

4. Minutes of Discussions

(1) Basic Design Study

**MINUTES OF DISCUSSIONS
ON THE BASIC DESIGN STUDY
ON THE PROJECT FOR REHABILITATIONS OF THE FLOOD CONTROL
OPERATION AND WARNING SYSTEM IN METRO MANILA
IN THE REPUBLIC OF THE PHILIPPINES**

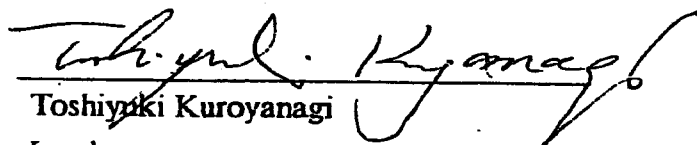
In response to a request from the Government of Republic of the Philippines (hereinafter referred to as "the Philippines"), the Government of Japan decided to conduct a Basic Design Study on the Project for Rehabilitation of the Flood Control Operation and Warning System in Metro Manila in the Republic of the Philippines (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").


JICA sent to the Philippines the Basic Design Study Team (hereinafter referred to as "the Team"), which is headed by Mr. Toshiyuki Kuroyanagi, Deputy Resident Representative, JICA Philippine Office and is scheduled to stay in the country from September 2 to September 11.


The team held discussions with the officials concerned of the Government of the Philippines and conducted a field survey at the study area.


In the course of discussions and field survey, both parties have confirmed the main items described on the attached sheets. The Team will proceed to further works and prepare the Basic Design Study Report.

Manila, September 10, 1999


Toshiyuki Kuroyanagi
Leader
Basic Design Study Team
Japan International Cooperation Agency


Teodoro T. Encarnacion
Undersecretary
Department of Public Works and Highways

Witness 
Jesus P. Cammayo
Assistant Secretary
DPWH

Witness 
Nonito Fano
Director, PMO-MFCP
DPWH

ATTACHMENT

1. Objective

The overall objective of the Project (hereinafter referred to as "Project Objective"), which shall be achieved by undertakings of both sides, is to mitigate the damage of floods in Metro Manila by effective flood control operation and warning.

The objective of the Grant Aid (hereinafter referred to as "Grant Aid Objective") is to rehabilitate and to upgrade the existing flood control operation and warning system in the Pasig-Marikina River Basin.

2. Study Area of the Project

The Study Area of the Project is referred to Annex-1.

3. Responsible and Implementing Agencies

(1) Responsible Agency of the Project

Department of Public Works and Highways (hereinafter referred to as "DPWH", Annex-2)

(2) Implementing Agency of the Project

DPWH-Project Management Office-Major Flood Control Projects

4. Items requested by the Government of the Philippines

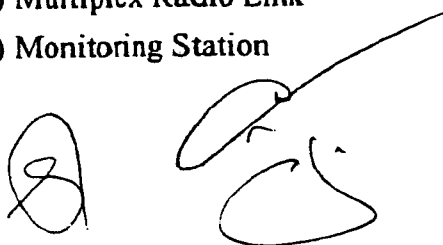
After discussions on the Project Objective and the Grant Aid Objective, DPWH finally requested the Japanese Side for the procurement/installation of equipment and provision of services for the above items for the below items in the Pasig-Marikina River Basin (further description listed in Annex-3.1);

(1) Data Processing System for the Rosario Master Control Station

(2) Telemetry Observation System

(3) Multiplex Radio Link

(4) Monitoring Station

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(5) Operation and Maintenance Equipment

DPWH also requested for procurement of equipment for emergency management radio communication system (further description listed in Annex-3.2). The Team explained to DPWH that further information is necessary for the new request to be considered as an official request. DPWH shall prepare more information and submit to the Study Team before the end of September.

The Team will assess the appropriateness of the above requests by further studies and will recommend to the Government of Japan for approval.

5. Japan's Grant Aid system

(1) The Philippine Side understands the Japan's Grant Aid scheme and procedures explained by the Team as shown in Annex-4 and Annex-5.

(2) The Philippine Side will take the necessary measures, described in Annex-6, for smooth implementation of the Project, as a condition for the Japanese Grant Aid to be implemented.

6. Schedule of the study

(1) The consultants will proceed to further studies in the Philippines until October 16, 1999.


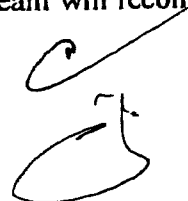

(2) Based on the results of the studies, JICA will prepare the draft final report in English and dispatch a mission in order to explain its contents around January 2000.

(3) In case that contents of the report is accepted in principle by the Government of the Philippines, JICA will complete the final report and send it to the Government of the Philippines by the end of February 2000.

7. Other Relevant Issues

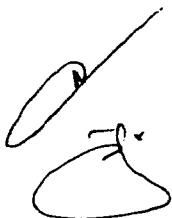
The Philippine Side and the Team have confirmed the following issues.

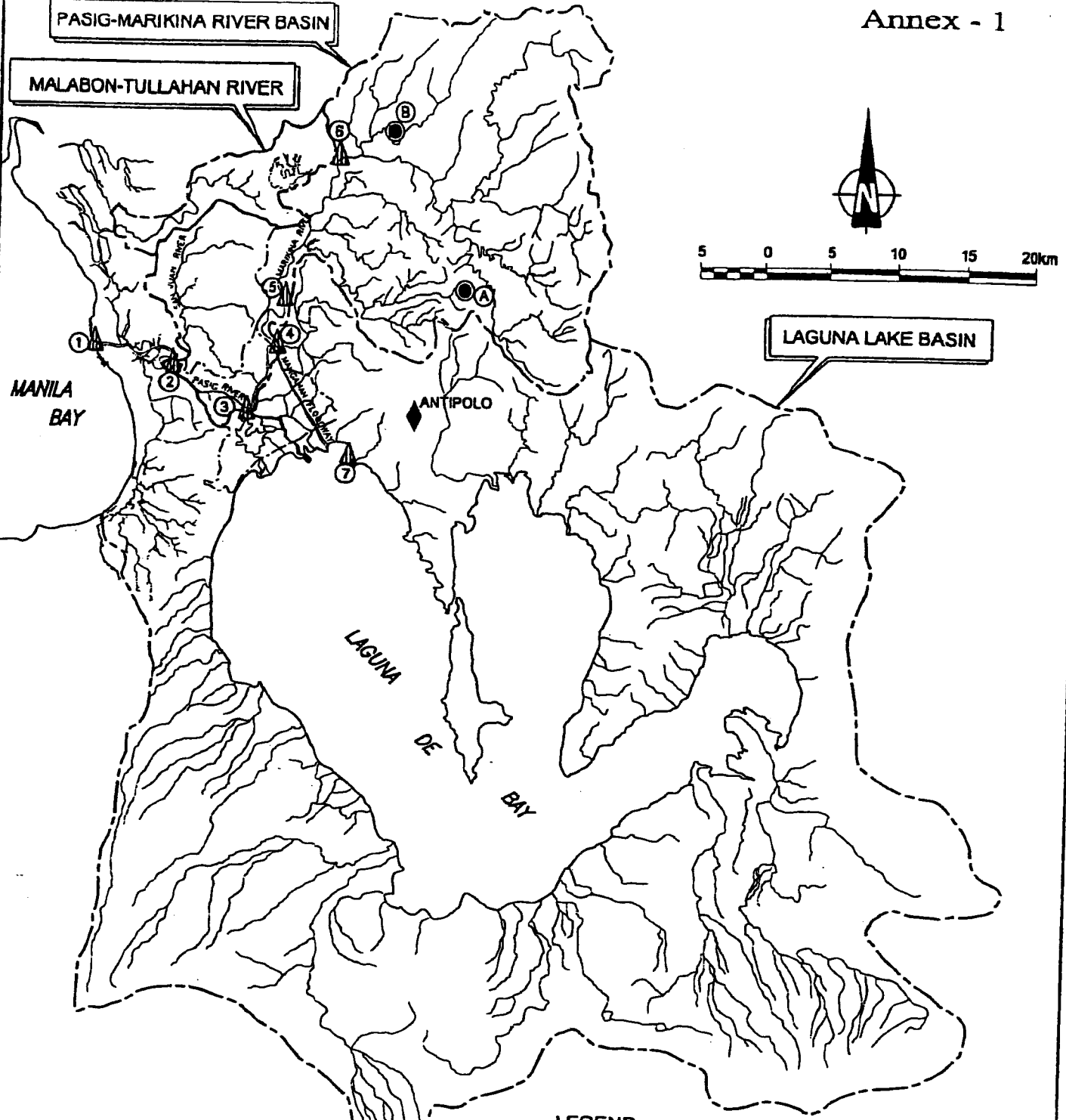
(1) The Team will recommend to the Philippine Side future plans of the Study Area according

to the Project Objective.

- (2) DPWH and other relevant agencies will allocate necessary budget and take necessary measures in order to exempt Japanese Nationals from taxes (customs duties, internal tax, etc.) in the Philippines regarding this Project.
- (3) If approval from Investment Coordination Committee (hereinafter referred to as "ICC") of the National Economic and Development Authority (NEDA) is found to be necessary by further studies, DPWH and other relevant agencies will take all necessary measures to acquire the approval of ICC in time.
- (4) DPWH shall allocate necessary budget and take necessary measures to acquire, secure and prepare necessary land for the sites of the Grant Aid in time.
- (5) DPWH will arrange for the availability of appropriate frequencies as soon as possible for upgrading the existing telemetry system.





LEGEND:

- EXISTING RAINFALL GAUGING STATION
- ▲ EXISTING WATER LEVEL GAUGING STATION
- ◆ EXISTING RELAY STATION

WATER LEVEL

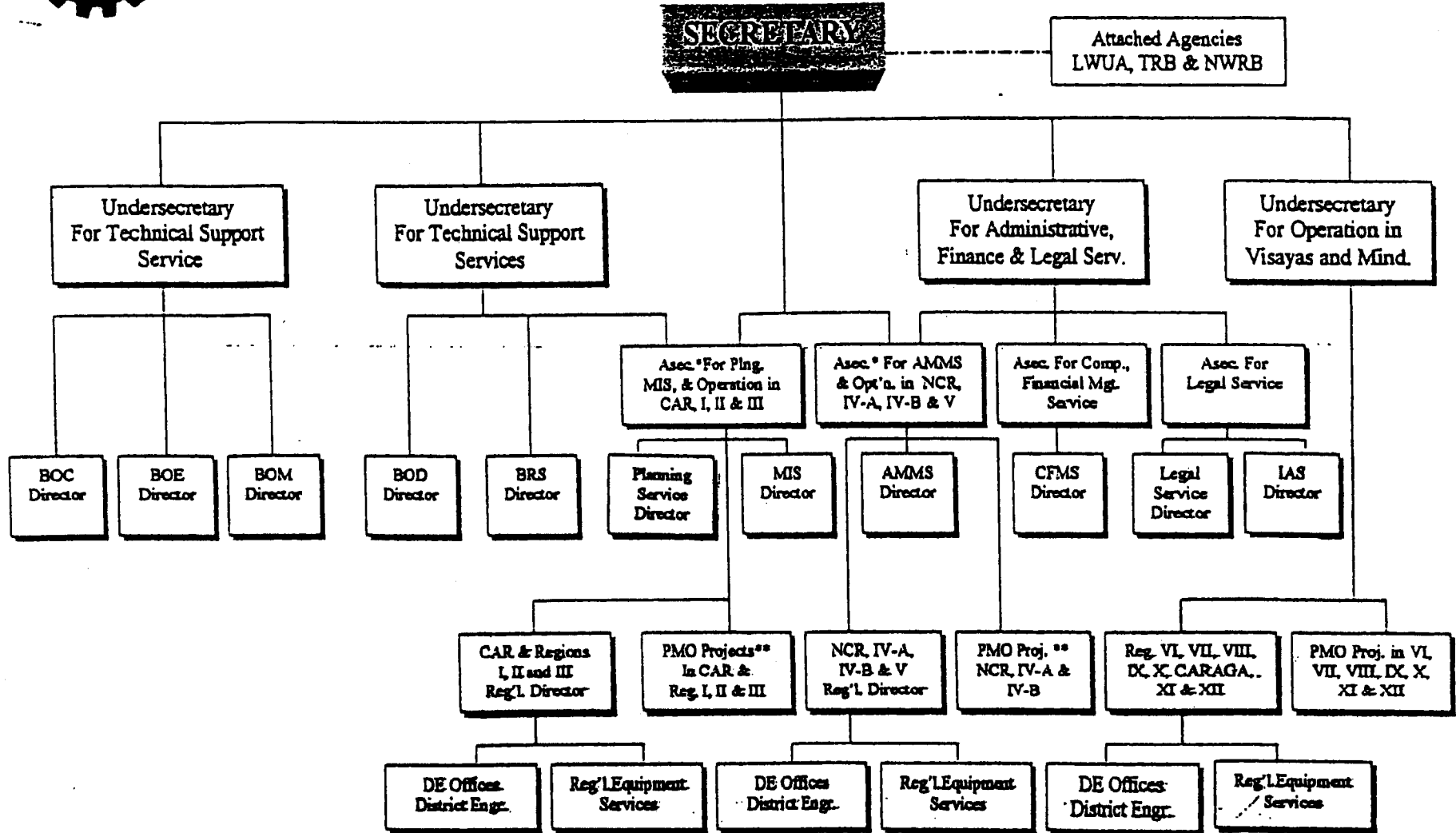
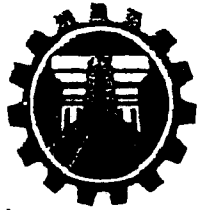
- ① Fort Santiago
- ② Pandacan
- ③ Napindan HCS
- ④ Rosario Weir
- ⑤ Sto. Niño
- ⑥ Montalban
- ⑦ Angono

RAINFALL

- Ⓐ Boso-Boso
- Ⓑ Mt. Oro

THE STUDY AREA

Department of Public Works and Highways ORGANIZATIONAL CHART***



* Reports to the concerned Undersecretary for matters on Services under them and directly to the Secretary for matters concerning regional operations.
 ** PMO Heads report to the Undersecretary and two Assistant Secretaries for operations depending on the specific geographic jurisdiction of their projects.
 *** DO # 86 dated April 26, 1999

PROJECT DESCRIPTION REQUESTED BY THE GOVERNMENT OF THE PHILIPPINES

DESCRIPTION

- (a) *Data Processing System for the Rosario Master Control Station*
- Installation of Interface, Upgrading of the Computer System
 - Programming for the On-line Data Processing
 - Programming for the Flood Prediction
- (b) *Rehabilitation of Telemetry Observation System
Pasig-Marikina River Basin*
- Additional Rainfall Stations (5 stations)
 - Additional Water Level Stations (2 stations)
- (c) *Rehabilitation of Multiplex Radio Link
Rosario MCS - Napindan HCS - Central Office (DPWH) - NCR (DPWH) - DIC (PAGASA)
(7.5 GHz Band Radio)*
- (d) *Rehabilitation of Monitoring Station*
- (d-1) *Rosario MCS*
 - (d-2) *Napindan HCS*
 - (d-3) *Central Office (DPWH)*
 - (d-4) *NCR (DPWH);
including radio communication equipment for 15 pumping stations*
 - (d-5) *DIC (PAGASA)*
- (e) *Supply of Operation and Maintenance Equipment*
- Spare Parts for Telecommunication System
 - Measuring Equipment for Telecommunication System
 - Discharge Observation Equipment
 - Pick-up Type Truck (2 trucks)
 - Patrol Car (2 cars)
 - Boat (1 hovercraft)
- (f) *Services for Testing and Technology Transfer through the training for operation and maintenance of the above items.*
- (g) *Services to study and recommend an appropriate organization system for operation and maintenance of the above items.*

Note:

MCS: Master Control Station

HCS: Hydraulic Control Structure

NCR: National Capital Region

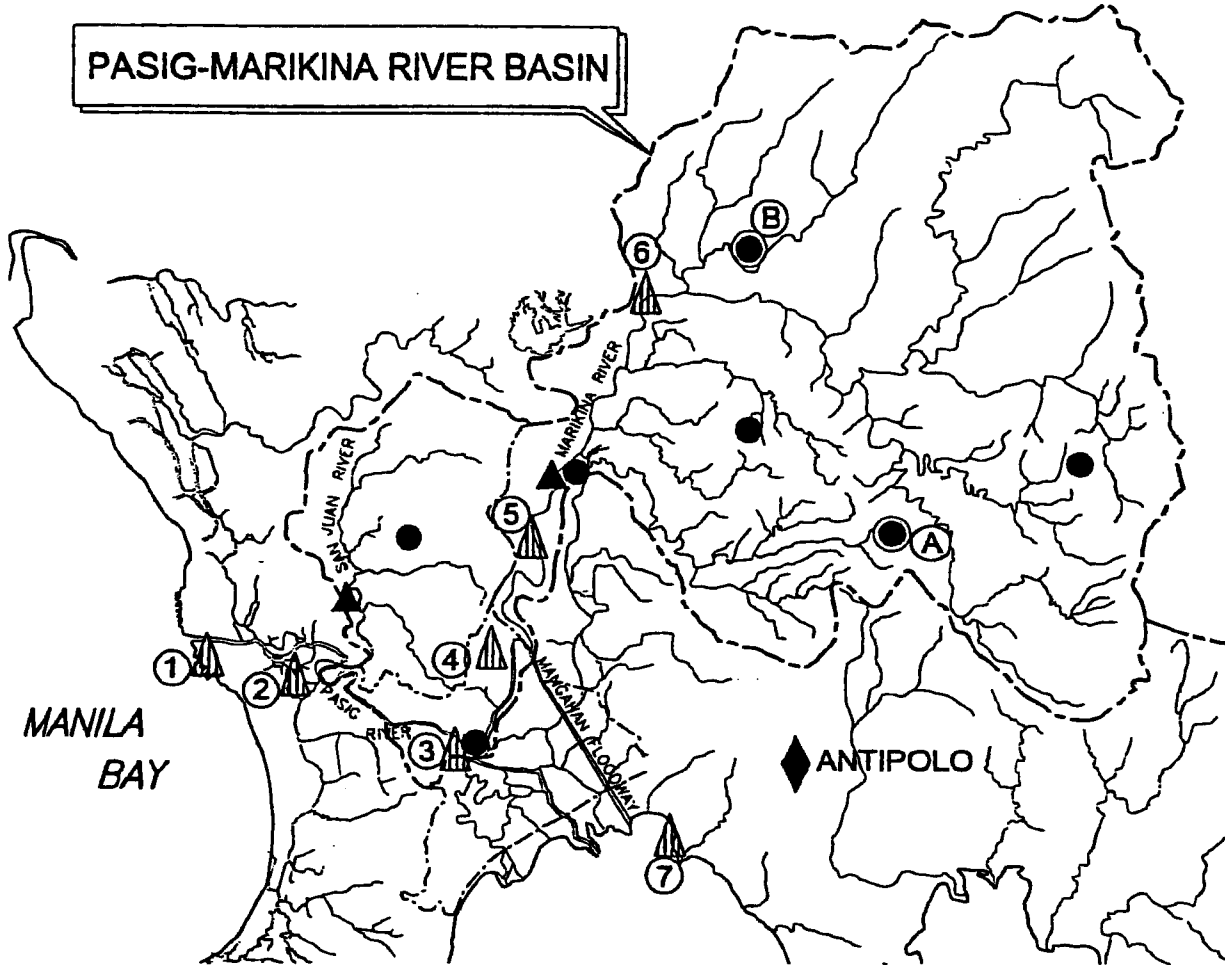
DIC: Data Information Center

DPWH: Department of Public Works and Highways

PAGASA: Philippine Atmospheric Geophysical and Astronomical Services Administration



PASIG-MARIKINA RIVER BASIN



LEGEND:

- EXISTING RAINFALL GAUGING STATION
- ▲ EXISTING WATER LEVEL GAUGING STATION
- PROPOSED RAINFALL GAUGING STATION
- ▲ PROPOSED WATER LEVEL GAUGING STATION
- ◆ EXISTING RELAY STATION

- | <u>WATER LEVEL</u> | <u>RAINFALL</u> |
|--------------------|-----------------|
| ① Fort Santiago | Ⓐ Boso-Boso |
| ② Pandacan | Ⓑ Mt. Oro |
| ③ Napindan HCS | |
| ④ Rosario Weir | |
| ⑤ Sto. Nifto | |
| ⑥ Montalban | |
| ⑦ Angono | |

LOCATION OF HYDROLOGICAL OBSERVATION STATIONS



I. RADIO COMMUNICATION SYSTEM FOR INFORMATION DISSEMINATION



A. FIXED RADIO STATION

A.1 LOCAL GOVERNMENT UNITS

LOCATION	JUSTIFICATION / REMARKS
1. Montalban, Rizal 2. San Mateo, Rizal 3. Marikina City	<p>Lowlands along Upper Marikina River used as agricultural lands and residential area suffered from serious flood damages due to river overbanking and inland flooding.</p>
4. Pasig City 5. Taguig, Metro Manila 6. Pateros, Metro Manila 7. Muntinlupa City	<p>Cities and municipalities located at the West of Mangahan are extensively low lying areas bordered by Marikina River, Mangahan Floodway and Laguna Lake. These areas are seriously affected whenever the lake stage becomes high.</p>
8. Cainta, Rizal 9. Taytay, Rizal 10. Angono, Rizal	<p>These area are the lowest portion of Buli River, Cainta River and Taytay River Basin which are situated at the Northeast of Mangahan Floodway and are affected when the lake stage becomes high. Frequent flooding were also experienced even during moderate rain.</p>
11. Mandaluyong City 12. Makati City	<p>These low lying areas which suffer from flood damages both from inland and waterways extends along both sides of Pasig River between Napindan and San Juan River.</p>
13. Quezon City 14. San Juan City	<p>Low lying areas of these two cities which suffer flood damages are those within the river banks of San Juan River and its tributaries which flow in hilly land and along these course lie low areas where inundation occur.</p>
15. City of Manila	<p>The city drainage system are mostly located at lowland areas spreading along Manila Bay and both banks of Pasig River. Sides of Pasig River is called North Manila and South Manila which experience inundation due to river overbanking and inland flooding bringing tremendous damages to this area inspite of the existence of the drainage system and other flood control facilities and structures.</p>

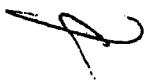




LOCATION	JUSTIFICATION / REMARKS
A.2 DPWH-NCR DISTRICT OFFICES	
1. North Manila Engineering District	Monitoring flood control situation within North of Pasig River
2. South Manila Engineering District	Monitoring flood control situation within South of Pasig River
3. Quezon City Engineering District	Monitoring flood control situation within the Congressional District III and IV of Quezon City
4. First Metro Manila Engineering District	Monitoring flood control situation within the cities and municipalities of Pasig, San Juan, Mandaluyong, Marikina, Taguig and Pateros.
5. Second Metro Manila Engineering District	Monitoring flood control situation within the cities and municipalities of Pasay, Makati, Muntinlupa, Las Pinas and Parañaque.
6. Third Metro Manila Engineering District	Monitoring flood control situation within the cities and municipalities of Kalocan, Malabon, Navotas and Valenzuela
7. Quezon City Sub-Office Engineering District	Monitoring flood control situation within the Congressional District I and II of Quezon City

A.3 RELATED AGENCY	
1. Laguna Lake Development Authority (LLDA) Rizal Provincial Capitol, Pasig City	Monitoring of flood situation around Laguna Lake
2. Office of Civil Defense (OCD), Camp Aguinaldo, Quezon City	Monitoring of flood situation around Laguna Lake and Metro Manila
3. Metro Manila Development Authority (MMDA)	Monitoring of flood situation around Laguna Lake and Metro Manila

A.4 EFCOS PROJECT OFFICE	
1. Rosario Master Control Station (Base Station)	Operation/Monitoring of water level and flood situation within the project vicinity Serves as the base station in all the flood control situation and data information, data analysis and telecommunication facilities/structures.



①

②

LOCATION	JUSTIFICATION / REMARKS
A.5 DPWH - CENTRAL OFFICE	
1. Flood Forecasting Office - Penthouse	Monitoring flood control situation within the Pasig-Marikina-Laguna Lake Complex

③

JAPAN'S GRANT AID PROGRAM

1. Japan's Grant Aid Procedures

(1) The Japan's Grant Aid Program is executed by the following procedures.

- Application (request made by a recipient country)
- Study (Preliminary Study / Basic Design Study conducted by JICA)
- Appraisal & Approval (Appraisal by the Government of Japan and Approval by the Cabinet of Japan)
- Determination of Implementation (Exchange of Notes between both Governments)
- Implementation (Implementation of the Project)

(2) Firstly, an application or a request for a Grant Aid project submitted by the recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Japan's Grand Aid. If the request is deemed appropriate, the Government of Japan entrusts a study on the request to JICA (Japan International Cooperation Agency).

Secondly, JICA conducts the Study (Basic Design Study), using a Japanese consulting firm

Thirdly, the Government of Japan appraises to see whether or not the project is suitable for Japan's Grant Aid Program, based on the Basic Design Study report prepared by JICA, and the results are then submitted to the Cabinet for approval.

Fourthly, the Project, once approved by the Cabinet, becomes official when pledged by the Exchange of Notes signed by the Governments of Japan and the recipient country.

Finally, for the implementation of the Project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.

2. Contents of the Study

(1) Contents of the Study

The aim of the Study (hereinafter referred to as "the Study") conducted by JICA on a requested project (hereinafter referred to as "the Project") is to provide a basic document necessary for appraisal of the Project by the Japanese Government. The contents of the Study are as follows:

- a) Confirmation of the background, objectives, and benefits of the requested project and

also institutional capacity of agencies concerned of the recipient country necessary for project implementation,

- b) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economical point of view,
- c) Confirmation of items agreed on by both parties concerning the basic concept of the Project,
- d) Preparation of a basic design of the Project,
- e) Estimation of costs of the project.

The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the Project is confirmed considering the guidelines of Japan's Grant Aid Scheme.

The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure its self-Reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through to Minutes of Discussions.

(2) Selecting (a) Consulting Firm(s)

For smooth implementation of the study, JICA uses (a) registered consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms. The firm(s) selected carry (ies) out a Basic Design Study and write(s) a report, based upon terms of reference set by JICA.

The consulting firm(s) used for the study is (are) recommended by JICA to the recipient country to also work on the Project's implementation after the Exchange of Notes, in order to maintain technical consistency.

3. Japan's Grant Aid Scheme

(1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non reimbursable funds needed to procure facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. The Grant Aid is not in a form of

donation of materials or such.

(2) Exchange of Notes (E/N)

Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objectives of the Project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

(3) "The period of the Grant Aid" means one Japanese fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedures such as exchanging of the Notes, concluding contracts with (a) consulting firm(s) and (a) contractor(s) and final payment to them must be completed.

However in case of delays in delivery, installation of construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

(4) Under the Grant, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant may be used for the purchase of products or services of a third country.

However the prime contractors, namely, consulting, contractor and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality)


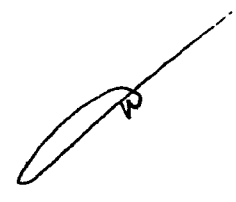


(5) Necessity of the "Verification"

The Government of the recipient country or its designated authority will conclude contracts denominated in Japanese Yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability to Japanese tax payers.

(6) Undertakings required to the Government of the recipient country

In the Implementation of the Grant Aid Project, the recipient country is required to undertake necessary measures such as the follows:

- a) To secure land necessary for the sites of the project and to clear, level and reclaim the land



prior to commencement of the construction work,

- b) To provide facilities for distribution of electricity, water supply and drainage and other incidental facilities in and around the sites,
- c) To secure buildings prior to the installation work in case the Project is providing equipment,
- d) To ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid,
- e) To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts,
- f) To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their works.

(7) "Proper Use"

The recipient country is required to maintain and use facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign the necessary staff for operation and maintenance of them as well as to bear all expenses other than those to be covered by the Grant Aid.

(8) Re-export

The products purchased under the Grant Aid shall not be re-exported from the recipient country.

(9) Banking Arrangement (B/A)

- a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by Government of the recipient country or its designated authority under the Verified Contracts.
- b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an Authorization to pay issued by the Government of the recipient country or its designated authority.