

### 3. 相手国関係者リスト

#### 3-1. EMBASSY OF JAPAN

Mr. Naoki Hayashida - First Secretary

#### 3-2. JICA MANILA OFFICE

Mr. Moriya Miyamoto, Representative

Mr. Katsuhiko Oshima

Mr. Noriaki Niwa

Mr. Kikuo Takeuchi, Deputy Resident Representative

Mr. Fumio Kikuchi, Asst. Resident Representative

#### 3-3. SAMAR INTEGRATED RURAL DEVELOPMENT PROJECT OFFICE (SIRDPO)

##### - Central

Mr. Anthony Ponce de Leon : Project Director  
Mr. Leonardo C. Cruz : Chief, Project Mgt. /PO of CCPAP  
Mr. Rolando Quimbo : Administrative Officer  
Dr. Oscar Aurelio : Personnel Officer  
Mr. Leocadio Gomez : Executive Assistant  
Mr. Diego Espina : Supervising Civil Engr.  
Mr. Fermin L. Panuga, Jr. : Sr. Dev't Mgt. Officer  
Ms. Elena Maniego : Dev't. Project Evaluator  
Mr. Sergio Fortaleza : Chief, Dev't. Project Coordinator

##### - Field Office

Mr. Zacarias Tizon : Chief, Dev't. Project Coordinator  
Mr. Nelson Ballejos : Agri. Project Evaluator  
Mr. Danilo Calagos : Sr. Dev't. Mgt. Officer  
Mr. Diomedes Lelis : Chief, Dev't. Project Coordinator

#### 3-4. PROVINCE OF SAMAR

Mr. Antonio M. Bolastig : Governor  
Mr. Leo N. Dacaynos : Provincial Engineer, PEO  
Mr. Cesar B. Basal : Asst. Engineer, PEO  
Mr. Arthur B. Cuenco : PPDO  
Mr. Jose C. Macopia : PPDO

**3-5. NATIONAL ECONOMIC AND DEVELOPMENT AUTHORITY (NEDA)**

**- Central**

Ms. Carolina S. Guina : ADG. NDO  
Mr. J. D. Gomez : AD  
Mr. Rolando G. Tungpalan : OIC Project Monitoring Staff (PMS)  
Mr. J. D. Sotalbo : RDCS  
Mr. J. Fernandez : Supv. EDS. PMS  
Ms. Teresita Madamba : Public Investment Staff (PIS)  
Mr. Tito Tranquiliwo : PIS  
Mr. Jonathan L. Uy : PIS  
Ms. Athena Baquizal : Sr. EDS, PMS  
Ms. Elizabeth Fernando : Sup. DS, PMS  
Ms. Malou T. Eudela : Sr. EDS, PMS  
Ms. Aleli F. Lopes-Dea : Sup. DS, PMS  
Mr. Wilfredo M. De Perio : EDS II, PMS  
Mr. Oscar I. Mia : - do -  
Ms. Rowena P. Dineros : EDS I, PMS  
Mr. J. Fernandez : EDS, PMS  
Ms. R. C. Corpus : DS II, PMS

**- Region-VIII**

Atty. Romeo C. Escandor : Regional Director  
Mr. Jose U. Mazo : Asst. Regional Director  
Mr. Pablo P. Burgos : Asst. Regional Director  
Ms. Elvira S. Edillo : CEDS  
Mr. Rafael C. Caintic : CEDS  
Mr. William N. Resma : EDS I  
Mr. Miguel G. Villegas : CEDS  
Ms. Luz P. Navarrete : Sup. EDS

**3-6. NATIONAL IRRIGATION ADMINISTRATION (NIA)**

**- Central**

Mr. Jose B. del Rosario, Jr. : Administrator  
Mr. Jose A. Gulvez : Assistant Administrator  
Mr. Isidro R. Dugal : Director, Planning and Development Div.  
Mr. Edilberto B. Punzal : Chief, PDD  
Mr. Arturo S. Samson : Principal Engr. B, PDD

Mr. Sumio Oishi : JICA Expert

**- Region-VIII, NIA**

Mr. Jose B. Corregidor : OIC, Regional Director  
Mr. Emmanuel C. Ligutan : OIC, Chief, Engineer Division  
Mr. Pedro C. Rubio Jr. : Provincial Irrigation Engr.  
Mr. Cornelio Cevilla : Chief of Design Section  
Mr. Tonie C. Sumayod : Public Affairs Officer

**- Provincial**

Mr. Pedro C. Rubio Jr. : Provincial Irrig. Engineer  
Ms. Herminia Mabulac : Cost/Monitoring Engineer  
Ms. Judith Yopez : Irrigator's Organization Worker

**3-7. DEPARTMENT OF PUBLIC WORKS AND HIGHWAY (DPWH)**

**- Central**

Mr. Manuel M. Bonoan : Asst. Secretary for Planning cum Manager  
for F/S  
Mr. Trino G. Meris : Director  
Mr. Federico de Leon : Project Manager, Project Mgt. Office  
Mr. Florencio F. Padernal : Project Director, PMO for Rural Water  
Supply  
Mr. Danny Castilon : Project Office and Coordinator, SIRDP  
Mr. Manual Alconis : Engr. IV  
Mr. Hideo Tsuji : JICA Expert  
Mr. Nobuki Abe : JICA Expert

**- Region VIII**

Mr. Isidro P. Mariano : Director IV  
Mr. Pablo P. Burgos : Director III  
Mr. Gil U. Calina : Project Manager I, Water Supply  
Mr. Antolin G. Galing : Regional Project Manager  
Ms. Viola R. Enerlan : Project Manager I, PJHL  
Mr. Abelardo M. Monge, Jr. : Engineer V, PDD  
Mr. Damaso B. de la Cuadra : Engineer V, Construction Div.  
Mr. Rosario V. Barcelo : Engineer V, Maintenance Div.  
Mr. Jose K. Tupaz : Engineer V, Materials Quality Control and  
Hydrology Div.

- Ms. Concesa S. Deramas : Economist II
- **Catbalogan**
- Mr. Walfrido Bonifacio : District Engineer
- Mr. Pablito C. Galicia : Asst. Engineer
- Mr. Vicente G. Piczon, Jr. : Area Equipment Engineer
- Mr. Nicer P. Gondaya : Engineer III
- 3-8. DEPARTMENT OF AGRICULTURE (DA)**
- **Central**
- Ms. T. C-Capellan : Assistant Secretary
- Mr. Shigetaka Saburi : JICA Expert
- Ms. Zenaida M. Villegas : Assistant Chief, IADCCO
- Mr. Augustus P. Tiambeng : Chief, Project Packing Div., ADCCO
- **Region VIII**
- Mr. Leopoldo b. Romano : Regional Director
- Mr. E. Hilivano : Ex. Director
- Mr. Pruto Adora : Staff Assistant
- Mr. Raul C. Lluz : Provincial Agricultural Officer
- 3-9. SAMAR ELECTRIC COOPERATION I (SAMELCO I)**
- Mr. Eddie A. Adlao : Proj. Supv'r/Actg. General Manager
- Mr. Leo D. Nicolasora : Chief Engineer
- 3-10. DEPARTMENT OF AGRARIAN REFORM (DAR)**
- **Central**
- Mr. Romulo S. Quimbo Jr. : Asst. Director, Beneficiaries Development
- Mr. Toshio Hirodo : JICA Expert
- **Provincial, DAR**
- Mr. Reynaldo D. Villas : Provincial Agrarian Reform Officer
- Mr. Ernest Escorro : Chief of Operator
- Mr. Rodolfo Gonzaga : Support Services

- 3-11. LOCAL WATER UTILITIES ADMINISTRATION (LWUA)**  
 Mr. Alfredo B. Espino : Manager, Planning Dept.
- 3-12. METROPOLITAN WATERWORKS AND SEWERAGE SYSTEM (MWSS)**  
 Mr. Naomasa Oda : JICA Expert
- 3-13. PHILIPPINE ATMOSPHERIC GEOPHYSICAL AND ASTRONOMICAL SERVICE  
 ADMINISTRATION (PAGASA)**  
 Ms. Fely Espinosa : Weather Specialist II, Data Bank Section  
 Ms. Daya Rivera : Weather Observer IV, Data Bank Section
- 3-14. SAN JORGE MUNICIPALITY**  
 Ms. Cristeta R. Corrales : Mayor  
 Mr. Rodolfo B. Corrales : Vice Mayor  
 Mr. Rene C. Nacional : Assessor  
 Mr. Raul C. Dy : Engineer
- 3-15. GANDARA MUNICIPALITY**  
 Mr. Reynald C. Correche : Mayor
- 3-16. BARANGAY QUEZON**  
 Mr. Rufino Bernabe : Brgy. Captain
- 3-17. BARANGAY JANIPON**  
 Ms. Adela Verzosa : Brgy. Captain
- 3-18. BARANGAY CANTAGUIC**  
 Mr. Potenciano Guillego : Brgy. Captain
- 3-19. BARANGAY SAN ISIDRO**  
 Ms. Rosita Villeneuve : Brgy. Captain
- 3-20. BARANGAY RAWIS**  
 Ms. Harlen Grigorio : Brgy. Captain
- 3-21. BARANGAY - BLANCA AURORA**  
 Mr. Constancio Bañar : Brgy. Captain

- 3-22. **BARANGAY - GUINDAPUNAN**  
Mr. Arsenio Bentillo : Brgy. Captain
- 3-23. **BARANGAY - BULAO**  
Mr. Estanislao Turtoga : Brgy. Captain
- 3-24. **BARANGAY - BUENA VISTA II**  
Mr. Decoroso Ramos : Brgy. Captain
- 3-25. **BARANGAY - TOMOGBONG**  
Mr. Felipe Salingsing : Brgy. Captain  
Mr. Perpetua Doblón
- 3-26. **BARANGAY - LA PAZ**  
Mr. Lorito Llárena : Brgy Captain
- 3-27. **BARANGAY - BUENA VISTA I**  
Mr. Carlos Bolledo : Brgy Captain
- 3-28. **BARANGAY - POB. II SAN JORGE**  
Mr. Vicente Corrales : Brgy Captain
- 3-29. **BARANGAY - SAN JUAN**  
Mr. Dionisio Balesbes : Brgy Captain
- 3-30. **BARANGAY - POB. I SAN JORGE**  
Ms. Lydia C. Corrales : Brgy Captain
- 3-31. **BARANGAY - MANCOL POB III**  
Ms. Cecilia B. Cabarles : Brgy Captain
- 3-32. **SAN JORGE ELEM. SCHOOL**  
Ms. Erlianda Brazil : Principal
- 3-33. **SAMAR NATIONAL AGRICULTURAL SCHOOL**  
Mr. Oscar M. Neypes : Vocational School Administrator II

4. 討議議事録

4-1. 西サマール農村総合開発推進事業基本設計に関するフィリピン政府との議事録

MINUTES OF DISCUSSIONS  
ON  
THE AGRICULTURAL DEVELOPMENT AND PROMOTION PROJECT IN WESTERN SAMAR  
IN  
THE REPUBLIC OF THE PHILIPPINES

In response to the request of the Government of the Republic of the Philippines, the Government of Japan decided to conduct a basic design study on the Agricultural Development and Promotion Project in Western Samar (the Project) and entrusted the study to the Japan International Cooperation Agency (JICA). JICA sent a Study Team headed by Mr. Osamu Tsuji, Manager of Water Use Division, Construction Department, Tohoku Regional Agricultural Administration Office, Ministry of Agriculture, Forest and Fisheries to the Philippines from January 29 to March 9, 1990.

The Team held a series of discussions on the Project with the officials concerned and conducted a field survey in the Project area.

As a result of the study, both parties agreed to recommend to their respective Governments that the major points of understanding reached between them, as attached herewith, should be examined towards the realization of the Project.

February 6, 1990



OSAMU TSUJI

Team Leader

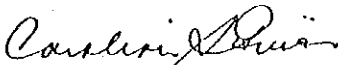
Basic Design Study Team, JICA

ANTONIO H. BOLASTIG

Governor,

Samar Province

Witnessed by;



CAROLINA S. GUINA

Director, PIS

NEDA



ROMEO C. ESCANDOR

Regional Director,

Region-VIII, NEDA

## MAJOR POINTS OF UNDERSTANDING

### 1. Objectives of the Project

The Project aims to alleviate the persistent poverty and generate productive job opportunities in the remote rural areas, providing the minimum requirements to improve the rural infrastructures and upgrade living conditions of inhabitants.

### 2. Project Components Requested by the Government of the Philippines

The Project components are described in ANNEX I.

### 3. Project Area

The proposed project area is located in San Jorge and Gandara municipalities within Samar Province (see Figure 1).

### 4. Executing Agency for the Project

The Provincial Government of Samar will be responsible for implementation of the Project and will coordinate activities of agencies concerned for the operation and maintenance of the completed structures and facilities.

### 5. Japan's Grant Aid Program

The Government of the Philippines has understood the Japan's Grant Aid program, as explained by the Study Team, including the use of a Japanese Consultant firm and a Japanese General Contractor for the construction and supply of materials.

### 6. Undertaking by the Government of the Philippines

The Government of the Philippines will take the necessary measures as listed in Annex II on the condition that the Japan's Grant Aid would be extended to the Project.

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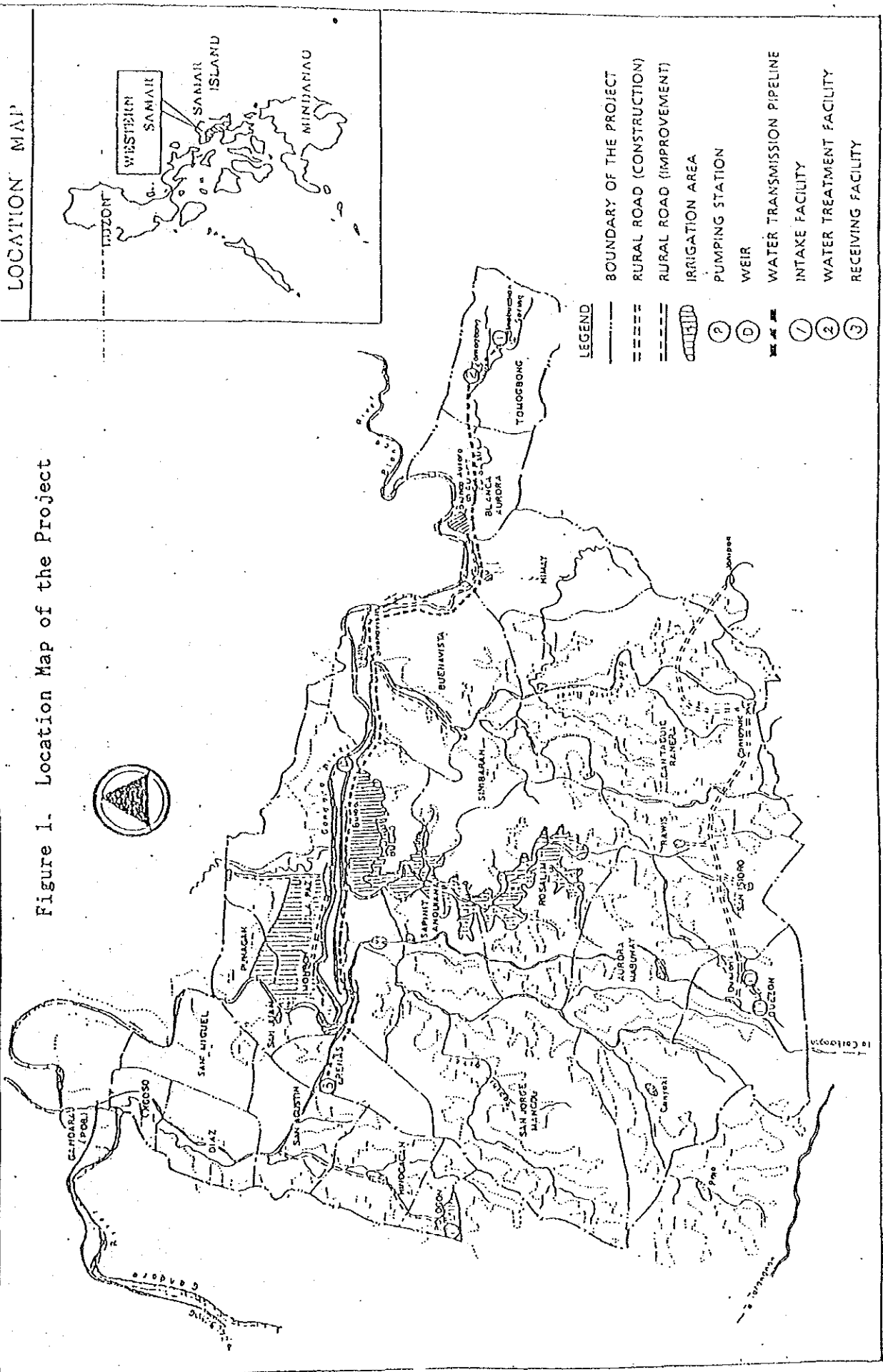


Figure 1. Location Map of the Project

ANNEX I. PROJECT COMPONENT REQUESTED BY THE GOVERNMENT OF THE PHILIPPINES

a) Irrigation Component;

- Rehabilitation and upgrading of Quezon communal irrigation system (CIS), La Paz and Aurora CISs covering some 185 ha;
- Construction of Bulao pump irrigation project (PIP) and Bulao South PIP covering some 250 ha;

b) Farm-to-Market Road Component;

- Construction of Bulao-La Paz, Quezon-Janipon and La Paz lines (about 13 km in total) with appurtenant structures; and
- Improvement of Blanca Aurora-Buena Vista, San Agustin-Pologon and Buena Vista South lines (about 12 km in total) with appurtenant structures;

c) Village Water Supply Component;

- Construction of water supply facilities such as a pipe line from the Binobucalan spring to San Jorge, an intake facility, a receiving well, a distribution reservoir and public faucets in San Jorge area; and

d) Procurement of Equipment;

- Operation and maintenance equipment for irrigation systems and farm-to-market roads.

*Outfit in Pinar del Rio*



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ANNEX II. UNDERTAKING BY THE GOVERNMENT OF THE PHILIPPINES

- Autan in this*
1. To provide the land for the right-of-way of canals, roads and related structures and assure compensation for the construction of structures and facilities before commencement of the construction;
  2. To ensure prompt unloading and customs clearance at the port of disembarkation in the Philippines for the equipment and materials to be imported for the project implementation;
  3. To exempt Japanese nationals engaged in the Project from custom duties, internal taxes and other fiscal levies which may be imposed in the Philippines with respect to the supply of materials and services under the verified contracts;
  4. To assume the Value Added Tax (VAT) which is imposed on the purchase of Philippine supplies and materials for the Project;
  5. To provide and accord necessary permission, licences and other authorization required for the execution of the Project;
  6. To provide available data and information to the Japanese consultant and the contractor necessary for the detailed engineering services;
  7. To provide lands necessary for construction works such as temporary office, working area, stock yard and others;
  8. To maintain and use properly and effectively the facilities constructed under the Project;
  9. To execute the construction of on-farm facilities and necessary minor works; and
  10. To shoulder commission fees to the Japanese foreign exchange bank for banking services based on the banking arrangements as follows;
    - Advising commission of authorization to pay
    - Payment commission

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REPUBLIC OF THE PHILIPPINES  
NATIONAL ECONOMIC AND DEVELOPMENT AUTHORITY

NEDA sa Pasig, Amber Avenue Pasig, Metro Manila

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

4-2. 西サマール農村総合開発推進事業基本設計に関する関係機関  
との議事録

HIGHLIGHTS OF DISCUSSION  
NEDA-JICA Wrap-up Meeting on the  
Agricultural Development and Promotion Project (ADPP) in Samar  
9 March 1990; 9:00 - 11:30 am  
NEDA-sa-Pasig, Metro Manila

I. ATTENDANCE

Mr. Rolando G. Tungpalan	NEDA - Presiding Officer
Mr. Noriaki Niwa	JICA
Mr. Yutaka Tominaga	JICA Study Team
Mr. Osamu Ishiyama	JICA Study Team
Ms. Athena Baquizal	NEDA
Ms. Teresita Madamba	NEDA
Mr. Jonathan Uy	NEDA

II. PURPOSE

This wrap-up meeting was called for the purpose of discussing the major findings of the JICA Basic Design Study Team subsequent to their field surveys, as well as the issues which were raised in the course of their discussions with concerned Philippine Government officials in the region and province. (Reference: Highlights of the ADPP Inter-Agency Consultative Meeting; 23 February 1990.)

III. HIGHLIGHTS OF THE DISCUSSIONS

1. On the Rehabilitation of the Bulao Communal Irrigation Project (CIP)

The JICA Team earlier raised the issue of which agency, i.e. the National Irrigation Administration (NIA) or the Department of Agriculture (DA), shall be responsible for the implementation of said component. Mr. Ishiyama then reported that a Memorandum of Agreement (MOA) has been entered into by the Regional Directors of NIA and DA on 5 March 1990, whereby the NIA shall be responsible for the actual rehabilitation works and operation and maintenance of the project, while the DA shall be responsible for organizing Farmer's/Irrigator's Associations and training its members.

The NEDA agreed that such arrangement was desirable and that the MOA sufficiently resolves the issue.

2. On the repair/reconstruction of the Buenavista Bridge

The JICA Team reported on the need to repair/reconstruct the Buenavista Bridge (which links two proposed roads) and have this completed by year-end 1990, before the start of ADPP implementation in early 1991, to enable movement of construction equipment across this bridge. Mr. Ishiyama, however, reported that in his meeting with Assistant Secretary Bonoan of the DPWH subsequent to the 23 February 1990 consultation in the region, he was informed that no funds are available for this purpose under the 1990 Infrastructure Program but that this may be included in the 1991 Program. In light of this, the NEDA Team explored the possibility of this component's inclusion in the Grant-in-Aid for ADPP. The JICA Team indicated that the cost of bridge reconstruction could be considered for inclusion in said grant-in-aid and that such additional cost is estimated to increase total project cost by approximately five percent (5%).

The NEDA agreed that it will be prepared to initiate a formal request, subject to the acceptability of the proposed additional project component based on consultations with and clearances of concerned Philippine Government agencies/officials.

3. On the implementation of the ADPP Roads Component

Mr. Ishiyama informed the body that in his meeting with DPWH, the latter had agreed to be responsible for the implementation and maintenance of the Project roads and to receive the road maintenance equipment to be provided under the grant, subject to an official request from the Provincial Government for it to do so.

The NEDA agreed to the desirability of this arrangement and will coordinate with the Provincial Government to facilitate the latter's request for DPWH to assume responsibility for the implementation of the ADPP Roads Component.

4. On the implementation of the Village Water Supply Component

Mr. Ishiyama informed the body that in his meeting with Dr. Florencio Padernal of DPWH, he was informed that the DPWH is prepared to assume responsibility for the implementation of the Village Water Supply Component of the Project, inasmuch as works required by the component are in the nature of spring development which is institutionally the responsibility of DPWH.

The NEDA confirmed this arrangement.

5. On the Organization and Management of the Project

The NEDA confirmed that implementation arrangements for the ADPP as originally envisioned, i.e. creation of a Project Board chaired by the Provincial Governor, with the participating line agencies as members, to provide overall direction to and assume supervision of the Project, and the setting up of a Project Management Unit (PMU) under the Office the Provincial Governor to see to the day-to-day management of project activities (consistent with Executive Order 363 s. 1989), shall remain the same regardless of the issuance of an Executive Order outlining the institutional arrangements for the Samar Island Development Program (SIDP).

4-3. ドラフト・ファイナル・レポート説明に関するフィリピン政府との議事録

MINUTES OF DISCUSSIONS

ON

THE AGRICULTURAL DEVELOPMENT AND PROMOTION PROJECT IN WESTERN SAMAR

IN

THE REPUBLIC OF THE PHILIPPINES

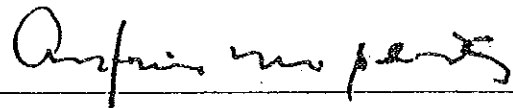
In response to the request of the Government of the Republic of the Philippines, the Government of Japan decided to conduct a basic design study on the Agricultural Development and Promotion Project in Western Samar (the Project) and entrusted the study to the Japan International Cooperation Agency (JICA). JICA sent a Study Team headed by Mr. Tadashi Hashimoto to present and explain the Draft Final Report for the Project from May 21 to 26, 1990.

The Team held a series of discussions on the Project with the officials concerned in Manila.

As a result of the discussion, both parties agreed to recommend to their respective Governments that the major points of understanding reached between them, as attached herewith, should be examined towards the realization of the Project.

May 25, 1990

橋本 たい



TADASHI HASHIMOTO

Team Leader

For Draft Report Explanation, JICA

ANTONIO M. BOLASTIG

Governor

Samar Province

Witnessed by:



ELIZABETH FERNANDO  
N E D A

## MAJOR POINTS OF UNDERSTANDING

1. Both parties agreed to reconfirm the Minutes of Discussions which was mutually signed on February 6, 1990. As for the undertakings of the Government of the Philippines, both parties have again confirmed the items described in Annex 1.
2. The Government of the Philippines has agreed in principle to the basic design proposed in the draft Final Report. Some minor modifications agreed by both parties in the course of the discussion will be incorporated in the Final Report.
3. The Government of the Philippines has acknowledged Japan's Grant Aid system and arranged its undertaking the necessary organization and staffing, budgetary provision for land acquisition and project implementation, and maintenance of the proposed project facilities.
4. The executing agency, the Provincial Government of Samar, will be responsible for ensuring that the concerned implementing agencies secure the right-of-way of canals, roads and related structures before starting the construction works.
5. Ten (10) copies of the Final Report will be submitted to the Government of the Philippines by the end of July 1990.

*Confidential*



ANNEX I. UNDERTAKING BY THE GOVERNMENT OF THE PHILIPPINES

1. To provide the land for the right-of-way of canals, roads and related structures and assure compensation for the construction of structures and facilities before commencement of the construction;
2. To ensure prompt unloading and customs clearance at the port of disembarkation in the Philippines for the equipment and materials to be imported for the project implementation;
3. To exempt Japanese nationals engaged in the Project from custom duties, internal taxes and other fiscal levies which may be imposed in the Philippines with respect to the supply of materials and services under the verified contracts;
4. To assume the Value Added Tax (VAT) which is imposed on the purchase of Philippine supplies and materials for the Project;
5. To provide and accord necessary permission, licences and other authorization required for the execution of the Project;
6. To provide available data and information to the Japanese consultant and the contractor necessary for the detailed engineering services;
7. To provide lands necessary for construction works such as temporary office, working area, stock yard and others;
8. To maintain and use properly and effectively the facilities constructed under the Project;
9. To execute the construction of on-farm facilities and necessary minor works; and
10. To shoulder commission fees to the Japanese foreign exchange bank for banking services based on the banking arrangements as follows;
  - Advising commission of authorization to pay
  - Payment commission

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## 5. 当該国データ

表A5-1 主な統計指標の要約

Statistical Series	Latest Data		Compared to		Percent Change
	Reference period	Value	Reference period	Value	
1. Populations (1,000 persons)	May 1,1980	48,098	May 1,1975	42,071	14.3
2. Average family incomes (pesos)	1985		1971		
Philippines		31,052		3,726	733.4
Urban		46,127		5,867	686.2
Rural		21,875		2,818	676.3
3. Consumer price index for all items (1978 = 100)	June 1989	439.4	June 1988	400.6	9.7
4. Gross national product (million pesos)	1988		1987		
At current		823,767		703,361	17.1
At 1972 prices		101,186		64,797	6.7
5. Gross domestic product (million pesos)	1988		1987		
At 1972 Prices		101,534		95,463	6.4
6. Per capita national income (pesos)	1988		1987		
At current prices		11,545		9,685	19.2
At 1972 prices		1,419		1,316	7.8
7. Classified land area (1,000 hectares)	1988		1987		
Alienable and disposable		14,117,753		14,108,087	0.1
Forest land		15,001,090		15,010,616	(0.1)
8. Productions of agricultural crop (1,000 m.t.)	Crops year		Crops year		
Food grains	1988	43,843	1987	43,905	(0.1)
Palay		13,399		12,818	4.5
Corn		8,971		8,539	5.1
Other foot crops		4,428		4,278	3.5
Non-foot Crops		30,900		30,644	0.8
Non-foot Crops		449		444	1.1
9. Directions of external trade (million US dollars)	1988		1987		
Exports		7,074.2		5,720.2	23.7
Imports		8,159.4		6,740.0	21.1
Balance of trade		(1,085.2)		(1,019.8)	6.4
10. Total labor force (1,000 persons)	1988		1987		
Employment		23,451		22,984	2.0
Unemployment		21,497		20,812	3.3
Unemployment		1,954		2,173	(10.1)
11. Labor force participation rate (percent)	1988		1987		
Philippines		65.4		66.0	(0.9)

Data Source : 1989 Philippine Statistical Yearbook (NSCB)

表A5-2 全世帯数並びに全額及び平均世帯所得 (全国及びサマール州)、1985年

Income Class and Area	Total No. of Families	Income		Total r No. of Families	Income	
		Total (in Pesos 1,000)	Average (in Peso)		Total (in Pesos 1,000)	Average (in Peso)
		National		Urban		
Under Pesos 6,000	9,847,339	305,775,274	31,052	3,726,049	171,869,677	46,127
6,000 - 9,999	357,849	1,695,850	4,523	44,989	195,684	4,349
10,000 - 14,999	1,116,780	9,202,175	8,240	167,556	1,380,440	8,239
15,000 - 19,999	1,778,039	22,207,257	12,490	368,988	4,678,960	12,681
20,000 - 29,999	1,539,840	26,769,814	17,385	443,629	7,786,993	17,553
30,000 - 39,999	1,936,341	47,378,441	24,465	757,310	18,737,649	24,742
40,000 - 59,999	1,085,634	37,402,390	34,452	553,342	19,202,853	34,703
60,000 - 99,999	1,043,520	50,498,966	48,393	646,567	31,447,237	48,637
100,000 and Over	625,740	47,225,272	75,471	457,327	34,814,518	76,126
	345,598	63,396,111	183,439	286,341	53,625,363	187,278
		Rural		Samar Province		
Under Pesos 6,000	6,121,290	133,905,597	21,875	101,157	1,846,538	18,254
6,000 - 9,999	330,860	1,504,186	4,546	-	-	-
10,000 - 14,999	949,225	7,821,735	8,240	33,300	237,638	7,136
15,000 - 19,999	1,409,051	17,528,298	12,440	28,913	355,631	12,438
20,000 - 29,999	1,096,211	18,982,821	17,317	12,046	201,993	16,851
30,000 - 39,999	1,179,031	28,635,792	24,288	14,368	351,961	24,496
40,000 - 59,999	532,292	18,199,536	34,191	5,338	186,617	34,961
60,000 - 99,999	396,952	19,051,728	47,995	4,177	194,467	46,560
100,000 and Over	168,413	12,410,754	73,692	3,016	313,232	103,870
	59,256	9,770,747	164,889			

表A5-3 全世帯数並びに全額及び平均世帯支出(全国及びサマール州)、1985年

Expenditure by Income Class	Expenditure			Expenditure			
	Total No. of Families	Total (in Pesos 1,000)	Average (in Peso)	Total No. of Families	Total (in Pesos 1,000)	Average (in Peso)	
							Urban
		National			Urban		
Under Pesos 6,000	9,847,339	264,551,855	26,865	3,726,049	145,815,208	39,134	
6,000 - 9,999	375,849	2,079,228	5,532	44,989	288,623	6,415	
10,000 - 14,999	1,116,780	9,940,445	8,901	167,556	1,577,600	5,296	
15,000 - 19,999	1,778,039	22,240,849	12,509	368,988	4,921,564	13,338	
20,000 - 29,999	1,539,840	25,841,737	16,782	443,629	7,907,224	17,824	
30,000 - 39,999	1,936,341	44,544,140	23,004	757,310	18,359,192	24,243	
40,000 - 59,999	1,085,634	33,584,417	30,935	553,342	17,572,202	31,756	
60,000 - 99,999	1,043,520	43,784,284	41,558	646,567	27,996,901	43,301	
100,000 and Over	625,740	39,067,076	62,433	457,327	29,599,596	64,723	
	345,598	43,469,480	125,781	286,341	37,612,306	131,355	
		Rural			Samar Province		
Under Pesos 6,000	6,121,290	118,736,647	19,397	101,157	1,612,144	15,937	
6,000 - 9,999	330,860	1,790,605	5,412	-	-	-	
10,000 - 14,999	949,225	8,382,844	8,831	33,300	273,639	8,217	
15,000 - 19,999	1,409,051	17,319,285	12,291	28,913	364,512	12,407	
20,000 - 29,999	1,096,211	17,934,513	16,360	12,046	195,500	16,229	
30,000 - 39,999	1,179,031	26,184,948	22,209	14,368	290,945	20,249	
40,000 - 59,999	532,292	16,012,214	30,082	5,338	131,111	24,563	
60,000 - 99,999	396,952	15,787,583	39,772	4,177	153,902	36,848	
100,000 and Over	168,413	9,467,480	56,216	3,016	202,535	67,162	
	59,256	5,857,174	98,845				

(Source : M/P report, 1988)

表 A5-4 第8管区、主要経済分野の国内総生産

(Unit : Million Pesos)

	GRDP		Projection	
	1983 (%)	1985 (%)	1987 (%)	1992 (%)
Agriculture	1,123 (50.1)	1,231 (55.8)	1,298 (55.7)	1,761 (55.1)
Industry	322 (14.4)	222 (10.1)	233 (10.0)	340 (10.7)
Service	797 (35.5)	752 (34.1)	800 (34.3)	1,094 (34.2)
<u>Total GRDP</u>	<u>2,242 (100)</u>	<u>2,205 (100)</u>	<u>2,331 (100)</u>	<u>3,195 (100)</u>

Source : NEDA Regional Development Plan page 53.

表 A5-5 サマール島、分野別国内総生産(1985-87)

(In Millon Pesos, 1977 Prices)

	1975	%	1987	%	Referecnce : Projection	
					1992	2000
Agriculture	901	62.7	1,688	52.6	2,193	3,332
Industry	254	17.7	854	26.6	1,416	3,178
Mining	31		106		178	405
Manufacturing	127		406		706	1,582
Electricity	2		7		12	27
Construciton	94		315		520	1,164
Services	283	19.6	665	20.8	949	1,676
Transportation	160		376		537	949
Services	8		18		26	45
Services	115		270		386	682
<u>Total</u>	<u>1,438</u>	<u>100</u>	<u>3,207</u>	<u>100</u>	<u>4,558</u>	<u>8,186</u>

Source : NEDA

表 A5-6 サマール島、国内総生産に対する主産業別年成長率及び貢献率

	1980-87		1987-92		1992-2000	
	G	C	G	C	G	C
	%	%	%	%	%	%
Agriculture (Primary)	5.3	52.6	6.0	48.6	6.5	42.2
Industry (Secondary)	10.6	26.6	11.0	30.9	11.5	38.8
Service (Tertiary)	7.4	20.7	7.4	20.4	7.4	19.0
<u>Total</u>	<u>7.2</u>		<u>7.7</u>		<u>8.3</u>	
		<u>100</u>		<u>100</u>		<u>100</u>

Source : Comprehensive Development Plan by IBRD. Vol I.

表 A5-7 西サマール気象データ要約

Data	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Monthly Rainfall <sup>1/</sup>													
Mean (mm)	234.4	147.0	130.1	109.9	168.2	203.5	246.3	218.3	262.8	306.8	315.8	304.0	2,636.3
Max. (mm)	643.9	339.2	389.8	361.8	591.4	401.2	549.6	618.3	549.3	900.2	632.7	705.8	
Min. (mm)	8.7	5.6	2.8	8.6	1.0	82.3	69.0	25.1	93.4	62.2	140.7	64.4	
Daily Rainfall <sup>1/</sup>													
Max. (mm)	142.2	122.4	303.2	190.8	384.3	165.9	146.4	223.5	227.6	261.9	299.2	387.9	
Number of Rainy Days <sup>2/</sup>	17	16	14	14	15	17	18	17	18	21	22	22	211
Temperature <sup>3/</sup>													
Mean (°C)	25.8	26.3	27.3	28.3	28.9	28.5	28.1	28.6	28.1	27.7	27.1	26.4	27.6
Max. (°C)	29.9	30.8	32.1	33.2	33.6	32.9	32.2	32.6	32.3	32.0	31.3	30.4	31.9
Min. (°C)	21.7	21.7	22.5	23.4	24.2	24.1	23.9	24.7	23.8	23.4	23.0	22.4	23.2
Relative Humidity <sup>3/</sup>													
(%)	82.6	80.8	77.8	75.5	76.8	79.5	79.1	78.0	81.2	82.8	83.7	83.8	80.2
Cloudiness <sup>3/</sup>													
(Okta)	6.8	6.2	5.1	4.9	5.5	6.5	6.6	6.9	6.7	6.6	6.5	6.7	6.3
Prevailing Wind <sup>3/</sup>													
Direction	NE	NE	NE	NE	VAR	SW	SW	SW	SW	VAR	NE	NE	NE
Velocity(m/s)	0.75	0.75	0.91	0.91	0.83	0.75	0.75	1.07	0.79	0.75	0.71	0.67	0.80
Open Pan Evaporation <sup>4/</sup>													
(mm/day)	3.4	3.9	4.7	5.0	4.7	4.1	4.3	4.5	3.9	3.5	3.0	3.0	1,460
Number of Tropical <sup>5/</sup>													
Cyclones	5	3	5	5	11	12	17	6	12	20	29	22	

Period of Record and Source

- <sup>1/</sup> 1951-1986 (at Catbalogan, PAGASA)
- <sup>2/</sup> 1951-1980 ( -do - , National Institute of Climatology PAGASA Published Sept., 1985)
- <sup>3/</sup> 1974-1986 (at Catbalogan, PAGASA)
- <sup>4/</sup> 1975-1985 (at Catarman, PAGASA)
- <sup>5/</sup> 1948-1985 (PAGASA)

表 A 5-8 計画地域内現況土地利用

<u>Land Category</u>	<u>Area</u> (ha)	<u>Remarks</u>
1. Paddy Field	1,000	
- Irrigated	270	Non-functional
- Rainfed	730	
2. Corn Land	540	
3. Coconut Land	800	
4. Abaca Land	40	
Sub - Total	2,380	
5. Grass Land, etc.	6,620	
<u>Total</u>	<u>9,000</u>	

Source : JICA / SIRDP Study Team

表 A 5-9 計画地域内現況主要作物生産高

<u>Crop</u>	<u>Intensity</u> (%)	<u>Planted Area</u> (ha)	<u>Yield</u> (ton/ha)	<u>Production</u> (ton)
1. Irrigated Paddy (270 ha)	(120)	320		512
- Paddy (Wet)	80	210	1.6	336
- Paddy (Dry)	40	110	1.6	176
2. Rainfed Paddy (730 ha)	(120)	870		1,392
- Paddy (Wet)	80	580	1.6	928
- Paddy (Dry)	40	290	1.6	464
3. Upland Field (540 ha)	(180)	970		
- Corn (wet)	80	430	1.0	430
- Corn (Dry)	70	380	1.0	380
- Peanuts, etc.	30	160	0.8	128
4. Coconut Land (800 ha)				
- Coconut	100	800	0.4	220
5. Abaca Land (40 ha)				
- Abaca	100	40	0.4	16

Note: (1) The same cropping intensity and yield to these for the rainfed paddy are applied to estimate paddy production in the irrigated paddy because the irrigation facilities are not functional.

(2) The coconut production are estimated on the basis on the assumed.

表 A5-10 現況給水状況(1984)

No.	Barangay	Population	Household	Level I Service Well			Functioning Service Well		
				Total No.	Water Quality	Water Qualities	Service to Population	Population	Well
					Not Functioning	Not Functioning			
SUN JORGE									
1	Tomogbong	205	60	-	-	-	-	-	
2	Blanca Aurora	379	79	2	-	1	341	85	1
3	Himay	178	38	-	-	-	-	-	-
4	Buena Vista	412	77	3	-	2	370	86	1
5	Bulao	534	99	2	1	-	480	86	1
6	Lapaz								
7	Manbon	503	98	2	2	-	452	-	-
8	Spanit-Anguana	573	109	4	3	-	515	82	1
9	San Jorge-Mancol	1,275	221	5	3	-	1,138	182	2
10	Erenas								
11	San Juan	642	128	2	2	-	502	-	-
	Sub - Total	4,691	909	20	11	3	3,798	521	6
12	Sinbaran	143	27	-	-	-	-	-	-
13	Cantaguic-Ranera								
14	Rawis	323	64	-	-	-	-	-	-
15	San Isidro	222	47	-	-	-	-	-	-
16	Puhagan	384	62	-	-	-	-	-	-
17	Rosalim	312	59	2	2	-	280	-	-
18	Aurora-Mabuhay	428	79	2	1	-	380	95	1
19	Canyaki	119	31	2	1	-	107	43	1
20	Quezon	291	57	2	2	-	261	-	-
	Middle Total	6,913	1,335	28	17	3	4,826	659	8
21	Cagto-og	174	34	-	-	-	-	-	-
22	Libertad	110	26	2	1	-	100	-	-
23	Calondon	38	11	-	-	-	-	-	-
24	Mabo-ob	101	24	-	-	-	-	-	-
25	Gayondato	255	50	-	-	-	-	-	-
26	Guadalupe	148	30	-	-	-	-	-	-
27	Hernandez	135	30	-	-	-	-	-	-
28	Tanipon	438	81	-	-	-	-	-	-
29	Lincora	144	26	-	-	-	-	-	-
30	Matalud	632	116	2	-	-	545	218	1
31	Ranera	298	56	1	-	-	266	106	1
32	Bungliw	275	50	-	-	-	-	-	-
	Sub - Total	2,748	534	5	1	-	911	374	3
	Grand Total	9,661	1,869	33	18	3	5,737	1,033	11



表 A 5-11 西サマール農業開発推進事業 (ADPP) のコンポーネント

マスタープラン 調査結果によれば農村総合開発計画の実施に先立ち、ADPPは農業開発、農業基盤施設開発、ホストハーベストと流通サービス支援開発、農民組織開発、農業開発促進センターの設立から成る。以下にコンポーネントを示す。

- 1) Agricultural development
  - a) Rice-Based Farming Development
    - Irrigated rice-based farming : 2 places 25 ha each
    - Rainfed rice-based farming : 2 places 10 ha each
  - b) Corn-Based farming Development : 2 places 10 ha each
  - c) Coco-Based Farming Development : 2 places 15 ha each
  - d) Abaca Development : 2 places 15 ha each
  - e) Hillside Farming / Agroforestry Development : 2 places 10 ha each
  - f) Livestock Development :
    - Grandara Animal Breeding Center : existing
    - Animal Diagnostic and Treatment center : 1 place
    - Carabao Dispersal : 2 Brgys 11 heads each
    - Swine and Goat Dispersal : 2 Brgys 25 heads each
    - Poultry Dispersal : 2 Brgys 50 heads each
  - g) Nursery Development
    - Gandara Seed Farm : existing
    - Nursery Station : 2 places
    - Crop Protection Observation Stand : 4 places
  - h) Freshwater Fishculture Development
    - Freshwater Fish Hatchery Station : 1 place
    - Backyard and Rice - fishculture : 2 Brgys
- 2) Agricultural facilities development
  - a) Irrigation Development
    - Gravity Irrigation Areas : 4 CISs, total 205 ha
    - Pump Irrigation Area : 2 PIPs, total 250 ha
  - b) Drainage Development
    - Drainage with Irrigation : 3 areas, total 195 ha
    - Drainage of On-farm : 7 areas, total 115 ha

- c) Rural Road Development
  - Improvement / Upgrading Road : 12 km
  - Rural Road ; 27 km with 5 bridges
  - Trunk Farm Road : 6 km with 1 bridge
- d) Rural Water Supply Development
  - San Jorge / Gandara Water Supply System : Service population 11,259 Daily  
max. demand 1,043 m<sup>3</sup>  
Transportation pipeline 20km
- e) Rural Electrification
  - Energize : 15 Brgys, 830 households  
Distribution line 30.3 km  
Secondary line 10.5 km
- f) Rural Health Development
  - Solar Powered Cold Chain : 4 places
- g) Development of Farmhouse
  - Model Farmhouse : 2 houses
- 3) Development of post harvest and marketing service assistance
  - a) Post Harvest
    - Pedal / Small Scaled Power Threshers and Power Corn shellers
    - Multi-Purpose Dry-pavement and Mechanical Dryer
    - Small Scaled Rice Mill
    - Coconut Dryer, Charcoal Kiln and Chain / Disc Saw
  - b) Marketing Services Assistance
    - Marketing research Assistance
    - Tracks
    - Meat Cold Storage
- 4) Development of farmers' organization
  - Beneficiary Farmer's Organization for O & M
  - Cooperative Managerial Organization for Demonstration Farms and Agricultural-related Programs.
- 5) Agricultural Development and Promotion Center (ADPC)
  - Office for managing all Activities of Center (ADPC)
  - Workshop and Garage of Activities of ADPP
  - Laboratory for Soil Analysis and Inoculation and Seed Analysis
  - Training and Extension
  - Rural Health Unit
  - Agricultural Meteorological Station
  - Others

表 A 5-12 地域内、計画作付率及び単収

Land/Crop	1987 (Present)		1992 (Short)		2007 (Long)		Remarks
	Intensity (%)	Yield (ton/ha)	Intensity (%)	Yield (ton/ha)	Intensity (%)	Yield (ton/ha)	
1. Rainfed Lowland	(1,000ha)		(545 ha)		(455 ha)		
- Paddy (Wet)	80	1.6	80	1.8	80	2.0	
- Paddy (Dry)	40	1.6	40	1.8	40	2.0	
- Legumes (Mungbean)			10	0.6	10	0.8	
2. Irrigated Lowland			(455 ha)		(455 ha)		
- Paddy (Wet)	0a/	-	100	3.5	100	4.0	a/ Excluding about 270 ha of the total irrigation service area due to the non-functional facilities
- Paddy (Dry)	0a/	-	60	3.5	60	4.0	
- Vegetables (Stringbean)		5.0	20	7.0	20	10.0	
3. Corn Land	(540h)		(640ha)b/		(640ha)b/		
- Corn (Wet)	80	1.0	100	1.5	100	2.5	b/ It is assumed that about 100 ha of corn land will be developed through development of road networks.
- Corn (Dry)	70	1.0	60	1.5	60	2.5	
- Legumes	30	0.8	40	0.9	40	1.2	
4. Coconut Land	(800ha)		(900ha)		(1,000ha)c/		
- Coconut	100	0.4	100	0.8	100	1.5	c/ It is assumed that about 200 ha of coconut land will be developed through development of road networks.
- Corn/Upland Rice	0		10	1.5	10	2.0	
- Legumes (Peanut)	0		10	0.9	10	1.2	
- Root Crops (Sweet Potato)	0		10	5.0	10	8.0	
- Perennial Crops (Black Pepper)	0		10	0.3	10	0.5	
5. Abaca Land	(400ha)		(40ha)		(200ha)		
- Abaca	100	0.40	100	0.6 d/	100	0.8	d/ Replanting into HYV
6. Hillside Farming (Agro-Forestry)			(30ha)		(300ha)		
- Corn/Upland Rice			10	1.5	10	2.0	
- Root Crops (Cassava)			20	7.0	20	12.0	
- Fruit Trees (Pili)			10	-	10	1.5	
- Fast Growing Trees			60	-	60	-	

表 A 5-13 地域内、計画作物生産高

Crop	Planted		
	Intensity (%)	Area (ha)	Yield (ton/ha)
1. Irrigated Paddy (455ha)			
- Paddy (Wet)	180	819	3,186
- Paddy (Dry)	100	455	1,593
- Vegetables, etc.(Stringbean)	60	273	956
	20	91	687
2. Rainfed Paddy (545ha)			
- Paddy (Wet)	130	709	1,031
- Paddy (Dry)	80	436	654
- Legumes (Mungbean)	40	218	327
	10	55	50
3. Corn Land			
- Corn (Wet)	200	1,280	1,766
- Corn (Dry)	100	640	960
- Legumes	60	384	576
	40	256	230
4. Coconut Land (900ha)			
- Coconut	104	1,260	1,053
- Corn/Upland Rice	100	900	360
- Legumes (Peanut)	10	90	135
- Root Crops (Sweet Potato)	10	90	81
- Perennial Crops (Black Pepper)	10	90	450
			27
5. Abaca Land (40ha)			
	100	40	24
6. Hillside Farming/ Agroforestry (20ha)			
- Corn/Upland Rice	100	20	31
- Root Crops (Cassava)	10	2	3
- Fruit Trees (Pili)	20	4	28
- Fast Growing Trees	10	2	-
	60	12	-
<u>Total</u>		<u>3,098</u>	<u>6,468</u>

表 A5-14 NIA所有の維持管理用機械のリスト

Name of Equipment	Type/Model	Age	Condition	Remarks
1. Excavator	Mitsubishi m9-100	10Yrs.	A-1	Arm Cylinder Kit Damage
2. Generator	Kubota	7 Yrs.	A-1	
3. Backhoe Loader	Ford 550	14Yrs.	A-1	
4. Centrifugal Pump	Robin 2" in dia	7Yrs.	A-1	
5. Centrifugal Pump	Robin 3" in dia	15Yrs.	A-1	
6. Centrifugal Pump	Robin 3" in dia	5Yrs.	A-1	
7. Centrifugal Pump	Robin 3" in dia	5Yrs.	A-1	
8. Centrifugal Pump	Takasago Yanmar 4" dia	10Yrs.	A-1	
9. Centrifugal Pump	Takasago Yanmar 4" dia	10Yrs.	A-1	
10. Centrifugal Pump	Robin 2" in dia	5Yrs.	A-1	
11. Concrete Mixer	Javahar	12Yrs.	A-1	
12. Dozer D-31A-17	Komatsu	10Yrs.	A-1	
13. Dozer D-41A-9	Komatsu	10Yrs.	A-1	
14. Farm Tractor Ind	Ford 6600	15Yrs.	A-1	
15. Dump Truck	Aeolus	8Yrs.	A-1	
16. Dump Truck	Aeolus	4Yrs.	A-1	
17. Conc. Vibrator		12Yrs.	A-1	
18. Jeep	Mitsubishi	8Yrs.	A-1	
19. Pick-Up	Mitsubishi	6Yrs.	A-2	For engine tune-up
20. Pick-Up	Mitsubishi	6Yrs.	A-2	Rocker Area Damage
21. Rockdrill Breaker	Pionjar	12Yrs.	A2	Subject for Repair
22. Rockdrill Breaker	Pionfar	12Yrs.	A-2	-do-
23. Motorcycle	Suzuki	10Yrs.	A-2	-do-
24. Motorcycle	Suzuki	10Yrs.	A-2	-do-
25. Motorcycle	Yamaha	14Yrs.	A-2	-do-
26. Welding Machine	Miller	14Yrs.	A-1	
27. Generator	AC-Yanmar	18Yrs.	A-1	
28. Pick-Up Truck	Romar	7Yrs.	A-1	

表 A5-15 DPWH 所有の機械リスト

(OFFICE OF THE AREA EQUIPMENT ENGINEER, CATBALOGAN, SAMAR)

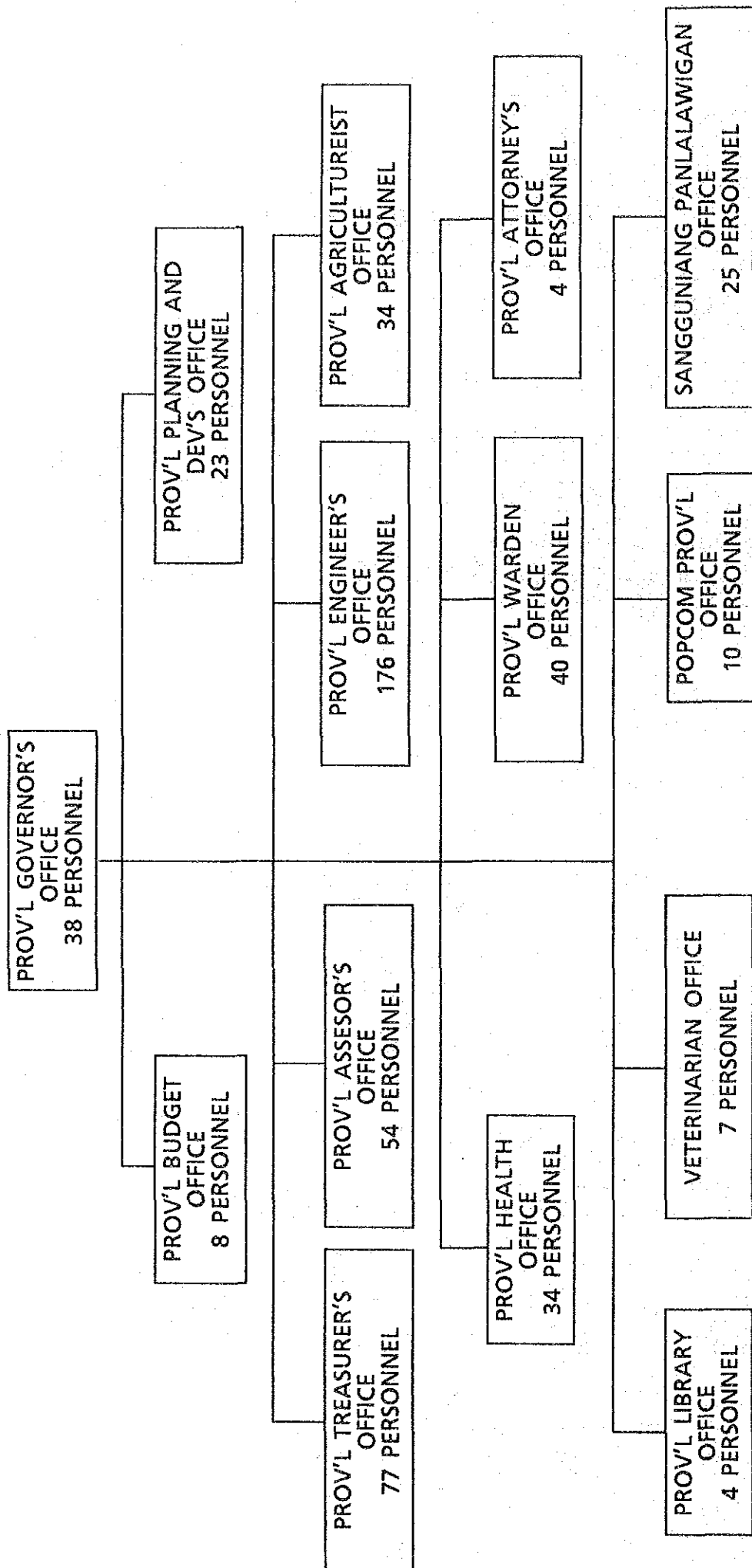
Name of Equipment	Type/Model	Age	Unit
1. Dump Truck	Isuzu, TD-50 175HP	15Yrs.	5
2. Road Maintainer, multipurpose	Sakai, FA102	7 Yrs.	2
3. Bulldozer	Komatsu, D80-8 160HP	22Yrs.	2
4. Roader	Michigan 75-III 105HP	24Yrs.	1
5. Roader	Clark 50B	7Yrs.	1
6. Ronder Grader	Komatsu GD-37-5H 118HP	21Yrs.	2
7. Road Grader	Mitsubishi LG-2H 125HP	7Yrs.	3
8. Maintenance Shop Truck	Anzen AU-208	21Yrs.	1
9. Hydraulic Excavafor	Mitsubishi MS-062	12Yrs.	1
10. Road Roller	Sakai SH-1508, 10ton, 34 HP Steel Roller	21Yrs.	1
11. Road Roller	Sakai PTS-80, 80ton Pneumatic Roller	21Yrs.	1

図 A5-1 サマール島、現況道路図



Note: This road network is only described main road such as national road, provincial road and main feeder road.

図 A5-2 現行サマール州地方政府組織図 (As of Mar., 1990)





図A5-3 ラパス橋地質調査結果

Left-Side Bank

Right-Side Bank

