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DEPARTMENT OF STATE  
AGENCY FOR INTERNATIONAL DEVELOPMENT  
Washington, D.C. 20523

PROJECT PAPER

Proposal and Recommendations  
For the Review of the  
Development Loan Committee

122p.

PHILIPPINES LIBMANAN/CABUSAO INTEGRATED  
AREA DEVELOPMENT PROJECT

AID-DLC/P 2108

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06/02/75



**DEPARTMENT OF STATE**  
**AGENCY FOR INTERNATIONAL DEVELOPMENT**  
WASHINGTON, D.C. 20523

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AID-DLC/P 2108

June 17, 1975

MEMORANDUM FOR THE DEVELOPMENT LOAN COMMITTEE

SUBJECT: Philippines: Libmanan/Cabusao Integrated  
Area Development Project Loan

Attached for your review are the recommendations for authorization of a loan to the Government of the Republic of the Philippines ("Borrower") acting through the National Economic and Development Authority with the Bicol River Basin Council as the executing agency, of not to exceed Three Million Five Hundred Thousand Dollars (\$3,500,000).

The proceeds of this loan will be used to increase the production of rice and in turn farm income in the project area through provision in an integrated and systematic fashion major sectoral inputs in irrigation, drainage, transport, technology, land reform and improvements in farm and farmer organizational structure. This will be accomplished by financing the foreign exchange component of the project and as agreed upon portion of the peso costs.

No meeting is scheduled for this proposal. However, please advise us of your concurrence or objection as early as possible, but in no event later than close of business on Wednesday, June 25, 1975. If you are a voting member a poll sheet has been enclosed for your response.

Development Loan Committee  
Office of Development  
Program Review

Attachments:

Summary and Recommendations  
Project Analysis  
Annex A - G

NOTE: The Environmental Impact Statement, and pertinent economic analysis backup will be distributed to the DLC at a later date.

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Overview

For two years AID has been working closely with the Philippine Government in its first major attempt to implement and evaluate an integrated area development project. The joint GOP-AID commitment to this program is set forth in Grant Project No. 492-55-199-260 (PROP) which uses the Bicol River Basin as the first development area. Funding for studies, training, commodities and consultant services have been provided to date as follows:

	AID	GOP
Pro Ag 74-09	\$ 349,000	₱ 14,425,600
Pro Ag 75-09	\$ 324,000	3,474,000
(US\$1 ₱7.00)		

Now, after working jointly with AID for two years on institutional development, training and project planning, the GOP is ready to embark upon implementation of the first "Micro" Integrated Area Development (IAD) project - the proposed Libmanan/Cabusao project. This first project will be treated as a pilot effort, and as such, it will be continually monitored with evaluation feedback for program improvements. The Corrected model will then be replicated throughout the basin, and hopefully, throughout the country.

To provide testing of all assumptions of integrated development before undertaking the full program, implementation of the Libmanan/Cabusao IAD project becomes a "key" part of the program and must not be delayed. But first, an overview of the Bicol River Basin Development Project should be helpful in understanding how this proposed project fits into the overall program.

Traditionally, Philippine development plans have been heavily skewed to national economic development where growth in GNP has been the overriding development criterion; growth has been obtained largely at the expense of social welfare which increased the disparity between the rich and poor. To correct this problem, the Bicol River Basin Development Program was instituted and represents the first integrated area development program to be brought to the point of implementation under the Governments' area approach planning criteria.

The first step taken to formalize the Bicol project was the issuance of Executive Order No. 412 (Annex A) which created the Bicol River Basin Council (BRBC). To assure interagency participation, the BRBC was established with the Secretary of Public Works, Transportation and Communications as Board Chairman and with members as follows:

- As Chairman - The Secretary of Public Works, Transportation and Communications
- As Members - The Secretary of Agriculture and Natural Resources
- The Secretary of Agrarian Reform
- The Secretary of Local Government and Community Development
- The Director-General of the National Economic and Development Authority
- The Provincial Governor of Camarines Sur, and
- The Executive Director of the Council, ex-officio

The BRBC, working through its Program Office, developed a program to carry out the development directives explicit in Executive Order 412. This Program Office, working in close harmony with USAID, set the following schedule for project implementation:

1. Water Resources Program by FY 1978.
2. Secondary and Feeder Roads Program by FY 76.
3. Inter-modal Transport Program by FY 1979.
4. Agribusiness Program covering three agribusiness industries
5. Agribusiness Program covering all remaining industries and commodities by FY 78.
6. Basinwide Compact Farm Program by FY 76.
7. Basinwide Crop Development Program by FY 77.
8. Basinwide Livestock Program by FY 76.
9. Basinwide Fisheries Program by FY 78.
10. Basinwide Farm Mechanization Program by FY 77.
11. Agriculture College Improvement Program by FY 77.
12. Basinwide Health and Nutrition Program by FY 77.
13. Municipality Based Integrated Area Development Program:
  - a) Libmanan/Cabusao IAD project by FY 76.
  - b) Five additional municipal Based IAD project by FY 79.

Completion of the above would provide a well rounded area development program.

The intent of this proposal is that funds be made available immediately to implement, on a small scale, key programs planned for the basin as a whole. The BRBC staff has completed a feasibility study on this project, a design and construction monitoring staff is mobilized and the GOP has told the potential beneficiaries that the government is ready to assist them in development. Any delay in project implementation will result in loss of GOP credibility, loss of project momentum (through disbanding of seconded staff) and delay of a critical path event.

## PART I

### SUMMARY AND RECOMMENDATIONS

#### A. Project Summary

The Libmanan/Cabusao Integrated Area Development Project, which is outlined and appraised in this report, represents an attempt by the GOP's Bicol River Basin Council to further refine and extend to the municipality level the basic policy, planning and management principles which underlie the 312,000-hectare Bicol River Basin Development Program, now in its second year of operation.

##### 1. Project Purpose

The purpose of the project is to:

develop a management system and organizational structure which will enable municipal leaders and residents of Libmanan/Cabusao, along with national and provincial level agencies, to meaningfully participate in the planning and execution of the Bicol River Basin programs which affect the socio-economic structure of the two municipalities over time, and working through this management system;

implement an Integrated Area Development Project covering 3,873 hectares in the municipalities of Libmanan and Cabusao. The project will increase cropping intensity to at least two (2) rice crops per year and will measurably increase yields per hectare through the systematic interaction of improved irrigation, drainage, and water management facilities, and through improvements in farm level organization, farm practices, extension services, transport, land tenure arrangements of project farmers, and marketing services.

##### 2. Project Description

The project involves the concurrent and tightly coordinated implementation of five major sub-projects within the 3,873 hectares project area. A sixth project, involving the consolidation of farm lands, will be implemented as part of the project's second phase which will begin upon completion of the project's basic infrastructure. The implementation of these various activities, under the unified management of an interagency Area Development Team, is expected to raise rice

productivity from the current average of 1.5 m.t. per hectare/season to 4.25 m.t. per hectare/season over a six-year period. By the sixth year of the project, net farm household income is projected to reach ₱4,000 (\$571) for 523 farm families and ₱5,000 (\$714) per annum for 1820 farm families in the project area. To achieve these production and income targets, a total project cost of ₱53 million (\$6.73 million) will be required. As proposed A.I.D. would provide a loan of \$3.5 million, representing 47% of the total project costs and a grant of \$275,000.

B. Borrower and Executing Agency

The borrower will be the Government of the Philippines (GOP). The Executing Agency will be the Bicol River Basin Council (BRBC) through its Program Office. The Bicol River Basin Council was created by Executive Order 412 on May 7, 1973 (see Annex A).

C. Guaranty

This section does not apply

D. Loan and Grant

1. Total Project Cost (see Table 1).

a. Amount of AID Assistance

(ii) Loan

Foreign Exchange Commodity Construction Equipment	\$1,800,000	
Office & field Equipment (including vehicles)	457,000	
Irrigator Assoc. Maintenance Equipment	150,000	
Pump sets & Motor Controls	140,000	
	<u>\$2,547,000</u>	
Local Currency Costs (Fixed Amount Reimbursement)	953,000	
Loan Total		<u>\$3,500,000</u>

(ii) Grant Technical Assistance

A & E Final Design Consultancy	\$ 75,000	
Rice Technology Contract	200,000	
Grant Total		<u>\$ 275,000</u>

Total AID Assistance \$3,775,000

TABLE 1: PROJECT INPUTS

A. Total Project Cost <u>1/</u> (P000)	Total (in P)	Total (\$ equivalent in \$000) <u>3/</u>	YEAR						Total
			1	2	3	4	5	6	
1. Irrigation, Drainage, and Service Roads									
- investment	45,730	6,533	27,913	11,206	5,773	838			45,730
- O&M <u>2/</u>	-	-					(770)	(770)	
2. Land Reform									
- investment	170	24	170						170
- O&M			38	23	23	23	23	23	153
3. Compact Farm and Extension Service Development									
- investment	444	63	444						444
- O&M			175	179	179	82	82	82	779
4. Applied Research									
- investment	441	63	441						441
- O&M			87	86	89	100	103	103	563
5. Organization and Management									
- investment	641	92	641					100	741
- O&M			36	30	30	30	30	35	191
- overhead			482	559	559	559	559	559	3,277
6. Total									
- investment	47,426	6,775	29,609	11,206	5,773	838	-	-	47,426
- O&M			336	318	321	235	238	238	1,636
- overhead			492	559	559	559	559	559	3,277
<b>Grand Total</b>			<b>30,427</b>	<b>12,083</b>	<b>6,653</b>	<b>1,632</b>	<b>797</b>	<b>797</b>	<b>52,389</b>

1/ Aggregate summation of initial six-year costs

2/ Non-add costs to be shouldered by Irrigators Association

3/ Exchange Rate: ₱7.00 = \$1.00

3. GOP Contribution

The Government input would aggregate P27.9 million (\$ equivalent = \$3.98 million) over a six-year time frame. Table 2 presents the itemized GOP inputs.

Table 2

Libmanan/Cabusao Integrated Area Development Project  
(GOP Contribution in P000)

Item	1	2	3	4	5	6	Total
Investment	8,260	8,056	5,773	838	-	100	23,027
O&M	336	318	321	235	238	238	1,686
Overhead	482	559	559	559	559	559	3,277

E. Recommendation: It is recommended that a loan of \$3.5 million and a Technical Assistance Grant of \$275,000 be authorized and approved for implementation over a three-year period beginning July, 1975.

Capital Assistance Committee Members

USAID

Chairman	Richard Dangler
Loan Officer	Thomas E. Johnson
Project Manager	Douglas L. Tinsler
Program Officer	Robert Halligan

AID/W

Chairman	Milburn Pehl
Loan Officer	Elmer Lee
Desk Officer	Wade Hall
Agriculture Advisor	John Foti
Engineer	Joseph Howe
Attorney	Stephen R. Tisa

PROJECT JUSTIFICATION, DESCRIPTION, AND APPRAISAL

A. Project Background and Justification

1. Background: The Planning and Management Context

The original development plan prepared by the GOP for the Bicol River Basin, articulated a number of planning precepts which have come to form the foundation of the Bicol River Basin Program's planning and management philosophy. These precepts were originally articulated by Government planners in the course of defining and subsequently justifying the Government's approach to integrated area development in agriculturally-based rural areas. Over the past twenty months, Bicol River Basin Council planners have refined these precepts and extended their application to the planning of sub-regions of the Bicol River Basin. The Libmanan/Cabusao Integrated Area Development Project represents the initial attempt by the BRBC to give concrete effect to these planning and management precepts at the sub-basin level. The success or failure of the Libmanan/Cabusao Integrated Area Development Project therefore, will have ramification beyond the delimited boundaries of the project itself, to the Bicol River Basin Program as a whole. The Libmanan/Cabusao Integrated Area Development Project is considered a pilot project by both the GOP and AID in the sense that the project will serve as a test case where the Basin's basic planning and management precepts will be substantiated or, if required, modified in the course of project execution.

These precepts are:

- a. That development efforts targeted on the rural sector should focus on delimited geographic areas of high growth potential and recognized socio-economic need, where incremental investments in infrastructure, agricultural and social services will yield maximum social and economic benefits.

The Bicol River Basin was selected by the GOP as the initial area for execution of an integrated, agriculturally oriented, area development project given the Basin's high growth prospects in a regional setting otherwise

characterized for its acute poverty and generally depressed economy relative to other regions of the country. 1/

In turn, the Libmanan/Cabusao area was in large part selected as the pilot site for the Basin's initial municipality based integrated area development effort given the fact that the area constitutes the largest contiguous area of first class (IK), but largely underdeveloped, rice hectarage within the River Basin watershed area. The Libmanan/Cabusao area accounts for twelve per cent (12%) of the 105,000 hectares planted to rice within the Basin's 39 municipalities.

Notwithstanding its potential, agricultural productivity is low (average rice yield = 1.5 metric tons per hectare) and poverty is acute (average annual family income = ₱3,090) relative to the rest of the River Basin because present government and private development efforts have been inadequate to tap the natural potential of the area. The BRBC plans to address these problems by concentrating resources in the area to the extent that they are economically justified.

- b. That development planning within the defined geographic areas of high growth potential should be integrated, cross-sectoral and interagency in nature.

The Bicol River Basin Council, through its management arm, is attempting to rationalize and integrate the planning and program activities of the different sectoral agencies of government operating within the geographic boundaries of the River Basin. This integration of sectoral programs is considered by the BRBC to be essential, since rural and agricultural development is a complex process requiring major simultaneous inputs in several sectors before significant changes in productivity and income can be affected.

Furthermore, the meshing of these sectoral plans and activities must take place at all levels of government. The Bicol River Basin Council has effectively brought

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1/ For a discussion of regional income disparities and the relative economic position of the Bicol Region vis-a-vis other regions of the country, see: "Current Economic Position and Prospect of the Philippines"; Report No. 568-PH; IBRD; Nov. 7, 1974, pp. 26-31.

the various agencies responsible for rural and agricultural development together at the sub-regional or basin level; the BRBC Libmanan/Cabusao Integrated Area Development Project will bring these sectoral agencies together at the field level into a permanent working relationship. In the last analysis, this field level relationship is where integration is most essential if the Government's objectives of increased agricultural productivity and increased income of the rural poor are to be achieved.

The failure to achieve performance goals of the Government's major agricultural program in the Bicol - Masagana 99 - can, in large part be attributed to the ineffective coordination at the field level and bears out the need to more effectively integrate government services in the field. This opinion is summarized by the BRBC's Social Survey Research Unit (SSRU) which conducted an evaluation of ongoing government sponsored programs in the River Basin Area. The SSRU concluded:

"Beyond the above the production-technician question, there is what we consider an even more comprehensive problem. This is the way in which the government's rural programs are viewed relative to one another. With the one very significant, but vaguely conceived, exception of land reform, these programs (notably Masagana 99, compact farming and the Samahang Nayon) are perceived either as ends in themselves, on one hand, or as mere helping hands for other programs, on the other. The evidence we collected indicates that the government agents most closely involved in a program tend to exaggerate its importance, while those whose official commitment is elsewhere, are likely to play it down. The result is parallel, unfocused activity, and a defending of programs because they are there and they are ours." 2/

The Bicol River Basin Council, composed of all major sectoral agencies, was created in order to establish

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2/ Lynch, Frank, S.J. and Barrameda, J.V.; "The Masagana 99 Delivery System; How well does it work in Camarines Sur"; SSRU Research Report Series, No. 3; Feb. 1974; pp. 38-39.

the development objectives for the Bicol River Basin and to mesh the various government agencies into the permanent working relationship necessary to achieve these common development objectives and in so doing avoid the problems reported by the SSRU. This working relationship is now operational at the Basin-wide planning level. The Libmanan/Cabusao Integrated Area Development Project is the BRBC's concerted initial attempt to develop concepts, techniques and organizational forms required to harmonize the government's agricultural and infrastructure oriented efforts at the field level.

- c. That project planning and management should be decentralized to the greatest extent possible in order to maximize participation from all sectors in the development of the area.

This last premise - that of decentralized planning and management - is closely related to the second. Not only must the various governmental agency staff members learn to work together and reinforce one another's program in the field, they must also actively solicit the involvement and participation of local leaders and residents in the development process. This requires a basic psychological shift away from the concept that the government implements projects for the people of a given area rather than with the people. The Libmanan/Cabusao Project is an attempt by the Council to develop the organization and management structure and communication process required to maximize public participation in development.

In short, the general justification for extending the proposed AID technical and financial support to this BRBC project, is based on the importance of the project as a GOP test case in developing and refining planning and management techniques which effectively reach and involve the rural poor in the development process. In this sense the significance of this project to AID and to the GOP is not that approximately 2,330 small farm families will directly benefit from the project, but that a field level organizational structure and management system will be created and tested which, if found successful, will be applied throughout the Basin in support of similar projects ultimately affecting the lives of the majority of the Basin's 1,000,000 residents.

## 2. Project Justification

The unifying objective of the Bicol River Basin Program and in turn the Libmanan/Cabusao Integrated Area Development Project is to increase per capita income in the region. In particular, however, the Government in all its programs is not only concerned with increasing aggregate consumption but is also guided by the social objective of redistributing income from more favored to less favored groups within the society. The Bicol River Basin, located as it is in one of the more economically depressed regions of the country, is itself a manifestation of the government's interest in addressing the socio-economic disparity that exists between social classes and geographic regions of the country.

Accordingly, in evaluating projects for financing, Basin planners have recognized that the choice of a project on exclusively economic grounds may not be the best use of the country's limited resources if it perpetuates or does not significantly correct existing income disparities between regions and between social groups.

In this context, the area chosen for a project takes on added significance. To guide Basin planners in targeting those areas and population within the River Basin with greatest need, the Basin has arranged with its Social Survey Research Unit (SSRU) to generate data to enable, within the Basin watershed area, comparison of income, income distribution and employment levels and "quality of life" measures among different sub-regions of the Basin.

Outlined below is a brief agricultural and comparative socio-economic profile of the Libmanan/Cabusao sub-region of the Bicol River Basin which provides the justification, based on income, equity and employment considerations for implementing the project at this time.

### a. Agriculture

#### (1) Current situation

Although rice yields per hectare are low (average yield - 1.5 metric tons) the area has been a traditional rice surplus area given the extensive hectarage (approximately 12,000 hectares) devoted to rice production. Traditionally, 40% of the areas production has been exported to neighboring

market centers in Camarines Sur, Camarines Norte and Quezon Province. In 1960, the palay (rough rice) production of Libmanan/Cabusao topped all municipalities in the Bicol River Region. Historically, the Libmanan area has been known as the "Rice Bowl of the Bicol". However, by 1970 Libmanan had been displaced as the top rice producing municipality within the Basin by the municipalities of Bula and Pili.

Libmanan's prominence as a rice producing area has diminished for a number of reasons. These reasons are closely associated with the largely unplanned infusion of public and private sector investment in the Basin area. Most of these investments, if technically appraised at all, were analyzed only in terms of their localized impact and not in terms of their Basin wide impact. As a result, the Libmanan area, because of its location astride San Miguel Bay and the Bicol River Estuary, has been adversely affected. The major causative factors for Libmanan's economic decline are discussed in the following paragraphs.

Perhaps the single most important factor affecting rice production in the area has been the combined effect of the construction of two flood control channels along the Bicol River and the dramatically increased upstream use of pumps for irrigation purposes south of Naga City. The net impact of these developments has been a marked increase in saline intrusion in the Bicol Estuary and Libmanan River which has actually taken an existing irrigation pump out of operation in the Libmanan area and precluded further low cost development of pump irrigation to serve the area.

Secondly, the Sipocot/Barceloneta/Cabusao road which traverses the heart of the Libmanan/Cabusao rice-producing area was constructed without adequate cross-drainage facilities and over the years, the combined effect of poor drainage and the intrusion of salt water into the Bicol River Estuary and Libmanan River, as noted above, has exacerbated the rice production situation in the Libmanan area.

(2) Land Classification

Insofar as the immediate project area is concerned the BRBC commissioned the National Irrigation Administration, The Bureau of Public Works, and the Basin's Social Survey Research Unit, with the Bureau of Soils as the implementing agency, to conduct an economic land classification of the project area. U.S. Bureau of Reclamation standards for determining the irrigability suitability of the project lands were applied. Identification of arable lands was based on the degree and extent of flooding hazards and its effect on the yield of paddy rice. Estimates of these relationships were determined based on the design standards for drainage and irrigation proposed by the National Irrigation Administration for the project area.

Table 3 and Map 1 present the results of the land classification study for the adopted project facilities. 3/

In summary, with the adopted project facility scheme, the project area will contain 3,020 hectares of class 1R lands, 833 hectares of 2R land and 20 hectares of 3R land; 208 hectares will be required for right-of-way for project facilities.

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3/ Actually project lands were classified according to three alternative project engineering designs in order to determine the most economically viable irrigation and drainage package.

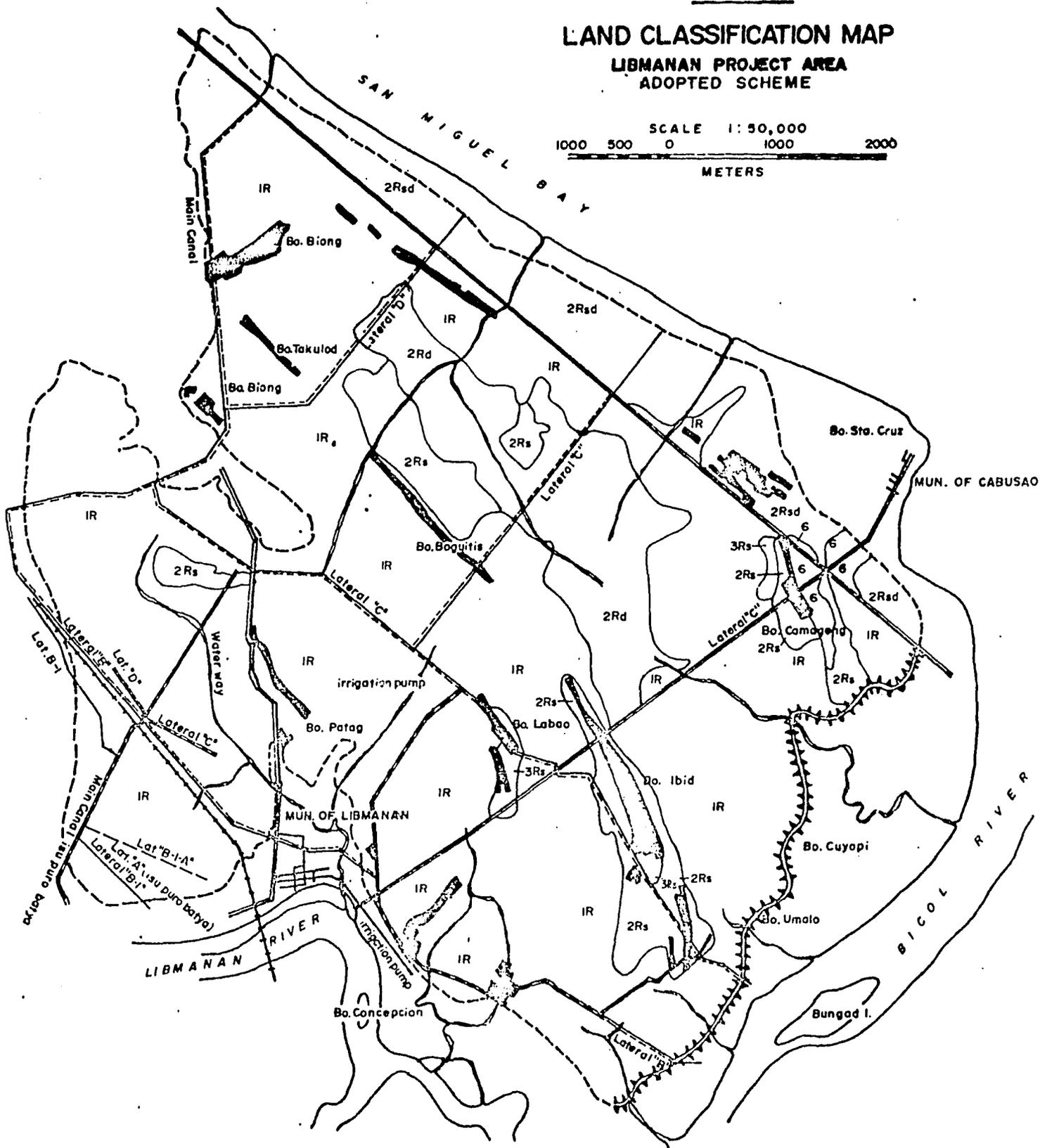
Table 3. Land classes under adopted scheme.

	LAND CLASS	GROSS AREA	NET AREA	YIELD REDUCTION (in percent)
	1R	3507.4	3000	7.5 during wet season
	1R	21	20	10 during wet season
	2Rs	114.2	89	15 during wet & dry season
	2Rsd	349	347	30 during wet season
	3Rs	23.3	20	30 during wet & dry season
	2Rd	434.9	397	30 during wet season
<b>TOTAL IRRIGABLE ARABLE LAND</b>		<b>4449.8</b>	<b>3873</b>	
Non-Arable Lands	6sd	54		
	6std	27		
	"H" lands	104.2		
	Road & Railroad	29.0		
<b>Total Area Surveyed</b>		<b>4664.0</b>	<b>3873</b>	

**M A P 1**

**LAND CLASSIFICATION MAP  
LIBMANAN PROJECT AREA  
ADOPTED SCHEME**

SCALE 1:50,000  
1000 500 0 1000 2000  
METERS



b. Population and Employment

There were in April 1974 929,000 people living within the Bicol River Basin (see Table 4). About two-thirds were at least 10 years of age, and hence, technically eligible for work. However, only 53% of those eligible were actually members of the labor force and of this sub-population, 7.7% (about 25,000) reported themselves as unemployed. Underemployment constituted 20.6% of the labor force or approximately 67,000 persons.

Looking specifically at the Libmanan/Cabusao area there was a combined population of 76,387 as of April 1974 (Table 4). Approximately, 63% of the population were at least 10 years of age, hence, technically eligible for work. However, only 52% of those eligible were actually members of the labor force and of this sub-population, 12% (about 2,970) reported themselves as unemployed. Sixty percent (60%) of the total active labor force was employed in agriculture. Underemployment figures were only available from the SSRU's Sipocot district which is comprised of six municipalities including Libmanan and Cabusao. The underemployment rate for the Sipocot district, a suitable surrogate for the Libmanan/Cabusao area in the absence of municipality specific data, was 18.7% or approximately 4,634 persons in the Libmanan/Cabusao area. Considering the objective of the River Basin Program to increase employment opportunities, Libmanan/Cabusao was given priority consideration given its high unemployment rate of 12% when compared to the Basinwide average of 7.7% and the large number of underemployed in the project area.

Table 5 amplifies the need for increased economic activity in the Libmanan/Cabusao area.

As of April 1974, the average annual family income in the Bicol River Basin was ₱3,828 (US\$547) compared with ₱3,089 (US\$441) for the Libmanan/Cabusao Area. As shown in Table 5, 83% of Libmanan/Cabusao households earned less than ₱5,000 per annum as compared with 80% for River Basin households in general. Relative to the rest of the Basin, residents of Libmanan/Cabusao are, income wise, less well off.

As expected the pattern of income distribution in the Basin correlates directly with other measures used by the SSRU to gauge socio-economic status. In particular,

**Table 4. Estimated population of the Bicol River Basin and selected areas, by labor-force categories (Camarines Sur, April 1974)**

Population and Sub-population	Bicol River Basin	Sipocot District	Municipalities of		
			Libmanan	Cabusao	Libmanan & Cabusao
a. Total population <u>a/</u>	929,900	189,404	66,090	10,297	76,387
b. Population 10 years of age and older <u>b/</u>	312,393	123,912	41,562	6,538	48,100
c. Population in the labor force	326,028	67,650	20,544	4,312	24,856
Labor force participation rate	52.8%	54.5%	49.4%	66%	51.7%
d. Population employed	127,037	63,350	17,764	4,120	21,884
Employment rate	92.3%	93.6%	86.5%	95.5%	88.0%
e. Population unemployed	24,843	4,300	2,780	192	2,972
Unemployed rate	7.7%	6.4%	13.5%	4.4%	12.0%
f. Population under-employed	67,334	12,650	3,844	790	4,634
Underemployed rate	20.6%	18.7%	18.7%	18.7% <u>c/</u>	18.7% <u>c/</u>

Source: Bicol River Basin SSRU, Annual Panel Survey, April, 1974

a/ Total population estimates were derived by calculating the annual growth rate for the municipalities involved during the intercensal period 1960-70 and assuming the same rate prevailed in the years 1970-74.

b/ Estimated of all populations other than the total population were derived by first determining the API sampling fraction by barrio and poblacion (1/64 and 1/22, respectively) for Sipocot district and then applying these figures to the appropriate sample findings.

c/ The underemployment rate used here is that of the SSRU's Sipocot district which include Libmanan and Cabusao.

Table 5. Annual household income of residents (farmers and nonfarmers combined) of the Bicol River Basin, the Sipocot district, the Libmanan and Cabuseo municipalities, by income class (Camarines Sur, April 1974)<sup>c</sup>

INCOME CLASS	BICOL RIVER BASIN						SIPOCOT DISTRICT						LIBMANAN/CABUSAO					
	$\bar{X}Y$	N	C%	Total Income	C%		$\bar{X}Y$	N	C%	Total Income	C%		$\bar{X}Y$	N	C%	Total Income	C%	
0 - 999	434.01	826	29	358,494.10	3		514.52	136	25	69,974.60	3.71		450.86	42	21	18,936.30	3.11	
1000 - 2999	1,865.26	983	63	1,833,547.00	20		1,814.47	189	60	342,934.40	21.90		1,787.58	82	62	146,581.80	27.19	
3000 - 4999	3,878.73	489	80	1,896,700.30	37		3,827.99	96	78	367,487.00	41.39		3,771.91	41	83	154,648.20	52.60	
5000 - 6999	5,831.63	228	88	1,329,612.50	49		5,801.05	45	87	261,047.20	55.24		5,885.87	15	91	88,288.90	67.10	
7000 - 8999	7,938.92	125	92	992,365.30	58		7,911.27	24	91	189,870.40	65.31		7,980.00	7	94	55,860.00	76.28	
9000 - 9999	9,430.69	47	94	443,242.60	62		9,452.74	11	93	103,980.20	70.82		9,381.00	2	95	18,762.20	79.36	
10000 - 10999	10,466.23	52	95	334,919.30	65		10,432.53	10	95	104,325.30	76.36		10,534.78	4	97	42,139.10	86.26	
110000 & Above	26,172.19	146	100	3,821,139.50	100		19,376.54	23	100	445,660.40	100.00		20,865.08	4	100	83,460.30	100	
<b>TOTAL</b>	<b>3,828.24</b>	<b>2876</b>		<b>11,010,020.60</b>			<b>3,530.49</b>	<b>534<sup>a</sup></b>		<b>1,885,279.50</b>			<b>3,089.73</b>	<b>197<sup>b</sup></b>		<b>608,676.80</b>		

a Six respondents have incomplete data.

b Two respondents have incomplete data.

c Annual household income includes income from all sources--farm, nonfarm, and off-farm--and of all categories, including pensions, rentals, gifts, and the like. The Bicol River Basin is here defined as the two cities (Naga and Iriga) and all municipalities of Camarines Sur except Caramoan, Garchitorena, Presentacion, and Siruma.

The source of these data is the Annual Panel Survey 1 (April 1974), for which the total sample was 3240.

the SSRU has determined that it is legitimate to infer socio-economic status from the combination of house construction materials and the status of home repair. SSRU has concluded, based on the information provided in Table 6, that the majority of residents (97%) in the Libmanan/Cabusao project area belong to the lower class and only 12 percent to the upper class, with 1% being of elite status. The socio-economic structure of these municipalities relative to that of the Basin area is also presented in Table 6. Finally, as might be expected, these indices of income and income distribution and socio-economic status correlate directly with perceived quality of life indicators which measure people's reactions to their own level of living. The perceived quality of life for respondents in the project area is discussed in the following section.

c. Perceived Quality of Life

Along with the "objective" measures being gathered by the SSRU for purposes of evaluating the impact of BRBC programs on the Basin population overtime, the SSRU has initiated a program to gather "quality-of-life" data which measure the people's feelings as to their own level of living. These data, as well as the "objective" data being gathered by the SSRU, are useful as well as a guide to planners in identifying areas where additional investment or programs are warranted both on economic as well as social grounds.

Table 6. SOCIO-ECONOMIC STATUS AS DERIVED FROM HOUSE CONSTRUCTION AND STATE OF REPAIR INFORMATION

Walls	Roof	Repair	Social Class	P E R C E N T A G E S	
				Libmanan/Cabusao	Basin Area
Concrete or wood	GI or alum.	Good	Upper-elite	1	5
		Poor		3 )	7 )
				)12%	)23%
Wood	Nipa or Cogon	Good		9 )	11 )
		Poor		16 )	21 )
				)	)
				) 87%	) 77%
Nipa or Bamboo	Nipa or Cogon	Good	<u>Lower</u>	27 )	26 )
		Poor		44 )	30 )

Source: SSRU, Annual Panel Survey; April, 1974

Table 7 presents the results of an SSRU survey conducted in April 1974, where respondents were asked how they felt about their life as a whole - whether they were happy, unhappy, or somewhere in between-and were shown a seven point scale where they could place themselves, at the "very happy" end (score 1), at the "very unhappy" end (score 7), or at some intermediate point (score 2-6). Several questions were asked about fifteen particular aspects of life. Another measure also used was the "self-anchoring striving scale". This is a ladder with 11 steps (0-10) where the top represents the best possible life the respondent can imagine, and the bottom the worst possible one. The respondents were asked to place themselves on the ladder in terms of their present life.

In terms of the ladder rating the results show that all river basin residents have a rather bleak outlook on life (see Table 7). The residents of the project area have, however, a relatively less optimistic outlook on life than the Basin as a whole. Basin residents were on the average only marginally satisfied with the various domains of their life. On the other hand, Libmanan/Cabusao residents consistently fell below the Basin average and are particularly dissatisfied, relative to Basin residents as a whole, in such key areas as income, jobs, housing, education and prices.

The preceding section was presented to reflect the current situation - the agricultural potential as well as the socio-economic problems - in the Libmanan/Cabusao area as compared with the Basin as a whole. It was for these collective considerations along with other technical factors that the Libmanan/Cabusao area was justified for selection by the BRBC as the logical area for the initiation of the Basin's first major development effort on a sub-regional municipality oriented basis.

Table 7. Means of ladder ratings and of satisfaction scores for life and for selected domains, by area (Bicol River Basin, Camarines Sur, April 1974)

	BASIN AREA	SIPOCOT DISTRICT	LIBMANAN/CABUSAO
1. Ladder rating <sup>a/</sup>	3.93 (976)	3.71 (537)	3.59 (199)
2. Overall Life	3.72 (976)	3.89 (540)	4.04 (191)
3. Informal groups (participation)	3.24 (976)	3.53 (362)*	3.70 (139)
4. Position in Life	3.32 (976)	3.44 (529)	3.80 (194)
5. Food/Drink	3.38 (976)	3.60 (530)*	3.78 (193)
6. Barrio/Poblacion	3.39 (976)	3.59 (526)*	3.49 (190)
7. Organizational Participation	3.39 (976)	3.43 (328)*	3.66 (127)
8. Health/Physical Condition of R and family	3.40 (976)	3.60 (535)*	3.75 (196)
9. Traveling	3.46 (976)	3.63 (520)	3.63 (192)
10. Children's Education	3.50 (976)	3.75 (453)	3.81 (177)
11. Job	3.50 (976)	3.86 (529)*	4.07 (195)
12. Health Services	3.62 (976)	3.56 (522)	3.46 (194)
13. Present house	3.64 (976)	3.88 (537)*	4.06 (197)
14. Income	3.92 (976)	4.15 (532)*	4.34 (197)
15. R's Education	3.98 (976)	4.18 (530)*	4.40 (196)
16. Furniture	4.25 (976)	4.54 (478)*	4.68 (170)
17. Prices	5.53 (976)	5.59 (539)*	5.85 (197)

<sup>a/</sup> Ladder rating refers to the step chosen by the respondents in the "self-anchoring striving scale" developed by Cantril (1965)

\* District value found to be significantly different from (less happy than) one or more of the other district values, either at 0.05 or 0.01 level.

Source: Bicol River Basin, Social Survey Research Unit

**B. DESCRIPTION OF PROJECT**

**1. Purpose**

The Libmanan/Cabusao Integrated Area Development Project represents an attempt by the Bicol River Basin Council to further refine and extend to the municipality level the basic policy, planning and management principles which underly the 312,000 hectare Bicol River Basin Development Program, now in its second year of operation. The project also signals the start of a continuing effort by the BRBC to develop on an integrated basis sub-regional areas within the Bicol River Basin. If successful, this pilot project would serve as a model for replication in 5 to 6 other sub-regional areas of the River Basin. The pilot features of the project which form the basis of the project purpose are:

- a. the establishment of a permanent, area specific, decentralized management structure which by virtue of its authority, presence, membership and mode of operation would bring line agencies, local governments and residents of the area into a structured and sustained working relationship focused on the achievement of collectively determined development objectives of the area, and, working through this management system,
- b. implement a 3,873 hectare, agriculturally oriented, integrated area development project which provides for necessary and non-physical inputs in a systematic and integrated fashion. In short, the project would provide for major sectoral inputs in irrigation, drainage, transport, technology, land reform, farm and farmer organizational structure, etc., rather than concentrating on a single sectoral input (such as irrigation), and then, as is the common practice, assume that the remaining elements of the agricultural system will be in place upon completion of the specific sectoral activity. The Libmanan/Cabusao Integrated Area Development Project is an attempt by the BRBC to control as many of the key input variables as possible in the project area which have a direct bearing on production and in turn farm income.

The objective of the project, increasing average net farm household income to ₱4,000 per annum for 523 farm families and to ₱5,000 per annum for 1820 families would only be achieved after full output from project facilities and farmer organization efforts have been realized. Maximum yields and therefore income are expected to be achieved six years after project initiation (FY 1981). The

institutional structure of the project, including both the organization and management structure and development of the farmer organization component, would be laid down beginning year one and is expected to be operating effectively by the end of the project's second year.

## 2. Project Location

The area to be served by the Libmanan/Cabusao/Area Development Council/Area Development Team which will serve as the BRBCs area management structure is shown on Map 2. The area covers 38,000 hectares located in the northern portion of the Bicol River Basin. The area is bounded on the east by the San Miguel Bay; on the south by the Bicol Estuary; on the west by the Ragay Gulf and the north by the Sierra Madre mountains. The pilot project for which A.I.D. financing is being sought (see Map 2), covers 3,873 hectares, representing approximately 32% of the total area planted to rice in the Libmanan/Cabusao area.

## 3. Project Components

The project involves the concurrent and tightly coordinated implementation of five major activities or sub-projects within the 3,873 hectare project area (see Logical Framework, Annex 2). The implementation of these various activities, under the unified management of an Area Development Team, is expected to raise rice productivity from the current average of 1.5 M.T. per hectare to 4.25 M.T. per hectare over a six-year period. Project implementation will be under the overall supervision of the BREC Program Office (BRBC-PO) and the Libmanan/Cabusao Area Development Council and Team which would be staffed on an interagency basis according to project needs. Each component of the project is briefly outlined in the following sections.

Volume II of this Project Paper contains the GOP feasibility report of the project.

### a. Irrigation, Drainage and Service Roads

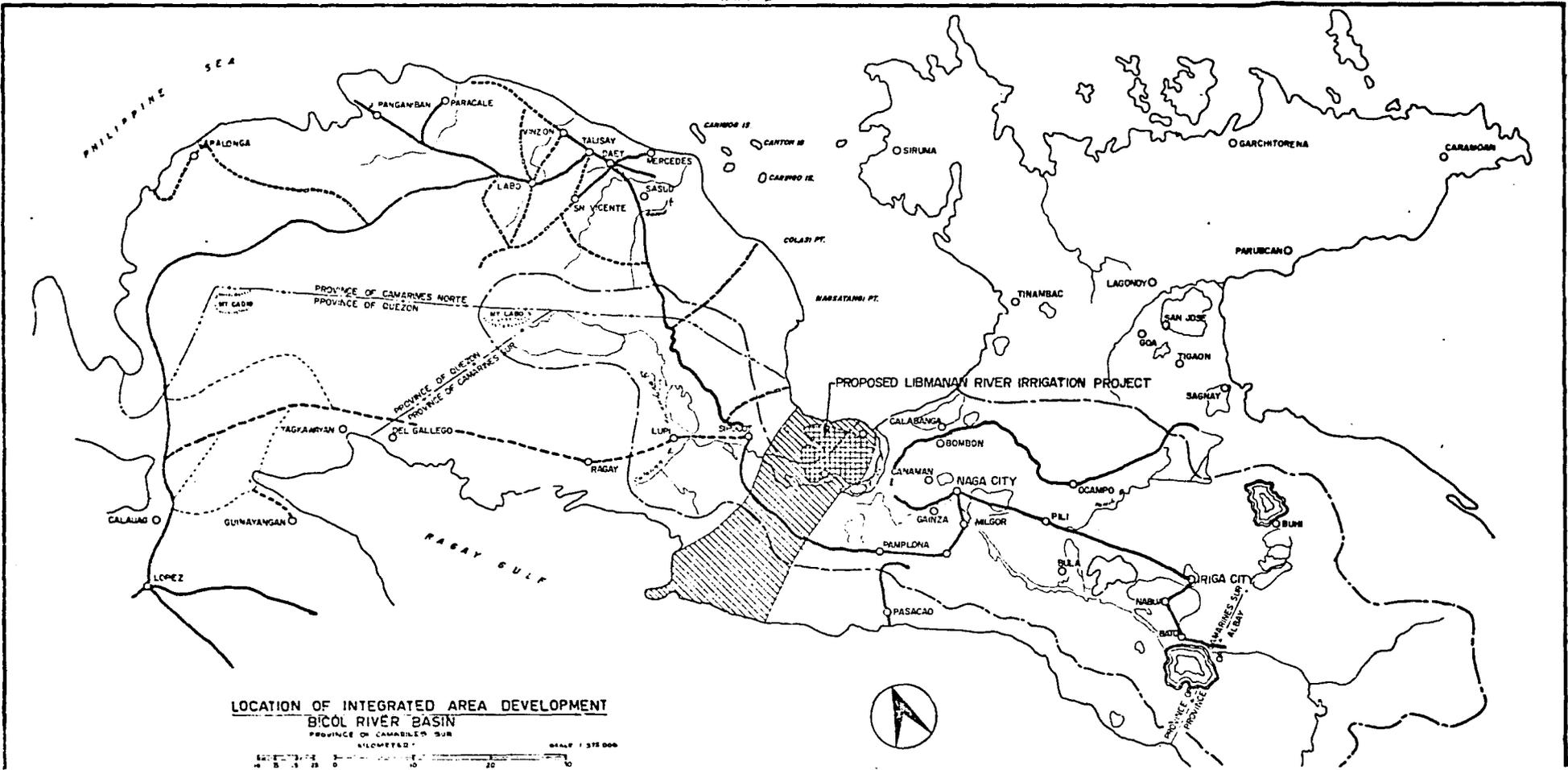
#### (1) Introduction

The 3,873 hectares covered by the Libmanan/Cabusao Integrated Area Development Project suffers from two water related problems. First, due to its low ground surface elevation and high rainfall intensity, the project area is susceptible to periodic flooding. Secondly, due to the geographic proximity of the project area to San Miguel Bay and the Bicol River

# MAP 2

MAP 2

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**LOCATION OF INTEGRATED AREA DEVELOPMENT  
BICOL RIVER BASIN**  
PROVINCE OF CAMARINES SUR  
KILOMETERS  
SCALE 1:375,000

Estuary, the area is affected by astronomical tides (and consequently saline intrusion), which fluctuates between 1.2 and 1.5 meters above mean sea level. To effectively counteract these natural conditions which retard the areas' development, an 8.4 kilometer Flood-Interceptor Channel and a 6.7 kilometer Tide Protection Dike are proposed to be constructed along the northern and southern boundaries of the project area, respectively. (See Map 3). In between these flood control and saline intrusion prevention measures, an intensive irrigation and drainage system would be constructed, consisting of main canals, laterals and farm ditches. Given the low ground surface elevation of the service area with respect to mean sea level and high water table conditions, the irrigation and drainage components would be developed basically for rice mono-culture. Technical considerations dictate that the project will require more than normal irrigation and drainage facilities. Nonetheless, the project as a whole is economically justified (see page 55).

(2) Proposed Scheme of Development

In arriving at the technically and economically most viable irrigation and drainage scheme for the project area, three alternative development schemes were evaluated. The adopted scheme would utilize electrically driven pumps to divert water from the Libmanan River to the service area. The adopted scheme is described below.

(a) Diversion Works

A pumping station for water diversion would be installed on the left bank of the Libmanan River about 400 meters downstream of the highway bridge serving Sipocot municipality. The pumping station would have four (4) sets of 36" propeller-type pumps each capable of delivering 1,450 L/S (23,000 GPM) at 6.5 meter TDH utilizing four 200 HP, 3-phase, 60-cycle electric motors. A reinforced concrete pump sump and motor foundation, together with a pump house, would be constructed for the station. Electric current for the motors would be provided by National Electrification Administration distribution lines from NPC transmission lines that are planned to be installed and operational by mid-1977.



(b) Canal Networks

The proposed canal system of the project would consist of a main canal 15.2 kilometers long having an initial capacity of 5.8 cms and terminal capacity of 0.58 cms along with laterals and sub-laterals with an aggregate length of 34.6 kilometers. The canal system relative to the irrigable area would have a density of approximately 10.25 meters/hectare, and would have capacities ranging from 3.98 cms to 0.14 cms.

(c) Canal Structures

Canal structures to be constructed would consist of headgates, road crossings, siphons, and other related structures. The density of these structures would be about 2-1/2 structures per kilometer of canal.

(d) Turnouts and Farm Ditches

There would be about 90 turnouts using 12" or 18" R.C. pipes to be constructed for water distribution to the service area, or an average density of one turnout for about every 50 hectares.

Farm ditches would be located as practically as possible on boundaries of cadastral lots. These farm ditches (main and supplementary) were designed for rotational irrigation that would carry a water duty of 2.5 L/S/ha. One main farm ditch would serve an average of 50 hectares of land while supplementary ditches would serve areas varying from 7.35 hectares to 13.5 hectares.

(e) Drainage Facilities

78 kilometers of farm drains and 16 kilometers of lateral drains would be constructed. Also, about 25 kilometers of existing drainage-ways would be improved. The capacities of the drainage channels would range from 112 L/S to 11,220 L/S.

(f) Service Roads

Service roads would be constructed on one bank of the entire length of the main canal and all other canals except lateral C-2 which turns

parallel and close to an existing road. These roads would be 5.00 meters wide on the main canal and 3.50 meters on the laterals and sub-laterals and would have an aggregate length of 45.5 kilometers. Together with the existing roads of 25.8 kilometers which would be improved, the road network in the service area would have a density of about 1 kilometer for every 55 hectares of service area.

(g) Drainage Channel and Flood Tide Protection Dike

An interceptor channel for localized flood control would be constructed along the left bank of the main canal from the pump site down to San Miguel Bay. The canal would intercept the sizeable storm flood run-off from a water-shed area of about 23 sq. kms. in the north. The channel would have a bottom width ranging from 3.00 meters to 3.3 meters and would have an expected capacity of 34.55 cubic meters per second at the outlet.

An earth dike with top elevation at El 2.2 meters and a 2.5 meters wide berm and 6.7 kilometers long would also be constructed along the lower reaches of the Bicol River, from the municipality of Cabusao up to Barrio Concepcion, Libmanan, to serve as a tidal barrier. Flap gates would be installed at the mouths of the main drainageways to prevent salt intrusion during high tides. Supplementary steel slide-gates would also be installed beside the flap gates to facilitate the evacuation of excessive surface run-off generated within the project area during storm periods.

A high flood protection dike about 2.00 meters high, with a 1.50 meters wide berm and 200.0 meters long to about high grounds at El 15.00 meters above the pump site would be constructed. This structure would protect the pump site from floodwaters rising to as high as 13.92 meters.

(3) Construction Schedule

The project is scheduled to be started in FY 1976 and is expected to be completed in three years. Pre-construction activities would be undertaken during the first six months and would continue with construction activities up to the end of the second year of project implementation. Actual construction

would start on the seventh month of the implementation schedule, coinciding with the period of relatively low rainfall beginning January 1976.

(4) Investment Cost

The total investment cost includes the direct and indirect construction cost, and construction equipment and spare parts costs. This amounts to approximately ₱46 million, of which A.I.D. has been requested to provide \$3.3 million which would cover all foreign exchange costs plus a portion of the peso costs of the project.

(5) Annual Operation, Maintenance, Repair and Replacement Cost

The completed project would be operated and maintained by the National Irrigation Administration for the initial one year (i.e., the third and fourth years of the project). An operation and maintenance staff would be organized to be headed by an Irrigation Superintendent and assisted by a group of technical men, skilled personnel, administrative and clerical personnel. By the fourth year of the project an Irrigators Association would have been organized and a staff trained under the Federation of Samahang Nayon in the project area which would take over operation and maintenance responsibilities fully by the fifth year of the project. The National Irrigation Administration would set water fees at a level sufficient to enable the Irrigators Association (see page 35 ) to cover operation and maintenance cost and to recover (without interest) the total investment over not more than the 50-year life of the system taking into account the farmer's capacity to pay. Section B.3.b.(3) discusses in more detail the plans for organizing the Irrigators Association in the project area.

b. Institutional and Agriculture Development Components

(1) Introduction

With increased per hectare yield as the main target of the project, the BRBC proposes to complement the physical infrastructure inputs with four component programs, namely: compact farm and extension services development; organization of an Irrigators Association; acceleration of the government's land tenure improvement program; and an applied agricultural research and demonstration project. With the exception of the costs associated with formation and development of the Irrigators Association, all project costs have been assigned to the Libmanan/Cabusao Integrated Area Development Project. The development cost of the Irrigators Association has been incorporated under the existing budget of the Basin's On-Farm Water Management Project. Each program is briefly discussed below.

(2) Compact Farm and Extension Services Development

(a) General Description and Objectives

The overall BRBC effort in the field of farmer organization development is directed toward the institutionalization of the compact farm concept throughout the Bicol River Basin area. Within the Basin, 2,500 compact farming units are programmed to be organized by 1979.

As envisioned, compact farms are basic production units composed of 8-10 farmers tilling contiguous farm holdings, which would function as:

- channels for the introduction and dissemination of recommended farming technology;
- units to systematize and consolidate farm operations through cooperative and reciprocal group action;
- an institutional mechanism to facilitate improvement of on-farm water management practices;
- basic production units to purchase and operate small scale farm machinery; and
- liability and guarantee groups for the acquisition of production and marketing credit.

As production units, compact farms are being formed under the umbrella of the government's cooperative development program; i.e., under the Barrio Associations (Samahang Nayon) which are in turn being federated and organized into Area Marketing Cooperatives.

To improve the skills of the government technicians as well as the compact farm leaders in organizing and assisting compact farm units, the BRBC, in coordination with the Department of Local Government and Community Development (DLGCD), the Department of Agrarian Reform (DAR) and the Department of Agriculture (DA), is conducting a compact farm development training program. Approximately 140 interagency technicians and 300 compact farm leaders have been trained over the past several months.

Within the context of the Libmanan/Cabusao Integrated Area Development Project, the objective of the compact farm program would be to give a geographic focus to this organizational effort and to further test and develop the compact farm concept as advanced by the BRBC.

Parallel with the development and expansion of the compact farms, the BRBC, through the Area Development Team, proposes to improve the efficiency of the extension services in the project area by unifying and then integrating extension efforts into the overall compact farm development effort in the project area.

(b) The Program

To insure that the compact farms develop and assume the major functions as outlined above, an intensive compact farm and extension services improvement project would be carried out as a central element of the Libmanan/Cabusao Integrated Area Development Project. The various components of the Program are outlined below.

(i) Training

Thirty-three (33) interagency technicians would be assigned to the project area under the management of the Area Development Team. The technicians would be trained under the Basin's Compact Farm Training Program in crop technology, management and extension skills, and techniques of compact farm organization and management.

2,333 potential compact farm members and leaders would be trained with the objective of:

- developing the technical knowledge, managerial and operational skills of the duly elected compact farm leaders in the project area;
- providing compact farm members the basic orientation of the managerial and technical aspects which underlie the compact farm program;
- developing the skills of compact farm ditch tenders in the operation and maintenance of

the project's rotational irrigation scheme and the role of the compact farm as the basic field unit of the Irrigators Association; and

- providing compact farm machinery operators the technical knowledge and skills necessary to operate and maintain small scale farm machinery (e.g., power tillers and axle flow threshers) which would be demonstrated and then marketed in the area under the auspices of the project (see Agricultural Research and Demonstration Project).

All these training activities would be carried out by the BRBC Interagency Task Force on Compact Farm Development over a three-year period and would closely parallel the expansion of compact farms in the project area as discussed in the organization section below. The training targets and costs are presented in the output and input sections, respectively, of the Logical Framework (see Annex 2).

(ii) Compact Farm Organization and Development

Within the 3,783 hectare-project area, 37 existing irrigated compact farms would be restructured and used as demonstration units during the first two years while construction of the irrigation and drainage system is underway. Concurrently, new compact farms would be organized. By the end of the third year, 220 additional compact farms would be organized involving approximately 2,330 farms.

By the end of the third year, however, all compact farming units would be federated into the barrio level farmers' associations (Samahang Nayan) which are existing in the area. All targets and costs of the compact farm expansion program are summarized in the output and inputs sections, respectively, of the Logical Framework (see Annex 2).

(iii) Extension Support Services

To bridge the gap between knowledge and practice of the farmers in the area, a total of 33 farm management technicians, drawn from the Bureau of Agricultural Extension (BAE) and the Bureau of Plant Industry (BPI) of the Department of Agriculture (DA); the Department of Agrarian Reform (DAR); and the Department of Local Government and Community Development (DLGCD) would be assigned full time to the project area. The technicians would work under the overall supervision of the Area Development Team Coordinator. They would be supported by "progressive farmers" who would be fielded as farmer-technicians in the area. This strategy would result in a technician-farmer ratio of 1:80, or approximately one technician for every eight compact farms by the end of the third year. The targets of the extension effort are presented in the output section of the Logical Framework (see Annex 2). The extension program cost are subsumed under the Compact Farm Program section of the Logical Framework (see Annex 2).

(3) Irrigators Association

(a) General Description and Objectives

One of the first programs to be initiated by the BRBC after formal organization was a pilot on-farm water management project. The purpose of the project is to introduce modern on-farm water management practices to irrigated farms in the Basin. Early on it became apparent that before water management technology could be effectively applied to irrigated agriculture in the Basin, a farmer based water management project to include the organization of Irrigators Associations on a pilot basis in three selected sites covering an aggregate of 7,000 hectares. A contract was executed between the BRBC and the Development Academy of the Philippines (DAP), wherein the DAP will handle the actual organization of the Irrigators Association, including the installation of the required management systems and the training of farmers and technicians to manage the association and operate and maintain the irrigation facilities. USAID has agreed to provide a water management technician to assist the GOP team; the USAID technician will arrive in July, 1975. Given the existence of the

BRBC on-farm water management project, the GOP plans to expand the project coverage to the Libmanan/Cabusao Project Area where an Irrigators Association would be organized as an integral part of the project to handle the operation and maintenance of the irrigation facilities to be financed under the project. The irrigation facilities would be operated by the National Irrigation Administration only during the initial year when the system is being tested. Thereafter, the Irrigators Association would gradually take over all operation and maintenance responsibilities as well as collection of water charges.

(b) The Program

(i) Organization

An Irrigators Association (IA) would be organized in the project area by the BRBC's water management staff during the initial year of the project. IA members and staff at all levels would be trained and prepared to take over the system from the 2nd to the 4th year of the project.

The Association (see Chart 1) would be composed wholly of farmer-tillers whose farms are located within the system. The association would be organized from the bottom-up. That is, compact farms would form the lowest level water management unit. Compact farm units would in turn be combined to form rotational irrigation units of which 77 are planned in the project area. Through the compact farms in each rotational unit, a 7-man Board of Directors would be elected, each representing a specific "zone" of the irrigation system.

The Association's Charter, duly registered with the Securities and Exchange Commission, would empower the Board to contract, either individually or through a professional A&E firm, an Irrigation Superintendent, engineers and other professional personnel required to manage the Association and maintain the major project facilities, especially the pumps. Ditch-tenders and possibly water masters would be drawn from the compact farm units. Provision for the training of these lower level water management personnel would be handled under the auspices of the compact farm training program.

At present there is a Presidential Decree which directs the National Irrigation Administration to transfer operations and maintenance of irrigation systems to farmer organizations. Administratively, however, the NIA has limited this transfer process to systems covering 1,000 hectares or less. Given the integral and important role of the Irrigators Association in the overall Libmanan/Cabusao Integrated Area Development Project, the BRBC will seek an exception to this policy.

(ii) Water Fees, Financing System Operation and Maintenance and Amortizing Project Investment

By Presidential Decree water fees charged for pump irrigation systems by NIA are fixed at 3 cavans for the wet season, 5 for the dry and 5 for the 3rd crop. Based on these rates and on 80% repayment rate during the initial years of the project, the Association would collect over ₱1.6 million pesos annually which would be used to cover O&M, system amortization, and Association overhead.

(iii) Operation and Maintenance

The feasibility Task Force has determined that pump operation and maintenance would cost approximately ₱ 462, 000 (\$66, 000. 00) annually and maintenance of irrigation facilities approximately ₱ 308, 000 (\$44, 000. 00) annually or a total O&M cost of approximately ₱ 770, 000. 00 annually. The overhead costs of the IA are expected to run to approximately ₱ 77, 000 annually. This leaves approximately ₱ 849, 000 to be applied against system amortization and the establishment of a sinking fund to provide spare parts and replace equipment at periodic intervals. Based on preliminary financial analysis, the Task Force has been able to determine that the IA can amortize the investment cost (without interest) over a 40-year period as well as meet all expenses required to run the Association and maintain the system.

The cost of establishing the IA and training its staff will be borne by the Basin's water management project; accordingly none of the costs associated with this organization process are reflected in the input section of the Logical Framework (See Annex 2).

(4) Land Reform

(a) General Description and Objectives

Within the BRBC's current area of jurisdiction which covers only that portion of the River Basin located in the Province of Camarines Sur, the GOP is committed to converting approximately 19,500 rice and corn sharetenants to amortizing owners as provided under Presidential Decree No. 27. These 19,500 sharetenants are working lands currently in the hands of landowners owning more than 7 hectares. The GOP has authorized direct land transfer only on land holdings above 7 hectares. For those tenants working land owned by small landowners (i. e., landowners holding an aggregate of 7 hectares or less), tenants will be converted from the standard 50-50 sharing arrangement to a fixed leasehold arrangement. Under this arrangement, the farmer tiller pays the landowner a fixed share, commonly 25%, of the annual crop production based on the average annual production over the preceding three normal crop years. Under this arrangement where the share amount is fixed, all future incremental production resulting from application of improved technology and farm management practices, accrues directly to the farmer. Thus, the incentive to produce, which is absent in traditional sharing arrangements, is incorporated by law under Philippine leasehold arrangements. Within the Basin's current area of jurisdiction, approximately 15,500 sharetenants are to be converted to leasehold status by 1977. In sum, 35,000 rice and corn farms will improve their tenurial status within the Bicol River Basin area.

(b) The Program

Within the context of the Libmanan/Cabusao Integrated Area Development Project, the land transfer and/or leasehold process will be accelerated. Within the project area 958 tenants are eligible under the current law to become amortizing owners of the land they till. Out of this total, 693 have already

received Land Transfer Certificates (LTC). An additional 265 tenants are targeted under the project to receive their Land Transfer Certificates by July 1976. There are as well 558 tenants eligible to become recipients of written fixed leasehold contracts in the project area. Of this total, 354 have already negotiated leasehold arrangements and by July 1976 the final 204 would receive fixed leasehold contracts. By the second year of the project (1977), all 958 Land Transfer Certificate recipients would be completely processed prior to issuance of final land titles and all 558 leasehold farmers would hold written leasehold contracts.

The importance of early completion of the land transfer process in the project area is readily apparent. Land values must be assessed, and transfer completed prior to the infusion of public capital as planned under the project. If this process is not completed early in the project development cycle, it is entirely possible that the benefits to accrue from the project would flow in part to the former landowners, by way of higher negotiated sales price of the land to the tenant occupants which reflects the value of the land after the public investment in irrigation and drainage facilities.

The Libmana/Cabusao Task Force has built into the project budget the funds necessary to complete the LTC and written leasehold process (See Logical Framework, Annex 2). During loan negotiations, USAID will secure assurances that the land transfer process will be given priority in the Libmanan/Cabusao areas and will be completed according to the project development schedule prepared by the BRBC-Libmanan/Cabusao Task Force.

(5) Applied Research and Demonstration Project

(a) General Description and Objective

The BRBC has initiated a Basin-wide applied crop research and demonstration program in conjunction with the Bureau of Plant Industry. The objective of this program is to increase agricultural production by developing improved systems of crop management for several major crops as well as area specific recommendations as to proper inputs and cultivation practices for these crops. The applied research component of the Libmanan/Cabusao Integrated Area Development Project would intensify this effort for rice, which is the single most important agricultural crop in the River Basin.

(b) The Program

Currently, rice yields are low in the Libmanan/Cabusao area. While low yields are indicative of lack of water in the dry season and flooding during the wet season, there are other factors involved as well, such as the identified low level of fertilizer usage; inadequate use of insecticides; poor weed and rodent control; improper scheduling of planting, etc. The Applied Research Project would field test and demonstrate to farmers, using actual farms as models, the appropriate technology and practices for the Libmanan/Cabusao area. Likewise, the project would seek solutions to problems (crop scheduling, etc.) that would inevitably arise when the irrigation system is operational. As part of this applied research and demonstration effort, USAID would provide a grant of \$200,000 to the BREC to finance a contract with the International Rice Research Institute (IRRI) or another appropriate institution to develop and test in the project area, with the BRBC, a total package of extendable technology for rice covering on-farm water management, mechanization as well as the "traditional" package of inputs, (i.e., HYV seeds, fertilizer, pesticides, etc.) appropriate adapted to the Bicol area. The proposed dollar and peso support for this component project is reflected in the input section (See Logical Framework, Annex 2).

#### 4. Organization and Management

To implement the project, the BRBC proposes to establish in the project area, two permanent organizations designed on the one hand to insure efficient and fully integrated implementation of the project and on the other to assure maximum local participation in the planning and management process. The establishment and successful development and operation of the decentralized management structure proposed by the BRBC is at least as important as construction of the actual project facilities. This organization and management structure is shown in Chart 1.

As mentioned, the BRBC -Program Office would be designated by the Council and the NEDA as the executing agency. To actually carry out the project the BRBC would in turn create an Area Level Development Council (ADC) and an Area Development Team (ADT) with jurisdiction throughout the two municipalities. The creation of the Libmanan/Cabusao ADT/ADC was approved by the Council and the first years operational budget provided in December 1974.

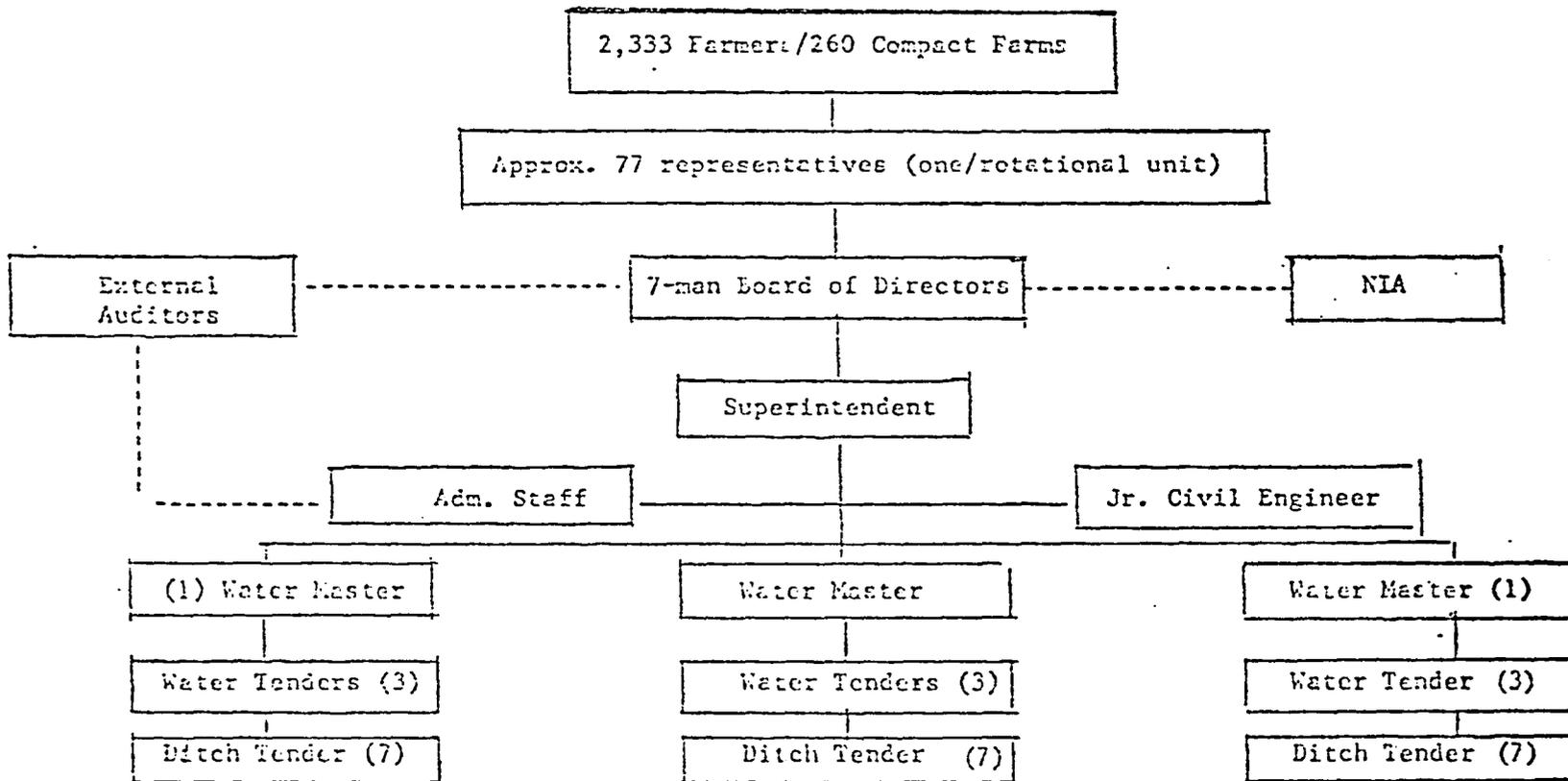
The principal functions of the ADC/ADT organization have been defined by the BRBC. The ADC/ADT are to serve as:

- an intensive project management body at the field level.
- an organization for maximizing community participation in BRBC and other projects of government in the area.
- a body to stimulate interest in and/or foster development of local institutions (e.g., Irrigators Associations) to continue the task of project management and operation of project facilities once government transfers project management responsibilities to local organizations.

##### 1. Area Development Council (ADC)

The Area Development Council would be composed of local leaders, including at a minimum the mayors of municipalities within the jurisdiction of the ADC, a representative of the Provincial Government and a BRBC representative. Through this mechanism local leaders as well as the private sector would be mobilized to promote the project, help resolve

CHART 1  
PROPOSED IRRIGATORS' ASSOCIATION  
ORGANIZATION CHART



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problems that may arise and otherwise facilitate mobilization of community resources in support of the various activities of the project. The chairman of the ADC would be elected annually from the Council membership. The Area Development Coordinator, chief of the Area Development Team (ADT), would be Vice-Chairman of the ADC and would provide its permanent secretariat. The appointment of the Area Development Coordinator, although hired by the BRBC Program Office, would be approved by the ADC.

## 2. Area Development Team

Project management and execution would be the responsibility of the Area Development Team (see Chart 2) under the leadership of an Area Development Coordinator and a Deputy Coordinator. The Area Development Coordinator would:

- a. assume general management responsibilities of the ADT;
- b. be responsible for drawing out public participation by establishing a sustained working relationship with local leaders and organizations through the Area Development Council, and
- c. maintain a close working relationship with BRBC Program Office and Provincial officials by regularly interacting with appropriate management and planning staff at these levels.

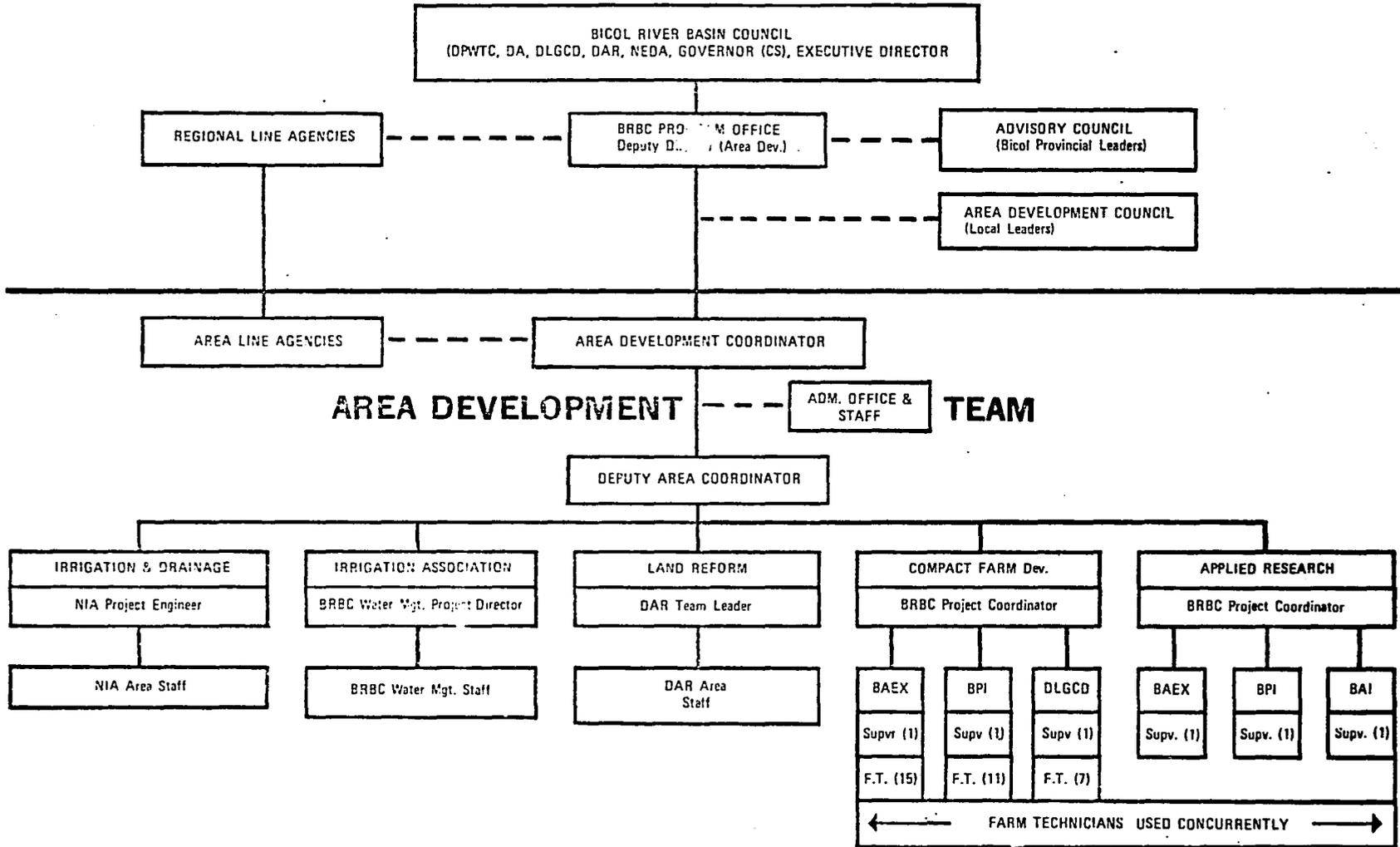
The Deputy Coordinator would concentrate on project implementation by coordinating and supervising the activities of the five component projects of the Libmanan/Cabusao Integrated Area Development Project, each of which would be managed in the field by the appropriate line agency or a BRBC sub-project coordinator.

The irrigation and drainage component of the project would be under the immediate supervision of the National Irrigation Administration Project Engineer. Actual project construction however would be executed under contract.

Chart II

PROPOSED ORGANIZATION

Libmanan/Cabusao Area Development Team and Area Development Council



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The Irrigators Association would be organized in the project area by the BRBC's water management project staff. Any technician detailed to the project area for this purpose would work in the field as members of the Area Development Team.

Responsibility for accomplishing the Land Reform objective in the area would be the direct responsibility of the Department of Agrarian Reform Team Leader assigned to the Libmanan/Cabusao area. In the project area the DAR Team would be directly responsible to the Deputy Coordinator.

Given the interagency make-up of the technical staff of both the Compact Farm and Extension Development Project and the Applied Research and Demonstration Project, a BRBC Project Coordinator would be assigned to head-up each of these activities under the direct supervision of the Deputy Coordinator. Each of the participation line agencies would have their own respective supervisor, responsible for their own field men, but would report directly to the BRBC Project Coordinator for effective integration of activities.

The annual project budget for the Libmanan/Cabusao Integrated Area Development Project would be prepared by the ADT and submitted to the BRBC-PO for approval. All approved project funds would be released through the Area Development Team. The ADT would also be responsible for preparing the monthly status report of the project for inclusion in the BRBC's management information system (MIS) and for distribution to the Area Development Council, the Provincial Government, and provincial and regional offices of participating line agencies.

The proposed budget of the Area Development Council Area Development Team can be found in the input section of the Logical Framework (See Annex 2).

## C. PROJECT BACKGROUND

### 1. History and Development of Proposal

In the mid-sixties planning for a Libmanan River Project was initiated by the National Irrigation Administration. Topographic mapping of the project area was completed and a start was made on collecting the necessary water resource data. Given other priorities, project study work was suspended in the late sixties and was not initiated again until the Bicol River Basin Council joined forces with the National Irrigation Administration and the Mayors of the two Municipalities in late 1974. At that time, Basin planners were in the process of developing criteria for dividing the River Basin into logical sub-regions for planning purposes. On all the indices developed, the Libmanan/Cabusao area stood out as a major sub-region of the Basin, albeit a sub-region with pronounced socio-economic problems. The Libmanan/Cabusao area was on paper, at least, an ideal area to test out the Basin's concept of integrated area development at the sub-basin level. Several meetings were held with BRBC NIA officials and with the Mayors of Libmanan/Cabusao in late 1974. On behalf of their respective municipalities, the mayors pledged their full support and cooperation to any study effort that would be organized by the BRBC. Accordingly, the BRBC organized an interagency task force to carry out the feasibility appraisal in December 1974. Over the six month period from December 1974 to May 1975, personnel from ten different agencies, including municipal government officials, contributed to the development of the project study under the overall coordinative leadership of the Bicol River Basin Council Program Office.

## 2. Prior AID Assistance in Related Areas

During the early 60's USAID provided the services of a BuRec team under a PASA for completing surveys, studies, and reports on seven major river basins, namely: the Central Luzon (Agno and Pampanga), Cagayan, Bicol, Cotabato, Agusan and Ilog-Hilabangan River Basins. In addition, hydrologic data gathering instrumentation and materials were supplied by USAID to NIA and to the Bureau of Public Works (BPW). Prior to that, the USAID assisted the GOP with a massive irrigation rehabilitation program during the 1950's.

Recent direct assistance by AID for irrigation in the Philippines has been the financing of feasibility studies and consultancies for the Angat-Magat Irrigation Project, the Comprehensive Water Resources study for the Bicol River Basin Project, and Laguna de Bay project. In 1972, following the typhoon flood disaster, AID provided a \$50 million special grant for rehabilitation of a scheduled list of extensively damaged irrigation and flood control facilities.

In FY 1975, AID expects to provide a \$7.3 million loan to support the program of a recently created government corporation, the Farm System Development Corporation (FSDC). The FSDC has as its purpose the development and efficient utilization of water resources through small scale irrigation systems to be built, owned, operated and managed by farmer organizations called Irrigators' Service Association (ISA).

In addition to the above support to irrigation development in the Philippines, AID has provided and is currently providing technical assistance to the GOP in support of the nation's land reform program, food production and related agricultural research and education programs. All of these programs have, however, in the past been supported on a sectoral basis. The dollar and grant funds proposed as the A.I.D. input into the Libmanan/Cabusao Integrated Area Development Project represent the initial experience, outside of USAID's continuing support to the Bicol River Basin Program, where A.I.D. has become an active participant in an integrated multi-sectoral agricultural development project. The project presents an excellent opportunity for A.I.D. to support an effort designed to test an alternative, and hopefully, improved system for applying capital, technology and management in support of small farmer development programs in the Philippines.

### 3. Other Donor Assistance

Assistance in irrigation from other donors aggregates over \$115 million. The preponderance or 71% of this comes from IBRD, 21% come from ADB, 6% from the Japanese Government, and 2% from UNDP. None of this assistance is being used directly for small scale irrigation. However, the Spanish Government and the Danish Government have made contributions through small loans for diesel engines as well as the Japanese Government through the 17th Reparations Agreement also for diesel engines and small pumps to be used in small scale irrigation development.

With regard to the Bicol River Basin Program generally and the Libmanan/Cabusao project specifically, USAID as well as the BRRC coordinate closely with other donors regarding their participation in the Bicol River Basin Program. In the particular instance of the Libmanan/Cabusao Integrated Area Development Project, a close working relationship has existed between the Basin, USAID and the UNDP. The UNDP is directly supporting the Bureau of Soils, which conducted the land classification study for the project area. The Bureau of Soils and United Nations technicians worked closely with the National Irrigation Administration and USAID's Irrigation Advisor in developing the appropriate land classification methodology for determining the irrigability suitability of project lands.

At present, there are no water resource oriented projects in the Basin financed by external donors. However, the Basin and USAID are keeping the IBRD and the Asian Development Bank apprised of the water resource planning work now underway in the Basin. The IBRD has expressed to the COP their interest in supporting the major water resource projects of the Basin, the feasibility studies for which are being financed by USAID. Given the anticipated large capital requirements necessary to implement the Bicol River Basin's flood control and irrigation development program, it is imperative that the COP keep other donors apprised of the planning now underway. The Government has clearly recognized this need and has taken several ADB and IBRD missions on field trips to the project area.

#### 4. Host Country Activity in the Bicol River Basin

The Libmanan/Cabusao Integrated Area Development Project is a direct extension of previous planning work of the Bicol River Basin Council's Program Office. The Council and its Program Office was created by Executive Order 412 in May of 1973, after an interagency committee, consisting of national, provincial and private agencies, drew up and successfully sold to policy makers an integrated area development program for the Bicol River Basin, a 312,000-hectare center of agricultural activity in the Bicol Region.

The Council Program Office was officially opened in July, 1973. In the 22 months since the Program's initiation a complex of feasibility appraisals, data generation programs and pilot projects have been initiated and in some cases completed. The major programs of the Basin are summarized in Table 8.

In addition to the on-going projects presented in Table 8, the Basin has initiated a number of supporting projects designed to strengthen the BRBC Program Office as a sub-regional planning and development coordinating agency. In this regard, the Basin has established in conjunction with a local university a Social Survey Research Unit, which is responsible for designing and conducting agriculture and socio-economic sample surveys for the Basin in support of project feasibility analysis or project evaluation. The SSRU has completed its first year's work and published 14 reports on various subject matter requested by the BRBC. Currently, the SSRU is deeply involved in conducting Basinwide agro-economic surveys in support of the Basin's land classification study program. The SSRU maintains a 35-man professional staff of which approximately one-half are earning, though a mix of on-the-job and classroom training, master's degrees in sociology and anthropology.

To improve its personnel and management information systems, the BRBC has recently contracted a local consulting firm to design and install an improved personnel management system and a management information system to enable the Basin to properly monitor the progress of its various projects.

Finally, USAID and COP are currently conducting the first in a series of bi-annual evaluations of the Program. The results of this comprehensive program evaluation will be available by the end of June.

#### 5. Views of the Country Team

The country team recommends approval of the loan.

TABLE 8 : BICOL RIVER BASIN PROGRAM  
(Project Status)

Title	Nature of Project	Area of Coverage	Source of Funding	Executing Agency(ies)	Status and Completion Date
<u>1. Water Resources and Land Development</u>					
a. Flood Control Simulation Study	hydraulic simulation model of River Basin	Basinwide	AID	AIT/BRBC	Completed January, 1975
b. Saline Intrusion Study	to determine saline intrusion impact of various proposed flood control measures	Basinwide	AID	AIT/BRBC	Underway July, 1975
c. Surface Water Supply Study	to determine quality and quantity of surface water for irrigation in Basin	Basinwide	AID	AIT/BRBC	Contract under negotiation August, 1975
d. Hydrometro Data Collection Program	water resources data generation	Basinwide	GOP	BRBC	Continuous
e. Geological Investigation	dam site geological investigation project	selected sites	AID GOP	BM, USBR, BRBC	Reconnaissance program complete. Detailed investigation to be completed by December, 1976

Table 8: Bicol River Basin Program (Cont'd)  
(Project Status)

Title	Nature of Project	Area of Coverage	Source of Funding	Executing Agency (ies)	Status and Completion Date
f. Topographic Mapping	Contour maps of flood plain and irrigable areas	166,000 hectares	AID GOP	BCGS/BRBC	on-going (behind schedule) June, 1976
g. Land Classification	irrigability suitability classification	121,000 hectares	AID GOP	DS/NIA/BPW BRBC	June, 1976
h. Comprehensive Water Resource Study	Basinwide water resource plan (reconnaissance grade)	Basinwide	AID GOP	BRBC/TAM/S Eng. (New York)	Contract negotiated July, 1976
i. On-farm Water Management Project	irrigation system upgrading to enable adoption of improved water management practices and formation of Irrigators Association to handle OSM	4 systems 7,000 hectares	AID GOP	BRBC/NIA/DAP	Organization and training design completed and final engineering stage June, 1978
j. Land Consolidation Pilot Project	consolidation of fragmented small farmer holdings and provision of irrigation, drainage and access roads	2,300 hectares	AID GOP	DAR/NIAP BRBC	First 300 hectare section under construction Total project to be completed by June, 1977

Table 8: Bicol River Basin Program (Cont'd)  
(Project Status)

Title	Nature of Project	Area of Coverage	Source of Funding	Executing Agency(ies)	Status and Completion Date
k. Libmanan/Cabusao Integrated Area Development Project	: Integrated irrigated agricultural project	: 3,870 hectares	: Pro-posed : AID : GOP	: BRBC/NIA/DA/DAR	: Project feasibility study completed; proposed for AID financing. Completion of construction June, 1978
l. Pilot Potable Water Project	: Barrio potable water supply system	: 3 Barrios	: AID	: DLGCD/DPH/SEATEC	: Contract signed Completion June, 1976
2. <u>Agriculture &amp; Human Resource Development</u>					
a. Pilot Livestock Project	: Barrio based swine and cattle production and marketing project	: 14 Barrios	: GOP	: BRBC/BAI/DAR	: Over 2,000 head in place <sup>5</sup> Continuous
b. Crop Demonstration Project	: various crop field trials	: Basinwide	: GOP	: BRBC/EPI	: Final planning (behind schedule) Continuous
c. Compact Farm Development	: Training of government tech and farm leaders in compact farm, organization and management	: Basinwide	: GOP	: BRBC/BAE/DAR/DLGCD	: 160 Tech. trained 300 farm leaders trained Continuous

Table 3: Bicol River Basin Program (Cont'd)  
(Project Status)

Title	Nature of Project	Area of Coverage	Source of Funding	Executing Agency(ies)	Status and Completion Date
d. Fish Production	Pilot projects in aquaculture	Selected sites	GOP	BRB/BFAR	On-going December, 1975
e. Camarines Sur Agriculture College Feasibility Study	Plan for upgrading agricultural and vocational education in Bicol	Pili, Camarines Sur	AID GOP	BRBC/DEA	December, 1975
f. Agribusiness Feasibility Appraisal	Off-farm agribusiness development	Basinwide	AID GOP	BRBC/NGA/ DLGCD	Behind schedule June, 1976
3. <u>Transportation</u>					
a. Bicol River Basin Secondary and Feeder Road Feasibility Study	Feasibility study for 450 km. of secondary and feeder roads	Basinwide	Proposed AID GOP	BRBC/DPH/PEO/ DPWTC	Feasibility Study completed; proposed for FY 1976 AID financing Completion of construction FY 1979
b. Intermodal Transport Study	Second phase transport feasibility	Basinwide	AID GOP	BRBC/DPH/PEO/ CAA/PNR/DPWTC	June, 1976

D. Project Analysis

1. Financial Analysis

a. Availability of Financing from other Donors

If GOP momentum on this Bicol River Basin program is to continue, it is of utmost importance that this Libmanan/Cabusao Integrated Area Development Project be financed by this time. The success of this pilot project would lead to replication of similar projects in the Philippines. The GOP has specifically requested AID loan and grant assistance for this project. No other donor has expressed interest in financing this project.

b. Source of Procurement

The estimated \$2,547,000 direct foreign exchange commodity procurements will be limited to AID Geographic Code 941 countries. Up to \$953,000 will be used to finance an agreed amount of direct local currency project costs on a fixed amount of direct local currency project costs on a fixed amount reimbursement (FAR) basis utilizing a special Letter of Credit (SLC). The \$275,000 grant funds for technical assistance will be for consulting services from Code 941 countries.

c. GOP Contribution

The Government input would aggregate ₱27.9 million (\$ equivalent = \$3.98 million) over a six-year time frame. Table 2 presents the itemized GOP inputs.

Table 2

Libmanan/Cabusao Integrated Area Development Project  
(GOP Contribution in P000)

	FY 76	FY 77	FY 78	FY 79	FY 80	FY 81	Total
Investment	8,260	8,056	5,773	838	-	100	3,027
O & M	336	318	321	235	238	238	1,686
Overhead	482	559	559	559	559	559	3,277

d. Impact on the U.S. Balance of Payments

Since direct commodity procurements and technical assistance financed with AID loan and grant funds will be restricted to Code 941 countries and the Philippines and reimbursement to GOP on FAR items will be made available via SIC tied to imports from the U.S., there will be no adverse impact on the U.S. balance of payments.

e. Philippine Economic Situation and Debt Service Capacity

Recent Economic Developments

In the past two years there has been a sharp increase in the level of economic activity in the Philippines. The growth in real GNP, which had been about 5-6 percent a year for more than a decade, doubled to 10 percent in 1973, and is estimated to be about 7 percent this year. The strong recovery in 1973 was led by the international commodity boom and resultant increased export incomes in the Philippines by a strong recovery in agricultural and industrial production for the domestic market, and by an expansion in public and private investment. Underemployment and unemployment remain quite high, however, and in common with most other countries, the rate of inflation increased appreciably in the past 18 months.

The agricultural sector grew by 7 percent in 1973. Rice production in crop year 1973-74 increased by 23 percent over the level of the previous year when flood severely affected output. This increase has been due to favorable weather conditions, increased use of fertilizers, more supervised credit and increased investments in supporting rural services. The Government has moved ahead with its program of agrarian reform for the nation's one million rice and corn farm tenants. By mid-1974, 176,000 land transfer certificates had been issued, mainly to tenants on the larger holdings. The Government now hopes to issue certificates to all tenants on farms above 24 hectares. There is a strong prima facie case for pressing ahead with the program in the 7-24 hectare farm size range. Implementation below the 7 hectare level will be extremely difficult and benefits less obvious, in view of the numerous owners and tenants and small parcels of land held.

The industrial sector grew by about 12 percent in 1973. Non-traditional industrial exports, which have been increasing since 1970, are estimated to have doubled in 1973 to about \$200 million. However, industrial exports have been affected by the recent slowdown in the economics of key trading partners, and earnings are expected to level off this year.

The growth in production was also assisted by increased public development outlays in 1973 made possible by a significant improvement in the financial position of the Government. The ratio of public

investment to GNP is currently about 3 percent compared with 1.8 percent in FY 72. The Government has implemented a series of long needed tax reform and improvements in tax administration. As a result, the ratio of National and Local Government tax revenues to GNP has increased from an average of 9 percent in recent years to an estimated 12.4 percent in FY 74.

High prices for the Philippines' chief exports, including coconut producers, sugar, copper and wood products, were largely responsible for an increase in merchandise receipts of almost 70 percent in 1973. International reserves rose by about \$600 million during the year and stood at \$876 million, equivalent to about five months of imports, at the end of the year. However, since mid-1974, a large trade deficit has appeared, largely because the growth in export prices has moderated but import prices have continued to rise rapidly. Because of the very rapid growth in export income in the past two years, and continued good debt management policies of the Government, the burden of medium and long-term debt has declined dramatically. The ratio of debt service payments to export receipts has come down to an estimated 15 percent this year, compared with a high of 27 percent in 1971.

In the latter part of 1973 inflation emerged as a major problem. Since mid-1973 consumer prices have been rising at an annual rate of more than 40 percent. This has been caused by the large increase in liquidity since the export boom began in 1973, and by a number of cost-push factors, including the higher rate of world inflation, domestic food shortages and the increased cost of petroleum. Monetary and fiscal policies have aimed at absorbing the excessive liquidity expansion, and in recent months the rate of inflation has been moderating.

#### The Energy Crisis

Imported petroleum provides some 97 percent of the Philippines' total energy requirements. In 1973 the equivalent of 71 million barrels of petroleum crude and petroleum products were imported at a cost of about \$230 million c.i.f. When the energy crisis developed late last year, the Government moved quickly with conservation measures to reduce non-essential consumption. In 1974 imports of petroleum and products are likely to be about 71 million barrels at a cost of about \$780 million c.i.f.

The Government has decided to accelerate the development of local energy sources, especially hydropower and geothermal energy. Supplemented with nuclear energy in the 1980's, total demand for energy is expected to grow at about 10 percent a year, and even with more rapid development of natural power sources, petroleum would still account for more than 90 percent of total energy needs by 1980.

Growth Prospects

The abrupt deterioration in the external terms of trade since the middle of 1974, and the recession in the economies of key trading partners threatens some of the Philippine' recent economic gains. The labor force continues to grow at 3 percent a year, and although employment has expanded appreciably in the past 18 months, there is still widespread unemployment and underemployment.

Priority is being given to expanding food production for the domestic market, to expanding export production and to accelerating development of local energy resources. In the case of export production, the Government recognizes that the increased cost of petroleum and other imports cannot be financed indefinitely by borrowing abroad. It is actively encouraging both local and foreign investors to expand the productive capacity of export industries and to undertake major new import-replacing investments. The Government is seeking increased support from the international financial community to help carry out its development program and to ease adjustment to higher petroleum and other import prices. Because of the substantial improvement in the external debt burden and international reserve position in the past 18 months, the Philippines now has the capacity to borrow externally larger amounts of capital in support of its development program.

Maintaining a GNP growth rate of about 7 percent a year in real terms during the next few years will depend heavily on the buoyancy of the domestic market. The prospects are for continued expansion in agriculture, with a 4-5 percent increase in production in the year ahead. Continued expansion in public and private investment demand should help sustain industrial output expansion. Increased investments will be needed in a wide range of consumer and intermediate goods industries.

The increased size of the domestic market and growing export demand would seem to justify a wider range of investments during the latter part of the decade in large-scale, capital-intensive industrial projects, particularly in mineral-based processing industries where long-term comparative advantage may be strong. A number of big projects are proposed in mining, wood processing, fertilizer, steel and shipbuilding, which are likely to push up the private investment rate from recent levels of about 16 percent of GNP to perhaps 22 percent by the latter part of the decade. A substantial amount of the funds needed for these projects would have to come from external sources. But since the individual cost of many of them will exceed \$100 million, Consultative Group members can play an important role in helping the Government to obtain suitable co-financing arrangements, both with bilateral partners and with the private sector.

The public infrastructure program that was approved last year, which called for outlays of about P12 billion at current prices in FY '74-77, has become outdated because of the subsequent rapid inflation and by changes in investment priorities as a result of the energy crisis. A new program is being finalized, with more emphasis on developing nuclear and indigenous power resources and on irrigation, feeder roads and other projects to support increased food and export production. Public investment is likely to increase by about 15 percent a year in real terms so the ratio of public investment to GNP would rise from the present level of 3 percent to about 4 percent by 1977.

The domestic savings rate should rise from an estimated 19 percent of GNP at present to perhaps 20.5 percent by 1977. Foreign savings (i.e., the current account deficit in the balance of payments) would rise from an estimated 2.5 percent of GNP this year to about 4 percent in 1977. This foreign savings gap would decline in the latter part of the decade as the proposed investments in new export and import-replacing capacity begin to bring results.

#### External Finance

If the projections of exports, imports and external terms of trade were to be realized, the Philippines would require a total foreign capital inflow of about \$2,340 million during 1975 and 1976 to cover the current account deficit and medium and long-term loan repayments.

Direct investment would provide about \$190 million of this. Greater use of short-term trade finance is expected because of the increased oil import bill and generally higher levels of imports. A net inflow of about \$180 million would be in line with the increase in the value of trade being financed. About \$1,980 million could be expected from supplier's credits and other medium and long-term loans to the private and public sector, including about \$280 million from project loans extended by Consultative Group members. The balance of the required capital inflow of about \$180 million in 1975 and \$410 million in 1976 would have to come from other borrowings. The Central Bank could finance the entire deficit by short and medium-term borrowing while maintaining or even increasing the level of international reserves. Net reserves, however, would be negligible by 1976.

The recent important gains in reducing the external debt burden and improving the external reserve position should not be lost now by excessive recourse to short and medium-term borrowing by the banking system. In these circumstances, foreign donors should consider extending quick-disbursing commodity loans with long maturities. Some assistance may also be forthcoming from the IMF.

With a combination of quick-disbursing commodity aid from Consultative Group members and assistance from the IMF, foreign exchange availabilities would be sufficient for import requirements in 1975, while at the same time maintaining a reasonable external debt profile. The much larger shortfall in foreign exchange availabilities projected for 1976 would have to be met with an appropriate combination of long and medium-term loan funds to prevent an undue increase in the debt burden in later years. Quick disbursing commodity aid on suitably long-term would again be needed. However, there is considerable scope for additional medium and long-term loans from donors to finance capital goods imports which are projected to reach \$1.2 billion in 1976. In the months ahead, the Government and aid donors alike should explore this possibility. If these efforts are unsuccessful, the Government would have to reassess its growth strategy for 1976.

If the projected inflows on the capital account are forthcoming, and if the presently identified shortfalls in foreign exchange availabilities are met with an appropriate combination of medium and long-term loan capital as suggested, management of the external debt and debt servicing should not present serious problems.

## D. Project Analysis

### 2. Economic Analysis

#### a. Assumptions

The BRBC project feasibility study was premised on several basic assumptions. These assumptions have been reviewed by the Mission and are judged to be reasonable. In fact, the net impact of these assumptions has introduced a strong conservative basis into the appraisal, leading, in the Mission's opinion, to an understatement of the economic and financial viability of the project. The major assumptions are discussed below.

#### (1) Farm Costs

The study assumes that farmers will be encouraged to use high yielding varieties of rice with the introduction of irrigation and drainage facilities. The culture of high yielding varieties demand intensified levels of production inputs like fertilizers, chemicals, labor, etc. The technical production coefficients which were derived from existing agro-economic surveys and soils classification were assumed to be fairly stable over time. The second major farm level assumption of the GOP feasibility Task Force considered that farmers in the project area are rational producers and would apply corresponding input levels to realize production targets.

#### (2) Production

The target of the present Masagana 99 program of the national government is to produce 99 cavans (4.95 M.T.) of palay per hectare. Results of experiments and actual production of progressive farmers in the Basin area show that a hectare of irrigated land is capable of producing up to 200 cavans.

The assumed yield levels in the project area (3.75 M.T./hectare/wet season and 4.75 M.T./hectare/dry season), which are considerably lower than the Masagana 99 target yields, were based on and are correlated with the expected rate of technological diffusion in the project area given the heterogenous nature of the farm management structure.

It was assumed that the project area would experience a 10-year flood frequency which would cause heavy damage to crops. The yield reduction coefficient of 7.5%, 10% and 30% respectively for 1R, 2R and 3R lands during the wet season was made on the assumption that there would be equal probability of flooding every year within a 10-year period. The area that would experience the corresponding yield reductions was identified in the land classification study.

The study also assumed a 2.5 cropping intensity or five croppings in two years. This was made under the assumption that the system as designed would be technically capable of supplying the required volume of water.

The incremental output is the residual between the total production with the project and total production without the project. The yearly increment in yield of one cavan per hectare under the without case was derived from the analysis of existing time series data in the basin.

A final production assumption was that the necessary conditions in the form of the supporting project components were sufficiently and properly identified and are of the appropriate intensity to satisfy production targets.

### (3) Shadow Pricing

Farm labor was shadow priced given the marked seasonal distribution pattern. The economic price of labor therefore in the project case is not equal to the prevailing wage rate.

Output was also shadow priced to reflect the economic cost incurred in making available the product through an alternative means, e.g., through importation. The Philippines at present is still importing rice and is still subsidizing producers. Assuming other factors are held constant, import volumes will be reduced by an amount equivalent to the surplus production generated by the project. Accordingly the farm gate price equivalent of the international market price was used in the project study or the relevant economic value of output.

(4) Build-up Period

The build-up period was defined as the length of time required to stabilize productivity. This was assumed to occur in six years. It was further assumed that the demonstration effect of applied research in the project area when coupled with an expanded and improved extension system would facilitate the diffusion process necessary to achieve the six-year build-up.

(5) Salvage Value

The salvage value of the system was reflected as a negative investment during the 25th year of the economic analysis, based on the assumption that the life expectancy is 50 years and that the desired level of operation and maintenance would be realized.

(6) Power Availability

The choice of electrically powered pump was based on the assumption that electricity would be available in the project area by 1977.

b. Feasibility Approach

The GOP analysis compared two situations: without and with the project system. It measured the changes or increments in costs and benefits between the two cases over the lifetime of the projects. A discount rate of 15 per cent was used as an approximation of the opportunity cost of capital in the country. A 25-year timeframe was used in the analysis.

(1) Costs

Both the economic and financial costs were derived. The financial costs were based on current market prices and include transfer payments. The economic costs on the other hand exclude transfer payments. The shadow price of labor was computed to represent the economic costs of farm labor. Costs items include investment, operation and maintenance of project facilities, project support services costs, overhead and on-farm costs.

(2) Benefits

Only the direct incremental benefits attributable to the project were included in the analysis. The incremental palay output was valued at existing market prices for financial analysis and at the international farm-gate price in the case of economic analysis.

Benefits were derived on the basis of target yields beginning with completion of project facilities to full development. These yield targets were assumed to occur as a result of the interplay of the five component projects identified as a package and the developmental schedule adopted.

c. Feasibility Indicators

The indicators used are: Net Present Value (NPV); Benefit-Cost Ratio (BCR) and Internal Rate of Return (IRR). The following summarizes the economic and financial viability of the project:

	<u>Economic</u>	<u>Financial</u>
1. Net present value	₱44.70M	₱2.19M
2. Benefit-cost ratio	1.32	1.02
3. Internal Rate of Return	30.6%	15.9%

The project as designed and packaged is both economically and financially viable.

The Net Present Value at the compact farm level was estimated at ₱113M (15% Discount Factor) with a BCR of 1.37 and an IRR of 186% indicating a high degree of viability. Finally, the cash-flow analysis of the Irrigators Association (IA) indicates a high degree of solvency. Even with an 80% collection rate of water fees the IA can carry all operation and maintenance costs as well as amortize the investment cost of the system over a forty year period.

d. Continuing Appraisal

The Mission has requested its agri-business consultant from Kansas State University to conduct an in depth economic and financial appraisal of the project. The evaluation is

nearly complete; it was not possible however to complete the evaluation in time for inclusion in this Project Paper due to computer programming difficulties. The results will be forwarded to AID/W during the week of May 25, 1975.

e. Project Beneficiaries

The Libmanan/Cabusao Integrated Area Development Project is essentially a rural project designated to serve people in the rural areas of the Bicol River Basin. The 1974 population of the 3,873 hectare project area was approximately 13,500.

From the Census of 1970, the Libmanan/Cabusao area registered a net out-migration rate of 1.63 which is slightly lower than the Camarines Sur out-migration rate of 1.93 but almost double the regional (Bicol) rate of 0.9. This indicates that though a rice-surplus area, Libmanan/Cabusao has progressively presented a distinct pattern of "unattractiveness" to its people to the extent that they sought other areas to migrate to. Regardless of the statistical indices used, the Libmanan/Cabusao area is underdeveloped and requires major external inputs if the development process is to be put in motion.

The Annual Panel Survey of April 1974, conducted by the Social Survey Research Unit, showed that the average annual household income in the project area was approximately ₱3,089 (\$441). The average per capita income for the same year was estimated to be ₱515 (\$74). This is lower when compared to the average household and per capita income of ₱3,828 (\$547) and ₱638 (\$91), respectively, for the Basin as a whole. Within the project area, 62 percent of the households were earning in 1974 less than ₱3,000 (\$428) per annum, while only three (3) percent had annual household incomes of more than ₱10,000 (\$1,428).

Information available from the Department of Agrarian Reform showed that there are 958 farmers eligible under the Operation Land Transfer. Of this, about 72 percent are awarded land transfer certificates. There are also 558 tenants eligible for leasehold conversion. Of this, about 64 percent are already converted to leasehold.

The level of social amenities in the project area leaves much to be desired. Only 10% of the population in the project area are being served with electricity. Only 17% have installed water sealed flush toilets with about 22% having no toilets at all, using the open fields. Piped water is made available to a third of the households with about 37% drawing domestic water from open wells, springs, rain

water, and streams. About 87% of the household dwelling units are constructed of light materials (cogon, nipa and wood) which the SSRU has found to correlate directly with the lowest income class.

The Libmanan/Cabusao Integrated Area Development Project is viewed as a means for significantly increasing the income of these low income families. As a result of the project, it is estimated that there would be between 1976 and 1981 a 34% annual increase in farm income. By 1981, approximately 78% or 1820 of the households in the project area would have an annual farm income of ₱5,000 and the remaining 22% (513 households) an annual farm income of ₱4,000. This would result to dramatic change in income levels considering that about 62% of the farm families in the project area are presently earning less than ₱3,000 per annum. The project also envisions marked improvement in the income distribution attributable to the planned acceleration of the land reform program.

## 2. Technical Analysis

The Mission has reviewed the technical aspects of the project and has determined that the GOP's engineering plans are based on accepted engineering practices and are fundamentally sound.

### a. Pump Installation

The selection of electrically driven pumps to deliver the water supply to the project area is a sound decision when compared to diesel driven pump option. The economic analysis substantiates this decision.

The upstream site for the pump installation provides the best protection against pumping saline waters from the river which result from salt water intrusion up the river during periods of low flow under high tide conditions. This site also coincides with the potential gravity diversion site to service the project area under future development conditions proposed for the Pulantuna-Libmanan River complex. This same point of diversion would be utilized for gravity diversion of flood flows from the river at Sipocot to San Miguel Bay which would require the extension and enlargement of the proposed interceptor drain which is an integral part of the project. The four pump sets would be operating against a 6.5 meter TDH and would deliver 5.8 cms of water for the 3873 hectares project area. This supply of water is judged sufficient to deliver an adequate water to the project lands under abnormally dry periods. Based on past available records an adequate water supply is reasonably assured within tolerable shortages;

however, it would be advisable to continue upgrading the stream gaging activities in the area to secure a more up-to-date data on available water supply as it exists at the present time, especially during the low flow period of the year.

b. Water Quality

The quality of the water based on the results of limited testing initiated in October 1974 is good. There have been no indications of deteriorating water quality upstream from the railroad bridge at Libmanan, and the testing should continue through the low flow, high tide cycles during the summer months to verify good quality water availability at the pump site. The BREC is currently taking monthly water quality samples at selected points along the Libmanan River.

The flood protection dike around the pumpsite should provide adequate protection for the installation.

c. Canal and Lateral System

The canal and lateral network proposed should provide adequate service to the area. Canal density is adequate and the tentative layout as checked in the field appears satisfactory. During final design and preconstruction activities some minor adjustments may be advantageous. The designs and typical sections of the canals and laterals are based on standard designs similar to those used in the U.S. and have been and are acceptable to IBRD and ADB for external financing.

The canal structure density appears adequate at this time. Final location of various types of structures should be well coordinated and located to provide optimum water control and service as well as communications access for the resident farmers of the area.

As designed the turn-out density and farm ditch system should facilitate efficient delivery of water to the land being served. The choice of 50 hectares rotational units with sub-areas of 8 to 14 hectares organized around compact farms within these larger rotational units reflects the result of research and experimentation on NIA projects since 1971. These design standards provide a near optimum balance of farmer users, lateral and farm ditch size, right-of-way utilization, and ditch tender capability. The inclusion of

constant head orifice turnouts to deliver a known quantity of water will make it possible to institute water management practices which would increase the water utilization efficiency. In addition to these turnouts, the Mission has recommended the installation of inland water measurement devices such as Parshall Flumes at key places within the system to facilitate more complete control and monitoring of water supplies and deliveries.

d. Drainage System

The proposed drainage system within the project area and the interceptor drain along the northern boundary of the project should provide adequate drainage capacity required for flood alleviation. The provision of the proposed drainage reduce the period of inundation of crop lands to a minimum. The 11.4 liters per second per hectare capacity falls within the 8 to 13 liters per second per hectare capacity that have proven satisfactory for similar areas in the Philippines. Monitoring of unconfined groundwater levels should be initiated throughout the project area to establish pre-project conditions and continue into the operation and maintenance phase after construction is completed to evaluate the changes induced by full-time irrigation in the area. Sub-surface drainage may be required in some of the lower elevation land in the northeastern part of the project in order to control a salinizing situation that could develop because of full time irrigation and possible salt intrusion into the area from San Miguel Bay or the Bicol River estuary. This situation should be monitored carefully. High water utilization efficiencies should be attainable and demanded because of the pumped supply which in turn will keep drainage requirements to a minimum, which can be aggravated by inefficient use of water and excessive operational waste.

The interceptor channel would eliminate the overland flow of the surface water from the 23 square kilometers drainage area situated upslope from the northern boundary of the project. This runoff is currently aggravating the flooding and drainage conditions in the project area, but would have no further effect on the irrigated area subsequent to the completion of this channel.

e. Tide Protection Dike

The tide protection dike together with companion flap and slide gates should eliminate the twice daily ingress and egress of saline tide water into the existing drainage channels dis-

charging from the project area. The construction of the dike to an elevation of 2.2 meters above mean sea level would also prevent small storm surges from inundating the low level, fringe areas of the project. If the side slopes of this dike can generate a grassy sod cover and luxuriant growths of brush bamboo, etc. can be established on the river side of the dike, damage to the dike and the intensity of overtopping during high storm surges can be reduced considerably. The Mission has recommended that the top of the dike be widened to about 3.5 meters to accommodate a roadway on top of the dike to facilitate inspection, maintenance and provide a means of access into and out of the area for the resident areas or adjacent to the dike.

#### f. Operation and Maintenance of the System

The Irrigators Association (IA) OSM staff should be fully organized at the beginning of the test turn or trial run period of one year. They should work together with NIA gradually assuming more of the actual operation responsibility during this initial period so that they can in fact begin to operate the system completely after the first year. Technical assistance should continue to be available as needed from NIA after this first year of operation. A systematic method of monitoring and reporting operation data should be required from the IA to NIA and a definite schedule of review of maintenance operations by NIA should be established to insure an adequate and effective OSM program for the project. The IA should be as free from government control or close supervision as possible but must be accountable for the viability of project operations and facilities.

### 3. Social Analysis

This section analyzes the impact of the project on the socio-cultural milieu of the project and the role of women in development.

As a general rule, the rural Filipino has been culturally characterized as traditionalistic, religious, fatalistic and having a tendency to cling to old values and beliefs - characteristics which according to Reston are generally prevalent in most traditional societies. From the development perspective, these conditions are generally considered as socio-cultural barriers to growth and development. Fatalism, for example, which assumes that events are determined by nature, certainly is a barrier preventing the introduction of innovative approaches unless a deliberate effort is made to change existing beliefs.

On the other hand, there are existing socio-cultural traits of the rural Filipino farmer which can be capitalized to promote development. Familism and kinship, together with the predominance of the extended family, for example, can be exploited to promote cooperativism at the farm level. This can be extended through the neighborhood or the barangay concept which stresses voluntary cooperation of the village level. This pre-Spanish tradition of cooperation is now being intensified under the New Society to strengthen basic institutions. The compact farm concept now a formal and fundamental component part of the Bicol River Basin Program began spontaneously in various areas of the Bicol and has only recently gained support from Government institutions.

Cognizant of these socio-cultural variables, the planners of the Libmanan/Cabusao Integrated Area Development Project have adopted necessary measures to effect socio-cultural change. The diffusion process considered for the project area recognizes three major variables, namely, the change (practice), the change agent (technician) and the actor (farmer). Change can be effected if it is desired, profitable and compatible with the actor's practices provided that it has been introduced properly by the change agent. The introduction of a change requires a process of creating an awareness on the part of the recipient, developing his interest which ultimately makes him adopt, on a trial basis, the change. This process is embodied in the various support services proposed to be implemented in the project area. The project will institute a program of applied research and demonstrations (the change), intensify and upgrade through training extension services (the change agent), and promote improved and more efficient farm management practices through development of compact farms (the actor).

Since modern practices under the project are to be institutionalized, the immediate effect, therefore, of the project will be a new pattern of receptiveness, innovativeness, and cooperation as against the existing pattern of fatalistic and traditionalistic behavior. As a result of the project, new work patterns, higher levels of desires and wants and new sets of practices are expected to emerge among project beneficiaries. The development or non-development of these behavioral patterns will be closely followed and analyzed by the Basin's Social Survey Research Unit and will be the subject of special analysis during the interim (3rd year) and final (6th year) evaluation of the project.

The rural farm household housewife can play a significant role in the Libmanan/Cabusao IAD Project. Castillo explained, for

example, that the pervasive influence of the Filipino wife in farm-business decisions derives from her role as the uncontested treasurer, with power to approve or veto expenditures. Women often serve as the conduit for diffusing improved farming practices in the Philippines as has been shown in the Team Approach of the Farm and Home Development Office, University of the Philippines College of Agriculture. Through the various training and promotional programs of the project women will encourage to take an active role in the implementation of the project.

#### 4. Policy

The goals of the Libmanan/Cabusao Integrated Area Development Project are: (1) to increase income and income distribution in the project area; (2) to increase employment opportunities; and (3) to improve the quality of life of project beneficiaries. The purpose of the project, the means by which the program goals are to be achieved, is to increase the cropping intensity in the project area to at least two (2) rice crops per year and measurably increase yield per hectare. These goals and the project purpose explicitly embody the elements of overall GOP development policy which has been articulated since the advent of Martial Law in 1972. Briefly discussed below are the central policy elements which collectively form the policy base underlying the Libmanan/Cabusao Project Plan.

##### a. Agricultural Policy

The GOP has positive policies to increase production and are reassessing these policies periodically to see that they are reaching the small farmer. National objectives are for increased food production aimed at self-sufficiency in the basic staples, rice and corn - crops produced on farms averaging 2.5 to 3.0 hectares. As evidence of this concern, a group of GOP policy makers held a three day seminar at Los Banos recently to discuss agricultural policy. National Economic and Development Authority Secretary Gerardo P. Sicat told the group as reported in Business Day (April 23, 1975) "... the government will continue to give top priority to food production as a means of insulating the country from the ill effects of the prevailing worldwide shortage of commodities and as a hedge against the threat of inflation on the already reduced buying capacity of the low income masses ..... food production programs assumed greater urgency in view of the worldwide shortages of food and the perennial deficiency of the average Filipino diet of some basic food." Dr. Sicat announced that some P3.2 billion would be channeled into food production programs in 1975 compared to P2.6 billion during the previous year.

From the policy point of view of national self-sufficiency in rice, the Philippines basic food staple, the Libmanan/Cabusao Integrated Area Development Project will make a substantial contribution by adding over 19,000 M.T. annually to national stock.

In the agriculture sector the GOP has enumerated and put into effect a range of agricultural policies and program that will directly contribute to the project's success. These programs include provision of short and medium term production and marketing credit within easy reach of the project farmers and the establishment of a floor price for rice which guarantees the farmer a reasonable return to his investment.

b. Income, Income Redistribution and Employment Policy

The overall objective of the GOP Four Year Development Plan 1974-1977 enunciates a development program stressing agricultural self-sufficiency as discussed above coupled with a major effort to mobilize the rural sector.

The central objective of this rural mobilization effort is to equitably increase incomes of the rural poor and generate widespread employment.

The chief means to increase income in the rural sector now being pursued by the GOP is a concerted multi-sectoral effort to improve the basic infrastructure of the rural areas through increased investments in irrigation, flood control, transport and an equally intensive effort to improve the quality of agriculturally related support services. These programs are now being pursued intensively by the GOP through its integrated area development projects in Bicol and in Mindoro where investments in physical infrastructure have been closely intermeshed with social input linkages to maximize their total utility.

The means adopted to achieve the policy goal of attaining a more equitable distribution of income especially in the rural sector is through land reform. This involves initially the conversion of rice and corn tenants to leasehold for farmlands below 7 hectares and the conversion of the same kind of tenants into amortizing owners for farmlands above 7 hectares. While the productive efficiency of the land reform program still remains to be validated, its income redistribution effect is unquestioned. The income redistribution effect is mainly due to size differentials between share rentals and lease rentals or amortizations which farmers pay the landowners.

The GOP has also continuously adopted a policy of promoting employment opportunities among its citizens. Currently the GOP is promoting the expansion of rural based small-scale

and medium industries and the adoption of labor-intensive construction techniques. Through its agribusiness program the BRBC is promoting and developing increased employment opportunities in the Basin. Through projects like the BRBC's Land consolidation project, which is currently being constructed using labor intensive techniques, and through the Libaanan/Cabusao Integrated Area Development Project, which will provide 2,300 man years annually of project induced employment, the GOP is demonstrating its policy commitment to the welfare of the rural population.

## 5. Administrative Analysis

The BRBC was created in May of 1973 as the GOP's first major effort in integrated river basin development. The BRBC Program Office, under capable management and with strong policy support, particularly from the Department of Public Works, Transportation and Communications, the National Irrigation Administration, the Department of Agriculture and the Department of Agrarian Reform has developed and acquired a strong planning and management staff over the past twenty-two months of operation. This staff, supported by a Technical Assistance Group from the University of the Philippines and several local consulting firms, has completed, among others, three major feasibility studies (Libaanan/Cabusao, Secondary and Farm to Market Roads and a Land Consolidation Project), and has planned and initiated, on a concurrent basis, sixteen inter-agency projects ranging from basinwide land classification to compact farm technician and extension training programs.

While the staff has limited implementation experience in projects as large and as complex as this project proposed for A.I.D. financing, the Mission is confident that the Basin Program Office staff in conjunction with participating line agencies and the concerned municipal governments can successfully implement the Libaanan/Cabusao Integrated Area Development Project.

A unique and experimental feature of the Project is the creation of an inter-agency Area Development Team to carry out field implementation. The BRBC approved the ADT concept in December 1974 and provided funds for the creation of six Area Development Teams to be located in six sub-regions (Development Areas) of the Basin. Under this overall concept all field technicians from the major line agencies will be

brought into a sustained working relationship under the direction of an Area Development Coordinator. Basin management feels that it will be this field level coordinated effort that will ultimately distinguish the Bicol River Basin over time from other rural development projects. The ADT is seen as (1) a crucial link between Basin planners and the people, (2) a unit to effectively integrate the different sectoral agencies and their programs at the field level and in so doing increase the efficiency of government services and properly exploit program complementarities, and (3) as a unit to bring municipal governments serving the same economic sub-regions of the Basin into sustained and productive working arrangements with each other and with national and provincial level agencies.

The Libmanan/Cabusao Area Development Team will be the first to be organized as well as the first to receive major capital inputs. The BRBC has drawn up a satisfactory staffing pattern for the ADT and appropriate management control systems are now being installed to effectively tie the ADT to both the responsible technical agencies and to the BRBC Program Office as the responsible supervising office.

The Mission is of the opinion that the rural and local institutional development possibilities embodied in the ADT concept are sufficiently attractive to warrant USAID support in the form and in the amount as outlined in this Project Paper.

E. Project Implementation

1. Implementation Plan

(a) GOP Plan

After loan approval, the BRBC shall establish within three months the Area Development Team (ADT) and the Area Development Council (ADC), with the latter serving as the main organization responsible for project implementation.

The construction of irrigation and drainage facilities will be completed during the first three years. While physical work on these structures is being undertaken, project support services will be established (see Chart III).

The acceleration of operation land transfer and leasehold is necessary to create a psychological atmosphere conducive for the adoption of improved farming technologies which ultimately will result to increased productivity and farm incomes. The loan covenants provide that land values will be fixed during the first six months of the project and leasehold and land transfer certificates for all eligible project beneficiaries will be completed in approximately twelve months.

(b) Loan Disbursement Schedule

The following implementation schedule is within the range of reasonable expectations:

Loan Authorized (AID/W)	June 30, 1975
Loan Agreement Negotiated and signed (GOP/AID)	July 31, 1975
Conditions Precedent to opening letters of commitment met (GOP/AID)	Sept. 30, 1975
Letter of Commitment opened (GOP/AID)	Oct. 15, 1975
Request for S.I.C. (GOP)	Dec. 15, 1975
TD for disbursement request	Sept. 30, 1978

Chart 3

LIDMANAN-CAGUSAO INTEGRATED AREA DEVELOPMENT

IMPLEMENTATION SCHEDULE

WORK ITEM	1975	1976	1977	1978	1979	1980	1981
	0	1	2	3	4	5	6
A. ORGANIZATION OF ADT/ADC	██████████						
B. IRRIGATION AND DRAINAGE							
1. PRE-CONSTRUCTION		██████████					
2. CONSTRUCTION		██████████					
3. TEST RUN				██████████			
C. LAND REFORM							
1. LISTING		██████████					
2. PARCELLARY MAPPING		██████████			██████████		
3. OLT AND LEASEHOLD		██████████					
D. COMPACT FARM DEVELOPMENT							
1. TRAINING		██████████	██████████	██████████	██████████		
2. ORGANIZATION		██████████	██████████	██████████	██████████		
3. EXTENSION SUPPORT DEVELOPMENT		██████████	██████████	██████████	██████████	██████████	██████████
E. APPLIED RESEARCH							
1. TEAM ORGANIZATION		██████████					
2. IDENTIFY RESEARCH AREA		██████████	██████████				
3. RESEARCH OPERATION			██████████	██████████	██████████	██████████	██████████
F. IRRIGATORS ASSOCIATION							
1. ORGANIZATION			██████████				
2. MGT / OPNS TRAINING				██████████	██████████		
3. OPERATION / MAINTENANCE						██████████	██████████

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## 2. Disbursement and Procurement Procedures

The A.I.D. loan funds will be disbursed according to the following procedures:

### (a) Acquisition of Construction Equipment

The GOP has proposed, in the interest of building local construction contracting capability, that up to \$1.8 million of the loan funds would be made available for direct procurement of required construction equipment by the winning contractor, tax free through the auspices of the BRBC and the National Irrigation Administration (NIA) whose project engineer will supervise the construction contract-or(s). Use of loan funds in this manner would provide sufficient incentive for contractors to bid on the project, given the fact that they will gain access to a foreign exchange source to enable them to procure equipment for use on this and future projects. This disbursement procedure has been favorably considered by the Mission for two reasons. First, it will attract competent contractors to the Bicol area. The Mission (through the PDAP Project) and the BRBC, in conjunction with the construction of its land consolidation project, have had only limited success in attracting contractors to the Bicol area given its remoteness from Manila and the existence of considerable contracting work in more accessible areas of the country (e.g., Central Luzon). Secondly, equipment procured directly by the contractor and turned over to him in payment for services rendered, will insure that the equipment is properly maintained, since, as the property of the contracting firm, the incentive for proper maintenance will be present. This procedure represents a marked improvement over traditional loan financed projects where the Government procures the equipment for use by the contractor. In this case, the contractor generally neglects maintenance of the equipment, since the equipment will revert to the sponsoring government agency upon completion of the project. The loan funds for this purpose will be disbursed through standard A.I.D. Letter of Commitment (LOC) and Special Letter of Credit (SLC) procedures.

### (b) Project Support Equipment, Pump Sets and O&M Equipment for the Irrigators Association.

To support the office equipment, field equipment, and vehicle needs of the Area Development Team which will be responsible for implementation of the five component sub-project up to \$457,000 of the loan funds will be made available for the direct procurement by the BRBC of the required equipment.

To support the development of the Irrigators Association and provide the Association with the essential equipment necessary for

proper maintenance of the system up to \$150,000 in maintenance equipment will be procured by the BRBC, on behalf of the Irrigators Association.

A portion of the loan funds, up to \$140,000, will be used by the BRBC to procure the project pump sets and motor controls.

The loan funds used to procure these commodities will be disbursed through standard A.I.D. Letter of Commitment and Letter of Credit procedures.

(c) Fixed Amount Reimbursement

Up to \$953,000 will be made available to finance local currency costs of the project. These funds will be used to finance an agreed amount of direct costs of the project. Periodically, A.I.D. will reimburse the GOP for work satisfactorily completed by establishing a dollar credit in a Special Letter of Credit in a U.S. bank covering the dollar equivalent of the agreed upon reimbursement. The costs will be calculated in Philippine pesos and reimbursement by A.I.D. will be based on the official rate of exchange at the time the completed work is approved for reimbursement.

(d) Grant Technical Assistance

The A.I.D. grant funds will be allocated over a three-year period (FY 76, 77 & 78) and will be used: (1) for acquiring services of selected consultancy to assist in the final A&E design of the irrigation and drainage system, and (2) to enable the BRBC to enter into a contract with an appropriate institution to develop a total package of extensible rice technology for the Bicol covering on-farm water management, mechanization, farm management, and agronomic practices.

3. Project Monitoring System/Reporting Requirement

(a) BRBC System

The BRBC Monitoring System is designed to obtain data from various Project Managers on the status of projects in terms of time and cost overrun/underrun and to identify bottlenecks in implementation which constrain their timely completion.

With the assistance of Project Managers the Project Monitoring Information System (PMIS) Staff of the BRBC prepares a PERT-CPM network for each project. The network forms the basis for

subsequent scheduling of the project, monitoring the project and reporting on scheduled progress.

The Economic Development Foundation (EDF), a local management consulting firm, is currently on contract with the BRBC to assist in further upgrading the BRBC management system which also includes project monitoring. The upgraded monitoring system prepared by EDF will be applied to the project, with regular monthly progress and financial status reports furnished to all participating agencies, NEDA and USAID.

(b) Reporting Requirement

The following will be required:

1. Monthly progress reports reflecting the accomplishment of network activities, estimate time to complete activities in progress, and narrative discussion of any problem situations being encountered and action requested.

2. Quarterly report on disbursements and outstanding obligations.

3. Annual report indicating status of completion for prior and present years activities, and projected program targets for ensuing year. The reports will include detail on number of compact farms organized and farmers trained, status of leasehold agreements, number of amortizing owners, applied research conducted, etc.

4. Evaluation Plan

The Bicol River Basin Program was established by the GOP as a pilot project. As such, all aspects and projects of the program are considered by the GOP as pioneering efforts, the progress and results of which are to be carefully monitored, recorded and evaluated to enable transfer of relevant concepts, systems and component projects to other areas of the country if they prove successful in the Bicol and are judged to be replicable in other regions of the country. To date, the BRBC has made a major effort to establish the machinery for systematically evaluating the program over time. The most notable aspect of this effort has been the creation and professional operation of the Basin's Social Survey Research Unit (SSRU). The SSRU has completed the first Annual Panel survey of Basin residents, thereby finally establishing the baseline data which will enable the SSRU to assess the impact of the Program's activities over time on the lives of residents living in the program area. While a

large volume of data already exists for the Libmanan/Cabusao area, Basin management has determined, given the pilot nature of the project, that an intensive evaluation effort should be built into the project. Quoted below is the Basin's evaluation plan, which the Mission strongly endorses.

"An Annual Evaluation shall be undertaken by the Social Survey Research Unit, thru random sampling of beneficiaries in the project area. These annual evaluations will determine first, whether component projects are achieving their objectives, and second, whether, indeed, integrated implementation is being achieved thru the Area Development Team/Area Development Council. The evaluation will be presented and discussed in one Area Development Council monthly meeting no later than 90 days after each survey to facilitate feedback and revision of strategies, if necessary.

A Mid-Project evaluation shall be done by SSRU at the end of Year 3, and a Terminal Evaluation at the end of the 6-year time frame. The Mid-Project and Terminal Evaluation shall be published and disseminated to the national agencies involved as well as to all interested parties."

The loan document will contain a Covenant formalizing GOP/AID understandings in this regard.

#### F. Conditions and Covenants

##### 1. Conditions

The major conditions precedent (CP) required of the Borrower and/or the BRBC in addition to the standard CP's prior to any disbursement of loan funds, are recommended as follows:

- (a) A project implementation plan for the life of the project prepared by BRBC, including projection of funds available to finance the various elements of the project.

- (b) Written assurance from the BRBC and the National Irrigation Administration that an Irrigators Association (IA) will be formed, properly chartered, and given responsibility for managing the system, including provisions for repayment of costs of construction in accordance with government policy and a plan for operation and maintenance of the system.

## 2. Covenants

The following are the covenants recommended to be included in the loan agreement:

- (a) The project will be managed on behalf of the Borrower, by the Pico River Basin Program Office, with actual sub-project implementation to be carried out by appropriate line agencies working through the Area Development Team.
- (b) The Borrower, through the Department of Agrarian Reform, will determine and fix within six months from signing of the loan agreement, land values for all land in the project area subject to transfer under the Provisions of R.A. 27 and subsequent implementing instructions.
- (c) The BRBC will submit for A.I.D. approval final engineering designs and the proposed construction contract.
- (d) The Borrower, through the Department of Agrarian Reform, will, within twelve months from the signing of the loan agreement, issue Land Transfer Certificates or secure written registered leasehold contracts for all farmers eligible in the project area under R.A. 3844, P.D. 27 and subsequent implementing instructions.

(c) . BRBC will assure that Project Evaluation Procedures are implemented.

G. Issues

None

PART III

ANNEXES

Annex

- A. Executive Order 412
- B. Logical Framework Matrix
- C. Checklist of Statutory Criteria
- D. Environmental Impact Statement
- E. GOP Request for the Loan
- F. USAID Director's Certification
- G. Draft Loan Authorization and Project Paper Facesheet

## ANNEX A

OFFICE OF THE PRESIDENT  
of the Philippines

## EXECUTIVE ORDER NO. 412

## CREATING THE BICOL RIVER BASIN COUNCIL

WHEREAS, it is government policy to promote integrated area development as a means towards a systematic regional development in the country;

WHEREAS, in the Bicol Region, the Bicol River Basin is an area of high growth potential where new investments in agriculture and infrastructure will yield maximum benefits in terms of production and agrarian reform;

WHEREAS, there is a need for a coordinating body that will oversee, unify, and integrate the administration and implementation of this pilot river basin development program of the government;

NOW, THEREFORE, I, FERDINAND E. MARCOS, President of the Republic of the Philippines, by virtue of the powers vested in me by law, do hereby create the Bicol River Basin Council, hereinafter referred to as the "Council", under the National Economic and Development Authority.

SECTION 1. Powers and Jurisdiction. The Council shall have the following powers:

- (a) To review and pass upon the programming and allocation of funds of agencies represented in its Board of Directors, for all projects within its geographical jurisdiction.

Unless otherwise decreed, the jurisdiction of the Council shall encompass that portion of the Bicol River Watershed within the province of Camarines Sur, covering the municipalities of Del Gallego, Ragay, Lupi, Sipocot, Calabangan, Cabusao, Libmanan, Pasacao, Pamplona, Bombon, Magarao, Carmoan, Camaligan, Naga City, Milaor, Gainza, Minalabac, San Fernando, Bula, Balatan, Pili, Tianmbac, Goa, Tigaon, Sangay, Buhi, Iriga City, Nabua, Ba-ao, Ocampo, and Bato.

- (b) To integrate and coordinate with implementing agencies of the government all plans and programs affecting the Bicol River Basin.

The decision of the Council in this regard shall be final.

- (c) To call on any department, bureau, office, agency and other instrumentalities of the government for assistance in the form of personnel, facilities, and other resources as the need arises in the discharge of its functions.
- (d) To do all such other things and to transact all such business as is directly or indirectly necessary, incidental to the attainment of the objectives of the Bicol River Basin Development Program.

SECTION 2. Board of Directors. The powers of the Council shall be vested and exercised by a Board of Directors, hereinafter referred to as the Board, which shall be composed of the following:

As Chairman - The Secretary of Public Works, Transportation and Communications

As Members - The Secretary of Agriculture and Natural Resources, or his Undersecretary

The Secretary of Agrarian Reform, or his Undersecretary

The Secretary of Local Government and Community Development, or his Undersecretary

The Director-General of the National Economic and Development Authority, or his Deputy

The Provincial Governor of Camarines Sur, and

The Executive Director of the Council, ex-officio

The Board shall meet at least twice a year or more frequently as may be necessary to discharge its functions. For actual attendance at each meeting, each member of the Board shall have a per diem of one-hundred pesos (P100), but the total amount of per diem a member may receive shall in no case exceed two-hundred pesos (P200) a month.

Four members of the Board shall constitute a quorum during meetings of the Council.

SECTION 3. Program Office. The Council shall maintain a Program Office which shall be headed by the Executive Director and four Deputy Directors -- for Plans and Programs, Social Infrastructure, Physical Infrastructure, and Budget and Administration.

This Program Office shall have its principal location in Camarines Sur.

SECTION 4. Duties of the Board. The Board shall have the following duties:

- (a) To prescribe, amend, repeal rules and regulations governing the manner in which the general affairs of the Council shall be conducted.
- (b) To appoint, suspend, or otherwise remove from office for cause the Executive Director or his Deputies.
- (c) To approve the annual and/or supplemental budgets of the Council which shall be submitted regularly.

SECTION 5. The Executive Director, Qualifications. The Executive Director shall be a natural-born citizen of the Philippines with demonstrated executive competence in the field of public administration, public infrastructure, or the management of agriculture, industrial, or commercial enterprises.

The Executive Director shall serve for a fixed term of four (4) years, unless earlier removed from office by a two-thirds vote of the Board.

The Executive Director shall receive an annual compensation which shall be charged against the appropriation of the Council for operating expenses. Provided, however, that in no case shall the compensation of the Executive Director be more than thirty-thousand pesos (P30,000) per annum.

SECTION 6. Duties of the Executive Director. The Executive Director shall perform the following duties:

- (a) To prepare the agenda for all meetings of the Board and to submit for consideration thereof the policies and measures which are necessary to carry out the affairs of the Council.
- (b) To execute and administer the policies and measures approved by the Board.
- (c) To manage the Program Office in consonance with the policies.
- (d) To submit for the approval of the Board the annual and/or supplemental budget of the Bicol River Basin Council.
- (e) To submit within sixty (60) days after the close of each fiscal year, an annual report, through the Board, to the National Economic and Development Authority.
- (g) To perform such other duties as may be assigned to him by the Board from time to time.

SECTION 7. Operating Expenses. There is hereby appropriated from the National Treasury not otherwise appropriated the amount of one-million, five-hundred thousand pesos (P1,500,000) to cover the operating expenses of the Council for the first year of operations. Subsequent appropriations and releases shall be based on the budget approved by the Board.

SECTION 8. Auditing Procedures. The Auditor-General shall appoint a representative who shall be the Auditor of the Council, and the necessary personnel to assist said representative in the performance of his duties.

The financial transaction of the Council shall be audited in accordance with law, administrative regulations, and the principles and procedures applicable to corporate transactions.

SECTION 9. Effectivity. This executive order shall take effect immediately.

Done in the City of Manila, this 17th day of May, in the year of our Lord, nineteen-hundred and seventy-three.

(SIGNED)  
FERDINAND E. MARCOS  
President of the Philippines

By the President:

(SIGNED)  
ALEJANDRO MELCHOR  
Executive Secretary

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CHECKLIST OF STATUTORY CRITERIA

## BASIC AUTHORITY

1. FAA 103; 104; 105;  
106; & 107. Is loan being made
  - a. for agriculture, rural development or nutrition; a. Yes, agriculture.
  - b. for population planning or health; N.A.
  - c. for education, public administration; or human resources development; N.A.
  - d. to solve economic and social development problems in fields such as transportation, power, industry, urban development, and export development; N.A.

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e. in support of the general economy of the recipient country or for development programs conducted by private or international organizations.

N.A.

COUNTRY PERFORMANCE

Progress Towards Country Goals

2. <sup>s</sup> FAA S201 (b) (5) (7) & (8) ; §

A. Describe extent to which country is:

(1) Making appropriate efforts to increase food production and improve means for food storage and distribution.

(2) Creating a favorable climate for foreign and domestic private enterprise and investment.

(1) Food production is top priority of the Philippine Government with goal of achieving self-sufficiency in rice and corn and accelerated production of livestock, poultry, fish, fruits and vegetables. Plans for expanded warehousing and distribution of the increased output of grains are being prepared and carried out with help from an IBRD loan. The proposed project will contribute to this goal by increasing cropping intensity on project lands from one to at least two rice crops per annum and by increasing the average yield per hectare on project lands from 1.5 metric tons/hectare/season to 4.25 metric tons per hectare/season.

(2) See FAA 620(e)(1) Item No. 4, below.

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(3) Increasing the public's role in the developmental process.

(3) The four-year agriculture program is increasing the productive capability of Philippine farmers. The Department of Local Government and Community Development carries out programs at the barrio (village) level throughout the Philippines. A Decentralization Act providing more autonomy to the Province was enacted in 1967. The Provincial Development Assistance Program is operating in seventeen provinces.

Additionally, in an attempt to redistribute income and raise the rural standard of living, the COP has recently embarked upon an aggressive land reform program, and is well under way with a country-wide rural electrification program.

(4) (a) Allocating available budgetary resources to development.

(a) More than 70 percent of the national budget is allocated to social and economic development. One-fourth of the budget goes to education, nearly 10 percent to agriculture and natural resources, and almost 20 percent to transportation and communications.

(b) Diverting such resources for unnecessary military expenditure (See also Item No. 20) and intervention in affairs of other free and independent nations. (See also Item No. 11)

(b) Less than 15 percent of the budget goes for national defense

(5) Making economic, social, and political reforms such as tax collection improvements and changes in land tenure arrangements, and making progress toward respect for the rule of law, freedom of expression and of the press, and recognizing the importance of individual freedom, initiative, and private enterprise.

The COP, ever since its establishment as an independent nation in 1946, has patterned its government after that of the United States, adopting the same democratic principles and strongly supporting a free and open society. On Sept. 22, 1972 President Marcos, citing a serious threat to their system from both the extreme left and right, invoked martial law and, ruling by decree, ordered an accelerated implementation of essential reforms long needed to improve the efficiency of the government, to reduce wide-spread crime and corruption, to speed development efforts aimed primarily at

improving the social and economic well-being of lower income groups. However, under Martial Law political activity and freedom of the press has been curtailed. In this regard President Marcos is inaugurating an all-encompassing nationwide land reform program. Over the last five years the GOP has increased revenues through improved administration and new tax laws.

- (6) Willing to contribute funds to the project or program. (6) 53% of Project Costs totalling approximately ₱28 million will be financed by the GOP.
- (7) Otherwise responding to the vital economic, political, and social concerns of its people, and demonstrating a clear determination to take effective self-help measures. (7) As a result of the disastrous summer of 1972 floods, the Marcos Administration has embarked on a large scale reconstruction program with the help of USAID. This program is directly meeting the needs of the devastated communities of Luzon. Included in the program are: a school reconstruction and textbook program as well as on road building, irrigation and other infrastructure programs.

B. Are above factors taken into account in the furnishing of the subject assistance? B. Yes.

Treatment of U.S. Citizens and Firms

3. FAA § 620(c). If assistance is to government, is the government liable as debtor or unconditional guarantor on any debt to a U.S. citizen for goods or services furnished or ordered where (a) such citizen has exhausted available legal remedies and (b) debt is not denied or contested by such government? 3. No.

4. FAA § 620 (e) (1). If assistance is to a government, has it (including government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities?
4. The Parity Amendment, an Ordinance appended to the Philippine Constitution on March 12, 1947, and effective by its terms until July 3, 1974, permitted U.S. citizens, as distinguished from other aliens, to acquire and hold "public agricultural land" and to operate public utilities with the same rights and privileges as citizens of the Philippines. The Supreme Court of the Philippines, in a decision now being appealed, has held that the right of U.S. citizens to acquire and hold such property and to operate utilities will expire on July 3, 1974. The GOP and U.S. Embassy are currently negotiating on this point. At present there is no indication that the GOP contemplates any act contravening FAA § 620 (e) (1).

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5. FAA § 620(0); Fishermen's Protective Act, § 5. If country has seized, or imposed any penalty or sanction against, any U.S. fishing vessel on account of its fishing activities in international waters,
5. N.A.

a. has any deduction required by Fishermen's Protective Act been made?

b. has complete denial of assistance been considered by A.I.D. Administrator?

Relations with U.S. Government and Other Nations

6. FAA § 620 (a). Does recipient country furnish assistance to Cuba or fail to take appropriate steps to prevent ships or aircraft under its flag from carrying cargoes to or from Cuba?
6. No.

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7. FAA § 620(b). If assistance is to a government, has the Secretary of State determined that it is not controlled by the international Communist movement? 7. Yes.
8. FAA § 620(d). If assistance is for any productive enterprise which will compete in the United States with United States enterprise, is there an agreement by the recipient country to prevent export to the United States of more than 20% of the enterprise's annual production during the life of the loan? 8. N.A.
9. FAA § 620(f). Is recipient country a Communist country? 9. No.
10. FAA § 620(i). Is recipient country in any way involved in (a) subversion of, or military aggression against, the United States or any country receiving U.S. assistance, or (b) the planning of such subversion or aggression? 10. No.
11. FAA § 620(j). Has the country permitted, or failed to take adequate measures to prevent, the damage or destruction, by mob action, of U.S. property? 11. The GOP has taken all reasonable measures to protect U.S. property. On frequent occasion when damage has occurred, proper compensation has been made without delay.

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12. FAA § 620(1). If the country has failed to institute the investment guaranty program for the specific risks of expropriation, in convertibility or confiscation, has the A.I.D. administration within the past year considered denying assistance to such government for this reason?
12. The Philippines has instituted an investment guaranty program with the full range of risk coverage.
13. FAA § 620(n). Does recipient country furnish goods to North Viet-Nam or permit ships or aircraft under its flag to carry cargoes to or from North Viet-Nam?
13. No.
14. FAA § 620(q). Is the government of the recipient country in default on interest or principal of any A.I.D. loan to the country?
14. No.
15. FAA § 620(t). Has the country severed diplomatic relations with the United States? If so, have they been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption?
15. No.
16. FAA § 620(u). What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearages taken into account by the A.I.D. Administrator in determining the current A.I.D. Operational Year Budget?
16. The Philippines is not in default with respect to its dues, assessments or other obligations to the U.N.

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17. FAA § 481. Has the government of recipient country failed to take adequate steps to prevent narcotic drugs and other controlled substances (as defined by the Comprehensive Drug Abuse Prevention and Control Act of 1970) produced or processed, in whole or in part, in each country, or transported through such country, from being sold illegally within the jurisdiction of such country to U.S. Government personnel or their dependents, or from entering the U.S. unlawfully? 17. No.
18. FAA, 1973 § 29. If (a) military base is located in recipient country, and was constructed or is being maintained or operated with funds furnished by U.S., and (b) U.S. personnel carry out military operations from such base, has the President determined that the government of recipient country has authorized regular access to U.S. correspondents to such base? 18. Yes. (Presidential Determination No. 74-14 dated 1/20/74).

Military Expenditures:

19. FAA § 620(g). What percentage of country budget is for military expenditures? How much of foreign exchange resources spent on military equipment? How much spent for the purchase of sophisticated weapons systems? (Consideration of these points is to be coordinated with the Bureau for Program and Policy Coordination, Regional Coordinators and Military Assistance Staff (PPC/RC).) 19. Annual defense budgets average less than 15% of the national budget. Approximately one-third of this amount is for maintenance of peace and order. Philippine foreign exchange resources used to acquire military equipment are negligible. We know of no diversion of either development assistance or of PL 480 sales to military expenditures. We are not aware of any diversion of Philippine resources for unnecessary military expenditures.

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CONDITIONS OF THE LOANGeneral Soundness

20. FAA § 201(d). Information and conclusion on reasonableness and legality (under laws of country and the United States) of lending and relending terms of the loan.
20. The rate of interest is considered reasonable and repayment of the loan with interest is within the financial capability of the borrower. Interest through the grace period will be at the rate of 2% per annum, and 3% thereafter. This rate is not higher than the applicable legal rate of interest in the Philippines.
21. FAA § 201(b) (2); § 201(e)  
Information and conclusion on activity's economic and technical soundness. If loan is not made pursuant to a multilateral plan, and the amount of the loan exceeds \$100,000, has country submitted to A.I.D. an application for such funds together with assurances to indicate that funds will be used in an economically and technically sound manner?
21. An application has been received. Expected economic and technical soundness of use of funds is covered in Part II Section D of the PP.
22. FAA § 201(b) (2). Information and conclusion on capacity of the country to repay the loan, including reasonableness of repayment prospects.
22. AID and other international institutions closely watch the GOP foreign exchange earnings and debt service requirements. It appears that currently and for the foreseeable future, the GOP will be able to repay this loan.
23. FAA § 201(b) (1) Information and conclusion on availability of financing from other free-world sources, including private sources within the United States.
23. Financing is not considered to be available from other sources on terms comparable to this proposed loan.

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24. FAA § 611(a)(1). Prior to signing of loan will there be  
(a) engineering, financial, and other plans necessary to carry out the assistance and  
(b) a reasonably firm estimate of the cost to the United States of the assistance?
24. Yes.
25. FAA § 611 (a) (2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of loan?
25. All legislative authorities exist.
26. FAA § 611(e). If loan is for Capital Assistance, and all U.S. assistance to project now exceeds \$1 million, has Mission Director certified the country's capability effectively to maintain and utilize the project?
26. Yes.

Loan's Relationship to Achievement of Country and Regional Goals

27. FAA § 207; § 113  
Extent to which assistance reflects appropriate emphasis on: (a) encouraging development of democratic, economic, political, and social institutions; (b) self-help in meeting the country's food needs; (c) improving availability of trained manpower in the country; (d) programs designed to meet the country's health needs; (e) other important areas of economic, political, and social development, including industry; free labor unions, cooperatives,
27. U.S. assistance places emphasis on encouraging economic, political and social institutions needed for a progressive democratic society. Through this loan, the economy of a depressed sub-region will be significantly improved. In addition, the project will be implemented through a new organizational framework (i.e., the Area Development Team and Area Development Council) which has been specifically tailored by the GOP to maximize participation of local leaders and project beneficiaries.
- The loan is directed specifically at assisting small farmers. Through the

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and Voluntary Agencies; transportation and communication; planning and public administration; urban development, and modernization of existing laws; or (f) integrating women into the recipient country's national economy.

- |  |   |
|--|---|
| <p>28. <u>FAA § 209</u>. Is project susceptible of execution as part of regional project? If so, why is project not so executed?</p>   | <p>28. No.</p>  |
| <p>29. <u>FAA § 201(b)(4)</u>. Information and conclusion on activity's relationship to, and consistency with, other development activities, and its contribution to realizable long-range objectives.</p> | <p>29. The GOP four-year plan (1974-1977) identifies major problem areas in the Agriculture sector which must be corrected. The leading factors of these problems are low productivity and farm income. This loan will directly address both these issues and test a new management system which has been designed to improve the dissemination of technology through government agencies to project beneficiaries.</p> |
| <p>30. <u>FAA § 201(b)(9)</u>. Information and conclusion on whether or not the activity to be financed will contribute to the achievement of self-sustaining growth.</p>                                  | <p>30. The project will have that effect by helping small farmers overcome problems on a collective basis.</p>  |
| <p>31. <u>FAA § 209</u>;<br/>Information and conclusion whether assistance will encourage regional development programs.</p>   | <p>31. This project does not lend itself to a regional program.</p>   |

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32. FAA § Section 111. Discuss the extent to which the loan will strengthen the participation of the urban and rural poor in their country's development, and will assist in the development of cooperatives which will enable and encourage greater numbers of poor people to help themselves toward a better life.
32. The project will directly impact on 2,330 agriculturally based rural families, 87% of whom are categorized by the Philippine Bureau of Census and Statistics as falling in the lowest income class. The project will organize 267 cooperative compact farm production units which will in turn be federated into the existing cooperative barrio associations in the project area. An Irrigators Association (IA) will also be organized in the project area. The IA, composed of project beneficiaries, will assume responsibility for amortizing project investments and will assume all system operation and maintenance expenses.
33. FAA § 201(f). If this is a project loan, describe how such project will promote the country's economic development, taking into account the country's human and material resource requirements and the relationship between ultimate objectives of the project and overall economic development.
33. The economic development of the Philippines will be promoted. The project supports one of the important objectives of the country's economic development plan - rice self-sufficiency.
34. FAA § 281(a). Describe extent to which the loan will contribute to the objective of assuring maximum participation in the task of economic development on the part of the people of the country, through the encouragement of democratic, private, and local governmental institutions.
34. The loan supports a project effort which by design incorporates the combined participation of the farmers themselves, through the compact farm/Irrigators Association mechanism, and the mayors and residents of the two municipalities through the Area Development Team and Area Development Council to be organized in the project area.
35. FAA § 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country: utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental and political processes essential to self-government.
35. The project enables small scale farmers of limited resources to do more productive and profitable farming by providing capital and organizational improvements which would be impossible to put in place without government assistance.

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36. FAA §201(b) (3). In what ways does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capabilities?
36. The project will provide the physical information and organizational framework required to enable small scale farmers to grow two crops of rice in one year instead of one, and improve the unit yield of each crop through use of additional production inputs with assured water supply.
37. FAA §601(a). Information and conclusions whether loan will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture, and commerce; and (f) strengthen free labor unions.
37. (a) The loan will help to increase agricultural production some of which may be exportable in time. Procurement of goods for the project will also increase the flow of international trade; (b) private enterprise, initiative and competition will also be encouraged since project facilities will be constructed under contract; (c) the loan will have a direct effect on cooperative organizations and an indirect effect on the use of credit unions and savings and loan associations; (d) this is not a factor in this loan; (e) the loan and project objective is to improve agricultural efficiency; (f) no effect is planned.
38. FAA §619. If assistance is for newly independent country, is it furnished through multilateral organizations or plans to the maximum extent appropriated?
38. Philippines is not a newly independent country.

Loan's Effect on U.S. and A.I.D. Program

39. FAA § 201(b)(6). Information and conclusion on possible effects of loan on U.S. economy, with special reference to areas of substantial labor surplus, and extent to which U.S. commodities and assistance are furnished in a manner consistent with improving the U.S. balance of payments position.
39. All heavy equipment and other commodities to be purchased under this loan would have their source and origin in the U.S. Approximately \$2.0 million worth of equipment will be procured from U.S. sources.

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40. FAA § 202(a) Total amount of money under loan which is going directly to private enterprise, is going to intermediate credit institutions or other borrowers for use by private enterprise, is being used to finance imports from private sources, or in otherwise being used to finance procurements from private sources.
40. Total of loan funds will be to private enterprise.
41. FAA § 601(b). Information and conclusion on how the loan will encourage U.S. private trade and investment abroad and how it will encourage U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).
41. Private enterprise is being utilized to the maximum extent practicable under this loan.
42. FAA § 601(d). If a capital project, are engineering and professional services of U.S. firms and their affiliates used to the maximum extent consistent with the national interest?
42. Yes.
43. FAA § 602. Information and conclusion whether U.S. small business will participate equitably in the furnishing of goods and services financed by the loan.
43. Small Business Notification procedures will be utilized.
44. FAA § 620(h). Will the loan promote or assist the foreign aid projects or activities of the Communist-Bloc countries?
44. No. The loan agreement will contain implementation control prohibiting such use.
45. FAA § 621. If Technical Assistance is financed by the loan, information and conclusion whether such assistance will be furnished to the fullest extent practicable as goods and professional and other services from private enterprise on a contract basis. If the facilities of other Federal agencies will be utilized, information and conclusion on
45. Services financed under the loan will be from private US engineering firms and other non-governmental sources.

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whether they are particularly suitable, are not competitive with private enterprise, and can be made available without undue interference with domestic programs.

Loan's Compliance with Specific Requirements

46. FAA § 110(a); § 208(c). In what manner has or will the recipient country provide assurances that it will provide at least 25% of the costs of the program, project, or activity with respect to which the Loan is to be made? 46. The loan agreement will so provide and the planned administrative arrangements will assure it.
47. FAA § 112. Will loan be used to finance police training or related program in recipient country? 47. No.
48. FAA § 114. Will loan be used to pay for performance of abortions or to motivate or coerce persons to practice abortions? 48. No.
49. FAA § 201(b). Is the country among the 20 countries in which development loan funds may be used to make loans in this fiscal year? 49. Yes.
50. FAA § 201(d). Is interest rate of loan at least 2% per annum during grace period and at least 3% per annum thereafter? 50. Yes.
51. FAA § 201(f). If this is a project loan, what provisions have been made for appropriate participation by the recipient country's private enterprise? 51. The Philippine private sector will supply commodity and construction services for the project. The end recipients of the proposed aid are in themselves private enterprise.
52. FAA § 604(a). Will all commodity procurement financed under the loan be from the United States except as otherwise determined by the President? 52. Commodity procurement will be limited to AID Geographic Code 941.
53. FAA § 604 (b) What provision is made to prevent financing commodity procurement in bulk at prices higher than adjusted U.S. market price? 53. N.A.

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54. FAA § 604(d). If the cooperating country discriminates against U.S. marine insurance companies, will loan agreement require that marine insurance be placed in the United States on commodities financed by the loan? 54. Yes.
55. FAA § 604(e). If offshore procurement of agricultural commodity or product is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity? 55. N.A.
56. FAA § 604(f). If loan finances a commodity import program, will arrangements be made for supplier certification to A.I.D. and A.I.D. approval of commodity as eligible and suitable? 56. N.A.
57. EAA § 608(a). Information on measures to be taken to utilize U.S. Government excess personal property in lieu of the procurement of new items. 57. U.S. Government excess property is being utilized where practicable in lieu of new items. A separate procurement fund for excess acquisition will be established under the loan.
58. FAA § 611(b); App. § 101. If loan finances water or water-related land resource construction project or program, is there a benefit-cost computation made, insofar as practicable, in accordance with the procedures set forth in the Memorandum of the President dated May 15, 1962? 58. Yes.

AID 1240-2 (5-74)

59. FAA § 611(c). If contracts for construction are to be financed, what provision will be made that they be let on a competitive basis to maximum extent practicable?
59. The loan agreement and implementation letters will so provide.
60. FAA § 612(b); § 636(h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the United States are utilized to meet the cost of contractual and other services.
60. The GOP has requested A.I.D. financing which amounts to approximately 47% of total project costs. The loan agreement and implementation letters will provide the necessary assurances that GOP funds will flow into the project at the same rate as A.I.D. loan funds.
61. App. § 113. Will any of loan funds be used to acquire currency of recipient country from non-U.S. Treasury sources when excess currency of that country is on deposit in U.S. Treasury?
61. No.
62. Section 30 and 31 of PL 93-189 (FAA of 1973). Will any part of the loan be used to finance directly or indirectly military or paramilitary operations by the U.S. or by foreign forces in or over Laos, Cambodia, North Vietnam, South Vietnam, or Thailand?
62. No.
63. Section 37 of PL 93 - 189 (FAA of 1973); App. S 111. Will any part of this loan be used to aid or assist generally or in the reconstruction of North Vietnam?
63. No.
64. FAA § 612(d). Does the United States own excess foreign currency and, if so, what arrangements have been made for its release?
64. No.
65. FAA § 620(g). What provision is there against use of subject assistance to compensate owners for expropriated or nationalized property?
65. This will not be an eligible item financed by the loan.

AID 1240-2 (5-74)

66. FAA § 620 (k). If construction of productive enterprise, will aggregate value of assistance to be furnished by the United States exceed \$100 million? 66. No.
67. FAA § 636(f). Will any loan funds be used to finance purchase, long-term lease, or exchange of motor vehicle manufactured outside the United States, or any guaranty of such a transaction? 67. No.
68. App. § 103. Will any loan funds be used to pay pensions, etc., for military personnel? 68. No.
69. App. § 105. If loan is for capital project, is there provision for A.I.D. approval of all contractors and contract terms? 69. Yes.
70. App. § 107. Will any loan funds be used to pay UN assessments? 70. No.
71. App. § 109. Compliance with regulations on employment of U.S. and local personnel. (A.I.D. Regulation 7). 71. Yes.

AID 1240-2 (5-74)

72. App. § 110. Will any of loan funds be used to carry out provisions of FAA §§ 209 (d)? 72. No.
73. App. § 112. Will any of the funds appropriated or local currencies generated as a result of AID assistance be used for support of police or prison construction and administration in South Vietnam or for support of police training of South Vietnamese? 73. No.
74. App. § 114. Describe how the Committee on Appropriations of the Senate and House have been or will be notified concerning the activity, program, project, country, or other operation to be financed by the Loan. 74. A description of the project was included in the FY 1975 Congressional Presentation.
75. App. § 601. Will any loan funds be used for publicity or propaganda purposes within the United States not authorized by Congress? 75. No.
76. App. § 604. Will any of the funds appropriated for this project be used to furnish petroleum fuels produced in the continental United States to Southeast Asia for use by non-U.S. nationals? 76. No.
77. MMA § 901.b; FAA § 640C. 77. (a) The Loan Agreement will contain a provision requiring compliance with this requirement.
- (a) Compliance with requirement that at least 50 per centum of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed with funds made available under this loan shall be transported on privately owned U.S.-flag commercial vessels to the extent that such vessels are available at fair and reasonable rates.
- (b) Will grant be made to loan recipient to pay all or any portion of such differential as may exist between U.S. and foreign-flag vessel rates? (b) No.

Environmental Impact Statement will be provided to the DLC upon receipt in Washington, D.C.



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ANNEX E

Department of State

**TELEGRAM**

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ACTION AID-20 *CCD 6-9*

INFO OCT-01 EA-10 EB-07 AGR-10 L-03 /051 W

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P 070209Z JUN 75  
FM AMEMBASSY MANILA  
TO SECSTATE WASHDC PRIORITY 4236

UNCLAS MANILA 7825

ATTENTION: A.R. LOVE, EA/CCD

F.O. 11652: N/A  
SUBJ: DL SHELF ITEM - LIPIANAN/CABUSAO INTEGRATED AREA DEVELOPMENT  
PROJECT LOAN

REF: NEDA DIRECTOR GENERAL GERARDO SICAT LETTER TO TCNIBLOCK  
DATED 28 MAY 75

FOLLOWING IS TEXT OF OFFICIAL PHILIPPINE GOVERNMENT REQUEST FOR  
SUBJECT LOAN FOR ATTACHMENT AS INTEGRAL ANNEX TO PROJECT PAPER  
SENT AID/W.

1. QUOTE. AS YOU KNOW, THE BICOL RIVER BASIN COUNCIL (BRBC) PLANS  
TO UNDERTAKE AN INTEGRATED DEVELOPMENT PROJECT IN THE MUNICIPALITIES  
OF LIPIANAN AND CABUSAO, CARMARINES SUR INVOLVING DIRECTLY 2,333  
FARM HOUSEHOLDS AND INDIRECTLY MORE THAN 12,000 HOUSEHOLDS OF THE  
TWO TOWNS. THE SELECTION OF THIS SUB-BASIN AREA IS CONSISTENT WITH  
THE BICOL RIVER BASIN STRATEGY OF TARGETING DEVELOPMENT EFFORTS  
INITIALLY ON DELIMITED GEOGRAPHIC AREAS OF HIGH POTENTIAL WHERE  
PUBLIC INVESTMENTS ON INFRASTRUCTURE AND SUPPORTIVE SERVICES  
WILL YIELD MAXIMUM BENEFITS IN BOTH SOCIAL AND ECONOMIC TERMS.  
THIS, THEREFORE, CONSTITUTES A FIRST STEP IN DEVELOPING THE  
ENTIRE BICOL RIVER BASIN ON AN INTEGRATED BASIS.

2. QUOTE. THE PROJECT IS AN INTEGRATION OF IRRIGATION AND  
DRAINAGE AND SUPPORTIVE SERVICES DESIGNED TO OPTIMIZE DEVELOP-  
MENT OUTPUT AND ENSURE MAXIMUM AND EFFICIENT USAGE OF PHYSICAL  
INFRASTRUCTURES. THIS, IN ADDITION TO IRRIGATION AND DRAINAGE

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Department of State

**TELEGRAM**

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THERE ARE THREE OTHER PROJECTS, NAMELY: (1) LAND REFORM; (2) COMPACT FARM DEVELOPMENT; AND (3) APPLIED RESEARCH IN AGRICULTURE.

3. QUOTE. THE OBJECTIVES OF THIS INTEGRATED PROJECT ARE: FIRST, TO MAXIMIZE THE PRODUCTION OF THE BASIC FOOD STAPLE, RICE, WITHIN THE PROJECT AREA; SECOND, TO INCREASE THE AVERAGE HOUSEHOLD INCOME, ESPECIALLY OF FARM HOUSEHOLDS, AND IN THE PROCESS, EFFECT A MORE EQUITABLE DISTRIBUTION OF INCOME; AND THIRD, TO INSTITUTIONALIZE A HIGH DEGREE OF MANAGEMENT CAPABILITY AT THE SUB-BASIN LEVEL.

4. QUOTE. THE INTEGRATED PROJECT WILL REQUIRE A TOTAL OF P52.4 MILLION WITHIN A SIX-YEAR PERIOD WITH IRRIGATION AND DRAINAGE CONSTITUTING NINETY (90) PERCENT OF THE TOTAL INVESTMENT. IT IS ESTIMATED THAT THE COST OF EQUIPMENT AND PHYSICAL INFRASTRUCTURE REQUIRED BY THE PROJECT WOULD AMOUNT TO \$3.5 MILLION. ABOUT P45.3 MILLION WILL BE SPENT DURING THE FIRST THREE YEARS FOR CIVIL WORKS TO BE UNDERTAKEN BY THE NATIONAL IRRIGATION ADMINISTRATION BY CONTRACT, LAND REFORM BY THE DEPARTMENT OF AGRARIAN REFORM AND COMPACT FARM DEVELOPMENT AND APPLIED RESEARCH BY A COMPOSITE TEAM FROM BAI, BPI, BAE AND DLGU. OVER-ALL COORDINATION OF THE IMPLEMENTATION, INCLUDING MONITORING OF THE DIFFERENT PROJECT COMPONENTS, WILL BE PROVIDED BY THE RICOL RIVER BASIN COUNCIL.

5. QUOTE. TO PARTLY FINANCE THE IMPLEMENTATION OF THIS PROJECT, WE WOULD LIKE TO REQUEST YOUR CONSIDERATION OF A \$3.5 MILLION PROJECT LOAN TO THE PHILIPPINE GOVERNMENT UNDER THE MOST FAVORABLE AID TERMS TO COVER THE FOREIGN EXCHANGE COST OF EQUIPMENT AND INFRASTRUCTURE CONSTRUCTION AND A \$275,000 GRANT WHICH SHALL BE USED FOR THE IMPLEMENTATION OF THE APPLIED AGRICULTURAL RESEARCH COMPONENT. PROCEEDS FROM THE ABOVE LOAN AND GRANT SHALL ACCRUE TO THE BRBC SPECIAL FUND ACCOUNT WHICH IS UNDER NEDA (NATIONAL ECONOMIC AND DEVELOPMENT AUTHORITY) ADMINISTRATION. THIS REQUEST CARRIES WITH IT THE ASSURANCE OF THE GOVERNMENT THAT ITS CONTRIBUTION TO THE PROGRAM WILL BE EXPEDITIOUSLY MADE AND THAT THE CONCOMITANT OBLIGATIONS TO MAINTAIN THE VALUE OF THE CAPITAL INVESTMENT WILL BE MET IN ACCORDANCE WITH AGREED PROCEDURES. END QUOTE.  
BURNELL

UNCLASSIFIED

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ANNEX F

U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT  
Manila, Philippines

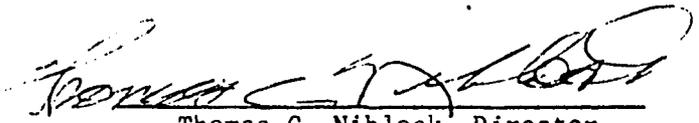
Ramon Magsaysay Center  
1680 Roxas Boulevard

Telephone: 59-80-11

CERTIFICATION PURSUANT TO SECTION 611(e)  
OF THE FOREIGN ASSISTANCE ACT OF 1961, AS AMENDED

I, THOMAS C. NIBLOCK, the principal officer of the Agency for International Development in the Philippines, having taken into account, among other things, the maintenance and utilization of projects in the Philippines previously financed or assisted by the United States, do hereby certify that, in my judgment, the Philippines has both the financial capability and the human resources capability to effectively maintain and utilize the proposed Libmanan/Cabusao Integrated Area Development Loan.

This judgment is based upon the project analysis as detailed in the Libmanan/Cabusao Integrated Area Development Project Paper and is subject to the conditions imposed therein.



Thomas C. Niblock, Director  
USAID/Philippines

May 21, 1975  
Date

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AID-DLC/P-2108/A-Draft

ANNEX G  
Page 1 of 3

CAPITAL ASSISTANCE LOAN AUTHORIZATION

Provided from: Food and Nutrition  
(Philippines: Libmanan/Cabusao Integrated  
Area Development Project Loan)

Pursuant to the authority vested in me as Assistant Administrator, Agency for International Development ("A.I.D."), by the Foreign Assistance Act of 1961, as amended, (the "Act") and the Delegations of Authority issued thereunder, I hereby authorize the establishment of a loan pursuant to Part I, Chapter I, Section 103 and Chapter 2, Title I of the Development Loan Fund, to the Government of the Republic of the Philippines ("Borrower") acting through the National Economic and Development Authority with the Bicol River Basin Council as the executing agency, of not to exceed Three Million Five Hundred Thousand Dollars (\$3,500,000)

The proceeds of this loan will be used to increase the production of rice and in turn farm income in the project area through provision in an integrated and systematic fashion major sectoral inputs in irrigation, drainage, transport, technology, land reform and improvements in farm and farmer organizational structure. This will be accomplished by financing the foreign exchange component of the project and as agreed upon portion of the peso costs. The A.I.D. loan will finance approximately 47% of the total project cost.

The loan shall be subject to the following terms:

1. Interest Rate and Terms of Repayments

The loan shall be repaid by the Borrower within forty (40) years after the date of the first disbursement under the loan, including a grace period of not to exceed ten (10) years. The interest on the unrepaid balance of the loan shall be from the date of first disbursement at the rate of (a) two percent (2%) per annum during the grace period, and (b) three percent (3%) per annum thereafter.

2. Currency of Repayment

Provision shall be made for repayment of the loan and payment of interest in United States dollars.

3. Other Terms and Conditions

Unless A.I.D. otherwise agrees in writing,

(a) Goods and services financed under the loan shall have their source and origin in the Philippines or in countries included in A.I.D. Geographic Code 941 (Selected Free World).

(b) The loan agreement shall provide that prior to the disbursement of loan proceeds, the Borrower shall submit or cause to be submitted, the following in form and substance satisfactory to A.I.D.

(1) A project implementation plan for the life of the project prepared by BRBC, including projection of funds available to finance the various elements of the project.

(2) Written assurance from the BRBC and the National Irrigation Administration that an Irrigators Association (IA) will be formed, properly chartered, and given responsibility for managing the system, including provisions for repayment of costs of construction in accordance with government policy and a plan for operation and maintenance of the system.

(c) The loan agreement shall contain the following special covenants by the Borrower:

(1) The project will be managed on behalf of the Borrower, by the Bicol River Basin Program Office, with actual sub-project implementation to be carried out by appropriate line agencies working through the Area Development Team.

(2) The Borrower, through the Department of Agrarian Reform, will determine and fix within six months from signing of the loan agreement, land values for all land in the project area subject to transfer under the Provisions of P.D. 27 and subsequent implementing instructions.

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- (3) The Borrower, through the Department of Agrarian Reform, will, within twelve months from the signing of the loan agreement, issue Land Transfer Certificates or secure written registered leasehold contracts for all farmers eligible in the project area under R.A. 3844, P.D. 27 and subsequent implementing instructions.
  - (4) BRBC will assure that Project Evaluation Procedures are implemented.
  - (5) The BRBC will submit for A.I.D. approval final engineering designs and the proposed construction contract.
  - (6) Such additional covenants as A.I.D. may deem advisable.
- (d) The loan agreement shall include such other terms and conditions as A.I.D. may deem advisable.

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Arthur Gardiner  
Assistant Administrator for East Asia  
AID/Washington

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Date

LIBMANAN/CABUSAO INTEGRATED AREA DEVELOPMENT PROJECT

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

ANNEX B

Life of Project:  
From FY 75 to FY 82  
Total U.S. Funding P.O. 93.50 T.A. Grant 3,773,400  
Date Prepared: Nov 7, 1975

AID 1020-20 (1.75)

Project Title & Number:

NARRATIVE SUMMARY			OBJECTIVELY VERIFIABLE INDICATORS							MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Project Inputs: (D-1)			Implementation Target (Type and Quantity) (D-2)							(D-3)	Assumptions for providing inputs: (D-4)
A. Total Project Cost 1/ (P000)	Total (in P)	Total (\$ equivalent in 1000) 2/	YEAR								
			1	2	3	4	5	6	Total		
1. Irrigation, Drainage, and Service Roads											
- Investment	45,730	6,533	27,911	11,206	5,773	838			45,730		
- O&M 2/							(770)	(770)			
2. Land Reform	170	24	170						170		
- Investment			38	23	23	23	23	23	153		
- O&M											
3. Compact Farm and Extension Service Development	444	63	444						444		
- Investment			373	179	179	82	82	82	779		
- O&M			441						441		
4. Applied Research	441	63	87	86	89	109	103	103	368		
- Investment											
- O&M			441						441		
5. Organization and Management	641	92	36	35	37	10	30	35	191		
- Investment			482	559	559	559	559	559	3,277		
- O&M											
- overhead											
6. Total	47,426	6,775	29,609	11,206	5,773	838	-	-	47,426		
- Investment			335	318	321	235	238	238	1,686		
- O&M			482	559	559	559	559	559	3,277		
- overhead											
B. COP Contribution	23,027	3,290	8,260	8,036	5,773	838		100	23,027		
1. Investment			338	318	321	235	238	238	1,686		
2. O&M	1,888	241	482	559	559	559	559	559	3,277		
3. Overhead	3,277	468									
C. AID Contribution	24,500	3,500									
1. Development Loan											
- Equipment (Irrigation and Drainage)	(12,950)	(1,850)	1,850								
- Construction Costs	(10,150)	(1,450)	1,000	450							
- Commodities for ADT/ADC and support projects	(1,400)	(200)	700								
2. Technical Assistance Grant	1,925	275									
- JAE Services	(525)	(75)	75						75		
- Rice Technology Contract (applied research in rice including mechanization and water management)	(1,400)	(200)		100	100				200		

1/ Aggregate summation of initial six-year costs  
2/ Non-add costs to be shouldered by Irrigators Association  
3/ Exchange Rates P7.00 = U.S. \$1.00

BRRC Special Fund Account Records  
Line agency records on fund usage

1. All participating line agencies agree to follow BRRC UNIFIED budgetary and allocation process utilizing the BRRC Special Fund Account.

2. COP and A.I.D. provide the required capital, operating and overhead funds necessary to execute project per schedule.



## LIBMANAN/CABUSAO INTEGRATED AREA DEVELOPMENT PROJECT

ANNEX B

DID 1982-28 (11-72)

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project:  
From FY 75 to FY 81  
Total U. S. Funding \$1,135,000  
Date Prepared: May 7, 1979

Project Title &amp; Number: \_\_\_\_\_

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><b>Program or Sector Goal: The broader objective to which this project contributes: (A-1)</b></p> <p>Increased income, equitably distributed; increased employment opportunities and improved perceived quality of life among the Bicol River Basin population resident in the Libmanan/Cabusao project area.</p>	<p><b>Measures of Goal Achievement: (A-2)</b></p> <ol style="list-style-type: none"> <li>30% to 35% annual increase in average net farm household income (in constant prices) until FY 1981 which results in:           <ul style="list-style-type: none"> <li>513 farm families earning a net farm household income of P6,000 p/a by FY 1981</li> <li>1,820 farm families earning a net farm household income of P5,000 p/a by FY 1981</li> </ul> </li> <li>2,300 man years annually of induced on-farm employment at full development (FY 1979) due to increased cropping intensity on project lands.</li> <li>Measurable improvement in perceived quality of life for 16,000 (2,333 farm families) project beneficiaries by FY 1981.</li> </ol>	<p><b>(A-3)</b></p> <p>Social Survey Research Unit field evaluation at the end of the 3rd year and 6th year to compare project progress toward goal attainment against bench mark survey data collected in November 1974.</p>	<p><b>Assumptions for achieving goal targets: (A-4)</b></p> <ol style="list-style-type: none"> <li>GOP price support program operative and effective in project area.</li> </ol>
<p><b>Project Purpose: (B-1)</b></p> <ol style="list-style-type: none"> <li>To establish a viable organizational structure and management system which enables municipal leaders and residence of Libmanan and Cabusao municipalities, along with national and provincial level agencies, to meaningfully participate in the planning and execution of Bicol River Basin Programs which affect the socio-economic structure of the two municipalities overtime.</li> <li>Working through the BRRC/ADC/ADT (see 1 above) organizational structure, implement an Integrated Area Development Project covering 3,873 hectares which increases cropping intensity to at least two (2) rice crops per year and which measurably increases yield per hectare through the systematic interaction of improved irrigation, drainage, and water management facilities, improved farm level organization and farm practices, improved extension services, and improved transport and marketing services.</li> </ol>	<p><b>Conditions that will indicate purpose has been achieved: End-of-Project status. (B-2)</b></p> <ol style="list-style-type: none"> <li>An Area Development Council (ADC) and Area Development Team (ADT) rationally organized and effectively promoting and executing the 3,873-hectare initial phase of the Libmanan/Cabusao Integrated Area Development Project by June 30, 1977.           <ul style="list-style-type: none"> <li>An Area Development Office (ADO) headed by an Area Development Coordinator established and effectively integrating and managing at the working level all line agencies, farmer organizations and municipal officials and leaders by June, 1976.</li> </ul> </li> <li>Management, administrative and budgetary controls in place and functioning which enable PRBC through ADC/ADT to efficiently bring line agencies, local government and farmer organizations into permanent working relationship required to carry out a sustained program of integrated area development in the Libmanan/Cabusao area by June, 1976 which results in:           <ul style="list-style-type: none"> <li>Incremental annual production on 3030 hectares of 1R land of 28,000 metric tons by FY 1981; - average incremental yield of 3.6 m.t./ha/season.</li> <li>Incremental annual production on 833 hectares of 2R land of 7,000 metric tons by FY 1981.</li> <li>Incremental annual production on 70 hectares of 3R land of 132 metric tons by FY 1981; - incremental yield of 2.5 m.t./ha. per season.</li> </ul> </li> </ol>	<p><b>(B-3)</b></p> <ol style="list-style-type: none"> <li>Management evaluation of ADC/ADT organization and management effort conducted at 2-year intervals by consulting firm.</li> <li>Annual production verified by:           <ul style="list-style-type: none"> <li>ADT/BRRC records</li> <li>BAECOM surveys</li> <li>SSRU special surveys</li> </ul> </li> </ol>	<p><b>Assumptions for achieving purpose: (B-4)</b></p> <ol style="list-style-type: none"> <li>Unified management structure of ADC/ADT proves acceptable to national, regional and local policy makers and is effectively sustained and supported.</li> <li>Project outputs are completed as planned and farmer institutions, particularly the Irrigators Association and the compact farmers, emerge as viable farmer based management and production units.</li> <li>Marketing prices no constraint to increased production given improvement in secondary and farm-to-market roads in the area by BRRC and improvement of the Philippine National Railroad with Asian Development Bank financing.</li> </ol>