the research strategy of the Philippine research system toward a resource-based approach in rainfed areas. It will also respond to the AID policy emphases on support of agricultural research and natural resource conservation programs. Most important, however, it will provide the resources needed to expand significantly the research upon which development of more productive and resource-saving technologies for the rainfed areas depends.

IV. Detailed Description

A. Grants-in-Aid for Biotechnical Research (\$4.2 million AID; \$1.2 million GRP)

Funds provided through the RRR add-on will permit an expansion of the PCARRD-coordinated RRD agricultural research program. Following procedures already established in PCARRD and RRD, PCARRD will make grants-in-aid to qualifying institutions in Regions I, II, V, VI, and VIII for applied and basic research related to rainfed agriculture and coastal zone management. Funding decisions will be

^{2/} One important area not presently covered is tree species research, including soil-site relationships. The need for such research is indicated by the numerous Ipil-ipil plantation failures that have occurred as the result of planting Ipil-ipil at elevations and in soils to which it is not well adapted.

based upon the quality of proposals and their relevance to RRD and national research priorities. Research outputs are expected to include primarily area-specific benchmark data and results of technology tests. A discussion of the major research areas follows:

1. Rainfed Lands Research (\$3 million AID; \$1.2 million GRP)

RRR-financed rainfed lands research will complement and support on-going farming systems (including agroforestry) research in the RRD, specifically the Farming Systems Development-Bicol and Agroforestation Pilots activities under the Resource Management Program Development component of the program. The RRR add-on will finance an expansion of farming systems research into new agroclimatic and socioeconomic environments. It will also provide the means to conduct more basic research, specific needs for which will be identified as the result of the farming systems research and other programs. Basic research may be conducted in such areas as pest management, plant breeding, and soils.

a) Farming systems

RRD farming systems research procedures entail: developing criteria for selection of research sites, selecting the sites, inventorying and characterizing farm systems and land use practices in the area of each site, evaluating constraints to and opportunities for increasing agricultural and household productivity based upon analyses of agroclimatic characteristics (soil fertility, acidity, and susceptibility to soil erosion; water availability, pest problems, etc.) and socioeconomic factors (availability of household labor, opportunities for off-farm and non-farm employment, availability of markets and market infrastructure, security of land tenure, etc.); determining which constraints are most impeding gains in productivity (or which factors are most responsible for falling productivity or resource depletion) and which of these are most likely to be alleviated through research in the short and long term; carrying out on site and/or off site the types of research identified as having high potential pay-off, evaluating and disseminating the research results, and using these findings to identify future research activities.

The management approach stresses farmer participation at all stages of the process and fielding of interdisciplinary research/extension teams with strong links to upland communities as well as line agencies (MA, MNR) and the research institution itself.

The RRD is providing the means for significantly greater research in the uplands, particularly for agroforestry research. The need is indicated by the fact that PCARRD's research centers and stations in Regions I, II, V, VI, and VIII are located for the most part in the lowlands. Their research has been concentrated on irrigated crops, rainfed crops grown on land of less than 20 percent slope, and plantation crops. The rainfed uplands have received little research attention and consequently understanding of current production practices, constraints, and potentials of these areas is fragmentary. It is clear, however, that current land use practices are seriously damaging the soil, water, and forest resources of the uplands, with costly environmental and economic consequences not only there but in the lowlands and coastal zones as well. Therefore, a research strategy for the uplands must be as concerned with ways to conserve natural resources as with increasing their productivity. This strategy will likely involve application of farming systems research methods to the broader problems of watershed management. In this respect, such issues as access to public lands and incentives for conserving resources will need to be taken into account.

b) Agro-technology Transfer

Over the past five years the University of Hawaii and several developing country research institutions, including PCARRD, have collaborated through the AID-supported Benchmark Soils Project (BSP) to test an important hypothesis: that a specific production function for a given crop (e.g. the relationship between yield of corn and supplemental N) or the agronomic performance of a specific cropping pattern at one location can be predicted to be similar at another location provided that the agroclimatic conditions at the two locations are similar. Recently completed, the BSP validated this hypothesis through research involving three tropical soil families on 23 experimental sites in Brazil, Cameroon, Hawaii, Indonesia, Philippines, and Puerto Rico. The project also established the fact that the soil family as defined in Soil Taxonomy stratifies agronomic environments into similar agroclimatic areas sufficiently to enable agricultural extension agencies to promote the transfer of agricultural technologies among different sites having soils that are members of the same family. Once developed, these technologies can be transferred not only among locations within a country but from one tropical region to another on the basis of Soil Taxonomy at the soil family level of classification.

These findings should greatly facilitate farming systems research in the Philippines by making it possible to predict how well a production technology already tested at one site would perform at a new site with similar soils. Specifically, by applying the results of prior work at a BSP site, scientists should be able to substantially reduce the range of technologies to be tested at a farming systems site (and also reduce the time and cost involved) since they already know which agronomic technologies are not at all feasible and which have a high potential for success for that particular soil family. They should then be able to give greater attention at the site to the other major element of the farming system -- the human element.

It is proposed that the BSP experiment sites in Region V which were used to test the technology transfer hypothesis be made available for RRD research when the BSP ends in June 1983. These sites are well characterized and the cropping management history of each experimental block is well documented. It is also proposed that several new sites of two to three hectares each (perhaps four or five in Regions I, II, V, VI, and VIII) be established by PCARRD's cooperating institutions in areas of major soil types. Prior to beginning RRD-financed research at any of these sites, minimum agroclimatic and socioeconomic data sets will be prepared, if not already available, for each site. There should also be a mechanism developed to coordinate the selection of BSP sites with the on-going and planned farming system research projects within the Philippines.

2. Coastal Zone Research (\$1.1 million AID; \$0.4 million GRP)

Research in this area will be directed at the general problems of improving management of fisheries and other coastal resources, and improving the livelihood of coastal fishermen. It will complement the research carried out under RRD's Fish Stock Assessment activity, which is part of the Resource Monitoring/Policy Analysis component.

The research program will need to consider the full range of factors influencing development of the coastal zone. Major objectives will be as follows:

- a) To improve understanding of the socioeconomic status and survival strategies of coastal fishermen, including how these strategies impact on the productivity and integrity of coastal resources.
- b) To develop income-enhancing technologies that will relieve pressure on heavily exploited coastal fisheries. Such technologies may include integrated fish-agriculture farming systems, improved fish processing methods, and various types of mariculture.

- c) To improve understanding of the factors essential to the success of fisheries cooperatives. This may involve case studies of successful and unsuccessful coops.
- d) To improve understanding of the ecology of the coastal zone.

B. Strengthening Research Capability

1. Training (\$1.11 million AID)

If the MA and MNR are to develop effective programs of rainfed area development, they and supporting research institutions must have personnel trained to meet the special requirements of such programs. One such requirement is that researchers, extension agents, and management personnel at various administrative levels understand and be able to apply farming systems approaches to research and development. This, in turn, will require that workers trained in narrow technical disciplines broaden their understanding of other subjects related to rainfed area development, such as how to work as members of constructing research teams and how to involve farmers meaningfully in on-farm research. Such workers will also need to learn the fundamentals of agricultural production and social sciences in which they are not trained.

Funds provided through the RRR will supplement those already available for training under RRD. The additional funds will finance formal short- and long-term degree and non-degree training as well as trainee participation in workshops and study tours. Whenever possible, these training activities will be carried out in the Philippines. However, a limited amount of third country and U.S. training, including seminars, conferences, as well as formal training courses, will also be financed as appropriate.

At this time it is possible to describe RRR-funded training activities only in general terms. Specific needs will be identified in the course of RRD implementation and will be set forth in the Ministries' annual training programs. PCARRD will assist the MA and MNR in this process as well as in determining sources of training within the Philippines. Priority areas for training are likely to include farming systems, agroforestry, watershed management, agricultural economics, fisheries stock monitoring and management, and community level management and organization. Some personnel will also probably need to be trained in data management in support of the activities described in Section IV-C.

2. Facilities and Equipment (\$2.7 million AID)

A limited amount of funds will be made available for research facilities and equipment. These will be physically located near on-farm or other off-station research sites managed by PCARRD's Research Centers and cooperating stations and will be used primarily to support farming systems and agroforestry research in the uplands. Some facilities and equipment will likely be provided to the Forest Research Institute, which is in the process of consolidating its resources to address more efficiently problem areas in forestry and in the uplands. However, final decisions about types and specifications of facilities and equipment, where they should be located, and which research institutions and stations should receive them will be based upon project experience and PCARRD's assessment of the capacities of these entities and their potential for promoting RRD objectives. No funds will be approved for facilities and equipment without an acceptable analysis and justification of need, and a plan of use. For equipment this will include adequate specifications and a verification that space, maintenance, and use capability requirements will be met.

3. Technical Assistance (\$0.88 million AID)

The RRD currently has no funds in the budget for technical assistance to PCARRD and its network. It is now anticipated, however, that some short-term technical assistance needed in order to facilitate program implementation. Services will be acquired from within the Philippines unless the required expertise is not available locally.

Specific technical assistance needs will be identified as program implementation proceeds. However, it already appears that PCARRD may require assistance in: (1) data management, especially the collection, analysis, storage, and retrieval from the computer of minimum sets of information needed to guide planning for upland research and development; (2) preparation of maps providing profiles of agroclimatic characteristics (soil types, topography, rainfall, etc.), land productivity, hydrologic characteristics, current land use patterns, population concentrations, etc.; and (3) monitoring and evaluation of rainfed research projects.

4. Strengthening Grants (\$0.4 million AID)

A portion of the funds from the Biotechnical Research component is available to assist and encourage local research and educational institutions to develop research capacities responsive to the needs of small producers in rainfed areas. Strengthening grants will be provided to qualifying institutions for this purpose. The RRR add-on will enable PCARRD to make additional strengthening grants, such as to enable a regional

college of agriculture to establish a capacity to teach farming systems research methods to its students. These grants may be used for acquisition of equipment, non-degree training for research staff, and in-country thesis research. They may not be used for construction of new facilities, salaries and operating expenses for existing programs, or establishment of new research stations.

5. Planning and Implementation Workshops (\$0.19 million AID)

RRD will finance a series of PCARRD-sponsored RRD workshops at the national, regional, and provincial levels. These workshops will be directed at confirming or, as appropriate, redefining rainfed research priorities based upon the stream of research findings emerging from RRD and other sources. Research priorities will be expressed in terms of proposed funding allocations. The workshop will also be used to discuss means for improving the implementation of the Biotechnical Research component of RRD, particularly as this relates to making research activities most responsive to MA and MNR client groups and to GRP policy makers.

Workshop participants will include researchers, program managers, and extension personnel from national and regional government agencies as well as representatives from private business, private voluntary organizations, and groups of farmers and fishermen. Workshop agenda will be drawn up by PCARRD in collaboration with the MA and MNR Technical Coordinating Committees (TCC's).

C. Data Management (\$0.62 million AID)

Although such agencies as the Bureaus of Agricultural Economics, Plant Industry, Forest Development, and Fisheries and Aquatic Resources routinely collect socioeconomic and resource management-related data, these data are often not available to end users, especially outside of Manila, or are not organized and presented in a manner which is very useful for program planning or implementation. In addition, research results tend not to reach agencies and individuals who could make good use of them. These problems are more serious for rainfed than irrigated areas due in part to the low priority which rainfed agriculture has received until recently.

Funds provided through the RRR add-on will help to establish a data management system designed specifically to support implementation of the RRD by the MA and MNR. PCARRD will coordinate this activity, which will include designing and installing a computerized data storage and retrieval system(s) and disseminating information in raw or processed form (reports, etc.) to those who need it throughout the Philippines. While PCARRD itself will perform these clearing house functions, taking advantage of its newly acquired computer system,

the design will also emphasize building up the data management capacities of the Ministries at the regional and perhaps subregional levels. Among other things, this may involve the use of microcomputers. Decentralization of data management will further the GRP's objective of increasing the Ministries' capacities in the regions to plan and carry out research and other development activities.

V. Administrative Arrangements

PCARRD will be responsible for coordinating the RRR-funded biotechnical research and research-related activities. PCARRD will perform this function in the same general manner as set forth in the RRD Project Agreement, Annex I, Section IIC Administrative Arrangements. Specifically, PCARRD will solicit, evaluate, and approve for funding research proposals based upon general programs of research developed jointly on an annual basis by PCARRD, the MA, and the MNR and approved by PCARRD's Governing Council and the RRD Steering Committee. Approval of these research programs (Annual Reservations) will depend upon their conformance with national and RRD-specific research priorities and criteria. PCARRD will also be responsible for disbursing funds for research and research-related activities, monitoring and evaluating these activities, and coordinating efforts to disseminate research findings and improve their utilization, e.g. through the workshop discussed in part IV B of this proposal.

Funds for the Biotechnical Research component of the program will be released to PCARRD upon approval by the SC and the Office of Budget and Management of the Annual Reservation.

VI. Budget

It is proposed that \$10 million for Rainfed Resources Research be added to the Biotechnical Research component of RRD, with an additional \$4 million to be contributed by the GOP. This is indicated in the revised RRD summary financial table (Table I).^{1/} An illustrative break-out of the \$14 million increment is provided in Table II.

^{1/} The summary financial table which appeared in the PROAG was revised slightly by the GRP when it prepared its Overall Plan for the first three years of the program. Thus, Table I differs from the PROAG financial table not only by the amount of the increment proposed here but also by the amount of the GRP's prior adjustment.

TABLE I

SUMMARY FINANCIAL TABLE^{1/}
(Thousand U.S. Dollars)

	IMPLTG. AGENCY	LOAN	AID GRANT	TOTAL	GRP	TOTAL
1. <u>Resource Monitoring/Policy Analysis</u>		<u>1,718</u>	<u>275</u>	<u>1,993</u>	<u>570</u>	<u>2,563</u>
a. MA Policy Studies	MA	568	150	718	150	868
b. MNR Policy Studies	MNR	400	125	525	150	675
c. Fish Stock Assessment	MNR	750	-	750	270	1020
2. <u>Biotechnical Research</u>	PCARRD	<u>10,745</u>	<u>500</u>	<u>11,245</u>	<u>4,330</u>	<u>15,575</u>
	(Initial RRD)	(1,245)	(-)	(1,245)	(330)	(1,575)
	(RRR)	(9,500)	(500)	(10,000)	(4,000)	(14,000)
3. <u>Resource Management Program Development</u>		<u>4,085</u>	<u>1,150</u>	<u>5,235</u>	<u>2,470</u>	<u>7,705</u>
a. Agroforestation Pilots	MNR	1,400	-	1,400	555	1,955
b. Farming Systems-Bicol	MA	2,305	330	2,635	915	3,550
c. Management Systems Dev.	MA	350	475	825	625	1,450
	MNR	30	345	375	375	750
4. <u>Resource Institution Development</u>		<u>1,000</u>	<u>200</u>	<u>1,200</u>	<u>-</u>	<u>1,200</u>
	MA	500	100	600	-	600
	MNR	500	100	600	-	600
5. <u>Design/Evaluation Activities</u> (Coastal Zone Management, other RRD Activities)		<u>150</u>	<u>30</u>	<u>180</u>	<u>130</u>	<u>310</u>
	MA	75	15	90	65	155
	MNR	75	15	90	65	155
6. <u>Central Project Structure Operations</u>		<u>102</u>	<u>45</u>	<u>147</u>	<u>500</u>	<u>647</u>
	MA	52	20	72	250	322
	MNR	50	25	75	250	325
TOTAL		<u>17,800</u>	<u>2,200</u>	<u>20,000</u>	<u>8,000</u>	<u>28,000</u>

^{1/} RRR funds will be added only to item 2. Biotechnical Research. The row labelled "Initial RRD" under Biotechnical Research shows the AID and GRP contributions as they now appear in the Overall Plan (OP), an AID-approved GRP document based in part on Table I, Annex I of the Project Agreement. The row labelled "RRR" shows the funding increment proposed in this Concept Paper. The values shown under line items 1, 3, 4, 5, and 6 are identical to those shown in the OP.

TABLE II

RAINFED RESOURCES RESEARCH FINANCIAL TABLE (ILLUSTRATIVE)
(Thousand U.S. Dollars)

	AID		GRP	TOTAL
	LOAN	GRANT		
1. Research Grants-in-Aid	<u>4,100</u>		<u>1,600</u>	<u>5,700</u>
Rainfed Lands Research	3,000		1,200	4,200
Coastal Zone Research	1,100		400	1,500
2. Training	<u>1,110</u>			<u>1,110</u>
International (LT)	600			600
In-country academic (LT)	80			80
In-country short courses	250			250
Observational	180			180
3. Facilities (Field stations, site development)	<u>1,000</u>			<u>1,000</u>
4. Equipment	<u>1,700</u>			<u>1,700</u>
Ex-U.S.	1,360			1,360
Equipment	(1,000)			(1,000)
Vehicles	(360)			(360)
In-country	340			340
5. Technical Assistance	<u>380</u>	<u>500</u>		<u>880</u>
International		500		500
In-country	380			380
6. Strengthening Grants	<u>400</u>			<u>400</u>
7. Workshops	<u>190</u>			<u>190</u>
8. Data Management	<u>620</u>			<u>620</u>
9. Program Operation and Administration			<u>2,400</u>	<u>2,400</u>
TOTAL	<u>9,500</u>	<u>500</u>	<u>4,000</u>	<u>14,000</u>

-16-

ACTION MEMORANDUM FOR THE DIRECTOR

Date: September 19, 1983

THRU : Mr. George A. Laudato
Acting Deputy Director

GL Laudato
RJ Edwards

FROM : Ralph J. Edwards, Chief, ORAD

SUBJECT : Justification to Amend the Authorization for Rainfed Resources Development Project to Add \$10.0 Million - \$9.5 Million Loan and \$.5 Million Grant

I. Problem

Your signature is needed on the attached Project Authorization Amendment for the Rainfed Resources Development Project to add \$10.0 million to the Biotechnical Research Component of the Project.

II. Discussion

The Rainfed Resources Development Project is assisting the Government of the Republic of the Philippines in developing institutional capacities and policy frameworks to support a community-based approach to land and water resource management in settled upland forest, rainfed agricultural areas, and coastal zones. The GRP has requested that USAID increase the funding for the Biotechnical Research Component of the Project to enable the Philippine Council for Agriculture and Resources Research and Development (PCARRD) and its network of cooperating institutions to respond more adequately to the needs of small producers in rainfed areas for technologies which are both more productive and protective of the natural resource base. The attached Concept Paper which adds \$10.0 million (\$9.5 million loan, .5 million grant) to the biotechnical research component of the project was reviewed and approved by the Mission on July 22, 1983.

III. Delegated Authority

Pursuant to Delegation of Authority 133.1 as revised on April 15, 1982 (per STATE cable 106150 dated April 21, 1982), you have the authority to amend a project authorization if it:

- (1) does not result in a LCP funding of more than \$30 million;
- (2) does not present significant policy issues; and
- (3) does not require issuance of any waivers that may only be approved by AID/W.

This authorization amendment fits within this delegated authority. The attached Concept Paper shall have the effect of an amendment to the Project Paper. State Cable 213821 delegates to the Mission the authority to sign the amended authorization. The procedures utilized by the Mission for this add-on to RRD are also in accordance with State Cable 199371 which establishes the procedures for project amendment notification to AID/Washington.

IV. Recommendation

That you sign the attached Project Authorization Amendment No. 1 for the Rainfed Resources Development Project which adds \$10.0 million to the authorized amount of the project to accelerate activities under the biotechnical research component of the project as described in the attached Concept Paper.

Clearances: PO:RRhoda RR
OOD:JFennert JF
CO:KCollamer KC
CPH:JBunn JB
OLA:JMiller JM
FFWC:BCarter BC
OD/E:LErvin LE
OD/P:PDavis PD

18

PROJECT AUTHORIZATION AMENDMENT NO. 1

Name of Country: Philippines Name of Project : Rainfed Resources
Development

Number of Project: 492-0366

1. Pursuant to Section 103 of the Foreign Assistance Act of 1961, as amended and in accordance with my authority as delegated by Redelegation of Authority 133.1, as amended on April 15, 1982, I hereby amend the Project Authorization for the Rainfed Resources Development Project for the Republic of the Philippines to increase the level of planned grant obligations to \$2.2 million and loan to \$17.8 million by adding \$.5 million grant and \$9.5 million loan with this amendment. These funds will be used to accelerate activities under the Biotechnical research component of the project. Funds, in the amount authorized herein, may be added to the Project at any time during the extended life of the Project which is planned, at this date, to be through September 30, 1989.
2. All other terms and conditions of the original authorization dated September 8, 1982 shall remain in full force and effect.

Anthony M. Schwarzwald
Anthony M. Schwarzwald

21 Sept. '83
Date



REPUBLIC OF THE PHILIPPINES
NATIONAL ECONOMIC AND DEVELOPMENT AUTHORITY

NEDA 34 Pasig, Amber Avenue
Pasig, Metro Manila

ANNEX B

Cable Address: NEDAPHIL
P.O. Box 419, Greenhills
Tels. 673-50-31 to 50

9-225
RECEIVED

SEP 26 4 14 PM '83

USAID/C&R

21 September 1983

Mr. Anthony M. Schwarzwalder
Director, USAID Mission
Manila

Subject: Rainfed Resources Development Project
AID Loan No. 492-T-068

DIV	ACT	TIME
OD		✓
E		
PE		
RLA		✓
PO		✓
TD		
EO		
PER		
CSD		
LOG		
GSO		
TRV		
CO		✓
DMD		✓
OCD		✓
CRAN		✓
OPHN		
CEFPYC		
RIG/A		
RIG/II		
AR		
DUE DATE		
		10-6-83

Dear Mr. Schwarzwalder,

This has reference to the Concept Paper on the Rainfed Resources Research of the subject Project justifying the expansion of the biotechnical research component and supporting activities over the next five (5) years.

I am pleased to inform you that this Office finds the Concept Paper acceptable and hereby requests additional USAID assistance in the amount of \$10.0 million consisting of \$9.5 million in loan funds and \$0.5 million in grant funds.

Sincerely yours,

Vicente B. Valdepeñas, Jr.
VICENTE B. VALDEPEÑAS, JR.
Minister for Economic Planning
Director-General

ACTION TAKEN	
MAN	Other
Type	No.
Name	Initials
10/6/83	TP/...