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UNCLASSIFIED

AGENCY FOR INTERNATIONAL DEVELOPMENT

Washington, D.C. 20523

INDONESIA

CITANDUY II

Project No. 497-0281

August 1980

UNCLASSIFIED

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AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

1. TRANSACTION CODE: A (A = Add, C = Change, D = Delete) — Amendment Number: _____

DOCUMENT CODE: 3

2. COUNTRY/ENTITY: INDONESIA

3. PROJECT NUMBER: 497-0281

4. BUREAU/OFFICE: ASIA 04

5. PROJECT TITLE (maximum 40 characters): CITANDUY II

6. PROJECT ASSISTANCE COMPLETION DATE (PACD): MM 09 DD 30 YY 86

7. ESTIMATED DATE OF OBLIGATION (Under 'B.' below, enter 1, 2, 3, or 4)
A. Initial FY 80 B. Quarter 4 C. Final FY 82

8. COSTS ($000 OR EQUIVALENT $1 = 625)

A. FUNDING SOURCE	FIRST FY 80 B. FX	C. L/C	D. Total	LIFE OF PROJECT E. FX	F. L/C	G. Total
AID Appropriated Total	8,800	4,450	13,250	8,787	18,213	27,000
(Grant)	(1,125)	(125)	(1,250)	(3,977)	(273)	(4,250)
(Loan)	(7,675)	(4,325)	(12,000)	(4,810)	(17,940)	(22,750)
Other U.S. 1.						
Other U.S. 2.						
Host Country		230	230		19,337	19,33
Other Donor(s)						
TOTALS	8,800	4,680	13,480	8,787	37,550	46,33

9. SCHEDULE OF AID FUNDING ($000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE 1. Grant	2. Loan	D. OBLIGATIONS TO DATE 1. Grant	2. Loan	E. AMOUNT APPROVED THIS ACTION 1. Grant	2. Loan	F. LIFE OF PROJECT 1. Grant	2. Loan
(1) FN	B-143	242	060	-	-	1,250	12,000	4,250	22,750
(2)									
(3)									
(4)									
TOTALS									

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each): 020- 032 064 066 067 071

11. SECONDARY PURPOSE: 000

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code	ENV	PART	BS			
B. Amount	12,000	2,000	11,000			

13. PROJECT PURPOSE (maximum 480 characters)

A. Establish and catalyze local and national capacity to design and implement a comprehensive water management program in the Citanduy Basin and initiate the program in selected areas; B. Achieve and sustain irrigated rice production at feasibility study projected levels in all basin technical irrigation systems; and C. Improve local government capacity in the basin to plan and manage integrated development targeted on the rural poor.

14. SCHEDULED EVALUATIONS
Interim MM 12 YY 81 MM 04 YY 83 Final MM 01 YY 87

15. SOURCE ORIGIN OF GOODS AND SERVICES
☒ 000 ☒ 941 ☒ Local ☐ Other Specify: _____

16. AMENDMENTS NATURE OF CHANGE PROPOSED (This is page 1 of a ____ page PP Amendment.)

17. APPROVED BY
Signature:
Title: Acting Director
Date Signed: MM 06 DD 31 YY 80

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION
MM DD YY

AID 1330-4 (8-79)

AGENCY FOR INTERNATIONAL DEVELOPMENT

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(4)									
TOTALS									

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11. SECONDARY PURPOSE CODE: 200

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B. Amount	12,000	2,000	11,000

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14. SCHEDULED EVALUATIONS

Interim MM 12 YY 81 MM 04 YY 83 Final MM 03 YY 87

15. SOURCE ORIGIN OF GOODS AND SERVICES: ☐ 000 ☒ 941 ☒ Local ☐ Other (Specify) ____

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a ____ page PP Amendment)

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Signature: ____

Title: Acting Director

Date Signed: MM 02 DD 31 YY 80

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION

MM DD YY

AID 1330-4 (8-79)

PROJECT AUTHORIZATION

INDONESIA

Citanduy II
Project No. 497-0281

1. Pursuant to Section 103 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Citanduy II project for Indonesia involving planned obligations of not to exceed $22,750,000 in Loan funds and $4,250,000 in Grant funds over a three-year period from date of authorization, subject to the availability of funds in accordance with the A.I.D. OYB/allotment process, to help in financing foreign exchange and local currency costs for the project.

2. The project consists of technical assistance, training, procurement of equipment and commodities, construction and planting, physical and socio-economic surveys and evaluation, farm credit and other inputs associated with a program of upper watershed development, increasing irrigated rice production and enhancing local development planning and management capabilities in the Citanduy River Basin.

3. The Project Agreement(s) which may be negotiated and executed by the officer(s) to whom such authority is delegated in accordance with A.I.D. regulations and Delegations of Authority shall be subject to the following essential terms and covenants and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate.

4. a. Interest Rate and Terms of Repayment

The Cooperating Country shall repay the Loan to A.I.D. in U.S. Dollars within forty (40) years from the date of first disbursement of the Loan, including a grace period of not to exceed ten (10) years. The Cooperating Country shall pay to A.I.D. in U.S. Dollars interest from the date of first disbursement of the Loan at the rate of (a) two percent (2%) per annum during the first ten (10) years, and (b) three percent (3%) per annum thereafter, on the outstanding disbursed balance of the Loan and on any due and unpaid interest accrued thereon.

b. Source and Origin of Goods and Services

Goods and services, except for ocean shipping, financed by A.I.D. under the project shall have their source and origin in the Cooperating Country or (in the case of Grant funds) in the United States or (in the case of Loan funds) countries included in A.I.D. Geographic Code 941, except as A.I.D. may otherwise agree in writing.

Ocean shipping financed by A.I.D. under the project shall, except as A.I.D. may otherwise agree in writing, be financed only on flag vessels of (in the case of Grant funds) the United States or (in the case of Loan funds) the United States or the Cooperating Country.

c. Other

Prior to any disbursement or the issuance of any commitment documents under the Loan, the Cooperating Country shall furnish in form and substance satisfactory to A.I.D. evidence to the effect that:

1) A National Steering Committee has been established with authority from the Ministries of Public Works, Agriculture and Home Affairs to coordinate planning, budgets and implementation of project-financed activities

2) A Basin Coordinating Committee has been established which includes basin level representation from the Ministries of Public Works and Agriculture and from appropriate local government units.

3) Arrangements have been made for full-time representation at the project level from the Ministry of Agriculture and its relevant agencies to coordinate project-financed agriculture production activities.

4) A detailed work plan for the upper watershed program, specifying individual agency responsibilities, has been agreed to by all responsible agencies.

.d. Prior to any disbursement, or the issuance of any commitment documents under the project, for construction of the upland research field station or of the training center, respectively, the Cooperating Country shall furnish in form and substance satisfactory to A.I.D. evidence that arrangements have been made for the permanent staffing and operation of such facility.

e. Prior to any disbursement, or the issuance of any commitment documents under the project, for the farm credit component of the project, the Cooperating Country shall furnish in form and substance satisfactory to A.I.D. a detailed implementation plan for this component.

Clearances		Initials	Date
A/AA/ASIA	Frederick W. Schieck	FWS	8/15/80
AA/PPC	Alexander Shakow	[illegible]	8/15/80
GC	Norman L. Holmes	[illegible]	8/15/80

Signature _____
Administrator

Date August 21/80

GC/ASIA:CStephenson:8/11/80:632-8092

PROJECT SUMMARY

Citanduy II will continue AID assistance to the Government of Indonesia (GOI) for integrated rural development in the Citanduy River Basin. With previous AID loan funding, a Basin Master Plan and several feasibility studies were completed and flood control and irrigation rehabilitation in the lower basin are currently underway.

In this second implementation phase, an AID grant of $4,250,000 and a loan of $22,750,000 will assist GOI efforts to increase food production, with emphasis on protecting the food production capability of the basin's soil and water resources. The GOI Ministries of Public Works, Agriculture, and Home Affairs will carry out the project under an inter-ministerial National Steering Committee and a Basin Coordinating Committee. Approximately 500,000 people will benefit directly -- and the entire basin population of 2.8 million indirectly -- from the project, which has a projected total cost of about $50,000,000. The project has three main components.

1. Upper Watershed Development

With population pressure forcing farmers up ever steeper slopes and forests giving way to uncontrolled agriculture expansion, the Citanduy upper watershed faces severe erosion and reduced water retention capability. The lowlands are also affected, suffering from more acute cycles of water shortage and flooding and from the heavy silt load carried by the rivers that feed the irrigation systems.

To deal with these problems, the project will develop a trained corps of soil and water resources personnel and provide farmers with information on better use of these resources through research, training and demonstration plots. The project will undertake major bench terrace construction covering 4,375 hectares coupled with improved agricultural production packages of seeds, fertilizer, livestock and agronomic practices to expand and diversify the agricultural base as an incentive to sound conservation practices. Other conservation measures such as road erosion control will also be undertaken. The budget for this component totals $23,330,000; unbudgeted contributions -- e.g., farmer labor and existing facilities -- raise the total to approximately $26 million.

2. Irrigated Rice Production

There are 21 existing technical or semi-technical irrigation systems in the basin, ranging in size from 90 to 7,000 hectares and serving a total 19,000 hectares. Seven of the largest (total 11,350 hectares) are being rehabilitated under AID loan funding. Feasibility studies were completed for the others and recommend their rehabilitation.

Citanduy II will focus priority attention on improving the capability of the local irrigation and agriculture services and of the farmers and their water user associations to effectively operate and maintain the systems and increase rice production. Consultant as-

sistance, training and other support will help strengthen expanded field service staffs in all the systems. Farmer leaders of the associations at the tertiary bloc level will also receive training (there are roughly 650 tertiary blocs averaging 30 hectares). Feasibility of one proposed new irrigation system in the lower basin will be studied and funding will be provided for rehabilitation/construction of the remaining small systems. Total cost for this component is about $21 million.

3. Local Development Planning and Management

The Citanduy Basin includes parts of five districts in two provinces. The district is the lowest administrative level with significant development planning capability and a full range of sectoral services. Major project efforts in both the upper watershed and irrigation components will strengthen and expand the district irrigation and agriculture services, which, in turn will directly implement much of the programs. Although these services receive support from their respective line agencies, they operate in the district under the authority of the district chief (bupati). District planning boards (BAPPEDA II) coordinate planning and monitoring of all development activity in the district.

The project will provide training and consultant assistance to district government personnel to enhance their planning and management capability. Special attention will be given to local finance and administration, particularly as related to irrigation operations and maintenance. Funding and technical assistance will also be provided for small scale projects not included in, but complementary to the upper watershed and irrigation components of the project, with further specification left to the local participation process.

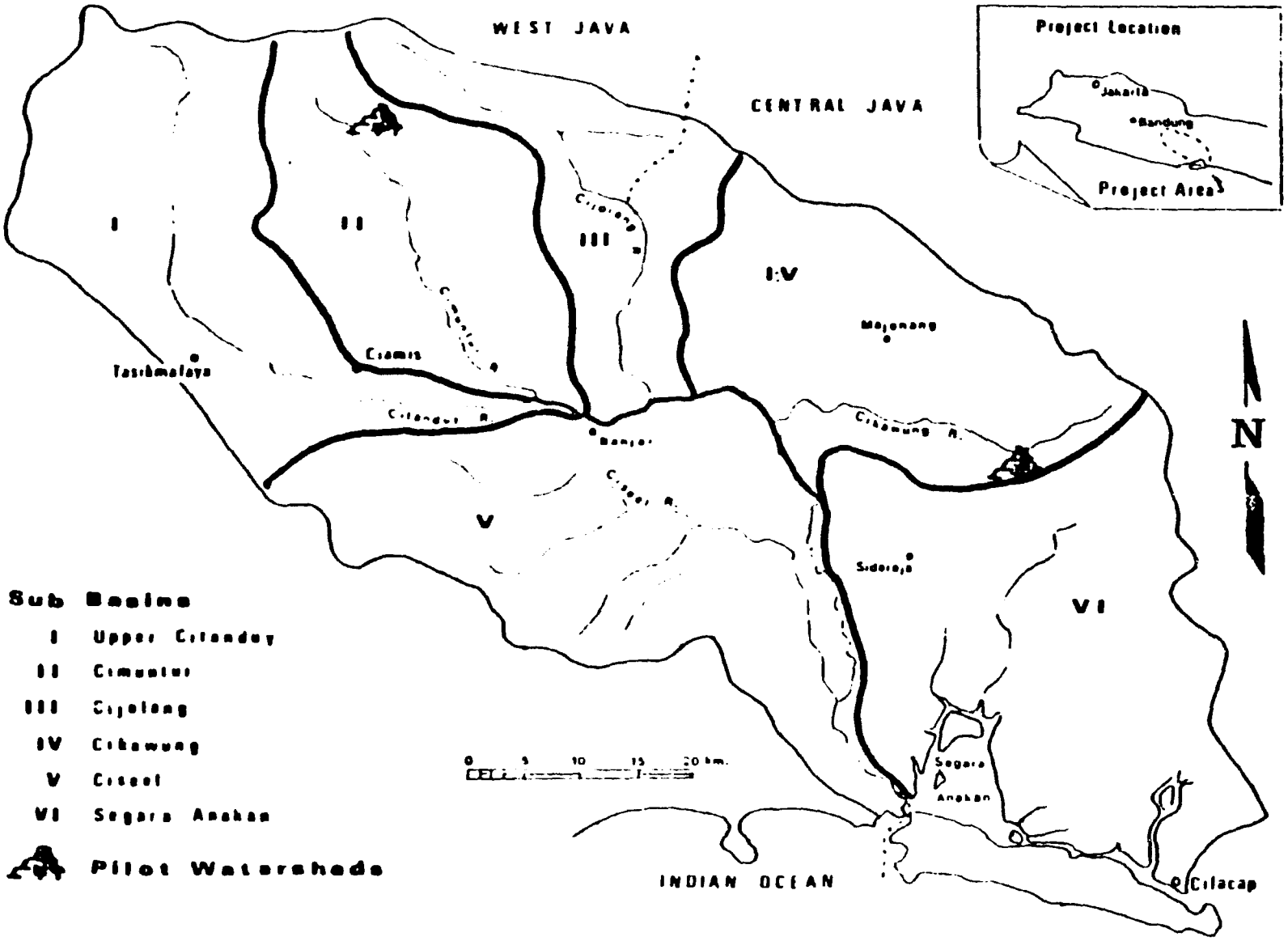
The management of an integrated basin development program will also receive specific attention under this component. During the first year, consultants will assist in review of the project management organization. During the third year, consultant assistance will be provided in updating the Basin Master Plan, with participation by both district and basin project-level planners. This component has a total cost of about $3 million.

GLOSSARY OF ACRONYMS AND INDONESIAN TERMS

AAETE	Agency for Agriculture Education Training and Extension (see also BPLPP)
AARD	Agency for Agriculture Research and Development
BAPPEDA II	District Planning Body
BAPPENAS	The Government of Indonesia's National Planning Board
BIMAS	GOI Program for agricultural intensification with government credit at low interest (see also INMAS)
BPLPP	Indonesian acronym for the Agency for Agriculture Education, Training and Extension (see AAETE)
Bupati	The head of a district
Camat	The head of a subdistrict
Citanduy Project Office	The Directorate of River's organization for the implementation of infrastructure projects in the Citanduy Basin
CRIA	Central Research Institute for Agriculture - Bogor (see also LP3)
DGWRD	Directorate General of Water Resources Development
Gabah	Threshed rice, unmilled at 14% moisture
GOI	Government of Indonesia
Gotongroyong	A traditional system of mutual aid in neighborhood and formally used as a vehicle for community participation in village infrastructure and other self-help projects
INMAS	GOI Program for agricultural intensification without government credit (see also BIMAS)

Kabupaten	District
Kecamatan	Subdistrict
Kepala Desa	The head of a village
KIIP	Consortium of Agriculture Faculties
Kontak Tani	Key farmers
LP3	Indonesian acronym for the Central Research Institute for Agriculture
LSD	Village Social Committee
PPL	Agriculture extension agent
P3DAS	The Directorate General of Forestry's Watershed Conservation Unit
P3RPDAS	The local offices of P3DAS
SERU	Socio-Economic Research Unit
Tani Maju	Progressive farmers
Ulu-Ulu	Village officials who are responsible for maintenance and repair of tertiary irrigation canals and drains and manage day-to-day irrigation problems within the villages and between the village and the Irrigation Service

CITANDUY RIVER BASIN



B. DESCRIPTION OF THE PROJECT

1. Description of the Citanduy Basin and Its Problems

The Citanduy Basin has been blessed with deep, fertile soils and abundant rainfall. However, with one of the highest population densities of any river system in the world, these resources are severely strained and in recent years the predominantly agricultural basin has barely met its own food needs. Extensive deforestation and uncontrolled agricultural expansion has accelerated deterioration of productive capacity at a time when more food is needed for a growing population.

a. Physical Description

The Citanduy River Basin lies on the south side of Java about 300 km. southeast of Jakarta. Originating on Cakrabuana Mountain, the Citanduy River skirts the north and west slopes of Sawal volcano and travels 175 km to the southeast to discharge in the Indian Ocean at the Segara Anakan, a brackish lagoon. The 446,000 hectares (1.1 million acre) project area drained by the Citanduy, its tributaries and several smaller rivers emptying directly into the Segara Anakan includes parts of five districts (kabupaten) in West and Central Java. Topographically it can be divided into three parts with distinct but interrelated problems.

- The upper watershed, 290,000 hectares of mountains and hills, has experienced accelerating erosion as crop cultivation has moved up the slopes.

- The alluvial plains and valley bottom paddy areas, 124,000 hectares, are subject to both frequent flooding and droughts. Existing irrigation systems have deteriorated with inadequate operations and maintenance, a problem exacerbated by the heavy silt burden.

- The mangrove forests and lagoon (Segara Anakan), 32,000 hectares, are important shrimp breeding grounds which are rapidly being destroyed by silt build-up.

Together with the Upper Citanduy River itself, four major tributaries provide a natural division into five sub-basins:

	Basin Area Drained	(hectares)
Upper Citanduy	Western end	74,000
Cimuntur	Northwest, east of Mt. Sawal	61,000
Cijolang	Northcentral	48,000
Cikawung	Northeast	70,000
Ciseel-Lower Citanduy	Southeast	97,000
	TOTAL	350,000

The southeastern portion of the project area is the Segara Anakan and its direct drainage area, totalling 96,000 ha.

b. Key characteristics of the Basin's human resources for development are extremely high population density, widespread illiteracy especially among farm adults, and pervasive poverty.

Basin boundaries do not coincide with those of political subdivisions, and population data for the project area is of limited accuracy. A socio-economic survey program undertaken in conjunction with this project will provide more precise information on project beneficiaries than is currently available. However, the following observations are believed to be reasonably accurate.

The Basin's current population is about 2.8 million and increasing by about 2% per year. The population density of more than 630 people per square kilometer is extremely high for a largely agricultural area. (More than 80% of the workforce is engaged in agriculture.) While the project is aimed at improving the capacity of the resource base to support this large population, an important assumption is that family planning, transmigration and other factors will continue to be effective in reducing the rate of population growth.

Subsistence farming dominates the basin. The average land holding is less than .5 ha. and is often fragmented, with a farmer owning small plots in several locations. Even with such small average land holdings, over half the agriculture work force is landless - tenants, sharecroppers or laborers. As a consequence, most farmers lack capability and/or incentive to invest in agricultural development

2. Strategy

a. General Mission Strategy

The Mission's development strategy as set out in the CDSS calls for a focus of attention and resources on the key development problems of low agricultural/rural productivity, high unemployment, excessive population growth and inadequate trained manpower and institutional capability to plan and implement development projects. Within the range of this focus, work is to be limited to a few sectors with stress on geographic concentration to achieve a "critical mass" of benefits in selected areas. More specifically, the CDSS calls for U.S. support for upperwatershed management, for agricultural research, and for the development of integrated area development models geared to optimizing farmer and coordinated government inputs and to overcoming institutional barriers at the local level of government.

Mission strategy takes account of a multi-donor context in which AID can focus on areas of special expertise and capability and by demonstrating feasibility of projects can assist in gaining other donor financing for large capital needs.

b. Project Strategy

The Government of Indonesia established the Citanduy River Basin Project in 1969. Since then, the project has undertaken two phases. The first, 1969-76, included reconnaisance studies, preparation of a Basin Master Plan and feasibility studies/design of priority development activities. AID funded technical assistance from a Project Development Loan (497-T-027).

The second phase, 1976-81, continued studies for future project activity while beginning implementation of priority flood control and irrigation rehabilitation in the lower basin. AID is assisting this phase with the $12.5 million Citanduy River Basin Development Project Loan (497-T-039). The completed studies include the Panawangan Pilot Watershed and the Upper Watershed Management Study as well as studies for further irrigation development.

The lower basin flood control and irrigation construction progress has been slower than expected and the original five year schedule has been extended by one year with completion now projected for October 1982. Annex H.5 provides a detailed analysis of current project experience and implications for Citanduy II.

Building on the completed studies and experience to date, the GOI's Phase III (GOI second implementation phase) will continue the transition from planning to implementation. The focus on lower basin water resources problems will spread to basin-wide soil and water resources development accompanied by broader participation of GOI agencies and other donors. The Asian Development Bank is expected to finance major capital costs for new irrigation development, while AID Citanduy II assistance will emphasize upper watershed development and management; small scale systems, and operations and maintenance and agriculture support for irrigation; and increasing local human resource capabilities and participation through training and local institution building.

c. Relationships of Projects and Donors

Although its range of activity is increasingly broad, the Citanduy Project does not encompass all development in the basin. Other AID projects represented there include Sederhana (simple) Irrigation, Rural Works, and the Population program. The Provincial Area Development Program (PDP) also operates in both West and Central Java although it is concentrated in areas outside the Citanduy Basin.

ADB participation, mentioned above, is consistent with the Mission view of AID's role vis-a-vis IFI's. The World Bank is also present, funding a major highway improvement project already well underway and a proposed Small Holder Estate project, as well as general assistance to national agriculture extension efforts.

d. Project Cost

Overall financial cost of the Citanduy II project is approximately $50 million. The proposed AID funding of $27,000,000 is therefore approximately 54% of total project costs.

3. Specific Description of Project Activities

Continuing support for area development in the Citanduy River Basin, Citanduy II addresses Indonesia's need to feed an increasing population and the threat to food production capacity caused by loss of soil and water resources to erosion. The Project goal contains three elements:

- Sustain productive capacity - i.e., stop deterioration of soil and water resources.

- Enhance that capacity - e.g., through increasing soil fertility and better control of water.

- Increase food production through better use of the resources.

a. Major Project Components - Purposes and Outputs

While its river system ties the Citanduy Basin into a single unit, its soil and water resources problems are more appropriately addressed separately in the upper watershed and the lowland rice producing areas. Administrative units, however, do not coincide with the upper-lower basin divisions. For this reason and because of its special importance, local participation is also separately addressed.

Three major project components correspond to the three part project purpose. They are interrelated and include parallels in needs and approach. Significant common features include: emphasis on participation by local government and farmers; major efforts to provide more, better trained and motivated field personnel; and a coordinated, multi-sector approach to better use of soil and water resources. Each component has distinct features and could stand alone as a viable development project. However, the three reinforce each other and provide for more balanced area development, causing the whole to be greater than the sum of the parts.

1) Upper Watershed Development

Purpose: Develop and catalyze local and national capacity to design and implement an effective, comprehensive watershed management program in the Citanduy Basin and initiate the program in selected critical areas.

The neglected uplands of the basin are beset with serious and widespread problems of destruction of vegetative cover with consequent erosion and declining productivity. Social and economic characteristics include large numbers of very small farms and great diversity. In consequence, the proposed upper watershed program is large, complicated and will require a long time to complete. During the five-year project period, the primary effort will be to make a transition from the Panawangan Pilot Watershed and the feasibility study conducted under Citanduy I to a full scale watershed management program.

In order for the program to attain its goal, the upland farmer must recognize that conservation and agricultural diversification are mutually-reinforcing and, therefore, must be adapted as a package. Thus, for example, the planting of grass on terrace risers is not only a conservation measure but also a means of increasing fodder availability for livestock. Likewise, the planting of fast-growing fruit and fuel wood trees - another conservation measure - will lead to an increase in total farm production and eliminate dependence on a single crop.

Through research, training and demonstration plots, the project will attempt to establish a trained corps of soil and water resources personnel and provide widespread access to information on better use of these resources to the upland farmers. Supporting activities will include aerial mapping and hydrology and sediment data acquisition. Since the problems are urgent and the transition must be gradual, the program itself, including construction of bench terraces, introduction of improved crop varieties and cropping systems, and public works conservation measures such as road erosion proofing and proper maintenance will also start during the project period in limited areas, expanding and accelerating as implementation capability grows.

Outputs:

- A field research station for upland agriculture operational in the basin and fully staffed with four full time professionals, six student assistants, and adequate support staff.

- A multi-purpose training center for up to fifty students established and operating to provide initial and in-service training to field staff for upland agriculture and conservation and to farm leaders. The center will have a full time director, two full time training officers, adequate support staff, and a capability to draw on resource personnel as required. The center will also serve the other two project components.

- A trained soil and water resources staff consisting of about 250 local government professional/technical personnel and an additional 160 part-time village conservation technicians.

- Some 1700 trained farm leaders who through short training courses, tours, and participation in the demonstration and bench terracing programs under close technical direction will be able to advise and lead their neighbours in adopting improved production and conservation techniques. (As many as 15,000 farmers will receive more limited training in the course of implementing the demonstration plot and bench terracing activities).

- 150 demonstration plots, comprised of small hydrologic units averaging 2.5 hectares, to demonstrate improved upland production and conservation practices. Site selection factors will include accessibility to farmers in target areas and willingness by farm operators within the hydrologic unit to participate as a group.

- Five Central nurseries, (one in each sub-basin) to provide tree and grass seedlings for basin erosion control activities.

- A functioning credit system with Rp. 3 million (US$ 480,000), at 1979 prices, available to upland farmers who maintain conservation practices at moderate rates of interest and with simplified application procedures, under a program to be developed with consultant assistance.

- 4375 ha. bench terraced cropland under a program which provides both technical guidance and access to inputs for increased production.

- 300 kilometers of stone surfaced access roads to demonstration plots and bench terraced areas.

- Reforestation of 42,800 ha., continuing and improving the ongoing greening program of tree planting, silva pasture and conservation terraces on public and private lands.

- Erosion proofed roads or, more precisely, erosion protection for a total 72 kilometers of critical segments on existing roads.

- Other erosion control measures such as check dams, gully stabilization and stream bank protection to be identified through further critical area surveys and determination of specific problems.

2) Irrigated Rice Production

Purpose: Achieve and sustain rice production at feasibility study target levels in all Citanduy Basin technical irrigation systems.

Expanding current activity in irrigation and flood control, priority will be given to the "soft", or social, side of irrigation through the provision of technical and training assistance in order to: improve the irrigation and agriculture extension services;

encourage adoption of improved irrigation farming systems, including efficient on-farm water management and effective water users associations; and promote adequate maintenance of the irrigation systems. Pilot efforts begun under Citanduy I at Langensari and Padaringan will be extended to all areas of irrigated rice production in the basin. Rehabilitation of additional existing small systems, identified in feasibility studies, will be undertaken once these efforts are underway and there are positive indications that the systems will function effectively to reach and continue the levels of production projected in the studies.

An assured water supply is important to encourage investment in the inputs needed for increased production. However, the condition of existing systems, experience with irrigation rehabilitation under Citanduy I and other projects, and the conclusions reported in the feasibility reports indicate other constraints require greater attention. These include too few and inadequately trained and motivated irrigation service and agriculture extension personnel in the field, insufficient funding for operations and maintenance, ineffective water users associations and some shortages of agriculture inputs when and where needed.

Outputs:

- Trained agriculture and irrigation service staffs, including 225 added irrigation service positions and 210 added agriculture service positions in the three districts with technical irrigation in the basin (Tasikmalaya, Ciamis and Cilacap).

- 1950 trained farm leaders in the irrigation service areas who through short training programs and tours to more successful irrigation systems will be better able to exercise leadership in local water users associations and advise and encourage their neighbors in water management and improved rice technology.

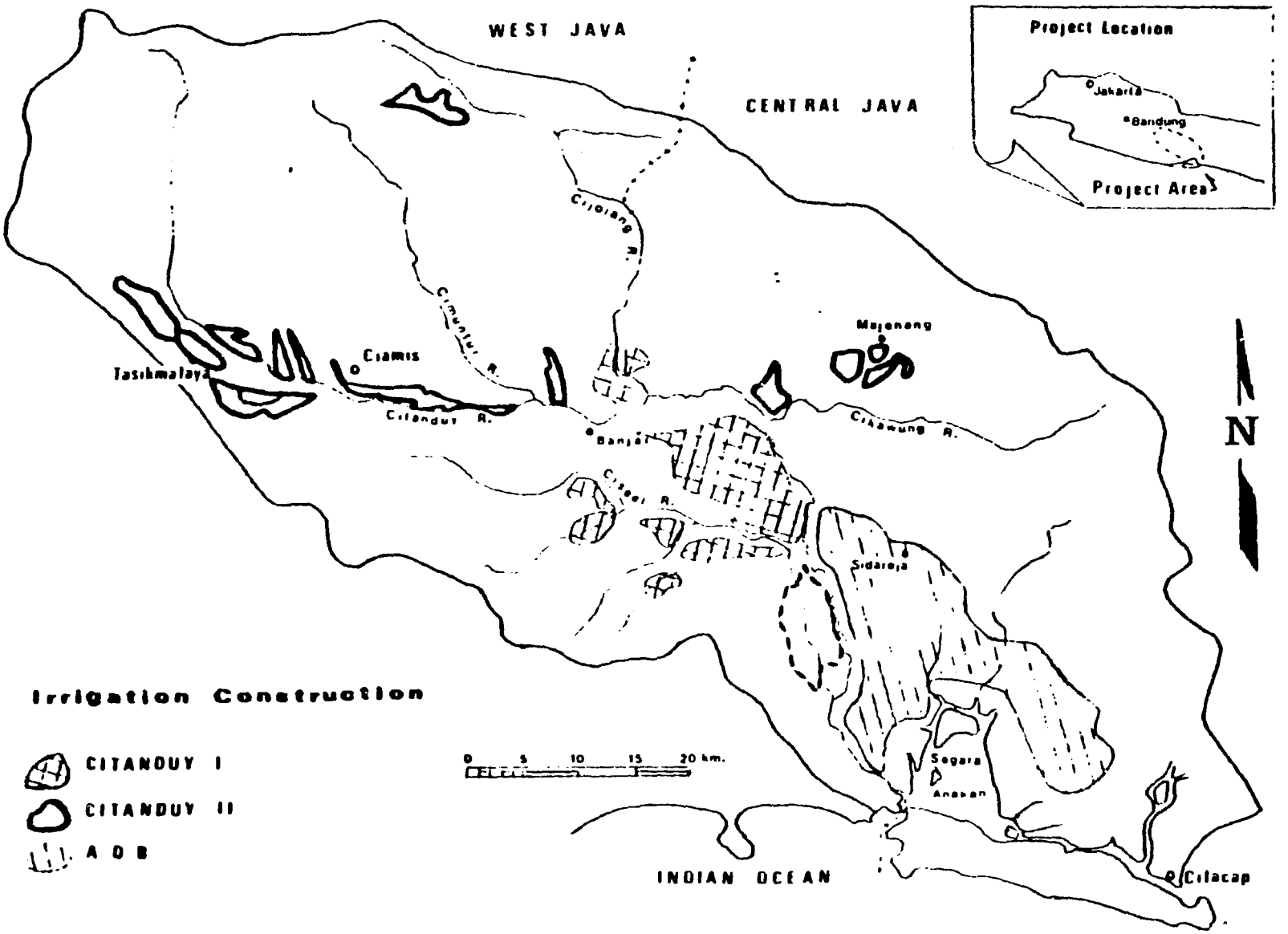
- Functional operations and maintenance programs with adequate funding to maintain the systems at designed performance levels. (Based on feasibility report recommendations, with inflation, this will require Rp. 25,000 to Rp. 40,000 per ha. annually by 1985.)

- An updated feasibility study of the 3,200 ha. South Lakbok Irrigation system to take into account alternatives to original water supply and drainage plans, necessitated by flood control measures.

- Terminal systems constructed in all rehabilitated systems to assure all farmers including those at the lower end of each tertiary bloc adequate access to irrigation water.

- Rehabilitated major works in up to 14 existing small systems serving a total of 7,644 ha. in Central Java and the Upper Citanduy area in West Java. New construction of the South Lakbok system may also be funded if the feasibility study is favorable, project funds are available, and construction can be completed in the project time frame.

CITANDUY RIVER BASIN



3) Local Development Planning and Management

Purpose: Improve the capability of local governments in the Basin to plan and manage integrated development.

Local participation is essential to the spread and continuation of effective functioning of upland conservation practices and the irrigation systems. The district is a key level of local administration with relatively close links to the rural population through subdistricts and villages yet with sufficient scope of authority and resources to afford a practical level for assistance. The design of this component draws on an earlier "BAPPEDA" project (Project No. 497-0238) and the Provincial Area Development Project (PDP) which is currently being implemented elsewhere in both West and Central Java.

Technical assistance, training and funding will be provided to district governments in the basin and to the overall basin project management organization to improve their capability for planning and managing development with emphasis on local participation and response to local needs. (See Annex H.9.)

Outputs:

- Trained local government planning staffs, including 45 officials from five districts to receive training in such areas as comprehensive development planning, project design and evaluation, budgeting, local revenue generation and financial management and management information systems. A substantial number of other officials will benefit as well from the transfer of knowledge by consultants and specialists provided under the project.

- Comprehensive district development plans for each of the five districts, progressively reflecting increased local inputs, improved priority setting, and more realistic and timely resource allocation with experience and improved planning capabilities.

- A restructured Project Management organization for the basin which facilitates increased participation by the many sectoral agencies and the local governments (See Section E.)

- Local development projects which complements upper-watershed and irrigation activities and which involve participation by the rural poor and are responsive to their needs. Project funding and technical assistance will support some 15-20 small scale projects which will be identified with local participation. Such projects are likely to include food processing, local handicrafts and other rural industry.

- An updated Basin Master Plan for continued development which fully reflects local aspirations as well as national interest. A comprehensive water balance study will be made and incorporated into the updated plan.

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SUBJECT: FY 79 PID'S - RURAL DEVELOPMENT SECTOR

1. RURAL WORKS II - APAC APPROVED SUBJECT PID. ISSUES TO BE ADDRESSED IN PP INCLUDE THE FOLLOWING:

(A) USAID MONITORING STRATEGY AND CAPABILITY TO MONITOR 2,000 ADDITIONAL SUB-PROJECTS AND STILL MAINTAIN RELATED DIRECT HIRE STAFF WITHIN ACCEPTABLE LIMITS. CRUCIAL CONSIDERATION HERE WILL BE FACT OF [illegible] DIRECTORATE OF MANPOWER INCREASES ITS OWN ADMINISTRATIVE PRODUCTIVITY AND OVERSIGHT OF SUBPROJECTS, THEREBY PERMITTING USAID TO REDUCE INSPECTION COVERAGE FOR ADEQUATE SAMPLE. IF MAJOR INVESTMENT OF STAFF TIME STILL REQUIRED, USAID SHOULD CONSIDER REDUCTION OF AID-[illegible] MAXIMUM LEG SUPPLY TO CONSOLIDATE GAINS BEFORE [illegible] CONCEPTUALIZATION [illegible] DEVELOPMENT OF PROJECT [illegible]

(B) PP SHOULD INCLUDE SUMMARY OF [illegible] EVALUATION [illegible] PERTINENT TO (I) DRP'S [illegible] AND OTHER RELEVANT ADMINISTRATIVE AND OPERATIONAL REFORMS RECOMMENDED IN THE EVALUATION, (II) EFFECTIVENESS OF MAINTENANCE OPERATIONS TO EXTEND USEFUL LIFE OF SUBPROJECTS, AND (III) INCOME, EMPLOYMENT AND PARTICIPATION BENEFITS FOR LOW-INCOME FAMILIES.

(C) PLANNING MECHANISM AT LOCAL LEVELS THAT ASSURES INTEGRATION/COORDINATION OF DEVELOPMENT EFFORTS INITIATED BY DIFFERENT [illegible] KABUPATEN, DESAS, PROVINCIAL [illegible], ETC.

(D) PRECISE RELATIONSHIP BETWEEN SUBJECT PROGRAM AND TITLE II FOOD FOR PEACE PROGRAM [illegible] IN JAVA.

2. PROVINCIAL DEVELOPMENT [illegible] APPROVED SUBJECT PID, BUT WILL WITHHOLD [illegible] RESPONSIBILITY ISSUES AND GUIDANCE FOR PROJECT LEVEL [illegible] WILL HAVE BE VIEWED IN THE PROVINCIAL DEVELOPMENT [illegible] BROADER STRATEGY LEVEL. PP SHOULD DISCUSS FOLLOWING:

(A) JUSTIFICATION FOR SCHEDULING SUCH PROVINCIAL DEVELOPMENT PROJECTS IN RELATION [illegible] FOR SUCCEEDING FISCAL YEARS [illegible] SUFFICIENT EXPERIENCE TO EVALUATE UNDER [illegible] PROJECTS, PARTICIPATION OF GOI PROVINCIAL [illegible] AND BASIS OF ADMINISTRATIVE ARRANGEMENTS.

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(1) [illegible] PROVINCIAL DEVELOPMENT [illegible] INCREASING [illegible] LEVEL IN WHICH [illegible] DEVELOPMENT, AND [illegible] TION CAN BE [illegible].

(2) DEFINITION OF LONG-TERM AID OBJECTIVES IN PROVINCIAL DEVELOPMENT, INCLUDING SCALE OF INVOLVEMENT, TIME PERIOD FOR ACHIEVEMENT OF OBJECTIVES, AND ROLE OF OTHER DONORS. NOTE: CABLE COMMENT ON THESE STRATEGY QUESTIONS WOULD BE USEFUL FOR ESS REVIEW NOW SCHEDULED FOR JULY [illegible].

3. RURAL ELECTRIFICATION II - APAC DID NOT APPROVE SUBJECT PID FOR FY 79 FUNDING. WHILE THE CONCEPT OF RE II IS NOT IN QUESTION, APAC RECOMMENDS THAT FOLLOW-ON LOAN BE SCHEDULED FOR FY 80 AT EARLIEST, TO PERMIT TIME FOR EVALUATION OF SEVERAL CRITICAL VARIABLES IN RE PROGRAM:

(1) ABSORPTIVE CAPACITY OF GOI AGENCIES RESPONSIBLE FOR PROGRAM,

(2) EFFECTIVENESS OF ADMINISTRATIVE ARRANGEMENTS, INCLUDING RELATIONSHIP BETWEEN PLN AND DGC,

(3) EXTENT TO [illegible] PARTI-CIPATE AND BENEFIT FROM PROGRAM [illegible] PERCEPTION.

(4) IMPACT OF CONTENT [illegible] POLICIES.

AS PREVIOUSLY REPORTED, APAC [illegible] THAT PP FOR RURAL ELECTRIFICATION I WILL DEFINE LONG-TERM OBJECTIVES OF AID FINANCING FOR RE PROGRAM WITH [illegible] TO PACING OF FOLLOW-ON AID LOANS, EVENTUAL ROLE OF OTHER DONORS, AND MEANS OF PROMOTING GREATER GOI COMMITMENT BY INTERNATIONAL FINANCING INSTITUTIONS.

CITANDUY

(5) CITANDUY BASIN DEVELOPMENT II - APAC APPROVED SUBJECT PID AND RECOMMENDS THAT IT BE MOVED FROM SHELF CATEGORY TO REGULAR [illegible] TO REPLACE RE II. VIEW BASED ON IMPORTANCE OF WATERSHED MANAGEMENT ACTIVITIES PROPOSED UNDER PROJECT BOTH FOR LONG-TERM SUCCESS OF CITANDUY I FLOOD CONTROL EFFORTS AND AS A MODEL FOR BROADER APPLICATION TO CRITICAL DEVELOPMENT PROBLEM IN JAVA. IN ADDITION, IMPLEMENTATION OF CITANDUY I WILL HAVE PROCEEDED SUFFICIENTLY TO PERMIT EVALUATION OF ADMINISTRATIVE ARRANGEMENTS AND ABSORPTIVE CAPACITY BEFORE DESIGNING CITANDUY II PROJECT. IF THERE ARE STRONG REASONS FOR RELEGATING SUBJECT PROJECT TO SHELF CATEGORY, REQUEST EXPLANATION PRIOR TO ESS REVIEW. ISSUES TO BE ADDRESSED IN PP INCLUDE:

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(A) CLARIFICATION OF ACTIVITIES INTENDED UNDER HEADING OF INSTITUTIONAL DEVELOPMENT, MANAGEMENT, SOCIAL SERVICES, ETC. PID DOES NOT SPECIFICALLY DESCRIBE ANY ACTIVITY IN THIS CATEGORY AND DOES NOT APPEAR TO MAKE BUDGETARY PROVISION FOR SUCH ACTIVITIES.

(B) SOCIAL SOUNDNESS AND PROJECT IMPACT ON LOW-INCOME FAMILIES, IN LIGHT OF PROBLEMS IDENTIFIED IN CITARUM BASIN SOCIAL ANALYSIS PREPARED BY GEORGE HILL (LOUIS BERGER, INC.)

(C) EVIDENCE OF EFFECTIVE COORDINATION BETWEEN BOWRD AND DEPARTMENT OF AGRICULTURE AND ABSENCE OF ADEQUATE AGRICULTURAL SUPPORTING SERVICES TO MAXIMIZE PRODUCTIVITY GAINS THAT ARE POTENTIALLY AVAILABLE THROUGH FLOOD CONTROL, IRRIGATION, AND WATERSHED MANAGEMENT ACTIVITIES.
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- A locally administered Water Management Board will be established with assistance from the Directorate of Rivers Project Office to manage use of available water supplies in the basin.

b. Project Inputs

Specific project inputs and costs for each of the three components are indicated in the Financial Analysis section. Inputs are discussed here in aggregate for the entire project.

1) Personnel - GOI Staff Increases

To effectively reach the large numbers of small farmers in both the upper watershed and the irrigated lowlands, a substantial number of additional personnel will be needed, especially in field/extension positions. Based on feasibility study recommendations, a total of 710 new full time positions are needed at district and lower levels in the following categories:

Upper Watershed Program	
Upland Extension Field Workers	150
Other Soil and Water Resources staff	125
Irrigated Rice Production	
Rice Extension Field Agents	115
Pest Control Observers	50
Other Agric. Service Personnel	45
Irrigation Gate Tenders and Controllers	75
Other Irrigation Service Personnel (mostly maintenance workers)	150

In addition to these local government increases, the Ministries of Public Works and Agriculture will need to add a total of about 50 positions to project staffing in the basin.

2) Consultants

Consultant services will be a major input which, together with the closely related training input, will be especially aimed at overcoming a serious shortage of capable managers and of adequately trained and motivated manpower at all levels. Consultants' responsibilities will stress transfer of knowledge. While some engineering services will be required the largest amount of consultant time will be in the areas of training and extension, agriculture, management of soil and water resources, planning and local administration.

In general, consultant effectiveness will require continuity of contacts, thorough familiarity with local conditions, and Indonesian language capability. The bulk of the services will therefore be provided through long term assignments (15 months or more). Projected total consultant services needed are:

Long term	:	418 person months
Short term	:	106 person months
Total	:	524 person months

3) Training

The project will require extensive training efforts in a variety of forms. Specially tailored programs will be needed to fill the large number of new positions with trained and motivated workers, many of whom will of necessity have limited educational backgrounds. They in turn will need assistance in training large numbers of farmers in adopting the practices which will permit sustained increased production.

Total project training planned for government personnel by type/source is as follows:

	No. Participants	Person-months
Academic:		
U.S.	8	96
Third Countries	16	192
Indonesia	16	192
Special Programs:		
U.S.	13	11
Third Countries	46	31
Indonesia	1,020	2,140
	1,119	2,662

In addition, short courses at training centers or in the villages will provide some 912 person-months training to 3,650 farm leaders.

The bulk of the planned training will be conducted in the Citanduy Basin. The training facilities to be established as an output of the project will thus also be an input to this effort in later years.

Additional training plans include the tapping of other in-country training resources, particularly for the training of district planning officials, and the use of consultants and visiting international experts to conduct formal courses and to transfer knowledge as they work on a daily basis with their counterparts.

To insure a high level of quality, the training will be goal-oriented, practical and emphasize a learn-by-doing approach. Video tapes and other audio-visual aids will be used as appropriate to assist the trainers on communicating information and developing skills.

4) Commodities

Commodity support will be primarily equipment and supplies for use by the expanded government services in carrying out their tasks of research, training, extension and irrigation system maintenance. Some agriculture inputs will also be financed for farmers participating in the upland demonstration plots.

- Vehicles to be provided so that personnel can get into the field on a regular basis will include 4-wheel drive utility vehicles for the research, training, management/supervision and consultant staffs and motorcycles and bicycles for field workers. Trucks are needed for the research station and irrigation O&M sections. The total vehicle requirement is projected as follows: 82 field utility vehicles, 280 motorcycles, 458 bicycles, 7 pick-up trucks, and 7 flatbed and dump trucks.

- Office, laboratory and audio-visual equipment will be provided for research and training facilities, the district field services, and consultant and project offices.

- Construction equipment to be procured will be light duty equipment for irrigation system maintenance and terrace construction, such as backhoes, concrete mixers, small compactors, pumps and hand tools.

- Instrumentation for hydrology and sedimentation data collection.

- Tools and equipment for the central maintenance shop.

- Agriculture inputs -- seeds, fertilizer and breeding stock -- will be furnished in-kind to farmers participating in the upland demonstration plots annually through the project life, and to farmers in the bench terracing program for the first year.

- Other commodities for project support will include small tractors for the research station, farm tools, office furniture, and a variety of supplies and materials such as books for libraries and materials for demonstrations and training.

5) Construction and Planting

Construction and planting are covered together since, especially in certain upper watershed activities, the two are inseparable, while the importance of planting -- trees, grass, crops -- to the program warrants specific mention. This input category will take by far the largest share of project funds.

- Buildings will need to be constructed for the research field station and the training center. Budgeted amounts (GOI) include land acquisition, however, it may be possible for government owned land to be made available in kind for these facilities.

- Terraces will be constructed in the upper watershed demonstration plots and spread through the bench terracing program. Labor will be provided by the farmers with government providing supervision, materials for drop structures, and incentives such as

production inputs, credit and access roads. Planting of grasses to protect terrace risers and waterways from erosion is an essential element, which also provides fodder for livestock. Trees will be planted on slopes too steep to terrace, with emphasis on varieties which can relatively quickly yield income to the farmer.

- Reforestation and greening is carried out on both public and private lands. Conservation terraces are constructed before planting and, where slow growing varieties are used, silvapasture or interplanting of food crops provides income to farmers while the trees are small. This is an ongoing program which will be incorporated into the project, supported and improved.

- Road construction to be financed under the project includes access roads and improvement of existing road segments to make them "erosion proof". The upper watershed feasibility study did not include access roads in the proposed program. However, the Panawangan Pilot Watershed shows that where needed they can be expected to be a major incentive to community cooperation. At the same time, market access will be important for increasing production. Funds are included for 300 km. of stone surfaced road; standards and procedures will be drawn from the ongoing Rural Works program (AID Project No. 497-0285). Erosion proofing of existing roads will consist of treatment of problem sections with such measures as revegetation of road banks, diversion channels, culverts, etc.

- Other conservation works will include construction of gully plugs and check dams, stream bank stabilization, and other public erosion control works. Locations and specific measures to be undertaken await identification until more detailed surveys of critical areas are made. (Aerial photography of the basin, planned for the first year, will facilitate this effort.)

- Rehabilitation of irrigation systems will be done with local contractors using labor intensive methods. In the four Central Java systems, drainage and flood problems will be tackled at the same time. (Drainage and flooding are not a problem in the ten Upper Citanduy systems.) Most of the systems to be rehabilitated are incomplete and the work will include substantial amounts of new construction of canals, gates and turnouts, and other structures.

- Terminal systems will be constructed to complete the irrigation systems rehabilitated under this project, and on-farm facilities are included in the budget for rehabilitation. While GOI policy now permits financing design and construction of terminal systems, active cooperation of the water user associations remains necessary, both to secure right of way for the farm ditches, which is not paid by the government, and to make future cooperation in operation and maintenance more likely.

6) Surveys and Evaluation

Both physical -- topographic and land use -- and socio-economic surveys will be important project inputs. Aerial photo-

graphy will help identify critical erosion areas and sites selected for project activity will be surveyed on the ground for detailed topographic and land use mapping. Socio-economic surveys, beginning with a baseline survey to be completed early in 1981, will become part of a continuous process to provide regional planning data, evaluate program effectiveness and provide implementors with information on social and economic conditions in target areas so that approaches can be tailored to meet the needs.

Hydrology and sediment data collection will be intensified and a water balance study, including the preparation of a computer model for analysis, will be undertaken so that a basin wide plan for water utilization can be put into operation.

7) Farm Credit and Other Costs

Funds will be made available to local credit institutions for production loans to upland farmers participating in the upper watershed program. Local governments will receive funding for small scale projects to be locally identified, planned and managed.

4. Implementation

Since 1969, the Ministry of Public Works, through its Directorate of Rivers, Directorate General of Water Resources Development, has played a primary role in Citanduy Basin development. This Ministry, along with the Ministries of Agriculture and Home Affairs, will be the primary implementing agencies. Details of the project management structure and of specific implementation responsibilities are presented in Section E and Annex H.9.

a. Coordination

A National Watershed Commission, chaired by the Minister for Control of Development and the Environment, is responsible for providing direction for river basin development throughout Indonesia. To provide specific high-level direction and coordination for Citanduy II, the agencies responsible for implementation have proposed the establishment of a National Steering Committee chaired by BAPPENAS.

In the project area, the existing institution for coordination is the Directorate of Rivers' Citanduy Project Office. To coordinate and backstop major Citanduy II project inputs from the various agencies of the Ministry of Agriculture, an Agriculture Project Office will also be established in the basin. Intersectoral coordination will be strengthened through the establishment of a Basin Coordinating Committee and a subproject office for the upperwatershed component.

b. Direct Implementation Responsibilities

The government entities responsible for implementation are:

- Ministry of Public Works, Directorate General of Water Resources Development: The Directorates of Rivers and Irrigation.

- Ministry of Agriculture: The Directorates General of Forestries, Food Crops, Estate Crops, Animal Husbandry and Fisheries; the Agency for Agriculture Education, Training and Extension; the Central Research Institute for Agriculture.

- Ministry of Home Affairs: District and subdistrict chiefs (bupatis and camats, respectively); local planning bodies (BAPPEDA II); subdistrict-level fieldworkers.

c. Consultant Services

A total of 544 person months of long-term and short-term technical assistance is projected to support the three basic components of the project.

d. Schedule

Activity Schedule: Consists of two distinct but overlapping time frames: (i) October 1980 to October 1985, for mobilization and for the first five years of the upper watershed and local development planning and management programs, and for equipment, training and technical assistance for irrigated rice production; and (ii) April 1982 to October 1986, for construction and rehabilitation of irrigation systems and fifth-year implementation of the upper watershed, local initiative projects and benefit monitoring component.

Funding Schedule: An initial grant of $1.25 million and loan of $12.0 million is budgeted for FY 1980. Additional grant increments totalling $2.66 million will be needed to fully fund activities in the first time frame. Activities included in the second time frame will require a loan increase of $10.75 million in early FY 1982 and an additional $.34 million in grant funds.

5. Expectations (End of Project Status)

Project efforts to enhance food production in the Citanduy Basin will benefit the entire 2.8 million population either directly or indirectly. All will have more assured access to food and will benefit from the reduced threat to general economic development that would otherwise be posed by food shortages and further deterioration of the environment. Further, with projected increases in net disposable income, the general quality of life of much of the population should also improve, with extra family income available for better health and nutrition, housing improvements, education, recreation and purchase of consumer goods. It should also be emphasized that especially for the upper watershed component, the indirect benefits and long-term impact on the entire basin and, indeed, the potential benefit of a successful pattern for watershed development throughout Indonesia, will be at least as important as the immediate benefits to participating farmers and officials.

a. Beneficiaries

The most direct beneficiaries of the project will be: 1) government employees who will be hired, trained and equipped; 2) local contractors and laborers on construction components; and 3) farmers, who will be provided with motivation, technical guidance and access to inputs for increased production. The following estimated number of direct beneficiaries include families of project participants (at an average of five members per family):

Government officials:	3,000
Contractors and laborers:	2,000
Upland farmers:	100,000
Lowland farmers benefitting from better irrigation facilities:	105,000
Lowland farmers receiving better extension service and improved irrigation O&M (additional to the above):	260,000
Total:	470,000

Other direct beneficiaries, whose number cannot be calculated at this time, will be: 1) individuals and families who will benefit from the complementary development activities to be initiated at the local levels; and 2) individuals and their families who will gain increased income from marketing, transport, processing and other project-generated activities.

b. Financial Return (based on feasibility reports)

As a result of project conditions, financial return to owner-operated farms is estimated as follows:

- In the upper watershed: On a per hectare basis farmland net disposable income will increase from Rp. 133,725 ($214) to Rp. 197,315 ($315) by 1990 from crop cultivation alone. Income increases from livestock and fisheries, which will be a major factor in the success of the upper watershed management component, were not calculated in the feasibility study.

- In the 10 Upper Citanduy systems: Farmers in these systems will expand their rice cropping intensity from an average 1.58 at present to 1.84 with Project conditions and an additional 986 ha. will be irrigated. As a result, the owner of a farm (average size: 0.45 ha.) will have Rp. 368,750 ($590) per annum in net disposable income compared with Rp. 193,750 ($310) without Project conditions.

- In the four Central Java systems: Farm owner/operators will have 2.2 times as much net disposable income per annum (Rp. 321,875, or $515) as they would have without the Project (Rp. 143,125, or $229).

Landless farm laborers will also benefit from increased crop yields and from additional labor demand generated by intensified cropping. For example, as the labor force for all the upper watershed's cropland is expected to increase by 12.6% between 1979 and 1990, and the labor requirements are expected to increase by 34% during the same period, the agricultural labor force will clearly benefit from the greater projected increase of labor demand over supply.

6. Issues

The multi-sectoral nature of activities projected for Citanduy II, and the absolute need for sufficient project personnel to implement and/or supervise these activities, raises two key issues:

a. Relationship of sectoral agencies and local government coordination

A critical factor influencing project success will be the willingness and ability of the involved Ministries - and Directorates and Directorates General within Ministries - to coordinate sectoral planning and implementation. Effective vertical linkages for coordination are equally important. Therefore, for the short term, the setting up of meaningful coordinating channels as outlined in Section E is considered imperative. For the longer term, the management study to be undertaken in 1981 with consultant assistance will provide a basis for further improving project management and coordination, with emphasis on greater participation by local government agencies.

b. Weaknesses of extension and need for larger numbers of field personnel

A second crucial issue is the willingness of the GOI to commit sufficient numbers of officials to work at the field level. In particular, soil and water resource coordinators and conservation staff, as well as a large corps of technical field personnel for both the uplands and irrigation system areas, will need to be added at the district and subdistrict levels. While it is generally agreed that line agency responsibility for recruitment and support of these personnel will be in the Ministry of Agriculture, specific responsibilities within that Ministry will need to be defined before implementation can begin. Relatedly, sufficient GOI counterpart funding, particularly to cover personnel costs for expanded field personnel, will be necessary.

C. PROJECT SPECIFIC ANALYSIS

Major project activities were subject to full feasibility study by PRC Engineering Consultants, Inc., under an AID financed contract with the GOI's Directorate of Rivers, Directorate General of Water Resources Development, Ministry of Public Works. Details can be found in the following feasibility reports prepared by the contractor.

- "Citanduy Upper Watershed Management Project Feasibility Report," Volumes I and II and Appendixes, October 1979 (draft).
- "The Citanduy River Basin Development Project: Central Java Irrigation Systems Rehabilitation and Improvement Feasibility Report," November 1979.
- "The Citanduy River Basin Development Project: Ten Upper Citanduy Systems Feasibility Report," December 1979 (draft).

The feasibility reports, which conclude that all specific aspects of the Project are sound, have been reviewed by USAID and formally accepted by the Citanduy Project Steering Committee.

1. Economic Feasibility

Internal rates of return (IRRs) and benefit-cost ratios indicate that the Project is economically feasible.

a. Internal Rates of Return

- The IRR for the upper watershed component is 29.3% (22.2% if farmer and village costs are included in total project costs), a rate which would be expected in an area which has a high potential for increased crop production over present conditions.

- For the Central Java irrigation systems, the IRRs are 25.0% for the Majenang area and 28.7% for the Wanareja area.

- For the Upper Citanduy irrigation systems, the IRRs are: 39.9% for Tasikmalaya; 28.5% for Cigayam; 20.5% for Ciloganti; 30.0% for Cipalih/Negawiru Cimarongmong; 36.3% for Jagabaya; and 39.1% for Wangundireja.

Sensitivity tests for all areas show that the visibility of this Project component is not significantly affected by any of the variations introduced.

b. Benefit-Cost Ratios (at a 12% interest discount rate)

- For the upper watershed components: 2.78 for a 25-year period of analysis. Net cropland benefits for the same period are projected at Rp. 13,717.6 million ($16.3 million).

- For the Central Java irrigation systems: 2.36 for the Majenang area and 2.80 for the Wanareja area.

- For the Upper Citanduy irrigation systems: Tasikmalaya - 3.44; Cigayam - 2.61; Ciloganti - 1.82; Cipalih/Nigawiru and Cimarongwong - 2.76; Jagabaya - 3.42; and Wangundireja - 3.61.

c. Update of Basic Project Assumptions

The feasibility reports are based upon domestic and international prices prevailing during mid-1979 and therefore reflect the November 1978 devaluation of the Rupiah. Further price changes which have occurred from mid-1979 to early 1980 do not reflect a time period of sufficient length to draw any definite conclusions on how they will influence the financial/economic feasibility of the Project. Tentatively, however, it can be said that the financial feasibility of the project has improved from a production point of view and that economic feasibility from a national point of view may have declined. These trends, to the extent that they prove to be significant in coming years, should act to improve farmer incentives and increase GOI interest in speeding the completion of the projects.

1) Financial Trends

Recent trends tend to stimulate production. First, harvest prices for most crops improved during CY 1979, e.g., the price of rice in rural Java increased by 32%, corn by 37%, cassava by 31%. Second, the GOI has increased the procurement price of Padi (gabah) as of February 1, 1980 to Rp. 105 per kilo, 40% above the 1978 purchase price. Third, the urea fertilizer price has been maintained at Rp. 70 during this period, which is one way the GOI is sharing its recent increase in oil earnings with agricultural producers. Finally, the terms of trade for agriculture for West and Central Java have improved by 6% for the period January-October, 1979.

2) Economic Trends

An update of the economic analysis of the Project suggests, at least for the short-term, a slight deterioration in the Project's IRRs and benefit-cost ratios. This tentative conclusion is based upon a sharp increase in the fertilizer subsidy and some moderation in the international price of rice (which is influenced by Indonesia's heavy purchases on the international rice market).

Over the long term, however, international prices for food and fertilizer will clearly increase and give added reason for the GOI to help domestic cultivators grow the country's food crops. In this context, it can be anticipated that the GOI will not only increase its concern for profitable agricultural conditions, but also pay added attention to the institutional factors which have a major impact on the acceptance of agricultural innovations and resource conserving practices.

2. Social Soundness

At least 500,000 of the 2.8 million people residing in the Citanduy Basin will benefit directly from the Project, and virtually all will benefit at least indirectly by having more assured access to food and from the reduced threat to general economic development that would otherwise be posed by food shortages. Primary beneficiaries will be upland and lowland farmers, local government officials, local construction firms and rural infrastructure construction workers. Other beneficiaries will be landless farm workers (through increased yields and greater demand for agricultural labor), and those involved in marketing, processing, transportation and other related services. Urban centers as well as the rural population will benefit through economic spin-off and through an increased and diversified amount of food goods available to the urban consumer. Thus, from the point of view that the Project will benefit a broad spread of the basin's population, it is socially acceptable and sound.

a. Upper Watershed Component

This Project component will clearly provide a badly needed erosion control program and allow the upland farmers to increase and diversify production and increase their incomes. Many people who live downstream will also benefit from the ecological consequences of the upper watershed activities.

1) Sociocultural Feasibility

Local acceptance and participation in this Project component, as well as the other components, is mandatory if the Project is to succeed. As a result, the program will take advantage of traditional social relationships and utilize local leadership structures and institutions to stimulate local participation in constructing, operating and maintaining bench terraces, waterways and demonstration plots and in adapting innovative agricultural technology and practices.

The Project recognizes that the traditional relationship among families whose terraceland lies within the opposite faces of two hillsides (the hydrological unit) is the key entity for stimulating a sense of cooperation and participation in immediate and ongoing program activities. The spirit of gotong-royong, a traditional system of mutual aid in neighborhoods and formally used as a vehicle for community participation in village infrastructure and other self-help projects, will be used to reinforce efforts toward generating cooperative participation at the neighborhood level.

Subvillage heads, neighborhood leaders, key farmers (kontak tani), progressive farmers (tani maju), religious leaders, and village groups such as village social committees (LSDs), on which women have substantial representation, will be used as channels for introducing new methodology, gaining its acceptance, and generating community involvement.

Also, the Islamic religion is a powerful binding force within the community. As the Friday prayer service is frequently the time for announcements of community interest, this source will not be overlooked as a means for encouraging participation in upper watershed activities and promoting the attainment of Project objectives.

The encouragement of local government participation is a second major Project component. Within the context of local leadership structure, the kepala desa (village head) is the traditional source of authority in the village. Acting in this role, the extent to which he supports the upper watershed component will in large measure determine the degree to which the village population will accept new methodology, participate in new construction, and bear responsibility for operation and maintenance of terracing systems. In his other capacity, as the administrative authority for the Ministry of Home Affairs, the kepala desa is also the official link with the subdistrict level of local government, and through that level, the district - the lowest level of government which has substantial technical assistance and planning capabilities.

The involvement of villagers in defining the program will be a crucial program element. GOI local field staff will be given budgetary and administrative flexibility to insure that locally-planned work schedules are synchronized with Project commodity inputs and incentives to farmers.

2) Spread Effects

Extension workers (PPLs) will be the primary agents for introducing new methodology and farming practices. Demonstration plots (150 over the life of the Project) will serve as models for replication, with each plot introducing agricultural components and practices which are suitable to local conditions and needs. Extension workers will work with and through the local leadership and institutional structures described above in spreading the effects of the program.

In order to upgrade knowledge and skills and to enhance the capacity to effect spread, extension workers, neighborhood leaders, key farmers, subdistrict chiefs and district planning officials will be exposed to relevant training programs and courses. This training will cover such areas as extension, community development, soil and water conservation, development administration and development planning and management.

3) Social Consequences and Benefit Incidence

The demonstration plots and bench terracing programs will bring improved production and conservation practices to farmers on about 4,750 ha. With fragmentation of landholdings, it is expected that each hectare will involve 4-5 farm operators. Thus about 20,000 upland farmers and their 80,000 dependents will

directly benefit from the upper watershed component of the Project. Other social consequences and beneficiaries are covered in the introductory comments to this social soundness analysis.

b. Irrigation Components

The irrigation component of the Project involves improvement, rehabilitation and expansion of the four Central Java and ten Upper Citanduy irrigation systems. As the social conditions for the two areas are similar, they are discussed collectively.

1) Sociocultural Feasibility

The irrigation component of the Project is acceptable to and wanted by both the farmers and the local officials in the program area.

As is the case with the Project's upper watershed program, the irrigation component will stress local participation by working through and with village leadership and institutional structures, and by actively involving local government at the district and subdistrict levels in coordinating planning and in mobilizing agricultural services from the technical agencies. In order to insure community control over water management, local water user associations will be expanded and strengthened in cooperation with the local Irrigation Services. To further improve water management, training in on-farm and systems water management will be offered to village and subvillage heads, key members of the water user associations, and ulu-ulu (the village officials who are responsible for maintenance and repair of tertiary canals and drains, oversee rotation, if necessary, and manage other day-to-day irrigation problems within the villages and between the village and the Irrigation Service).

Other key aspects of this component will be the expansion and improvement of: agriculture extension services; systems operation and maintenance functions of the local Irrigation Services; and credit facilities for farmers.

2) Social Consequence and Benefit Incidence

A total of 71,000 lowland farmers in the existing irrigated rice producing areas will benefit from improved agriculture extension services and systems operation and maintenance by the local Irrigation Services. Of these lowland farmers 21,000 (and their 84,000 dependents) will also directly benefit from rehabilitation and expansion of the irrigation systems. Thousands of other lowland farmers and their families will benefit through improved and expanded government services. About 34,000 farm laborers, a large proportion of them women, will also benefit through increased employment opportunities brought about by more intensified cropping. Other beneficiaries will be local construction

firms and their employees, local leaders, government officials and merchants. The end result of this Project component will be an expanded economy for the program area and an improved standard of living for its residents.

c. Local Development Planning and Management

This component of the Project has been discussed within the context of the social soundness analysis of the other two major project components (see a. 1) and b. 1), above). The key point to reiterate here is that it is recognized that the Project will only succeed if it responds to local needs and conditions. For this primary reason, local governments will be upgraded and assigned a major role in carrying out the development planning and management functions required for Project success.

d. Impact of the Project and Women

Women play a major role in the whole configuration of agricultural activities in the basin. In consideration of this critical role - and as the main thrust of the Project is to increase agricultural production - women will participate in and benefit from Project activities as part of the basin's total population. It should also be noted that there are no social, political, institutional or other taboos against the participation of women in meetings, training or decision making. Thus, agricultural extension workers (some of which are in fact women) will involve women in meetings and in training/demonstration activities, and will encourage them to participate in the local decision-making process. Women are also expected to benefit from "local initiative" projects, some of which will likely involve the generation of non-agricultural employment opportunities in such areas as food processing and local handicraft industries.

3. Technical Feasibility

Full details on engineering designs and construction of bench terraces and irrigation systems can be found in the feasibility reports listed at the beginning of Section C. The suitability of bench terracing for the Citanduy upper watershed was demonstrated in the Upper Solo Watershed Project and in the Panawangan Pilot Watershed Project. The irrigation component of Citanduy II involves relatively low-level established technology in improving, renovating and expanding existing irrigation systems.

4. Administrative Feasibility

The primary Ministries which will be involved with the Project (Public Works, Agriculture and Home Affairs) have previously worked together on an intersectoral basis in the Citanduy Basin in the Panawangan Pilot Watershed Project. However, at that time, the intersectoral coordination was done rather informally and on an ad hoc basis. As Citanduy II involves many sectors, the need for insuring that Project inputs and activities are mutually-reinforcing and synchronized is imperative. Resultantly, the

institutional framework for administering Citanduy II will be strengthened and formalized. Details on the coordinating structures for administering the Project at the national level and in the Project area are described in Section E and Annex H.9.

As a further step to coordination among the various involved sectors, a single Project budget approved by the Steering Committee will be set up under the administration of BAPPENAS, the National Planning Board, with Project funds allocated to the respective implementing agencies by that body (see Sections D and E, and Annex H.9).

5. Environmental Concerns

Reference is made to the Project's IEE, dated March 25, 1980, which states that "In view of the preponderantly favorable impact of proposed project activities and its positive environmental orientation, a Negative Determination is recommended, i.e., that an environmental assessment or impact statement is not required."

The IEE justifies this recommendation on the grounds that the Project's emphasis is on the protection of the Citanduy River Basin's food production capability through conservation of soil and water resources. The upper watershed component's program to control erosion through improved terracing and revegetation will be a major element with highly positive environmental impact. The irrigation component will focus on obtaining maximum benefit from existing systems.

Upland research and extension efforts will identify and support production packages which will very likely include use of pesticides. However, these will be a very minor part of the program and the comprehensive package approach should minimize unfavorable environmental impact. Further, applicable AID safeguards in procurement will of course be followed and services for identification of appropriate pest management techniques will be provided. The irrigation component will not directly support any production packages. Efforts to strengthen the local agricultural services will include attention to their capability to respond effectively to pest problems in ways that reduce the risk of environmental damage due to unwise use of pesticides.

With regard to the human environment, the Project will bring about a general improvement in the quality of life for many of the basin's residents. Diversification of the agricultural base, particularly in the upper watershed, will eliminate dependency on a one-crop economy for the farmers and, along with cropping intensification, will increase employment opportunities, decrease underemployment, and make available more and a greater variety of food for both rural and urban consumers. As a result of higher incomes, thousands of families in the basin will have additional financial resources available for health, education and recreation services.

D. FINANCIAL PLAN

The total Citanduy II project cost is approximately $50,000,000. Of this amount, AID will finance $27,000,000 in the form of both a grant and a loan. The grant totals $4,250,000 and will be funded in three increments in FYs 1980, 1981 and 1982. The loan of $22,750,000 will be funded in two increments in FYs 1980 and 1982. (See Table I)

The above amounts do not include construction costs of two new irrigation systems also planned for implementation during GOI's Citanduy Phase III. The first of these, the Sidareja-Cihaur system (20,400 ha.) will cost about $90,000,000. The Asian Development Bank is expected to finance this system and is currently conducting a project appraisal. The second is the South Lakbok system (3,200 ha.). The Citanduy II budget includes consultant costs for a feasibility study and design of this system. AID has also been asked to consider financing the construction, provided results of the study are favorable and funds are available. However, this financial plan does not include the construction costs, roughly estimated at $6,500,000.

1. Budget

a. Cost Calculations

Budget calculations are based on the detailed cost estimates contained in the relevant feasibility reports, with some adjustments and additions taking into account recent cost experience.

1) Adjustments to cost figures in the feasibility reports have included the following:

-- GOI personnel costs were adjusted upward to include the standard "13th month" bonus pay and to reflect the substantial increases in civil service pay scales that took effect in April 1980.

-- Training costs in the Upper Watershed report were based on two training centers, and the estimates for student maintenance reflected a relatively small number of trainees. The costs were recalculated for a single training center, with student costs based on total training requirements and the costs experienced in recent Project training programs.

-- The feasibility reports indicated inflation rates of 6% per year for foreign exchange costs and rates of 15% for 1979, 12% for 1980 and 10% per year thereafter for domestic costs. These rates were considered low and were recalculated using a 10% per year inflation factor for foreign exchange costs and rates of 15% for 1979 and 12% per year thereafter for domestic costs.

2) Cost items added to the project budget which were not included in the feasibility reports include the following:

-- 300 km. of stone-surfaced access roads which, as demonstrated by the Panawangan Pilot Watershed Project, are of potential importance for demonstration plots and bench terracing programs.

CITANDUY II TABLE II

TOTAL PROJECT COST BY COMPONENT BY OUTPUT/ACTIVITY
($ 000)

	AID		GOI	
	FX	LC	LC	TOTAL
UPPER WATERSHED DEV.				
Research Field Station	135	186	560	881
Training Facility	100	1041	434	1575
Other Training	329	120	-	449
Soil & Water Res. Staff	732	100	2295	3127
Nurseries	-	576	725	1301
Surveys & Mapping	-	660	269	929
Hydrology/Sediment Data	100	10	139	249
Demonstration Plots	-	257	257	514
Bench Terracing	-	1741	1741	3482
Access Roads	-	920	920	1840
Reforestation/Greening	-	1667	1686	3353
Road/Trail Erosion Cont.	-	241	241	482
Other Conserv. Meas.	-	349	349	698
Credit Program	-	444	444	888
Consultants	2909	88	565	3562
Subtotals	4305	8400	10625	23330
IRRIGATED RICE PROD.				
Special Ag. Ext. Teams	120	648	549	1317
Training, Proj. Facil.	-	779	20	799
Other Training	142	55	-	197
O&M Equipment	506	-	48	554
Pataruman Shop	120	-	-	120
Rehab./Construction	-	7271	7271	14542
Consultants	2190	21	311	2522
Subtotals	3078	8774	8199	20051
LOCAL DEV. PLAN & MGT.				
Training	45	44	-	89
Local Initiative Proj.	-	504	253	757
Soc-Econ. Research	377	273	110	760
Consultants	834	70	150	1054
Subtotals	1256	891	513	2660
CONTINGENCIES	148	148	-	296
TOTAL PROJECT COSTS*	8787	18213	19337	46337

*Not including cost of GOI project level personnel, existing facilities and farmer labor.

CITANDUY II

TABLE I

SUMMARY AID GRANT AND LOAN COSTS

By Input Category ($000)

	Activity Requirements					Funding		
	Year 1	Year 2	Year 3	Year 4	Year 5	TF I	TF II	TOTAL
GRANT								
Consultants (65%)	1045	1105	735	430	225	3315	225	3540
Survey/Evaluation	302	73	81	92	102	548	102	650
Contingency	10	12	12	13	13	47	13	60
TOTAL GRANT	1357	1190	828	535	340	3910	340	4250
LOAN								
Consultants (35%)	562	595	396	232	121	1785	121	1906
Training	675	887	964	319	238	2845	238	3083
Commodities	1419	192	421	30	-	2052	-	2052
Construction/Planting	910	1016	993	1111	1889	4030	1889	5919
Survey/Evaluation	670	-	-	-	-	670	-	670
Credit & Other Costs	17	94	174	253	410	538	410	948
Consultants (100%)	-	180	249	144	92	-	665	665
Construction (Irrig.)	-	1756	2750	1940	825	-	7271	7271
Contingency	50	48	48	47	43	80	156	236
TOTAL LOAN	4303	4758	5995	4076	3618	12000	10750	22750

Dotted line divides activity requirements between Time Frame I (left) and Time Frame II (right)

CITANDUY II

Table III

SUMMARY ANNUAL COSTS BY COMPONENT BY INPUT CATEGORY
($ 000)

	Year 1			Year 2			Year 3			Year 4			Year 5		
	AID		GOI	AID		GOI	AID		GOI	AID		GOI	AID		GOI
	FX	LC	LC	FX	LC	LC	FX	LC	LC	FX	LC	LC	FX	LC	LC
UPPER WATERSHED DEV.															
Personnel	-	-	141	-	-	286	-	-	464	-	-	642	-	-	837
Consultants	652	21	94	689	67	128	560	-	128	662	-	144	346	-	71
Training	135	130	36	81	184	56	65	218	77	48	271	105	-	238	120
Commodities	595	78	35	70	112	45	384	37	57	18	12	103	-	-	105
Construction/Planting	-	910	973	-	1016	1024	-	993	1028	-	1111	1146	-	1889	1928
Survey/Evaluation	-	670	43	-	-	79	-	-	112	-	-	95	-	-	79
Farm credit	-	-	-	-	22	22	-	51	51	-	115	115	-	256	256
SUBTOTALS	1382	1809	1322	840	1401	1640	1009	1299	1917	728	1508	2350	346	2383	3396
IRRIGATED RICE PROD.															
Personnel	-	-	51	-	-	163	-	-	248						
Consultants	577	21	63	832		119	545		87	144	-	27	92	-	15
Training	78	306	7	41	538	7	23	638	6						
Commodities	746	-	42	-	-	65	-	-	28						
Construction	-	-	-	-	1756	1756	-	2750	2750	-	1940	1940	-	825	825
SUBTOTALS	1401	327	163	873	2294	2110	568	3388	3119	144	1940	1967	92	825	840
LOCAL DEV. PLAN. & MGT.															
Consultants	315	21	48	270	23	46	249	26	56						
Training	18	8	-	20	23	-	7	13	-						
Survey/Evaluation	224	78	-	33	40	23	35	46	26	40	52	29	45	57	32
Other Costs	-	17	9	-	72	36	-	123	62	-	138	69	-	154	77
SUBTOTALS	557	124	57	323	158	105	291	208	144	40	190	98	45	211	109
CONTINGENCIES	30	30	-	30	30		30	30		30	30		28	28	
TOTAL PROJECT COSTS	3370	2290	1542	2066	3883	3855	1898	4925	5180	942	3668	4415	511	3447	4345

CITANDUY II

TABLE IV

SUMMARY ANNUAL COST BY COMPONENT BY OUTPUT/ACTIVITY
($ 000)

	Year 1			Year 2			Year 3			Year 4			Year 5		
	AID		GOI	AID		GOI	AID		GOI	AID		GOI	AID		GOI
	FX	LC	LC	FX	LC	LC	FX	LC	LC	FX	LC	LC	FX	LC	LC
UPPER WATERSHED DEV.															
Research Field Sta.	87	56	98	24	118	109	6	6	102	18	6	115	-	-	136
Training Facility	76	189	117	24	188	81	-	179	68	-	247	78	-	238	90
Other Training	135	31	-	81	34	-	65	26	-	48	29	-			
Soil & Water Res. Staff	332	21	123	22	36	251	378	43	428	-	-	657	-	-	836
Nurseries	-	102	120	-	67	94	-	110	140	-	134	169	-	163	202
Surveys & Mapping		660	13	-	-	57	-	-	86	-	-	66	-	-	47
Hydrology/Sediment Data	100	10	30	-	-	22	-	-	26	-	-	29	-	-	32
Demonstration Plots	-	10	10	-	23	23	-	44	44	-	72	72	-	108	108
Bench Terracing	-	14	14	-	68	68	-	207	207	-	484	484	-	968	968
Access Roads	-	46	46	-	99	99	-	169	169	-	254	254	-	352	352
Reforestation/Greening	-	642	650	-	644	651	-	385	385	-					
Road/Trail Erosion Cont.	-	7	7	-	18	18	-	42	42	-	70	70	-	104	104
Other Conserv. Meas.	-	-	-	-	17	17	-	41	41	-	97	97	-	194	194
Credit Program	-	-	-	-	22	22	-	51	51	-	115	115	-	256	256
Consultants	652	21	94	689	67	128	560	-	128	662	-	144	346	-	71
SUBTOTALS	1382	1809	1322	840	1401	1640	1009	1299	1917	728	1508	2350	346	2383	3396
IRRIGATED RICE PROD.															
Special Ag. Ext. Teams	120	71	93	-	229	208	-	348	248						
Training Proj. Facil.	-	222	7	-	298	7	-	259	6						
Other Training	78	13	-	41	11	-	23	31	-						
O&M Equipment	506	-	-	-	-	20	-	-	28						
Pataruman Shop	120	-	-												
Rehab/Construction	-	-	-	-	1756	1756	-	2750	2750	-	1940	1940	-	825	825
Consultants	577	21	63	832	-	119	545	-	87	144	-	27	92	-	15
SUBTOTALS	1401	327	163	873	2294	2110	568	3388	3119	144	1940	1967	92	825	840

Standards and costs of the roads are based on data provided by the AID Rural Works project ($3,520/km. in 1979).

-- Purchase, installation and operation of equipment for hydrology/sedimentation data collection. Cost estimates, prepared by the Citanduy Project office and the consultants, totalled $250,000.

-- Aerial photography, which is required for managing upperwatershed development and conservation. AID has been asked by the GOI to fund this activity, the cost of which has been projected at $660,000, based on preliminary inquiries to firms providing this service.

-- Additional equipment for the equipment pool and maintenance shop at Pataruman (Banjar), which is a major support facility for all project construction activities. The $120,000 line item for the equipment is based on a proposal from the Citanduy Project office and is intended to help raise the status of the shop to a full echelon V.

-- Equipping and maintaining ten agricultural extension teams, a number which can be more readily absorbed into the expanded permanent staff than the substantially larger numbers proposed in the feasibility reports. Cost estimates of $34,000/team including $15,000 for initial equipment (1979 prices) were provided in the reports, but were not included in the reports' project cost schedules.

-- Initial training for farm leaders and for the projected number of new personnel, as well as in-service training for all irrigation and agriculture service personnel responsible for irrigated rice production. The feasibility reports indicated need but did not provide cost estimates. Those costs at 1979 prices are estimated to total $95,000 for in-basin training and $149,000 for other training including overseas training.

Further to the above, the project's local development planning and management component is outside the scope of the feasibility studies. Consequently, all budget costs for this component are in addition to the project cost schedules in the feasibility reports. Direct transfer of knowledge by the consultants will be the main vehicle for increasing local planning and management capacity, with consultant efforts augmented by observation tours and special training programs. Since local initiative projects are determined through community participation, their exact nature is not known at this time. The amount provided is based on PDP experience adapted to the more limited support needs of this project to provide meaningful assistance limited to small-scale projects complementing the much larger upper watershed and irrigation components. Costs for consultant services (for all components of the project) and for socioeconomic research are discussed below.

b. Allocation of Grant Funds

While full grant funding of consultant services would simplify administration and offer greater flexibility, the budget proposes partial loan funding to eliminate limited grant availability as a major constraining factor. Grant funding is therefore provided to cover $3,540,000 of the total consultant costs of $6,112,000, in addition to $650,000 for socio-economic research and $60,000 for contingencies.

Consultant costs are included for each major project component under separate line items, but are not further apportioned under individual outputs or activities. Consultant costs have been calculated on the basis of recent contract experience and the projected work force levels. Funds for local professional services for preparation of audio-visual materials, translation, and language training are also included.

The line item for socio-economic research includes additional funds for consultants who will be separately contracted as soon as possible after agreement signing to help conduct the baseline survey. Costs of establishing and maintaining the research unit itself have been estimated based on plans prepared under PDSF. The entire socio-economic research activity will be grant funded.

c. Costs Not Included

A number of GOI basin development costs which incorporate costs for support of Citanduy II are not included in the budget. These include the costs of: existing and future project office personnel; existing project facilities such as the headquarters office and equipment facility; existing local, provincial and national administrative and technical services; and farmer contributed labor, which is a significant part of the bench terracing program. The last mentioned contribution alone will account for $2.4 million of the $3.7 million added to arrive at the rounded total $50 million project cost.

The budget covers costs for operations and maintenance including equipment, training, consultants and certain operation costs such as the operation of the demonstration plots throughout the life of the project. However, major project efforts are directed to creating local capabilities and conditions for O&M, with such activities to be considered routine and financed locally from increased production revenues. Consequently, annual O&M costs, including those for additional irrigation service personnel needed for effective O&M, are not considered project costs and are not covered in the budget.

2. Cash Flow

For incremental funding purposes, Citanduy II project activity has been broken down into two time frames. The first time frame

covers the first four years of the work program with the exception of rehabilitation/construction of the irrigation systems. A loan of $12,000,000 and a grant of $1,250,000 in FY 1980, plus additional grant increments of $2,000,000 in FY 1981 and $1,000,000 in FY 1982, will fully fund the loan activities to be carried out in this time frame and all grant costs.

The second time frame overlaps with the first to cover the rehabilitation/construction of the irrigation systems and adds a fifth year of the upper watershed program, local initiative projects, and monitoring of project benefits. These activities will require increasing the loan by $10,750,000 in early FY 1982. $340,000 of the total $1,000,000 in grant funds to be provided in FY 1982 are for fifth year consultant and socio-economic research costs. (See Table I)

The first six months after signing the Project Agreements will be taken up in meeting conditions precedent, issuance of RFPs and IFBs, evaluation of the responses, and other preliminary activities. Thus, the first year of the total five-year work program covered by the two time frames will begin about April 1, 1981.

All costs have been broken down by activity years beginning with the April 1, 1981 date, which has the convenience of coinciding with the beginning of the GOI fiscal year. The cost breakdown reflects the year in which purchases are expected to be made or services performed, and was used to compute financing requirements which take into consideration the inflation factor.

A period of six months after the fifth activity year should also be allowed for completion of previously initiated activities, particularly those involving construction. The dry season, which runs from May to October and which is the peak construction period, would fall into the April 1 through September 30, 1986 period allowed for completion of activities. Thus, the proposed PACD is September 30, 1986.

3. Financing Procedures

The variety of project activities to be undertaken necessitates the use of a number of financing procedures. For the bulk of project activities, including upper watershed bench terracing, construction of research and training facilities, and irrigation rehabilitation, the fixed amount reimbursement system (FAR) is appropriate and is expected to be used. Consultant services and major equipment purchases will most likely be paid for under letters of commitment. Local operations of the socio-economic research unit will probably be financed with a series of subgrant advances.

4. GOI Budget Responsibilities and Procedures

A uniform project budget, annually approved by the BAPPENAS-chaired National Steering Committee for Citanduy II, will serve as a mechanism for effecting coordination of project activities.

a. Flow of Budget Review and Approvals

Annual budget proposals submitted by the implementing agencies will first be reviewed by the respective Project Offices as applicable for approval. All agency budget proposals will then be reviewed as a package by the Basin Coordinating Committee prior to final review and approval by the National Steering Committee.

b. Flow of Annual Funding Allocations

Annual allocation of funds as approved by the National Steering Committee will be via several channels as follows:

1) Through normal Ministerial channels to local services for the following: soil and water resource staff; nursery operations; reforestation; special agriculture extension teams; and O&M equipment.

2) Through the appropriate Project Office to the implementing agencies for: research field station costs, training center and training costs; surveys and mapping; hydrology and sediment data collection; demonstration plots; the Pataruman shop; rehabilitation/construction of irrigation systems; and consultant costs for all project components.

3) Through INPRES, i.e., through the Ministry of Home Affairs, to the appropriate implementing agencies for: access roads; greening activities; bench terracing; and road/trail erosion control.

4) Through the Ministry of Home Affairs via the bupati offices for credit programs and local initiative projects.

c. Summary of Annual Costs by Responsible GOI Ministries

A summary of the projected annual costs to each of the responsible implementing Ministries by output/activity is presented in Table V. The annual breakdown on all tables reflect GOI fiscal years with year one beginning April 1, 1981.

CITANDUY II

TABLE IV (cont'd)

SUMMARY ANNUAL COST BY COMPONENT BY OUTPUT/ACTIVITY
($ 000)

	Year 1			Year 2			Year 3			Year 4			Year 5		
	AID		GOI	AID		GOI	AID		GOI	AID		GOI	AID		GOI
	FX	LC	LC	FX	LC	LC	FX	LC	LC	FX	LC	LC	FX	LC	LC
LOCAL DEV. PLAN & MGT.															
Training	18	8	-	20	23	-	7	13	-						
Local Initiative Proj.	-	17	9	-	72	36	-	123	62	-	138	69	-	154	77
Soc-Econ. Research	224	78	-	33	40	23	35	46	26	40	52	29	45	57	32
Consultants	315	21	48	270	23	46	249	26	56						
SUBTOTALS	557	124	57	323	158	105	291	208	144	40	190	98	45	211	109

CITANDUY II

TABLE V

SUMMARY ANNUAL COSTS BY RESPONSIBLE GOI MINISTRY
($ 000)

	AID		GOI	AID		GOI	AID		GOI	AID		GOI	AID		GOI
	FX	LC	LC	FX	LC	LC	FX	LC	LC	FX	LC	LC	FX	LC	LC
MINISTRY OF PUBLIC WORKS															
Upper Watershed Dev.															
Surveys & Mapping	-	660	13	-	-	57	-	-	86	-	-	66	-	-	47
Hydrology/Sediment Data	100	10	30	-	-	22	-	-	26	-	-	29	-	-	32
Other Conserv. Measures	-	-	-	-	17	17	-	41	41	-	97	97	-	194	194
Irrigated Rice Prod.															
Training-Proj. Facilities	-	35	1	-	43	1	-	56	2						
Other Training	39	-	-	20	-	-	12	-	-						
O&M Equipment	506	-	-	-	-	20	-	-	28						
Pataruman Shop	120	-	-	-	-	-	-	-	-						
Rehab/Construction	-	-	-	-	1756	1756	-	2750	2750	-	1940	1940	-	825	825
SUB TOTAL	765	705	44	20	1816	1873	12	2847	2933		2037	2132		1019	1098
Consultants (all)	1544	63	205	1791	90	293	1354	26	271	806		171	438		86
TOTAL	2309	768	249	1811	1906	2166	1366	2873	3204	806	2037	2303	438	1019	1184
MINISTRY OF AGRICULTURE															
Upper Watershed Dev.															
Research Field Station	87	56	98	24	118	109	6	6	102	18	6	115	-	-	136
Training Facility	76	189	117	24	188	81	-	179	68	-	247	78	-	238	90
Other Training	135	31	-	81	34	-	65	26	-	48	29	-	-	-	-
Soil & Water Resource Staff	332	21	123	22	36	251	378	43	428	-	-	657	-	-	836
Nurseries	-	102	120	-	67	94	-	110	140	-	134	169	-	163	202
Demonstration Plots	-	10	10	-	23	23	-	44	44	-	72	72		108	108
IRRIGATED RICE PROD.															
Spec. Ag. Ext. Teams	120	71	93	-	229	208	-	348	248						
Training - Proj. Facil.	-	187	6	-	255	6	-	203	4						
Other Training	39	13	-	21	11	-	11	31	-						
TOTAL	789	680	567	172	961	772	460	990	1034	66	488	1091		509	1372

TABLE V (cont'd)

	Year 1			Year 2			Year 3			Year 4			Year 5		
	AID		GOI	AID		GOI	AID		GOI	AID		GOI	AID		GOI
	FX	LC	LC	FX	LC	LC	FX	LC	LC	FX	LC	LC	FX	LC	LC
MINISTRY OF HOME AFFAIRS															
Upper Watershed Dev.															
Bench Terracing	-	14	14	-	68	68	-	207	207	-	484	484	-	968	968
Access Roads	-	46	46	-	99	99	-	169	169	-	254	254	-	352	352
Reforestation/Greening	-	642	650	-	644	651	-	387	385	-	-	-	-		
Road/Trail Erosion Proof	-	7	7	-	18	18	-	42	42	-	70	70	-	104	104
Credit Program	-	-	-	-	22	22	-	57	57	-	115	115	-	256	256
LOCAL DEV. PLAN. & MGT.															
Training	18	8	-	20	28	-	7	13	-						
Local Initiative Proj.	-	17	9	-	72	36	-	123	62	-	133	69	-	154	77
TOTAL	18	734	726	20	946	894	7	986	916		1061	992		1834	1757
OTHER															
Socio-Economic Research	224	78	-	53	40	23	35	46	26	40	52	29	45	57	32
	30	30	-	30	30	-	30	30	-	30	30	-	28	28	-
	3370	2290	1542	2066	3883	3855	1898	4925	5180	942	3668	4415	511	3447	4345

As development activities become increasingly varied and complex, the project management system will require further study and improvement. A management study with a long-term view will be carried out in 1981 as part of the consultant services provided to the project.

2. Direct Implementation Responsibilities

As indicated, the primary agencies involved in project implementation will be the Ministries of Public Works, Agriculture and Home Affairs.

a. Ministry of Public Works

The Ministry of Public Works is expected to continue to play a leading role in coordination and support of all project activities. GOI support for all project consultants will be provided through this Ministry, as will support for consolidated equipment procurement, maintenance and construction of facilities. Two Directorates under the Directorate General of Water Resources Development (DGWRD) are involved in project implementation:

- The Directorate of Rivers has primary responsibility for: flood control and major drainage systems; major new irrigation construction; study and management of river water availability and use; stream and gully erosion control; and hydrologic and sedimentation data acquisition. Additionally, through the Project Office the Directorate will provide support to other agencies, especially in the areas of engineering design, equipment and equipment maintenance.

- The Directorate of Irrigation, through its district offices, is expected to have primary responsibility for the rehabilitation of 14 small irrigation systems and for improving operation and maintenance of all the systems.

b. Ministry of Agriculture

As already stated, an Agriculture Project Office will be established in the basin to provide coordination and backstopping for the five Directorates General and two other agencies of the Ministry of Agriculture which will be responsible for major portions of the upper watershed component as well as for support of irrigated rice production. A comprehensive plan which will assign specific responsibilities to agencies within the Ministry of Agriculture for each activity will be prepared prior to the start of implementation.

- The Forestry Watershed Conservation Unit (P3DAS) will provide planning, coordination and technical support for the reforestation and greening program carried out by local services (P3RP-DAS) and has personnel capable of providing guidance and training for extension workers and farmers in bench terracing, waterways construction, soil conservation, and planting fuelwood and grasses.

- The Directorate General of Food Crops is responsible for agricultural intensification programs with and without government credit (BIMAS and INMAS) to increase rice production, as well as for technical guidance in upland crop production.

- The Directorates General of Animal Husbandry, Fisheries, and Estate Crops will provide technical guidance in their respective areas.

- The Agency for Agriculture Research and Development (AARD), through the Central Research Institute for Agriculture (CRIA) conducts upland crop research throughout Indonesia. The project cropping systems research and operation of the research station will most appropriately be a field activity of CRIA.

- The Agency for Agriculture Education, Training and Extension (AAETE) will provide agriculture extension training for Citanduy II, both through several existing small Rural Extension Centers (REC) for rice production and at the multi-purpose training center to be established under the upper watershed component. This center, which will serve broad project training needs, will be operated by AAETE and is expected to become a permanent upland agriculture training facility.

Most existing field extension workers, from Food Crops, are concentrated in the rice producing areas. Unlike irrigated rice production, the upper watershed farming systems involve a mix of food crops, livestock, trees or estate crops, and fish ponds. Presidential Decree No. 45, 1974, established the basis for a unified extension service under AAETE. The agriculture schools are beginning to turn out "polyvalent" extension workers who will be able to provide broad agriculture support, thereby eliminating the need to coordinate separate direct farmer contacts.

c. Ministry of Home Affairs

The project's emphasis on increasing local participation in planning and carrying out development activities makes the role of the bupati (district chief) and camat (subdistrict chief) crucial. Planning boards (BAPPEDA II) responsible to the bupatis will play a key role in coordinating project planning at the district level. Local levels of government are also best able to elicit the participation of individual farmers and farmers' groups necessary to insure continued operation and maintenance of both irrigations systems and upland conservation farming systems.

The district governments will also have responsibilities relating to implementation activities carried out by local institutions and by the local offices of line agencies. These include: direction of expanded local irrigation and agriculture service activities; organization and direction of the upland demonstration plot and bench terracing programs (including access roads); development of effective water user associations; credit programs for upland farmers; erosion protection measures on existing district and village roads; and small scale projects to complement upper watershed and irrigation activities.

d. Other Ministry Involvement

Although not at present directly involved in project implementation, the Ministries of Education and of Trade and Cooperatives have relevant responsibilities.

- Under the Directorate General for Higher Education, the Consortium of Agriculture Faculties, through the Universities of Pajajaran and Gajah Mada, has been active in developing a plan for project benefit monitoring and is expected to be involved in setting up a socio-economic research unit in the basin to carry out this plan.

- Cooperatives are likely to play an important role as a channel for credit to upland farmers, we well as for marketing the increased production. Thus, the Ministry of Trade and Cooperatives will also become involved during the course of project implementation.

3. Consultant Services

Consultant services will be required across a broad range of disciplines which are unlikely to be available from any single consultant firm or institution. Thus several contracts, or, preferably, one involving a joint-venture or subcontracting arrangement, will be needed to secure the desired services. Requests for proposals will be expedited to permit contracting as soon as possible after the agreements are signed. In view of the scope and complexity of services, it is expected that this process will take about six months.

Under current AID Citanduy Loan financing consultant services are provided through a host country contract administered by DGWRD. Since the newly created interministerial organizations responsible for project coordination will not have the capability to enter into or administer the contract(s), an AID direct contract is anticipated.

Although expected to work as a team, consultants will have specific responsibilities within one of the three major project components: (i) for upper watershed management, consultant assistance will be in such areas as watershed management, agriculture extension/training, agronomy, soil conservation, economics and rural sociology; (ii) for irrigated rice production, areas of expertise will include water management, agriculture extension/training, irrigation operations and maintenance, equipment, and design of irrigation systems. Construction engineers will be added when rehabilitation construction begins; (iii) for local development planning and management, consultants will include specialists in planning, management, local finance and administration, and credit and cooperatives.

Technical assistance for the socio-economic research unit will be contracted separately, as soon as project funds are available (preliminary assistance is being provided from PDSF) and will be fully grant-funded from the survey/evaluation line item. Since initial operations of the unit in conducting the baseline survey will be critical to future studies and evaluation, assistance of two full time consultants -- an economist and a sociologist -- is planned during the first year with one to continue into the second year.

4. Schedule

The activity schedule is broken down into two distinct but overlapping time frames consistent with planned incremental funding.

a. Activity Schedule

In Time Frame I (October 1980 to October 1985), the following activities will be undertaken: 1) preparatory and transitional activities including establishment of the research and training centers, data collection and training; 2) the irrigation program activities to improve operation and maintenance capability, agriculture support and water user associations' effectiveness; 3) initial work on the major watershed program activities including both conservation and infrastructure measures; 4) local development planning and management activities involving training, the project management study and update of the Master Plan, and planning and implementation of local initiative projects; and 5) monitoring of project benefits.

The first six months of Time Frame I will be a period of mobilization and the final six months a period for completing activities already underway.

In Time Frame II (April 1982 to October 1986), the primary activities will be: 1) rehabilitation of the irrigation systems; and 2) the fifth year of the upper watershed program, local initiative projects and project benefit monitoring.

Timing for many aspects of the project must take into account seasonal patterns, e.g., the May-October dry season is best for construction, while the crop cycle begins in October. Consequently, consultants should be on board by July 1, 1981 to assist with training of extension personnel, to begin August 1, and to work with existing personnel in beginning the upland program. Training of irrigation and agriculture service personnel and farmers in rice production is concentrated in the first three years so that it will be well underway when rehabilitation of the irrigation systems begins in May 1982. For further details on the linkage and timing of project events, see the CPI networks and descriptions in Annex H.3.

b. Funding Schedule

A $12,000,000 loan and a $1,250,000 grant in FY 1980, plus grant increments of $2,000,000 in FY 1981 and $660,000 in FY 1982, will fully fund the activities under Time Frame I. Time Frame II will require a second loan increment of $10,750,000 in early FY 1982, plus an additional $340,000 in grant funds (for a total grant of $1,000,000 in FY 1982). The Tables in Section D include details of cost by activity year.

F. EVALUATION PLAN

A key purpose of project evaluation will be to provide information to project management for "fine-tuning" immediate implementation plans in terms of timing, incentives, farmers' organizations and other strategic considerations so that the project responds to local conditions and felt needs. A second major purpose of the evaluation will be to provide information required for a review and update of the 1975 Master Plan for the Citanduy Basin. The review will include an analysis of project activities during the 1976 - 1983 period and identify future courses of activity for the basin.

1. Physical Evaluation

The evaluation plan for physical aspects of the project calls for a more intensive effort in the collection of hydrology/sediment data. To accomplish this, the Citanduy Project Office will play an active role, supplementing the survey work ordinarily done by the provincial services (DPMA). An updated water balance study, incorporating hydrological data and including the preparation of a computer model for analysis, will also be made in order that a basin-wide plan for water utilization can be designed, implemented, monitored and evaluated.

2. Socio-Economic Evaluation

For the past year, AID has been collaborating with a consortium of Indonesian University Agriculture faculties (Konsorsium Ilmu-Ilmu Pertanian, or KIIP) on laying the groundwork for monitoring and evaluating the socio-economic aspects of the Project. In Citanduy II, the two cooperating members of the consortium -- the Universities of Gajah Mada and Pajajaran -- will formalize the establishment of a Socio-Economic Research Unit (SERU) in the basin to monitor and evaluate the project's social and economic components. SERU will be funded annually on a subgrant basis and will prepare annual work plans and research reports which will be subject to review by the Citanduy Basin Coordinating Committee (see Section E). An initial function of SERU will be to conduct a base-line survey.

It is anticipated that the two consortium members of SERU will maintain already closely-established relationships with the BAPPEDAs I and II in the basin. It is also envisaged that, in the interests of a mutual exchange of information and other forms of practical cooperation, SERU will collaborate closely with the training institution which will be set up under Citanduy II as well as with the local technical schools. These entities will benefit substantially from the findings of the research, and the schools in particular will be a prime resource for part-time field research personnel who, in turn, would benefit from the experience of working with capable academic researchers.

To reinforce the efforts to establish and maintain an effective management information and social sciences research system, 38 person months of technical assistance will be provided to SERU. This assistance will take the form of two consultants, an economist and a sociologist, experienced in survey-research, for 29 person months of full-time assistance during the initial two years, plus an additional 9 months of short-term or part-time assistance later. (Preliminary assistance is being provided under PDSF.)

3. Mission Evaluation Schedule

The first project evaluation is scheduled for January, 1982. In April, 1983, a major mid-term project evaluation will take place with emphasis on reviewing the project's softside irrigation, training, and local development planning and management aspects. Other evaluations are scheduled for January, 1984 and January, 1985, with a post-project evaluation scheduled for January, 1987. In addition, socio-economic research reports and ongoing project monitoring activities throughout the life of the project will feed into the overall evaluation process.

G. CONDITIONS, COVENANTS AND NEGOTIATING STATUS

As an integral component of the Project Agreements for Citanduy II, the GOI will agree to the following specific conditions precedent:

1. Prior to initial disbursement of funds under the Loan, the Borrower will furnish to USAID satisfactory evidence that:

a. An interdepartmental Steering Committee has been established at the national level, with authority from the Ministries of Public Works, Agriculture and Home Affairs to coordinate planning, budgets and implementation of Citanduy II financed activities.

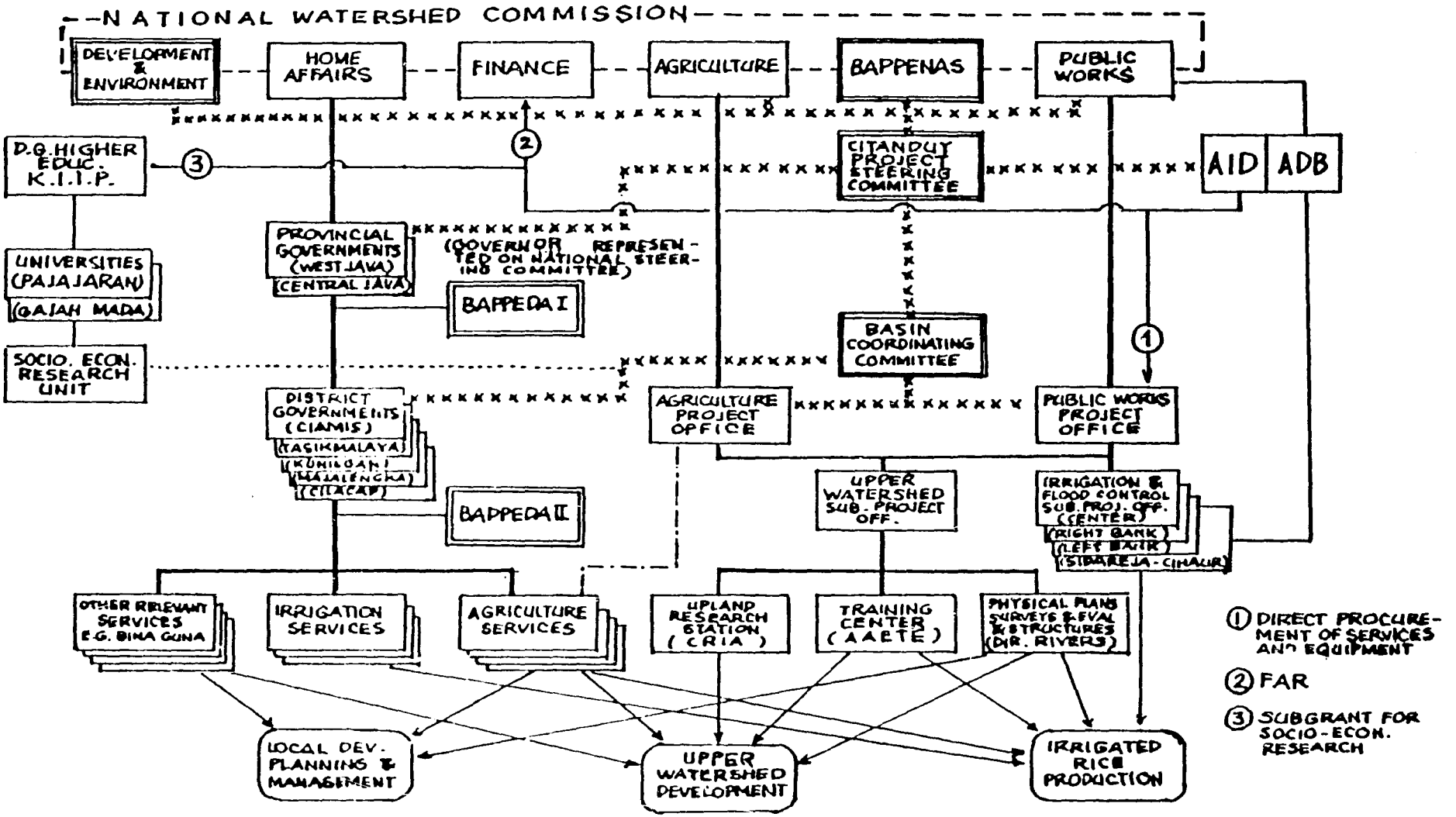
b. A Basin Coordinating Committee has been established which includes basin level representation from the Ministries of Public Works and Agriculture and from the local governments.

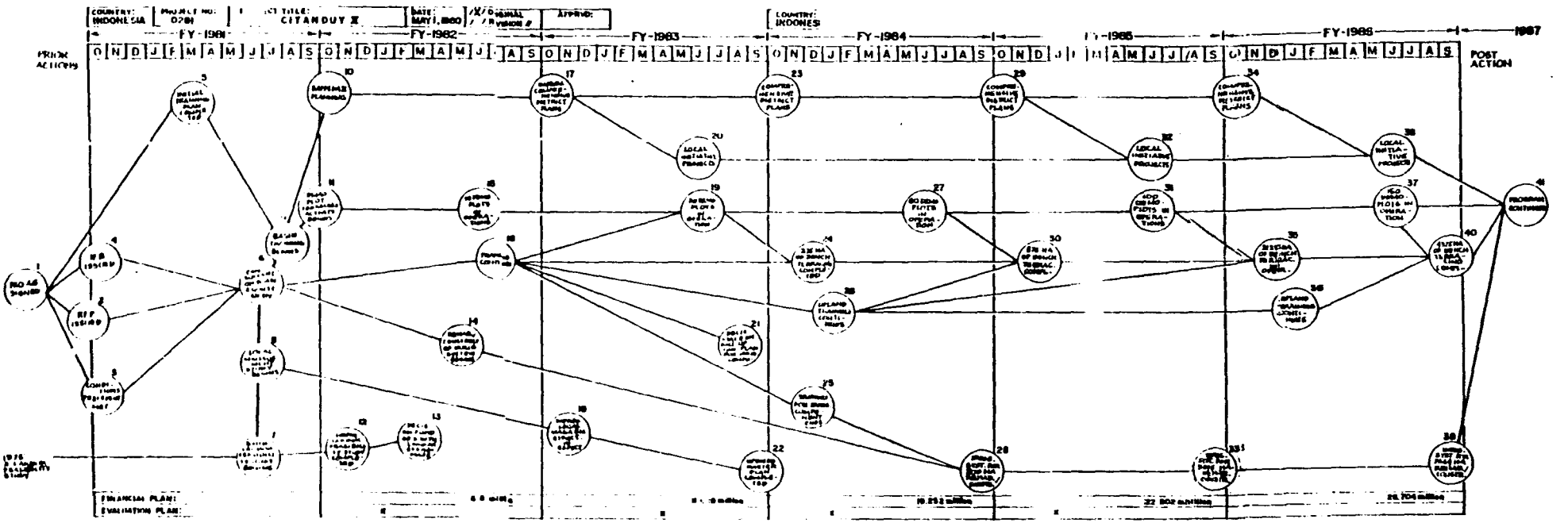
c. Arrangements have been made to provide for project level representation from the Ministry of Agriculture to coordinate project financed agriculture production activities and represent the Ministry on the Basin Coordinating Committee.

d. A detailed work plan for the upper watershed program, specifying individual agency responsibilities for each activity, has been agreed to by all responsible agencies.

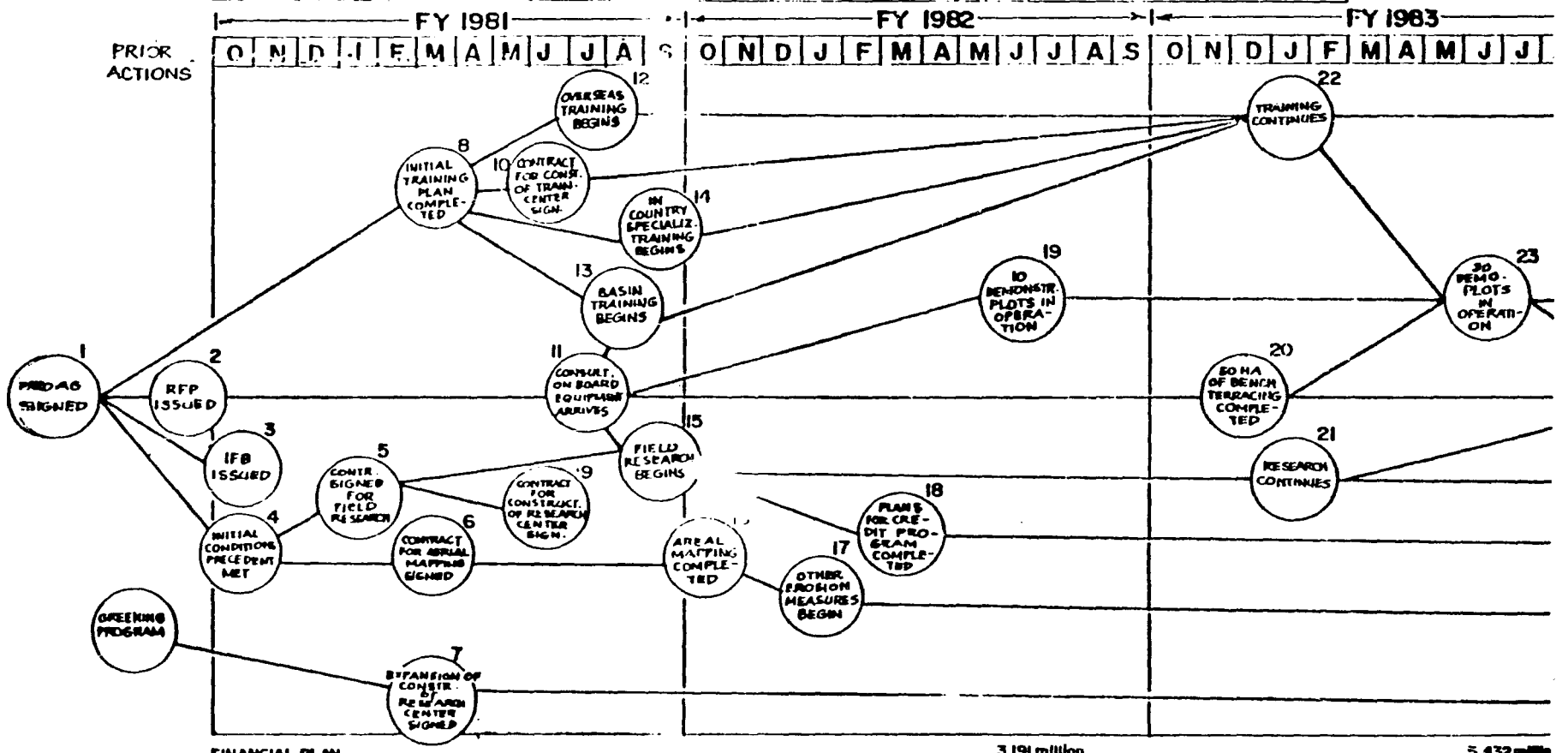
2. Prior to any disbursement for construction of the upland research field station and/or of the training center, the GOI will furnish satisfactory evidence that arrangements have been made for permanent staffing and operation of each respective facility.

CITANDUY II ORGANIZATIONAL STRUCTURE



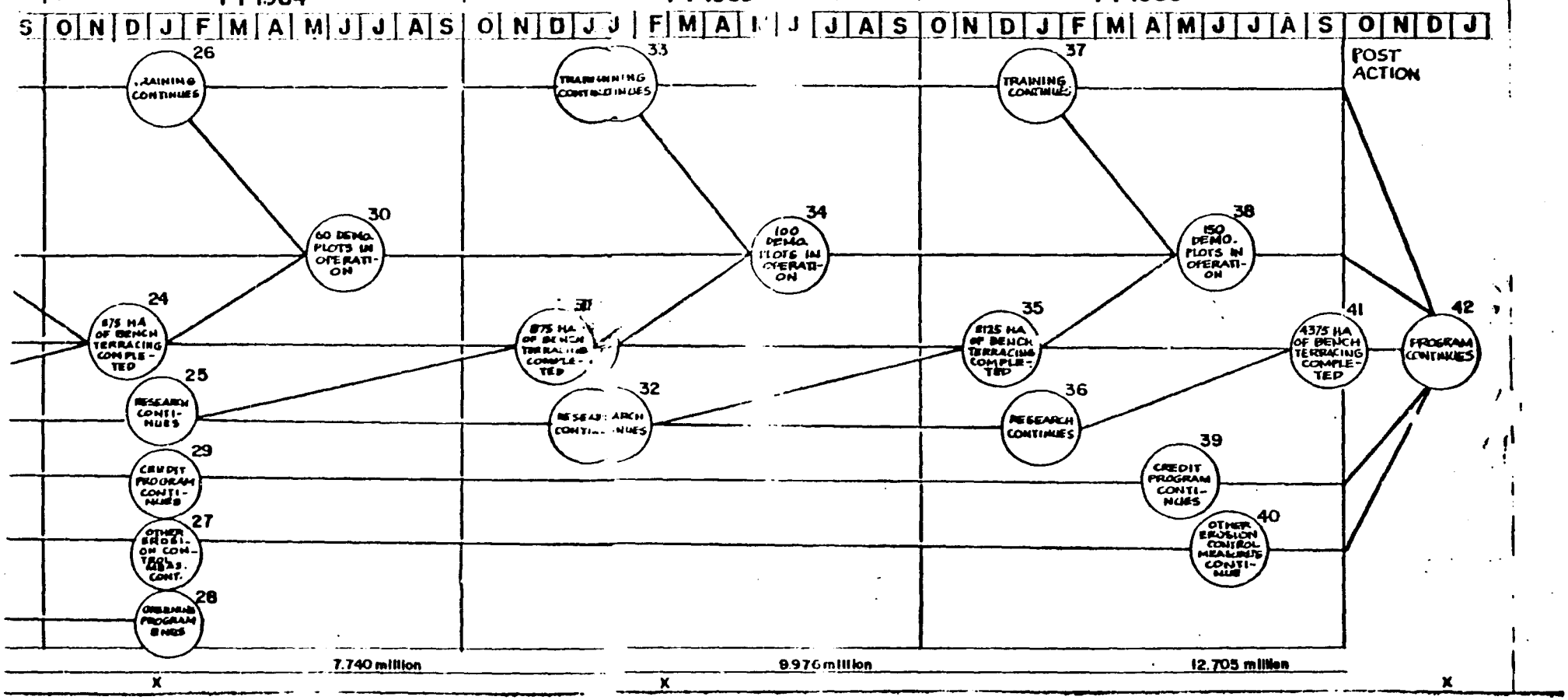

COUNTRY: INDONESIA
PROJECT NO: 0298
PROJECT TITLE: CITANDUY II
DATE: MAY 1, 1980
APPROVED:
FY-1981
FY-1982
FY-1983
FY-1984
FY-1985
FY-1986
1987
PRIOR ACTIONS
POST ACTION
FINANCIAL PLAN:
EVALUATION PLAN:

COUNTRY:	PROJECT NO:	PROJECT TITLE	DATE:	/X/ ORIGINIL	APPRVD:
INDONESIA	0281	CITANDUY II (Upper watershed dev. component)	May 1, 1980	/ / REVISION #	



FINANCIAL PLAN	3.191 million	5.432 million
EVALUATION PLAN	X	X

COUNTRY:	PROJECT NO:	PROJECT TITL.	DATE:	/ / ORIGINIL. / / REVISION #	APPRVD:
INDONESIA	0281	CITANDUY I (Upper watershed dev. component)	May 1,		



Country	Project No.	Project Title:	Date	/ x/Original / /Revision#	Approved:
Indonesia	0281	Citanduy II	May 1, 1980		

CPI DESCRIPTION (cont'd)

28.	9/30/84	Irrigation systems for 3170 ha are rehabilitated/constructed
29.	10/15/84	Comprehensive district plans
30.	12/1/84	875 ha of bench terracing completed
31.	6/1/85	100 demonstration plots in operation
32.	6/30/85	Local initiative projects
33.	9/30/85	Irrigation systems for 5075 ha are rehabilitated/constructed
34.	10/15/85	Comprehensive district plans
35.	12/1/85	2125 ha of bench terracing in operation
36.	1/15/86	Upland training continues
37.	6/1/86	150 demonstration plots in operation
38.	6/30/86	Local initiative projects
39.	9/30/86	Irrigation systems for 7644 ha rehabilitated/constructed
41.	9/30/86	4375 ha of bench terracing completed
42.	1/15/87	Program continues

Country	Project No.	Project Title:	Date	/ x/Original	Approved:
Indonesia	0281	Citanduy II (Irrigated) Rice Production Component)	May 1, 1980	/ /Revision#__	

CPI DESCRIPTION

1. 6/30/80 ProAg signed
2. 9/1/80 RFB issued
3. 10/1/80 Conditions precedent met
4. 10/1/80 IFB issued
5. 3/31/81 Initial training plan completed
6. 7/1/81 Overseas training begins
7. 7/1/81 Consultants on board; equipment arrives
8. 7/1/81 South Lakbok feasibility study begins
9. 8/1/81 Training for agriculture extension teams begins
10. 8/1/81 Training for other agriculture/irrigation
11. 9/1/81 In-country training by other institutions begins
12. 11/15/81 Training continues
13. 11/15/81 Two agriculture extension teams trained
14. 12/1/81 Farmer leader training begins
15. 12/31/81 South Lakbok feasibility study completed
16. 3/1/82 Decision on funding construction of South Lakbok system made
17. 5/15/82 Rehabilitation/construction of irrigation system begins
18. 7/15/82 Farm leader training continues
19. 7/15/82 Six agriculture extension teams trained
20. 9/1/82 Rehabilitation/construction of irrigation systems continues
21. 12/31/82 Training continues
22. 3/31/83 Ten agriculture extension teams trained

Country	Project No.	Project Title:	Date	/ x/Original	Approved:
Indonesia	0281	Citanduy II (Irrigated Rice Production Component)	May 1, 1980	/ /Revision#__	

CPI DESCRIPTION (cont'd)

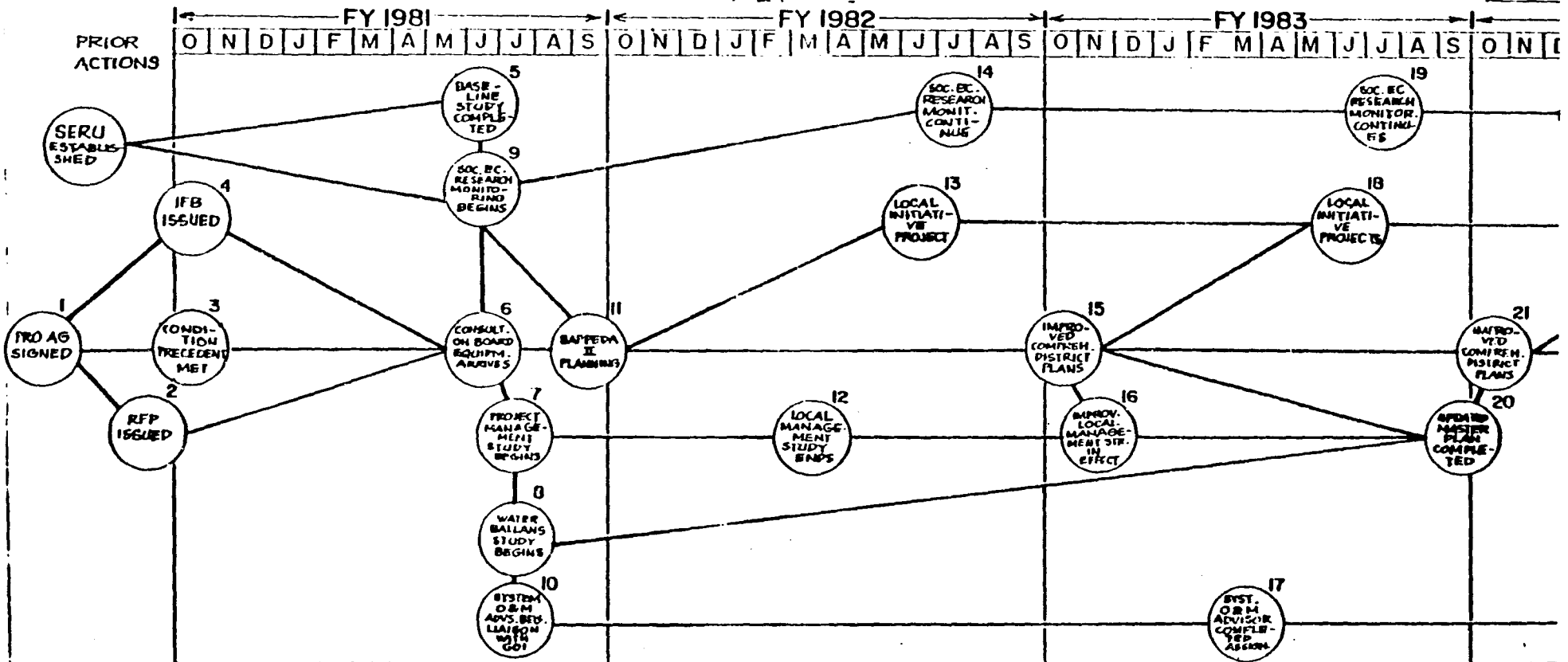
23.	4/15/83	Farmer leader training continues
24.	8/15/83	Decision made on follow-up plan for training
25.	12/31/83	Training ends
26.	1/15/84	Rehabilitation/construction of irrigation systems continues
27.	3/31/84	Farm leader training ends
28.	9/30/84	Irrigation systems for 3170 ha are rehabilitated/constructed
29.	1/15/85	Rehabilitation/construction of irrigation systems continues
30.	9/30/85	Irrigation systems for 5075 ha are rehabilitated/constructed
31.	3/15/86	Rehabilitation/construction of irrigation systems continues
32.	9/30/86	Irrigation systems for 7690 ha are rehabilitated/constructed

Country	Project No.	Project Title:	Date	/ x/Original	Approved:
Indonesia	0281	Citanduy II (Local Development Planning & Management Component	May 1 1980	/ /Revision#__	

CPI DESCRIPTION

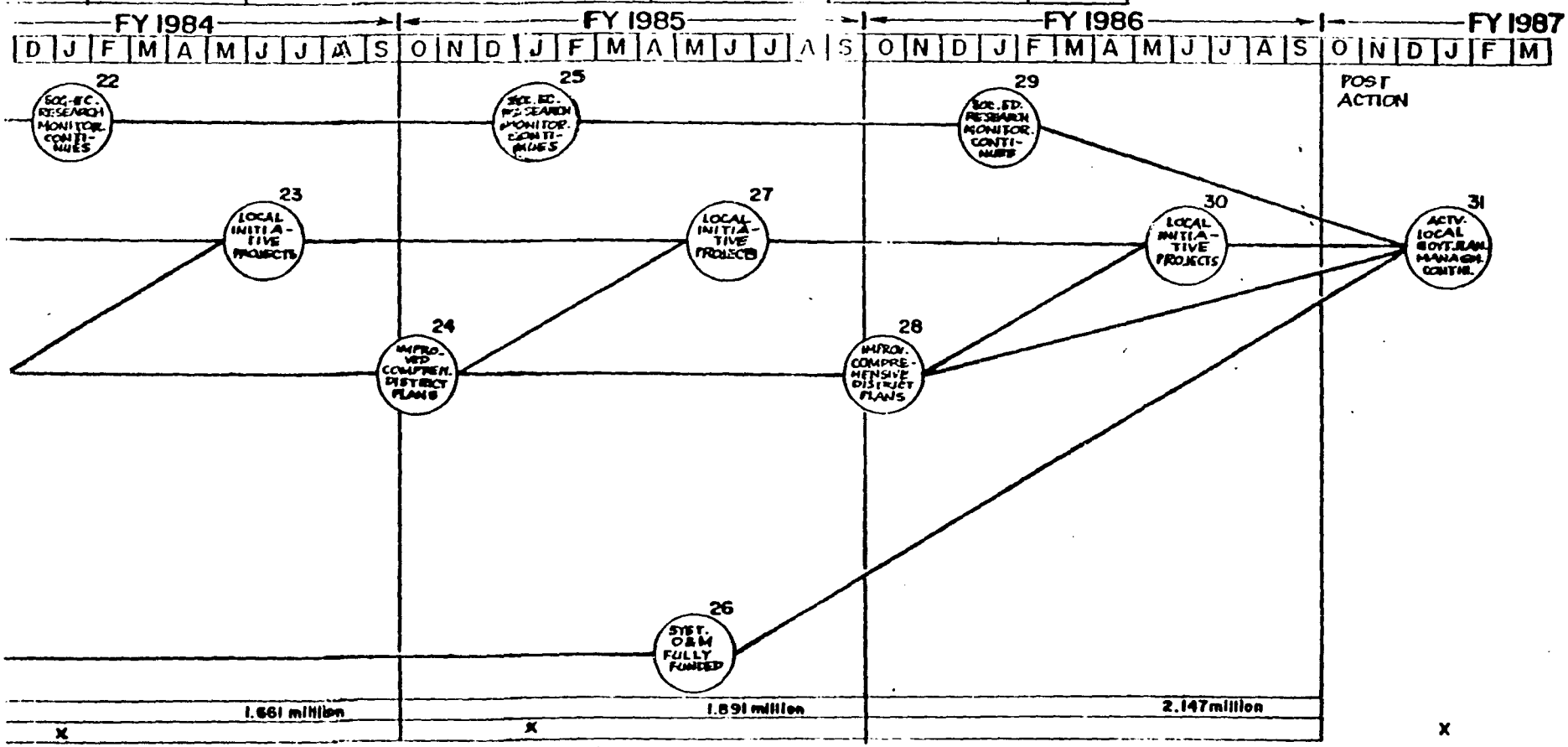
1. 6/30/80 ProAg signed
2. 9/1/80 RFP issued
3. 10/1/80 Conditions precedent met
4. 10/1/80 IFB issued
5. 7/1/80 Base line study completed
6. 7/1/81 Consultants on board; equipment arrives
7. 7/15/81 Local management study begins
8. 7/15/81 Water balance study begins
9. 7/15/81 Socio-economic research and monitoring on a regular basis begins
10. 7/15/81 Systems O&M advisor begins liaison with GOI
11. 10/15/81 BAPPEDA II planning
12. 3/31/82 Local management study ends
13. 6/30/82 Local initiative projects
14. 7/15/82 Socio-economic research/monitoring continue
15. 10/15/82 Improved comprehensive district plans
16. 11/1/82 Improved local management structure in effect
17. 3/31/83 Systems O&M advisor completes assignment
18. 6/30/83 Local initiative projects
19. 7/15/83 Socio-economic research/monitoring continues
20. 9/30/83 Updated Master Plan completed
21. 10/15/83 Improved comprehensive district plans
22. 1/15/84 Socio-economic research/monitoring continues

COUNTRY:	PROJECT NO.:	PROJECT TITLE:	DATE:	/X/ ORIGINAL / / REVISION	APPRVD:	COUNT
Indonesia	0281	CITANDUY II (local dev.plan.& mgmnt. cmpmt.)	May 1,198			Indon



FINANCIAL PLAN:		.681 million	1.162 million
EVALUATION PLAN:		X	X

UNTRY:	PROJECT NO.:	PROJECT TITLE:	DATE:	/X/ ORIGINAL / / REVISION #	APPRVD:
onesia	0281	CITANDUY II (local dev., plan.&mngmt. cmpnt.)	May 1, 1980		

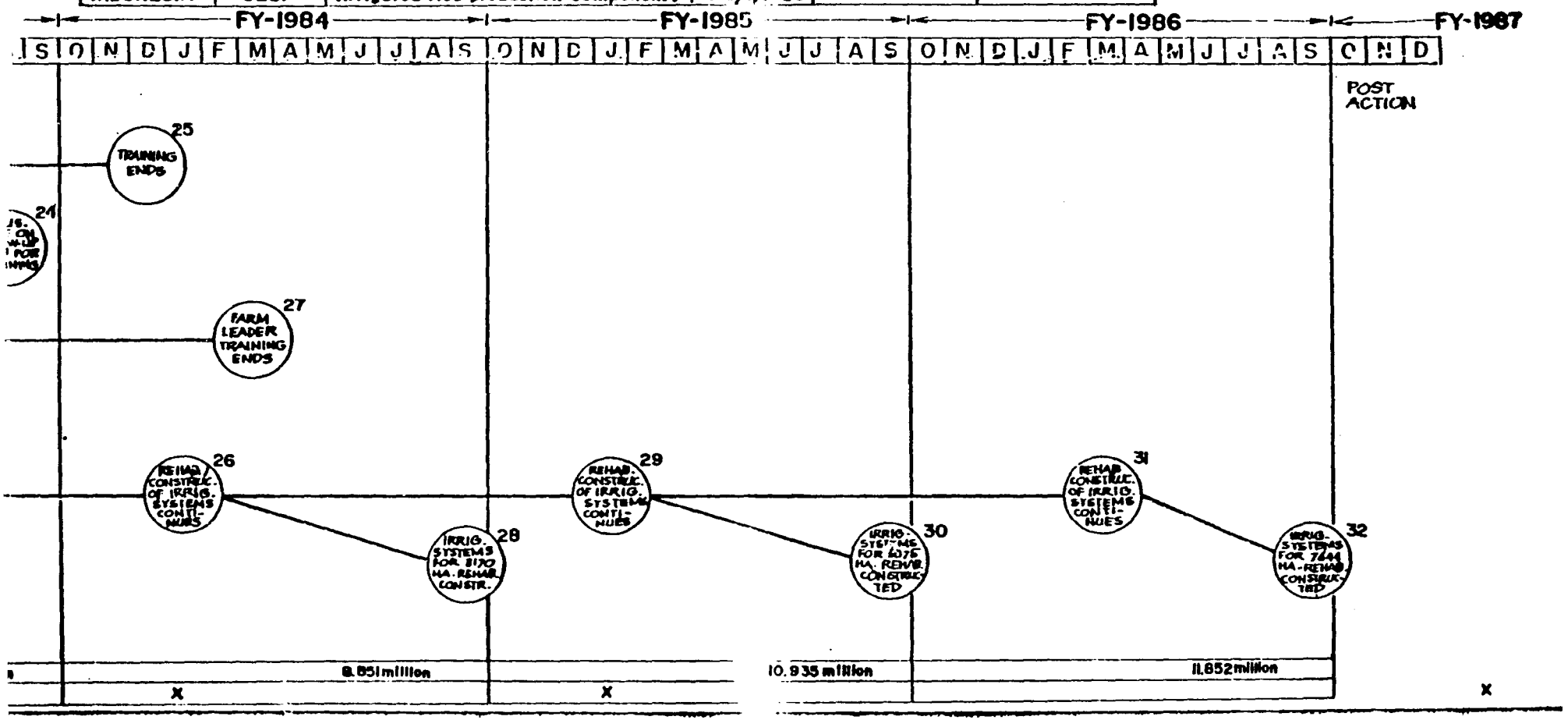


Country	Project No.	Project Title:	Date	/ x/Original / /Revision#__	Approved:
Indonesia	0281	Citanduy II (Local Development Planning & Management Component)	May 1 1980		

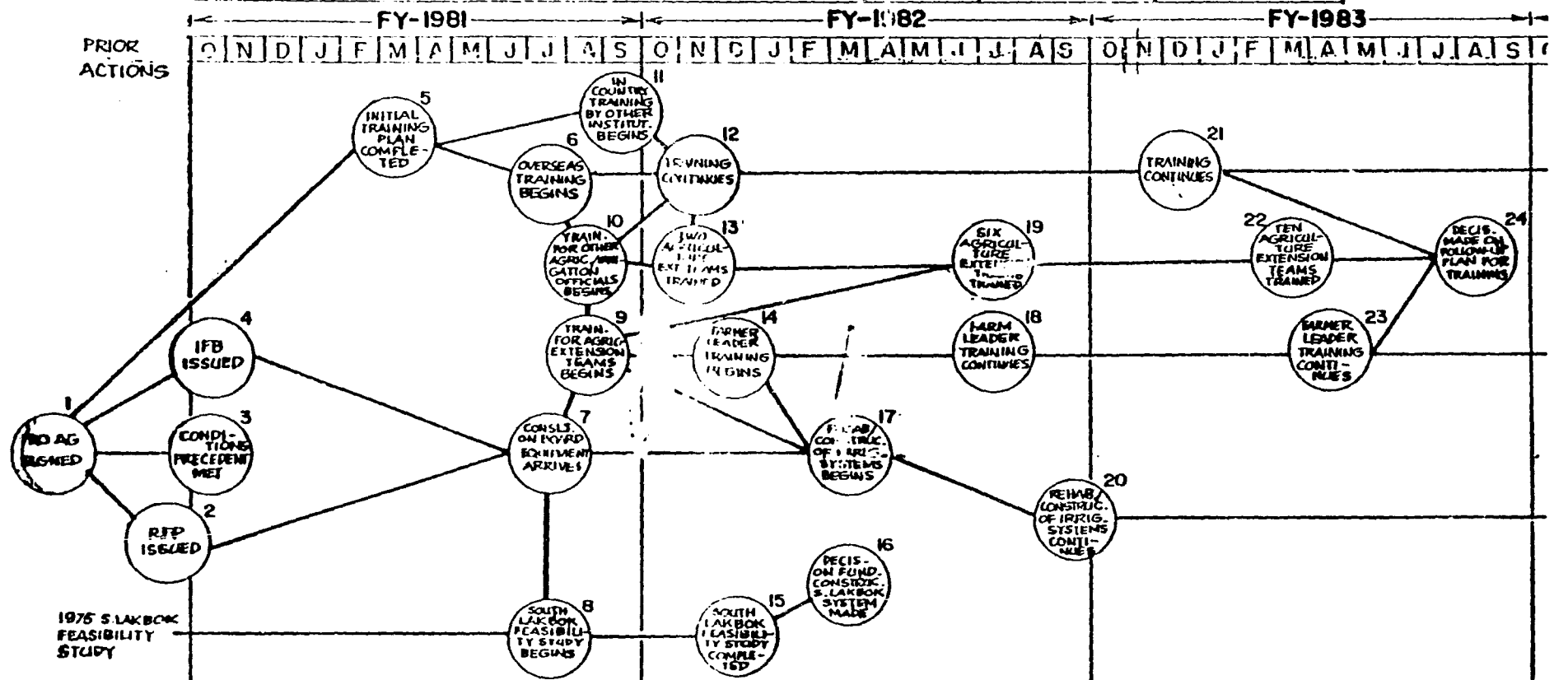
CPI DESCRIPTION (cont'd)

23.	6/30/84	Local initiative projects
24.	10/15/84	Improved comprehensive district plans
25.	1/15/85	Socio-economic research/ monitoring continues
26.	5/1/85	Systems O&M fully funded
27.	6/30/85	Local initiative projects
28.	10/15/85	Improved comprehensive district plans
29.	1/15/86	Socio-economic research/ monitoring continues
30.	6/30/86	Local initiative projects
31.	1/15/87	Active local government planning and management continues

COUNTRY: INDONESIA	PROJECT NO: 0281	PROJECT TITLE: CITANDUY II (Irrigated rice production component)	DATE: May 1, 1980	/X/ ORIGINAL REVISION	APPRVD:



COUNTRY: INDONESIA	PROJECT NO: 0281	PROJECT TITLE: CITANDUY II (irrigated rice production component)	DATE: May 1, 1980	/X/ ORIGINAL / / REVISION #	APPRVD:



FINANCIAL PLAN:		1.728 million	4.895 million
EVALUATION PLAN:		X	X

Country	Project No.	Project Title:	Date	/ x/Original	Approved:
Indonesia	0281	Citanduy II (Upper Watershed Component)	May 1, 1980	/ /Revision#__	

CPI DESCRIPTION

1.	6/30/80	ProAg signed
2.	9/1/80	RFP issued
3.	10/1/80	IFB issued
4.	10/1/80	Initial conditions precedent met
5.	1/15/81	Contract signed for field research
6.	3/1/81	Contract for serial mapping signed
7.	3/31/81	Expansion of reforestation and greening program begins
8.	3/31/81	Initial training plan complete
9.	6/30/81	Contract for construction of research center signed
10.	6/30/81	Contract for construction of training center signed
11.	7/1/81	Consultants on board; equipment arrives
12.	7/1/81	Overseas training begins
13.	8/1/81	Basin training begins
14.	9/1/81	In-country specialized training begins
15.	9/1/81	Field research begins
16.	10/31/81	Aerial mapping completed
17.	1/15/82	Other erosion measures begin
18.	3/31/82	Plans for credit program completed
19.	6/1/82	10 demonstration plots in operation
20.	12/1/82	50 ha of bench terracing completed
21.	1/15/83	Research continues
22.	1/15/83	Training continues
23.	6/1/83	30 demonstration plots in operation
24.	12/1/83	275 ha of bench terracing completed

Country	Project No.	Project Title:	Date	/ x/Original / /Revision#	Approved:
Indonesia	0281	Citanduy II (Upper Watershed Component)	May 1, 1980		

CPI DESCRIPTION (Cont'd)

25.	1/15/84	Research continues
26.	1/15/84	Training continues
27.	1/15/84	Other erosion control measures continue
28.	1/15/84	Greening program ends
29.	1/15/84	Credit program continues
30.	6/1/84	60 demonstration plots in operation
31.	12/1/84	875 ha of bench terracing completed
32.	1/15/85	Research continues
33.	1/15/85	Training continues
34.	6/1/85	100 demonstration plots in operation
35.	12/1/85	2125 ha of bench terracing in operation
36.	1/15/86	Research continues
37.	1/15/86	Training continues
38.	6/1/86	150 demonstration plots in operation
39.	6/1/86	Credit program continues
40.	7/1/86	Other erosion control measures continue
41.	9/30/86	4375 ha of bench terracing completed
42.	1/15/87	Program continues

Country	Project No.	Project Title:	Date	/ x/Original / / Revision#__	Approved:
Indonesia	0281	Citanduy II	May 1, 1980		

CPI DESCRIPTION

1.	6/30/80	ProAg, signed
2.	9/1/80	RFP issued
3.	10/1/80	Conditions precedent met
4.	10/1/80	IFB issued
5.	3/31/81	Initial training plan completed
6.	7/1/81	Consultants on board; equipment arrives
7.	7/1/81	South Lakbok feasibility study begins
8.	7/15/81	Local management study begins
9.	8/1/81	Basin training begins
10.	10/15/81	BAPPEDA II planning
11.	10/15/81	Demonstration plot/ terracing activity begins
12.	12/31/81	South Lakbok feasibility study completed
13.	3/1/82	Decision on funding of South Lakbok system made
14.	5/15/82	Rehabilitation/construction of irrigation systems begins
15.	6/1/82	10 demonstration plots in operation
16.	7/15/82	Training continues
17.	10/15/82	Improved comprehensive district plans
18.	11/1/82	Improved local management structure in effect
19.	6/1/83	30 demonstration plots in operation
20.	6/30/83	Local initiative projects
21.	8/15/83	Decision made on follow-up training plan for irrigation component
22.	9/30/83	Updated Master Plan completed
23.	10/15/83	Comprehensive district plans
24.	12/1/83	275 ha of bench terracing completed
25.	12/31/83	Training for irrigation component ends
26.	1/15/84	Upland training continues
27.	6/1/84	60 demonstration plots in operation

CITANDUY II - LOGICAL FRAMEWORK

ANNEX H.2

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
A. 1. Program or Sector Goals	2. Measures of Goal Achievement	3.	4. Assumptions for Achieving Goal Targets
a. Sustain and enhance productive capacity and increase food production in the Citanduy Basin through proper resources management.	a. Net increase in food production. b. Reduced erosion.	a. Local production statistics. b. Sedimentation measurements. c. Socio-economic survey data.	a. Population growth rate will continue to decline. b. No adverse change in climate or geologic activity. c. AID and the GOI recognize that Citanduy II is part of a much longer term (20-30 yr) effort.
B. 1. Project Purpose	2. End of Project Status	3.	4. Assumptions for Achieving Purpose
a. Establish and sustain local and national capacity to design and implement an effective comprehensive watershed management program in the Citanduy Basin and initiate the program in selected critical areas. b. Achieve and sustain irrigated rice production at feasibility study projected levels in all Citanduy Basin technical irrigation systems. c. Improve capability of local government in the basin to plan and manage integrated development targeted to the rural poor.	a. Special locally developed plans for watershed areas and for the rural poor. b. Adequate budgets to carry out plans. c. Implementation of plans in process or completed. d. Continuous extension services provided throughout the area. e. Functioning farmer organizations. f. 37800 ha. treated with erosion control measures (bench terraced or re-forested). g. 14 irrigation system rehabilitated and completed. h. Rice production at planned levels of 7.2 to 8.1 T/ha/yr. i. Operation and maintenance fully funded and functioning.	a. District reports. b. Project reports. c. Field inspection. d. Socio-economic survey data.	a. Constraints to activating locally led development in existing bureaucratic and political systems and procedures can be overcome. b. Local governments will have sufficient authority to plan and execute projects. c. Effective coordinated working relationships between responsible GOI agencies can be improved and sustained. d. Local extension workers can be trained and motivated to provide effective continuous services to farmers. e. Sufficient numbers of farmers can be helped to become capable and motivated to maintain improved conservation and irrigation farming system with existing land holding patterns.
C. 1. Outputs	3. Magnitude of Outputs	4.	4. Assumption for Achieving Outputs
a. Upper Watershed Development Research station. Training facilities. Trained Soil & Water Conservation staff Trained farm leaders. Demonstration plots. Nurseries. Credit system. Bench terraced cropland. Reforested land. Erosion proofed roads. Access roads. Other conservation measures. b. Irrigation Development Trained Ag. Extension and Irrigation staffs. Trained farm leaders. Functioning O&M including adequate funding. Bench Lubbak feasibility study complete. Rehabilitated major works. Tertiary system constructed. c. Local Development Planning and Management Trained local government planning staffs. Comprehensive district development plans. Development interventions to increased rural poor incomes which complement upper watershed and irrigation activities. Improved project management system. Updated Basin Master Plan. Water Management Board.	a. 1 Research station fully staffed and operational. 1 training center established and operating. 450 trained staff (including managers, trainers, extension workers and village conservation technicians). 1700 trained upland farm leaders. 150 demonstration plots of average 2.5 ha. 5 subbasin control nurseries. 8460,000 (Rp. 300 million, 1979 value) credit available to upland farmers. 4375 ha. bench terraced. 42,800 ha. reforested/grassed. 78 km. roads erosion proofed. 300 km. access roads to dem.plots and terraced areas. b. 210 additional trained Agric. Extension agents. 225 additional trained Irrig. Services staff. 1950 trained lowland farm leaders. 15000 to 40000 Rp/yr/ha available for O&M of irrigation by 1985. 14 irrigation systems (7666 ha) rehabilitated. c. 45 planning officials from 5 districts trained. Progressively better annual development plans for each of 5 districts over 5 yr. period. 15-20 small scale local projects implemented.	a. Project reports. b. GOI staffing data. c. Field inspection.	a. Approval and funding for large number of additional personnel for local extension [illegible] coming. b. Sufficient numbers of farmers, in groups on small hydrologic units will participate and be receptive to a conservation program. c. The GOI will provide incentives in the form of production [illegible] (HYV seed, fertilizer, livestock) either free or with easy credit as appropriate. d. Farmers can be effectively organized and motivated to maintain irrigation facilities. e. Procedures can be established to draw sufficient funds from increased rice production for O&M of irrigation systems.
D. 1. Inputs	2. Implementation Targets	3. Means of Verification	4. Assumptions

	AID	GOI
a. Upper Watershed Dev.		
Personnel		x
Consultants	x	x
Training	x	x
Commodities	x	x
Construction/Planting	x	x
Survey/Evaluation	x	x
Farm Credit	x	x
Labor for Terracing	(farmer)	
b. Irrigated Rice Prod.		
Personnel		x
Consultants	x	x
Training	x	x
Commodities	x	x
Construction	x	x
c. Local Dev. Plan & Mgt.		
Consultants	x	x
Training	x	
Survey Evaluation	x	x
Other Costs	x	x

	$ millions AID FX	AID LC	GOI LC
a. Upper Watershed	(4.3)	(8.4)	(10.6)
Personnel	-	-	2.4
Consultants	2.9	.1	.6
Training	.3	1.0	.4
Commodities	1.1	.2	.3
Construction/Planting	-	5.9	6.1
Survey/Evaluation	-	.7	.4
Farm Credit	-	.4	.4
Labor for terracing			(2.4)
b. Irrig. Rice Prod.	(1.1)	(8.8)	(8.2)
Personnel	-	-	.5
Consultants	1.2	*	.3
Training	.1	1.5	*
Commodities	.7	-	.1
Construction	-	7.3	7.3
c. Local Dev. Plan. & Mgt.	(1.3)	(.8)	(.3)
Consultants	.8	.1	.2
Training	*	*	-
Survey/Evaluation	.4	.3	.1
Other Costs	-	.3	.3
Contingencies	.1	.1	-
TOTALS	6.8	18.2	19.3

* Less than .05.

GOI budget reports. Project reports and Financial data.	a. GOI and AID funds will be available. b. Personnel and consultants can be recruited. c. Authorizations for import or local purchase of vehicles can be obtained.	

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5C(1) - COUNTRY CHECKLIST

Listed below are, first, statutory criteria applicable generally to FAA funds, and then criteria applicable to individual fund sources: Development Assistance and Security Support Assistance funds.

A. GENERAL CRITERIA FOR COUNTRY

1. FAA Sec. 116. Can it be demonstrated that contemplated assistance will directly benefit the needy? If not, has the Department of State determined that this government has engaged in consistent pattern of gross violations of internationally recognized human rights?

   1. Yes, see social analysis in Project Paper.

2. FAA Sec. 481. Has it been determined that the government of recipient country has failed to take adequate steps to prevent narcotics 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 such 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?

   2. No.

3. FAA Sec. [illegible]. If assistance is to a government, has the Secretary of State determined that it is not controlled by the International Communist movement?

4. FAA Sec. 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?

   4. We are not aware of any such cases.

5. FAA Sec. 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?

   5. No.

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6. FAA Sec. 620(a), 620(j); App. Sec. 107, 114. Is recipient country a Communist country? Will assistance be provided to the Socialist Republic of Vietnam, Cambodia, Laos, Cuba, Uganda, Mozambique, or Angola?

6. No to both questions.

7. FAA Sec. 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?

7. No to both parts.

8. FAA Sec. 620(i). Has the country permitted, or failed to take adequate measures to prevent, the damage or destruction, by mob action, of U.S. property?

8. No.

9. FAA Sec. 620(l). If the country has failed to institute the investment guaranty program for the specific risks of expropriation, inconvertibility or confiscation, has the AID Administrator within the past year considered denying assistance to such government for this reason?

9. Indonesia has initiated the investment guaranty program.

10. FAA Sec. 620(o); Fishermen's Protective Act, Sec. 5. If country has seized, or imposed any penalty or sanction against, any U.S. fishing activities in international waters,

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

b. has complete denial of assistance been considered by AID Administrator?

10. Indonesia has not seized any U.S. fishing vessels.

11. FAA Sec. 620(q); App. Sec. 503. (a) Is the government of the recipient country in default on interest or principal of any AID loan to the country? (b) Is country in default exceeding one year on interest or principal on U.S. loan under program for which App. Act appropriates funds, unless debt was earlier disputed, or appropriate steps taken to cure default?

11. No to both questions.

12. FAA Sec. 620(s). "If contemplated assistance is development loan (including Alliance loan) or security supporting assistance, has the Administrator taken into account the percentage of the country's budget which is for military expenditures, the amount of foreign exchange spent on military equipment and the amount spent for the purchase of sophisticated weapons systems?" (An affirmative answer may refer to the record of the taking into account, e.g.: "Yes as reported in annual report on implementation of Sec. 620(s)." This report is prepared at the time of approval by the Administrator of the Operational Year Budget.

12. N/A.

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upward changes in the Sec. 620(s) factors occuring in the course of the year, of sufficient significance to indicate that an affirmative answer might need review, should still be reported, but the statutory checklist will not normally be the preferred vehicle to do so.)

13. FAA Sec. 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?

13. No.

14. FAA Sec. 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 AID Administrator in determining the current AID Operational Year Budget?

14. UN obligations are current

15. FAA Sec. 620A. Has the country granted sanctuary from prosecution to any individual or group which has committed an act of international terrorism?

15. No.

16. FAA Sec. 666. Does the country object, on basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. there to carry out economic development program under FAA?

16. No.

17. FAA Sec. 669, 670. Has the country, after August 3, 1977, delivered or received nuclear enrichment or reprocessing equipment, materials, or technology, without specified arrangements or safeguards? Has it detonated a nuclear device after August 3, 1977 although not a "nuclear-weapon State" under the nonproliferation treaty?

17. No.

18. FAA Sec. 901. Has the country denied its citizens the right or opportunity to emigrate?

18. No.

B. FUNDING CRITERIA FOR COUNTRY

1. Development Assistance Country Criteria

a. FAA Sec. 102(c), (d). Have criteria been established, and taken into account, to assess commitment and progress of country in effectively involving the poor in development, on such indexes as: (1) small-farm labor intensive agriculture, (2) reduced infant mortality, (3) population growth, (4) equality of income distribution, and (5) unemployment.

1.a. Yes. Criteria have been established and will be refined by the GOI Central Bureau of Statistics.

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b. FAA Sec. 104(d)(1). *If appropriate, is this development (including Sahel) activity designed to build motivation for smaller families in programs such as education in and out of school, nutrition, disease control, maternal and child health services, agricultural production, rural development, and assistance to urban poor?*

1.b. Yes, particularly in agricultural production.

c. FAA Sec. 201(b)(5), (7) & (8); Sec. 208; 211(a)(4), (7). 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.

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

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

(b) Diverting such resources for unnecessary military expenditure and intervention in affairs of other free and independent nations.

(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.

(6) Otherwise responding to the vital economic, political, and social concerns of its people, and demonstrating a clear determination to take effective self-help measures.

1.c.(1) This is a high priority in the current five-year development plan (1980-84)

1.c.(2) The GOI has simplified both foreign and domestic investment regulations.

1.c.(3) The GOI increasingly is stressing the importance of popular participation in the development process and emphasizing a more equitable distribution of wealth.

1.c.(4)(a) The GOI is increasing its development budget and activities.

1.c.(4)(b) Only 14.5% of the total budget is spent on Defense and National Security.

1.c.(5) The GOI is increasingly improving government administration and is making progress in increasing individual freedoms.

1.c.(6) The current five-year development plan places emphasis on food production, employment, family planning/health/nutrition, and an equitable distribution of resources.

d. FAA Sec. 201(b), 211(a). Is the country among the 20 countries in which development assistance loans may be made in this fiscal year, or among the 40 in which development assistance grants (other than for self-help projects) may be made?

1.d. Yes.

e. FAA Sec. 115. Will country be furnished, in same fiscal year, either security supporting assistance, or Middle East peace funds? If so, *has Congress specifically authorized such use of funds, or* is assistance for population programs, humanitarian aid through international organizations, or regional programs?

1.e. No.

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2. Security Supporting Assistance Country Criteria

a. FAA Sec. 502B. Has the country engaged in a consistent pattern of gross violations of internationally recognized human rights? Is program in accordance with policy of this Section?	2.a.	N/A
b. FAA Sec. 531. Is the Assistance to be furnished to a friendly country, organization, or body eligible to receive assistance?	2.b.	N/A
c. FAA Sec. 533(c)(2). *Will assistance under the Southern African Special Requirements fund be provided to Mozambique, Angola, Tanzania, or Zambia? If so, has President determined (and reported to the Congress) that such assistance will furth U.S. foreign policy interests?*	2.c.	N/A
d. FAA Sec. 609. If commodities are to be granted so that sale proceeds will acc to the recipient country, have Special Account (counterpart) arrangements been made?	2.d.	N/A
e. App. Sec. 113. *Will security assistance be provided [illegible] such country to express the legitimate rights of the population of such country contrary to the Universal Declaration of Human Rights?*	2.e.	N/A
f. FAA Sec. 620B. *Will security supporting assistance be furnished to Argentina after September 30, 1978?*	2.f.	N/A

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5C(2) - PROJECT CHECKLIST

Listed below are, first, statutory criteria applicable generally to projects with FAA funds, and then project criteria applicable to individual fund sources: Development Assistance (with a subcategory for criteria applicable only to loans); and Security Supporting Assistance funds.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP TO DATE? IDENTIFY. HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT?

A. GENERAL CRITERIA FOR PROJECT.

1. App. Unnumbered; FAA Sec. 653(b); Sec. 671

   (a) Describe how Committees on Appropriations of Senate and House have been or will be notified concerning the project; (b) is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than $1 million over that figure

   1.(a). Project is in the FY 1980 Congressional Presentation.

   1.(b). No.

2. FAA Sec. 611(a)(1). Prior to obligation in excess of $100,000, 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 U.S. of the assistance?

   2. Yes to both parts.

3. FAA Sec. 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 the assistance?

   3. No further legislation is required.

4. FAA Sec. 611(b); App. Sec. 101. If for water or water-related land resource construction, has project met the standards and criteria as per the *Principles and Standards for Planning Water and Related Land Resources dated October 25, 1973*?

   4. Yes.

5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed $1 million, has Mission Director certified the country's capability effectively to maintain and utilize the project?

   5. Mission Director certification is attached as Annex H.6.

6. FAA Sec. 209, 619. Is project susceptible of execution as part of regional or multilateral project? If so why is project not so executed? Information and conclusion whether assistance will encourage regional development programs. If assistance is for newly independent country, is it furnished through multilateral organizations or plans to the maximum extent appropriate?

   6. No.

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7. FAA Sec. 601(a); (and Sec. 201(f) for development loans). Information and conclusions whether project 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.

7. Project has components for (b), (c), & (e); (a), (d), & (f) are not applicable.

8. FAA Sec. 601(b). Information and conclusion on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

8. Technical assistance to project will be provided by U.S. firms and individuals.

9. FAA Sec. 612(b); Sec. 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 U.S. are utilized to meet the cost of contractual and other services.

9. GOI share of total project costs is 46%. Terms of agreement will specify GOI contribution to project.

FAA Sec. 612(d). Does the U.S. own excess foreign currency [illegible] and if so, what arrangements have been made for its release?

10. No U.S. owned excess foreign currency available.

11. ISA 14. *Are any FAA funds for FY 75 being used in this Project to construct, operate, maintain, or supply fuel for, any nuclear powerplant under an agreement for cooperation between the United States and any other country?* Export [illegible] not [illegible]

11. No.

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

a. FAA Sec. 102(c); Sec. 111; Sec. 281a. Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production, spreading investment out from cities to small towns and rural areas; and (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions?

1.a (a). Project directly benefits rural poor by helping small farmers to increase food production and preserve soil and water resources.

1.a (b). Major component of project is to increase and strengthen local development planning and management capacity. Also, see Social Analysis in Project Paper.

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b. FAA Sec. 103, 103A, 104, 105, 106, 107. Is assistance being made available: [include only applicable paragraph -- e.g., a, b, etc. -- which corresponds to source of funds used. If more than one fund source is used for project, include relevant paragraph for each fund source.]

(1) [103] for agriculture, rural development or nutrition; if so, extent to which activity is specifically designed to increase productivity and income of rural poor; [103A] if for agricultural research, is full account taken of needs of small farmers;

1. b (1). Yes. Primary beneficiaries will be farmers with land holdings of less than .5 ha.

(2) [104] for population planning or health; if so, extent to which activity extends low-cost, integrated delivery systems to provide health and family planning services, especially to rural areas and poor;

1. b (2). N/A

(3) [105] for education, public administration, or human resources development; if so, extent to which activity strengthens nonformal education, makes formal education more relevant, especially for rural families and urban poor, or strengthens management [illegible] of institutions enabling the poor to participate in development;

1. b (3). Project stresses increasing planning and management capacity of local government and village institutions.

(4) [106] for technical assistance, energy, research, reconstruction, and selected development problems; if so, extent activity is:

1. b (4). N/A

(a) technical cooperation and development, especially with U.S. private and voluntary, or regional and international development, organizations;

1. b (4)(a). N/A

(b) to help alleviate energy problem;

1. b (4)(b). N/A

(c) research into, and evaluation of, economic development processes and techniques;

1. b (4)(c). N/A

(d) reconstruction after natural or manmade disaster;

1. b (4)(d). N/A

(e) for special development problem, and to enable proper utilization of earlier U.S. infrastructure, etc., assistance;

1. b (4)(e). N/A

(f) for programs of urban development, especially small labor-intensive enterprises, marketing systems, and financial or other institutions to help urban poor participate in economic and social development.

1. b (4)(f). N/A

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(5) [107] by grants for coordinated private effort to develop and disseminate intermediate technologies appropriate for developing countries.

1. b (5). N/A

c. FAA Sec. 110(a); Sec. 208(e). Is the recipient country willing to contribute funds to the project, and in what manner has or will it provide assurances that it will provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or has the latter cost-sharing requirement been waived for a "relatively least-developed" country)?

1. c . Project budget reflects GOI input at 46% of total project costs. Terms of Agreement will specify GOI contribution to project.

d. FAA Sec. 110(b). Will grant capital assistance be disbursed for project over more than 3 years? If so, has justification satisfactory to Congress been made, and efforts for other financing, or is the recipient country "relatively least developed"?

1. d . N/A

e. FAA Sec. 207; Sec. 113. Extent to which assistance reflects appropriate emphasis on; (1) encouraging development of democratic, economic, political, and social institutions; (2) self-help in meeting the country's [illegible]; (3) improving availability [illegible] and worker-power in the country; (4) programs designed to meet the country's health needs; (5) other important areas of economic, political, and social development, including industry; free labor unions, cooperatives, and Voluntary Agencies; transportation and communication; planning and public administration; urban development, and modernization of existing [illegible]; or (6) integrating women into the recipient country's national economy.

1. e . See Social Analysis and Project Description in Project Paper.

f. FAA Sec. 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.

1. f . See Social Analysis and Project Description in Project Paper.

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g. FAA Sec. 201(b)(2)-(4) and -(8); Sec. 201(e); Sec. 211(a)(1)-(3) and -(8). Does the activity give reasonable promise of contributing to the development: of economic resources, or to the increase of productive capacities and self-sustaining economic growth; or of educational or other institutions directed toward social progress? Is it related to and consistent with other development activities, and will it contribute to realizable long-range objectives? And does project paper provide information and conclusion on an activity's economic and technical soundness?

1. g . Yes to all three questions.

h. FAA Sec. 201(b)(6); Sec. 211(a)(5), (f Information and conclusion on possible effects of the assistance 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 or safeguarding the U.S. balance of-payments position.

1. h . N/A

2. Development Assistance Project Criteria (Loans only)

a. FAA Sec. 201(b)(1). Information and conclusion on availability of financing from other free-world sources, including private sources within U.S.

2. a . AID is in a unique position to provide assistance for this project.

b. FAA Sec. 201(b)(2); 201(d). Information and conclusion on (1) capacity of the country to repay the loan, including reasonableness of repayment prospects, and (2) reasonableness and legality (under laws of country and U.S.) of lending and relending terms of the loan.

2. b . Prior loan experience indicates no problem with loan repayment or legality of lending and relending terms of the loan.

c. FAA Sec. 201(e). If loan is not made pursuant to a multilateral plan, and the amount of the loan exceeds $100,000, has country submitted to AID an application for such funds together with assurances to indicate that funds will be used in an economically and technically sound manner?

2. c . GOI letter of request for assistance is attached as Annex H.8.

d. FAA Sec. 201(f). Does project paper describe how project will promote the country's economic development taking into account the country's human and material resources requirements and relationship between ultimate objectives of the project and overall economic development?

2. d . Yes.

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e. FAA Sec. 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 is otherwise being used to finance procurements from private sources?

2. e . $17,442,000 will go directly or indirectly to private enterprise.

f. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete in the U.S. with U.S. enterprise, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan?

2. f . N/A.

3. Project Criteria Solely for Security Supporting Assistance

a. FAA Sec. 531. How will this assistance support prog[illegible] economic or political stability?

3. a . N/A

b. FAA Sec. 533(c)(1). *Will assistance under the Southern African Special Requirements Fund be used for military, guerrilla, or paramilitary activities?*

3. b . N/A

4. Additional Criteria for Alliance for Progress

[Note: Alliance for Progress projects should add the following two items to a project checklist.]

a. FAA Sec. 251(b)(1), -(8). Does assistance take into account principles of the Act of Bogota and the Charter of Punta del Este; and to what extent will the activity contribute to the economic or political integration of Latin America?

4. a . N/A

b. FAA Sec. 251(b)(8); 251(h). For loans, has there been taken into account the effort made by recipient nation to repatriate capital invested in other countries by their own citizens? Is loan consistent with the findings and recommendations of the Inter-American Committee for the Alliance for Progress (now "CIAPCIES," the Permanent Executive Committee of the OAS) in its annual review of national development activities?

4. b . N/A

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5C(3) - STANDARD ITEM CHECKLIST

Listed below are statutory items which normally will be covered routinely in those provisions of an assistance agreement dealing with its implementation, or covered in the agreement by exclusion (as where certain uses of funds are permitted, but other uses not).

These items are arranged under the general headings of (A) Procurement, (B) Construction, and (C) Other Restrictions.

A. Procurement

1. FAA Sec. 602. Are there arrangements to permit U.S. small business to participate equitably in the furnishing of goods and services financed?	1. Yes.
2. FAA Sec. 604(a). Will all commodity procurement financed be from the U.S. except as otherwise determined by the President or under delegation from him?	2. Yes.
3. FAA Sec. 604(d). If the cooperating country discriminates against U.S. marine insurance companies, will agreement require that marine insurance be placed in the U.S. on commodities financed?	3. N/A.
4. FAA Sec. [illegible] 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?	Only seed and breeding stock will be procured locally. Procurement of these items from the United States would not be feasible.
5. FAA Sec. 608(a). Will U.S. Government excess personal property be utilized wherever practicable in lieu of the procurement of new items?	5. Yes.
6. MMA Sec. 901(b). (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 shall be transported on privately owned U.S.-flag commercial vessels to the extent that such vessels are available at fair and reasonable rates.	6. Yes.
7. FAA Sec. 621. If technical assistance is financed, will such assistance 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,	7. Yes to first question. Second question is not applicable.

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are they particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs?

8. International Air Transport. Fair Competitive Practices Act, 1974

If air transportation of persons or property is financed on grant basis, will provision be made that U.S.-flag carriers will be utilized to the extent such service is available?

8. Yes.

Construction

1. FAA Sec. 601(d). If a capital (e.g., construction) project, are engineering and professional services of U.S. firms and their affiliates to be used to the maximum extent consistent with the national interest?

1. N/A

2. FAA Sec. 611(c). If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable?

2. Yes.

3. FAA Sec. 620(k). If for construction of productive enterprise, will aggregate [illegible] assistance to be furnished [illegible] the U.S. not exceed $100 million?

3. Yes.

Other Restrictions

1. FAA Sec. 201(d). If development loan, is interest rate at least 2% per annum during grace period and at least 3% per annum thereafter?

1. Yes.

2. FAA Sec. 301(d). If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights?

2. N/A

3. FAA Sec. 620(h). Do arrangements preclude promoting or assisting the foreign aid projects or activities of Communist-Bloc countries, contrary to the best interests of the U.S.?

3. Yes.

4. FAA Sec. 636(i). Is financing not permitted to be used, without waiver, for purchase, long-term lease, or exchange of motor vehicle manufactured outside the U.S. or guaranty of such transaction?

4. Yes.

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5. Will arrangements preclude use of financing:

a. FAA Sec. 114. to pay for performance of abortions or to motivate or coerce persons to practice abortions, *to pay for performance of involuntary sterilization, or to coerce or provide financial incentive to any person to practice sterilization?* — 5.a. Yes.

b. FAA Sec. 620(g). to compensate owners for expropriated nationalized property? — 5.b. Yes.

c. FAA Sec. 660. to finance police training or other law enforcement assistance, except for narcotics programs? — 5.c. Yes.

d. FAA Sec. 662. for CIA activities? — 5.d. Yes.

e. App. Sec. 103. to pay pensions, etc., for military personnel? — 5.e. Yes.

f. App. Sec. 105. to pay U.N. assessments? — 5.f. Yes.

g. App. Sec. 106. to carry out provisions of FAA Sections 209(d) and 251(h) (transfer to multilateral organization for lending). — 5.g. Yes.

h. App. Sec. 112. *to finance the export of nuclear equipment, fuel, or technology or to train foreign nationals in nuclear fields?* — 5.h. Yes.

i. App. Sec. 501. to be used for publicity or propaganda purposes within U.S. not authorized by Congress? — 5.i. Yes.

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CURRENT PROJECT STATUS
as of May 1, 1980
Citanduy River Basin Development - Project 0245

Loan Amount: $12,500,000
Loan Signed: October 28, 1976
Current TDD: October 28, 1982
Time Elapsed: 40 months, 56%

SUMMARY STATUS (as of March 1, 1980):

	Loan Amount ($millions)	Percent Contracted	Percent Completed
Construction (FAR)			
Flood Control	3.4	39	22
Irrigation & Drainage	1.5	21	13
Equipment	2.0	100	75
Consulting Services	4.9	60	60
Training	.5	60	60
Contingency	.2	-	-
TOTALS	12.5	55	45

COMMENTS:

Construction

Construction is about 20 months behind original schedule on an overall completion basis. The loan TDD has been extended one year. Significant improvement in the rate of progress during 1979 was not sufficient to offset earlier delays and delay in pre-loading the Cilisung Siphon site has affected the critical path for construction of the siphon and related work. Further extension of the TDD will therefore probably be necessary.

Major rehabilitation has been completed for four irrigation systems and is underway in two others. Terminal system construction is underway in three systems. Inability to obtain agreement between West and Central Java to share water from the Cijolang River may prevent construction of the new Panulisan system during the current project time frame.

Equipment

All equipment has been ordered. Procurement of "no bid" items, subsequently undertaken by the consultant as purchasing agent, was further delayed by slow processing of the letter of credit and of a necessary amendment. The latter was finally issued in April, 1980.

Consultant Services

All five of the feasibility studies planned have been completed. The proposed new Banjar Plains Irrigation System (900 ha.) was found not economically feasible. The other four studies were favorable to implementation.

Design work is underway for the proposed new Sidareja-Cihaur Irrigation System (20,400 ha.), to be followed by design for rehabilitation of the Four Central Java Systems (3,792 ha.). Design for rehabilitation of the Ten Upper Citanduy Systems (3.852 ha.) will be done by a local firm.

Consultants also assisted in construction supervision and design modification, setting up the equipment pool and shop, and administration of the training program. This assistance will continue and the consultants will also undertake a comprehensive on-farm and water management pilot effort and provide interim assistance with the upper watershed program during 1980-1981.

Training

Most of the training originally planned has been completed. 17 participants received a total 58 person months of overseas training and 372 participants 237 person months in-country. Continuing and new training needs will be met with funds still available under the loan.

Implications for Future Project Activity

The delays in contracting irrigation rehabilitation and the demands on Project Office staff related to the new Sidareja-Cihaur system suggest that additional rehabilitation work not be undertaken before 1982 and that such work be directly administered by the local irrigation services with support from the Project Office.

Difficulties related to provision of agriculture support to meet loan conditions precedent without direct participation in the project by the Ministry of Agriculture highlight the need for a project framework that includes this ministry. Continued inadequate budgets for irrigation O&M also indicate need for special attention to this problem. Experience in some areas of Ciamis district, where farmers have reportedly agreed to contribute Rp. 14,000 ha./yr. for O&M, indicates that local generation of the necessary funds is an appropriate approach.

Joint participation of the Public Works Project Office, D.G. Forestry's P3DAS, local agriculture services and the local government in the highly successful Panawangan Pilot Watershed indicates the feasibility of an integrated multi-agency approach. That this effort has not been sustained indicates need for a strengthened project framework for such activity.

ANNEX H.6

CITANDUY II (497-0281)

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 Indonesia, am acquainted with and have taken into account, among other things, the performance, the development attitide and the budgetary planning of the Government of Indonesia and its implementing agencies in connection with prior AID financed projects in the rural sector and especially the Citanduy River Basin Development Project (497-0245). Based on these factors and observations, I consider that the Government of Indonesia has the capability to adequately use the AID assistance to be provided for the development of this Project.

Accordingly, I do hereby certify that in my judgement the Government of Indonesia, and the Ministries of Public Works, Agriculture and Home Affairs, have the financial and human resource capability to effectively utilize and maintain the facilities of the Citanduy II Project.

Thomas C. Niblock

Date

INITIAL ENVIRONMENTAL EXAMINATION

CITANDUY II

Project Location:	Indonesia
Project Title:	Citanduy II
Funding:	$ 23 million
Life of Project:	1980 - 1986
IEE Prepared by:	USAID/Indonesia
Environmental Action Recommended:	Negative Determination

Mission Director's Concurrence: Walter Bollinger Date: 3/25/80
Thomas C. Niblock

Assistant Administrator's Decision:

Approved: _____ ____

Disapproved: _____ ____

Date: _____ ____

INITIAL ENVIRONMENTAL EXAMINATION

Citanduy II

Indonesia

I. Examination of Nature, Scope and Magnitude of Environmental Impact

A. Project Description

Citanduy II will continue AID assistance for integrated rural development in the Citanduy River Basin. With previous AID loan funding a Basin Master Plan and several feasibility studies have been completed and flood control and irrigation rehabilitation in the lower basin are currently underway.

This project will provide an additional $23,000,000 in loan and grant assistance to efforts aimed at increasing food production, with emphasis on protecting the food production capability of the basin's soil and water resources. The project has three main components:

1. Upper Watershed Development

With population pressure forcing farmers up ever steeper slopes and forests giving way to uncontrolled agricultural expansion, the Citanduy upper watershed faces severe problems of erosion and reduced water retention capability. The lowlands are also affected, suffering from more acute cycles of water shortage and flooding and from the heavy silt load carried by the rivers that feed the irrigation systems.

To build a capacity for dealing with these problems the project will help establish a trained corps of soil and water resources personnel and provide farmers with access to information on better use of these resources through research training, and demonstration plots. The project will also finance a program of bench terrace construction coupled with improved upland production packages and public conservation works such as road erosion proofing.

2. Irrigated Rice Production

There are 21 existing technical or semi-technical irrigation systems in the basin, ranging in size from 90 to 7000 ha. Seven of the largest are currently being rehabilitated under AID loan funding and feasibility studies have been completed for the others and support their rehabilitation.

This project includes funds for rehabilitation of these remaining small systems. However, priority attention will be on improving the capability of the local irrigation and agriculture services and of the farmers to effectively operate and maintain the systems. Consultant assistance training and other support will help strengthen expanded field service staffs in all the systems.

3. Local Development Planning and Management

To enhance local participation in development district government personnel will receive training and consultant assistance in planning and managing development activities. Funding and technical assistance will also be provided for small scale projects, complementary to the watershed and irrigation project activities, but with further specification left to the local participation process

B. Identification and Evaluation of Environmental Impact

Project activities will clearly have significant impact on the environment. Just as clearly, the impact will be preponderantly favorable. Project emphasis is on protection of the basin's food production capability through conservation of soil and water resources. A program to control erosion in the upland through improved terracing and revegetation will be a major element with highly positive environmental impact. The irrigation component will focus on obtaining maximum benefit from existing systems.

Upland research and extension efforts will identify and support production packages which will very likely include use of pesticides. These will be a very minor part of the program and the comprehensive package approach should minimize unfavorable environmental effects. Applicable AID safeguards in procurement etc., would of course be followed. The irrigated rice production component will not directly support any production input package. However efforts to strengthen the

local agriculture services will include attention to their capability to respond effectively to pest problems. Thus an indirect effect should be reduced risk of environmental damage due to unwise pesticide use.

The project approach of integrated area development and support of comprehensive development planning as well as the basin's specific development problems which are directly related to environmental concerns give this project a very heavily positive environmental orientation. In fact, it is proposed that the new project steering committee be chaired by Indonesia's Minister of State for Control of Development and the Environment.

II. Recommendation for Action

In view of the preponderantly favorable environmental impact of proposed project activities and its positive environmental orientation, a Negative Determination is recommended, i.e. that an environmental assessment or impact statement is not required.

RD/AD:PABisek:kb:02/29/80

Department of State

INCOMING TELEGRAM

H. 8

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ACTION AID-35

ACTION OFFICE ASSP-02
INFO AAAS-01 ASEM-01 ASDP-02 CH6-01 PPCE-01 PPRB-02 GC-01
PPEA-01 GCAS-01 GCFL-01 FM-02 ASPD-03 ASTR-01 C-01
CASI-02 CPP-01 CPS-02 ENGR-02 CH8-01 RELO-01 MAST-01
PDPR-01 /032 A1 I1

INFO OCT-01 EA-12 SSO-00 EB-08 OES-09 INR-10 INRE-00
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ED 12065: N/A

SUBJECT: CITANDUY II - LETTER OF REQUEST

1. MISSION RECEIVED 8 JULY 1980 LETTER OF REQUEST FOR CITANDUY II FROM BAPPENAS. TEXT FOLLOWS: BEGIN QUOTE. DEAR MR. NIBLOCK: THIS IS TO FORMALLY REQUEST AID ASSISTANCE IN THE IMPLEMENTATION OF SUBJECT PROJECT. THE PURPOSE OF THIS PROJECT IS TO CONTINUE INTEGRATED DEVELOPMENT IN THE CITANDUY RIVER BASIN WITH AN UPPER WATERSHED DEVELOPMENT PROGRAM, ADDITIONAL EFFORTS TO INCREASE IRRIGATED RICE PRODUCTION, AND IMPROVEMENT OF THE CAPABILITY IN THE BASIN FOR PLANNING AND MANAGING INTEGRATED DEVELOPMENT. (NEW PARAGRAPH) AS DISCUSSED WITH US-AID IN PLANNING THIS PROJECT, THIS REQUESTED ASSISTANCE WILL TAKE THE FORM OF AN AID GRANT OF AT LEAST $4,250,000.00 AND AN AID LOAN OF $22,750,000.00. THESE AMOUNTS WILL BE USED TO FINANCE THE PROJECT OVER A SIX YEAR PERIOD. THE GRANT COMPONENT WILL BE USED CHIEFLY TO FINANCE MOST OF THE COST OF ENGAGING THE SERVICES OF A TEAM OF APPROPRIATELY SKILLED CONSULTANTS AND PROVIDING FOR THEIR OPERATION AND SUPPORT THROUGHOUT THE LIFE OF THE PROJECT. PROJECT BENEFIT MONITORING WILL ALSO BE FINANCED FROM THE GRANT. THE LOAN COMPONENT WILL BE USED CHIEFLY TO FINANCE TRAINING, COMMODITIES, CONSTRUCTION AND PLANTING ACTIVITIES IN THE UPPER WATERSHED, AS WELL AS EQUIPMENT FOR REHABILITATION AND CONSTRUCTION OF IRRIGATION SYSTEMS TO INCREASE RICE PRODUCTION AND CONSTRUCTION/REHABILITATION OF ACCESS ROADS. (NEW PARAGRAPH) THE PROJECT EFFORT WILL INCORPORATE RELEVANT EXISTING PROGRAMS AND FACILITIES. WITH THIS RESPECT DURING NEGOTIATION OF THE PROJECT AGREEMENTS AS WELL AS DURING IMPLEMENTATION, ADJUSTMENTS MAY BE MADE IN THE PROPOSED FUNDING LEVELS OF EACH COMPONENT OF THE PROJECT. (NEW PARAGRAPH) THIS MULTI SECTORAL PROJECT WILL BE IMPLEMENTED PRIMARILY BY THE MINISTRIES OF PUBLIC WORKS, AGRICULTURE AND HOME AFFAIRS THROUGH A COORDINATED PROJECT EFFORT. (NEW PARAGRAPH) THE REQUESTED ASSISTANCE WILL BE NEEDED IN TIME TO BEGIN IMPLEMENTATION OF MAJOR PROJECT COMPONENTS IN INDONESIAN FISCAL YEAR 1981/1982. (NEW PARAGRAPH) THE PROJECT IS CONSIDERED TO BE HIGH PRIORITY AND ENTIRELY CONSISTENT WITH THE DEVELOPMENT GOALS EXPRESSED IN REPELITA III. (NEW PARAGRAPH) YOUR APPROVAL OF THIS REQUEST WILL BE APPRECIATED. (SIGNED) SALEH AFIFF, DEPUTY CHAIRMAN. END QUOTE. MASTERS

CITANDUY II MANAGEMENT ORGANIZATION

A. Background

The Citanduy Project was established in 1969 as a national effort to develop the Citanduy River Basin. The Project was not initially viewed as an integral multi-sector effort; focus was on the river itself, which forms the southern boundary between West and Central Java. A Project Office was created, directly linked to the national level through the Directorate of Rivers in the Ministry of Public Works. Most of the project activities in its early phases were clearly beyond the scope of the local administrations - e.g., comprehensive basin planning and flood control in the lower basin. Other activities, such as major rehabilitation of the irrigation systems, required resources beyond existing local government capabilities. However, in addressing such problems as establishing effective water user associations and introducing conservation farming practices in the upper watershed, the active participation of local government has proven crucial.

The Project Office has a large staff, mostly engineers, capable of planning, designing and supervising major infrastructure construction. It does not have close links to the farmers nor the staff of extension personnel needed to reach them, and it has neither the staff nor the permanent responsibility for operating and maintaining the irrigation systems. These are the responsibilities of the local government services of other sectoral agencies. Since they are vital to project success, it is appropriate that - as an alternative to creating Project Office capability in these areas - the responsible agencies be brought into active participation in the project.

Although not without serious problems, a degree of coordinated effort was achieved in establishing the pilot watershed at Panawangan. More recently, the district irrigation committee has held a series of meetings with farmers in the rehabilitated irrigation systems to help activate the water user associations in preparation for terminal system construction. However, the existing project framework has not led to a sustained coordination of efforts which will be essential for the activities planned under Citanduy II.

The approach to project management for Citanduy II began with a fundamental commitment to emphasize local participation in planning and managing development as well as in receipt of its benefits, and to implement project activities, where possible, through existing institutions, strengthening and expanding them as necessary to enable them to carry out their responsibilities on a permanent basis. The multiplicity of local government jurisdictions, under the Ministry of Home Affairs, and of line agencies, under the Ministries of Public Works and Agriculture, greatly complicate the design of a framework for coordination of government project inputs.

The Citanduy Basin includes parts of five districts in two provinces. The district, linked to the rural population through subdistrict and village governments, is the lowest administrative level with a full range of sectoral services and significant planning capability. Consequently, the district is seen as a key to local participation both in implementation of Citanduy II project activities and in planning for future development.

Local government sectoral services, specifically the agriculture and irrigation services, will be a major focus of project assistance. Under the project, expanded agriculture service staffs will be trained, advised and equipped to work with farmers and farmer groups in adopting improved upland conservation/production practices and better use of irrigation water in the lowlands to increase rice production. The local irrigation services will be similarly strengthened to carry out their responsibility for operating and maintaining the irrigation systems at the primary and secondary levels, and for assisting the water user associations in efficient use of the available water.

These services operate in the district under the authority of the district chief (bupati) and their plans and budgets are coordinated by the district planning board (BAPPEDA II). They carry out locally funded programs as well as other locally administered programs which receive national budget support through the Ministry of Home Affairs (INPRES programs). At the same time they receive national guidance and support, including budgetary support, through their respective line agencies.

The complexities as described above made it difficult to arrive at an arrangement which fully satisfies all interests. However, numerous meetings between senior GOI officials and USAID representative have resulted in a management design which significantly improve inter- and intra-sectoral coordination of project activities

A first major step was the creation, in 1979, of a National Watershed Commission, chaired by the Minister of State for Control of Development and the Environment. This body, concerned with basin development throughout Indonesia, has provided major impetus for efforts toward coordinated participation by the sectoral agencies as well as involvement of local government specifically in planning for watershed development. It has also provided an inter-ministerial forum for discussion of the Citanduy Basin and Citanduy II.

The Ministry of Public Works, which initiated the project, has continued its leading role in the planning for Citanduy II, inviting participation by other agencies in efforts to improve the organization structure. Positive responses have resulted in the following plans for coordination and management of Citanduy II.

B. Coordination

To provide a high-level central framework for direction and co-

ordination for Citanduy II, the agencies which will be responsible for implementation have proposed establishment of a National Steering Committee. The Committee is to be chaired by BAPPENAS and will include representatives of: the Minister of State for Control of Development and the Environment; the Ministries of Public Works, Agriculture, Home Affairs, and Finance; and the Governors of West Java and Central Java; and USAID. Legal authority for the committee will be founded on Presidential, or alternatively, on interministerial joint decree(s) of the Ministers who will be represented on the committee.

Within the project area, a Basin Coordinating Committee will be established. Membership will consist of bupatis and BAPPEDA II officials from the districts in the project area and project-level officials from the Ministries of Public Works and Agriculture. It is expected that this committee, which will function under formal sanction from the National Steering Committee, will be chaired on a rotating basis by the bupatis.

C. Project Management Structure

The present Project Office, under the Ministry of Public Works, Directorate of Rivers, has built a strong organization oriented toward the implementation of infrastructure projects headquartered in Banjar. Three subproject offices have been established to carry out the flood control and irrigation rehabilitation work currently underway. A fourth subproject office is planned for construction of the new Sidareja-Cihaur system, which is to be financed by the ADB.

The Watershed Conservation Unit of the Ministry of Agriculture Directorate General of Forestry has an office in the basin with responsibility for planning and coordinating reforestation and greening activities throughout the basin (P3DAS Citanduy). This unit has been a major participant in project pilot watershed development in the current phase. Other Agriculture agencies have not had basin level representation. A total of five Directorates General and two other agencies of the Ministry of Agriculture will be responsible for substantial inputs to the upper watershed and irrigated rice production components of Citanduy II, either directly or through the local agriculture services. Since there is no existing institution in the basin capable of coordinating and backstopping all Ministry of Agriculture project activities, creation of an Agriculture Project Office, with full time senior staff, will be an important addition to the project management structure. (See the organization chart attached.)

The large upper watershed program will require combined efforts of various agencies of the Ministries of Agriculture and Public Works as well as local government. To facilitate implementation of this program, a separate subproject office is to be set up, with inputs from both Agriculture and Public Works. This subproject office will be directly responsible for such project level activities as construction and operation of the research field station and the training center, physical planning, surveys and

data collection, and structural erosion control measures. It will also provide guidance and coordination to local government services in implementing other program activities.

D. Dire[illegible] [illegible]plementation Responsibilities

As [illegible]ated, the primary agencies involved in project implementatio[illegible] [illegible]ll be the Ministries of Public Works, Agriculture and Home Affai[illegible]s.

(i) Ministry of Public Works, Directorate General of Water Resources Development (DGWRD)

The present Public Works Project Office, under the Directorate of Rivers, is expected to continue to play a leading role in support of all project activities. In the interests of simplified administration and uniform and consistent support for consultants, GOI support for all consultants will be provided through the Ministry of Public Works. In view of existing capabilities, it is expected that other general support to all project elements will also be provided through the Public Works Project Office, including consolidated equipment procurement, equipment maintenance, and construction of facilities such as the training center.

Two Directorates under the Directorate General of Water Resources Development (DGWRD) are involved in project implementatio[illegible]

- The Directorate of Rivers has primary responsibility for flood control and major drainage systems; study and management of river water availability and use; stream and gully erosion control; hydrologic and sedimentation data acquisition; and major new irrigation construction. During the first two years of the project, this Directorate will be completing previously financed flood control and irrigation rehabilitation work in the lower basin and undertaking new construction of the 20,400 ha. Sidareja-Cihaur irrigation system, to be funded by the ADB. Also through the Project Office, the Directorate will provide support to other agencies, especially in the areas of engineering design, equipment, equipment maintenance, and training.

- The Directorate of Irrigation through its district offices, is expected to have primary responsibility for the rehabilitation of 14 small irrigation systems - four in Central Java and ten in the upper Citanduy area of West Java - and for improving operation and maintenance of all the systems. The project includes staff increases, training, equipment and consultant assistance in both technical areas and local finance and administration to improve the district irrigation services' operation and maintenance capability.

(ii) Ministry of Agriculture

As already stated, an Agriculture Project Office will be established in the basin to provide coordination and backstopping

for the five Directorates General and two other agencies of the Ministry of Agriculture which will be responsible for major portions of the upper watershed component as well as for support of irrigated rice production. A comprehensive plan which will assign specific responsibilities to agencies within the Ministry of Agriculture for each activity will be prepared prior to the start of implementation. General areas of responsibility already defined are as follows:

- The Forestry Watershed Conservation Unit (P3DAS) will provide planning, coordination and technical support for the reforestation and greening program carried out by local services (P3RP-DAS) and has personnel capable of providing guidance and training for extension workers and farmers in bench terracing, waterways construction, soil conservation, and planting fuelwood and grasses.

- The Directorate General of Food Crops is responsible for agricultural intensification programs with and without government credit (BIMAS and INMAS) to increase rice production, as well as for technical guidance in upland crop production.

- The Directorates General of Animal Husbandry, Fisheries and Estate Crops will provide technical guidance in their respective areas.

- The Agency for Agriculture Research and Development (AARD), through the Central Research Institute for Agriculture (CRIA conducts upland crop research throughout Indonesia. The project cropping systems research and operation of the research station will most appropriately be a field activity of CRIA.

- The Agency for Agriculture Education, Training and Extension (AAETE) will provide agriculture extension training for Citanduy II, both through several existing small Rural Extension Centers (REC) for rice production and at the multi-purpose training center to be established under the upper watershed component. This center, which will serve broad project training needs, will be operated by AAETE and is expected to become a permanent upland agriculture training facility.

Most existing field extension workers, from Food Crops, are concentrated in the rice producing areas. Unlike irrigated rice production, the upper watershed farming systems involve a mix of food crops, livestock, trees or estate crops, and fish ponds. Presidential Decree No. 45, 1974, established the basis for a unified extension service under AAETE. The agriculture schools are beginning to turn out "polyvalent" extension workers who will be able to provide broad agriculture support, thereby eliminating the need to coordinate separate direct farmer contacts.

(iii) Ministry of Home Affairs

The project's emphasis on increasing local participation in planning and carrying out development activities makes the role

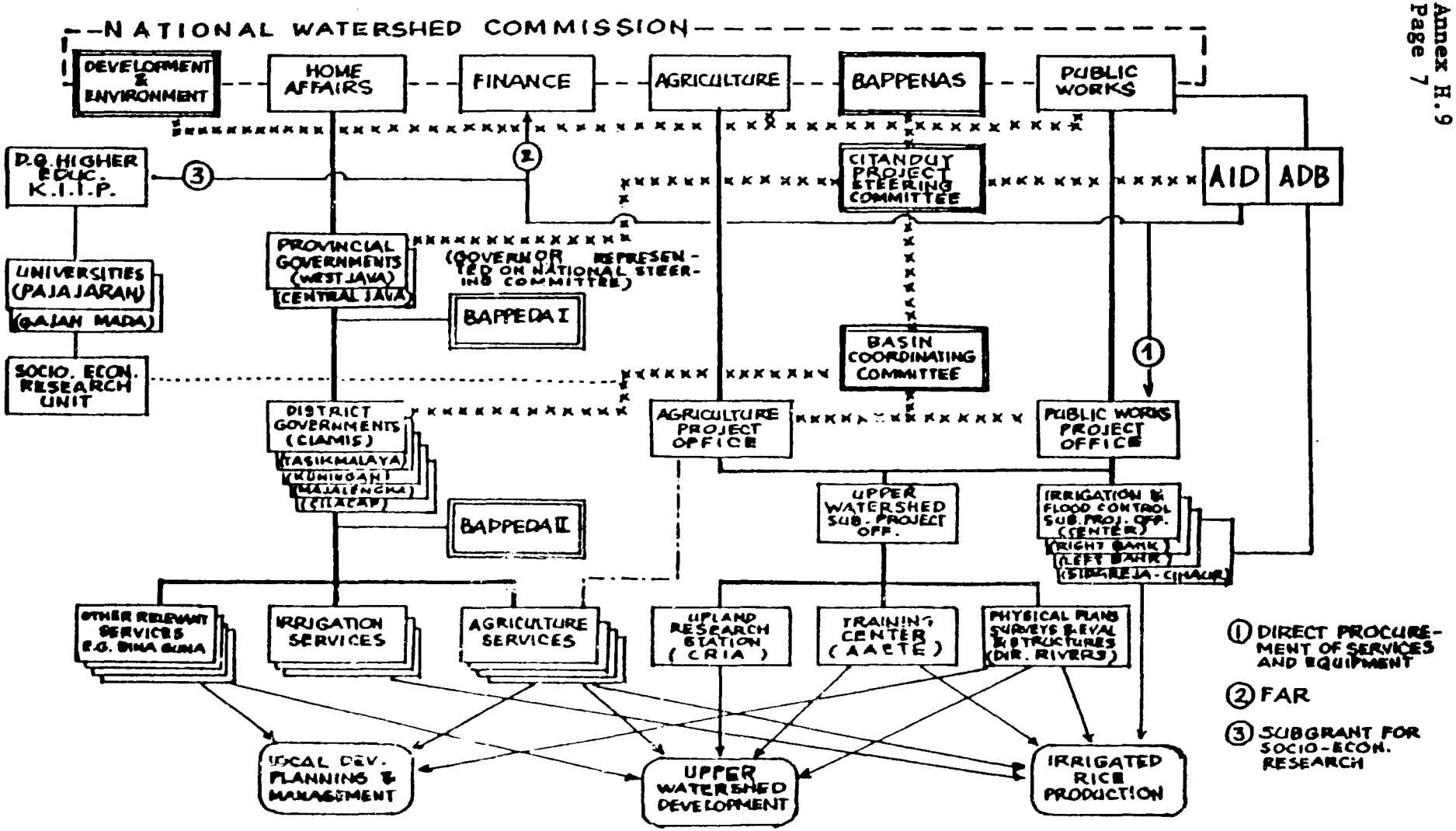
of the bupati (district chief) and camat (subdistrict chief) crucial. Planning boards (BAPPEDA II) responsible to the bupatis will play a key role in coordinating project planning at the district level. Local levels of government are also best able to elicit the participation of individual farmers and farmers' groups necessary to insure continued operation and maintenance of both irrigation systems and upland conservation farming systems.

The district governments will also have responsibilities relating to implementation activities carried out by local institutions and by the local offices of line agencies. These include: direction of expanded local irrigation and agriculture service activities; organization and direction of the upland demonstration plot and bench terracing programs (including access roads); development of effective water user associations; credit programs for upland farmers; erosion protection measures on existing district and village roads; and small scale projects to complement upper watershed and irrigation activities.

(iv) Other Ministry Involvement

Although not at present directly involved in project implementation, the Ministries of Education and of Trade and Cooperatives have relevant responsibilities.

- Under the Directorate General for Higher Education, the Consortium of Agriculture Faculties, through the Universities of Pajajaran and Gajah Mada, has been active in developing a plan for project benefit monitoring and is expected to be involved in setting up a socio-economic research unit in the basin to carry out this plan.

- Cooperatives are likely to play an important role as a channel for credit to upland farmers, as well as for marketing the increased production. Thus, the Ministry of Trade and Cooperatives will also become involved during the course of project implementation.

CITANDUY II ORGANIZATIONAL STRUCTURE