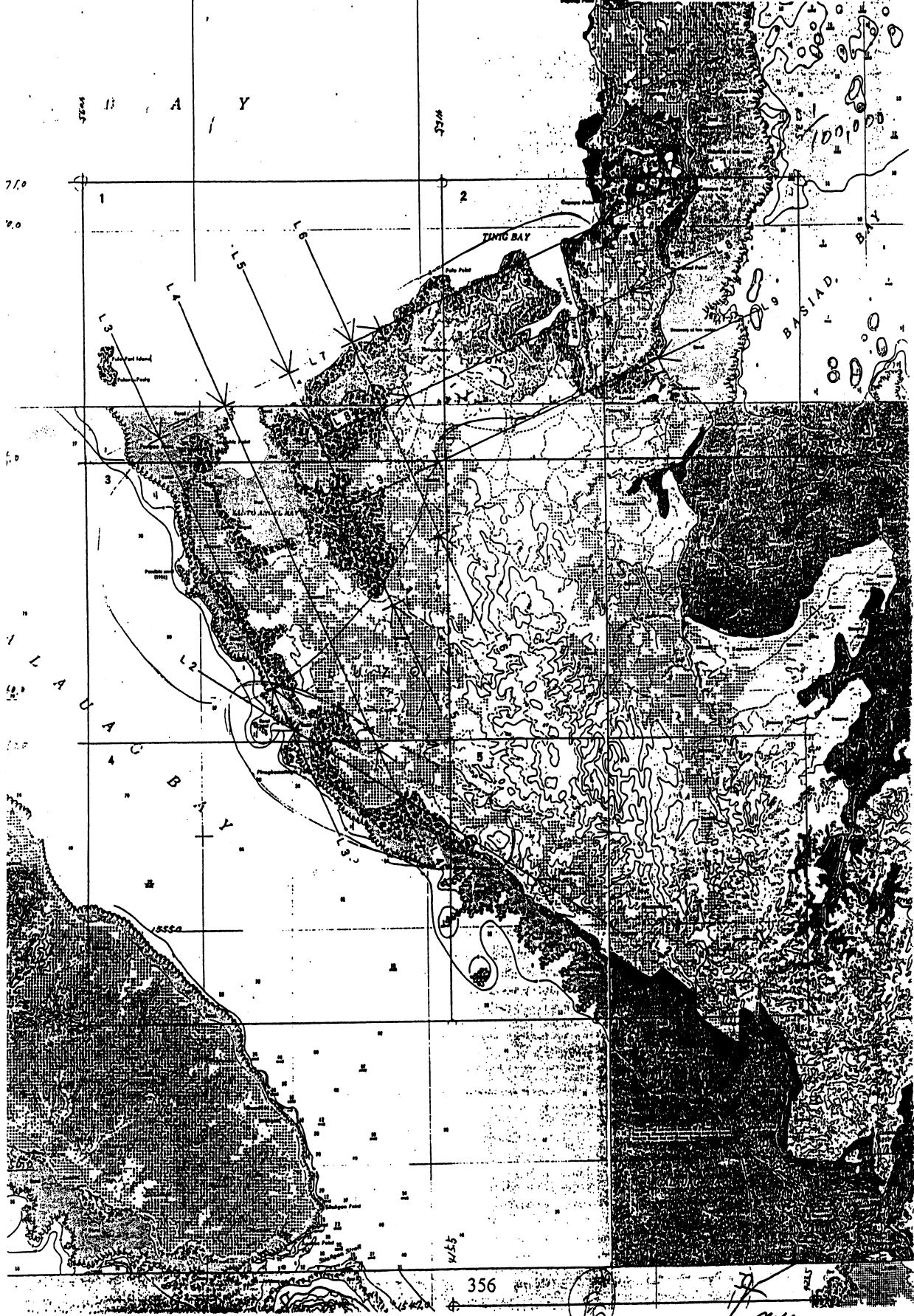


LAMON BAY

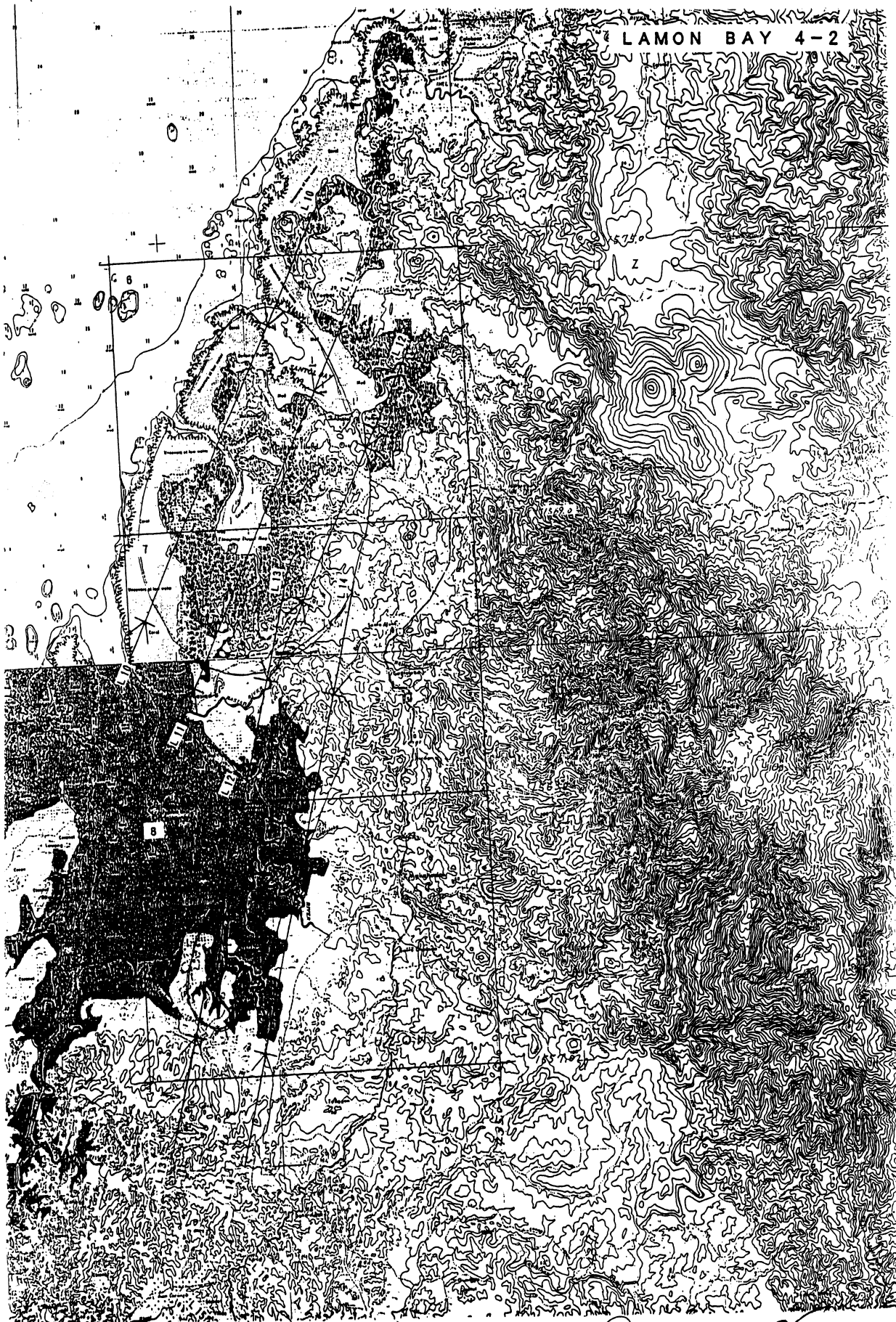
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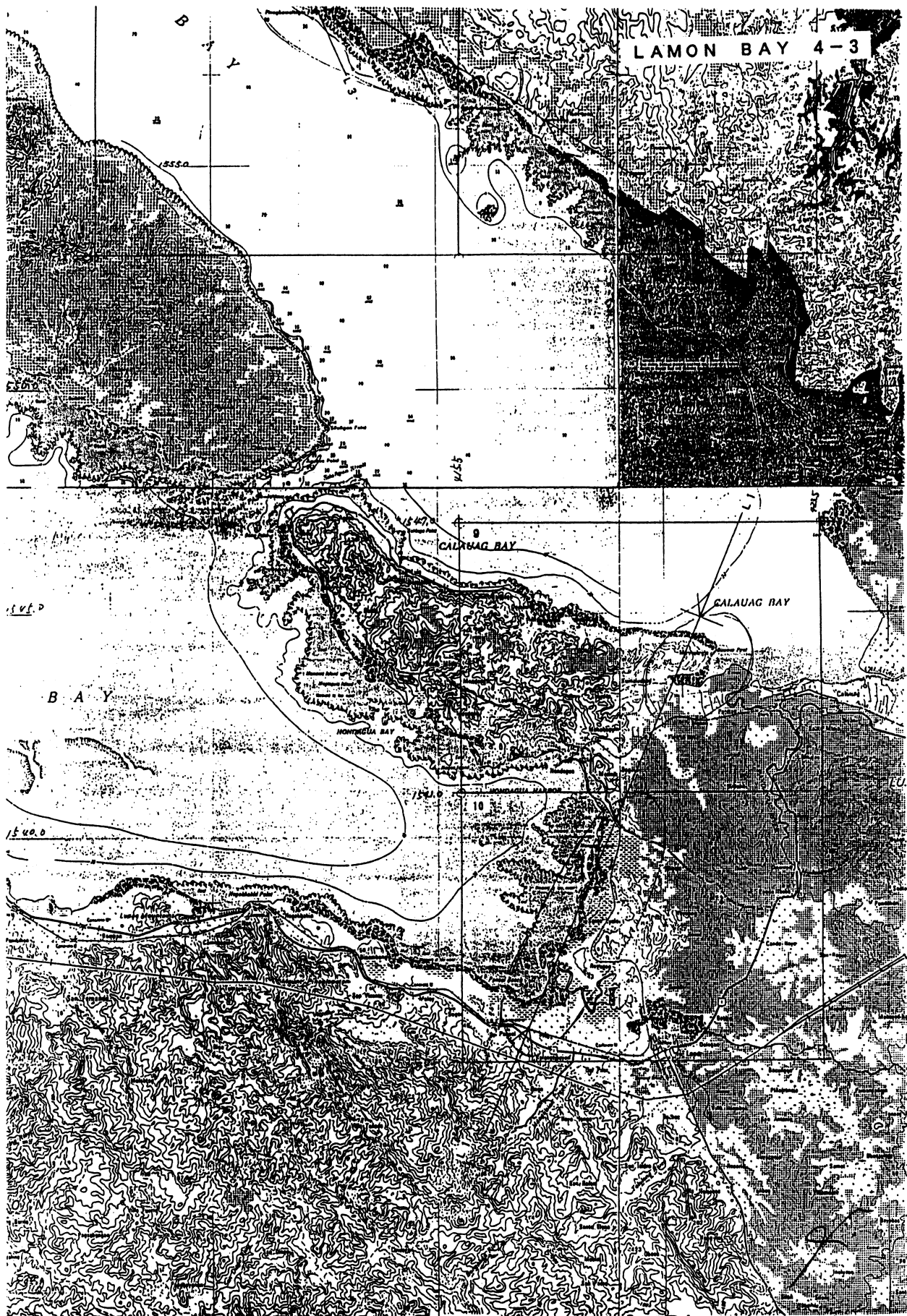
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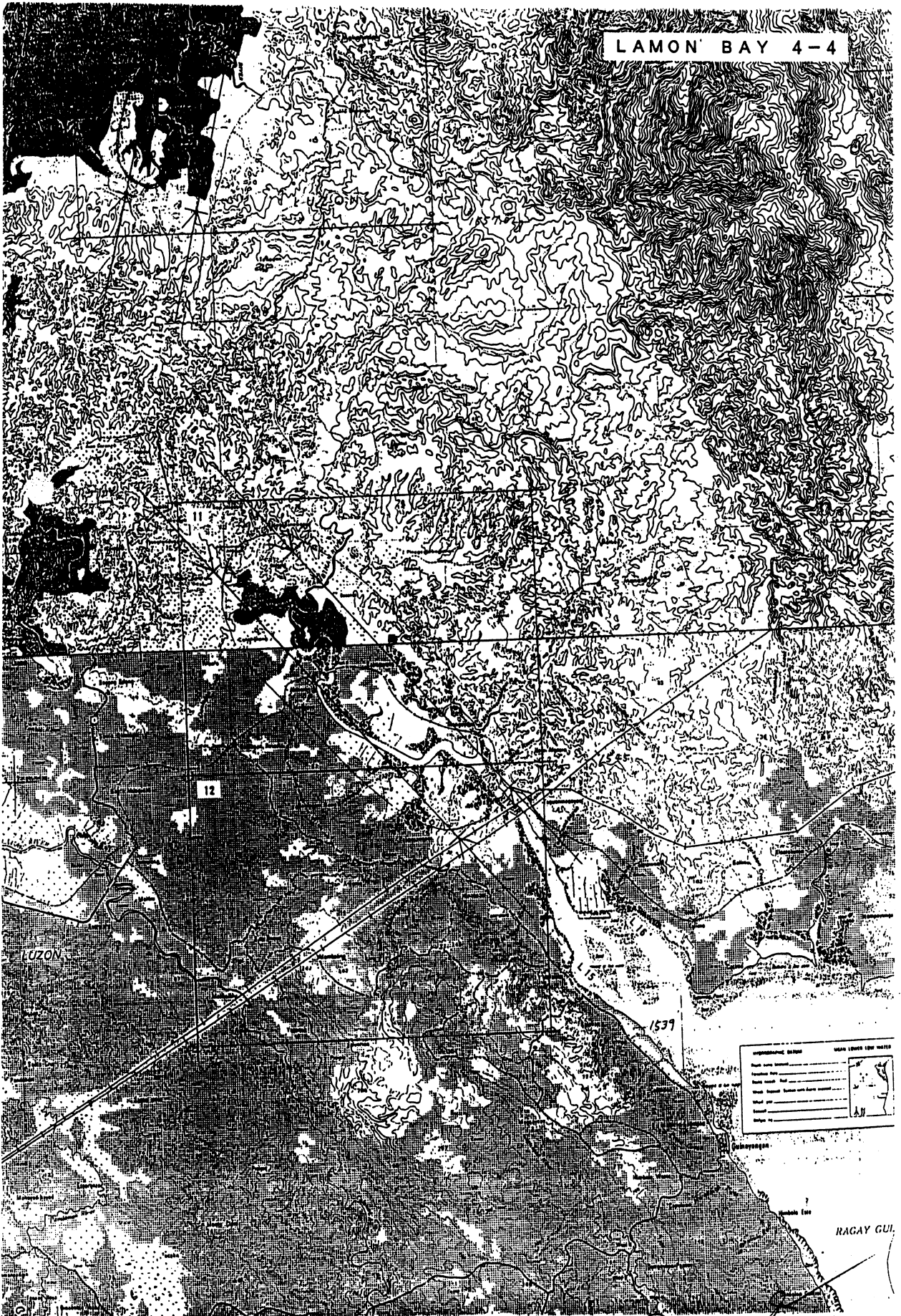
LAMON BAY 4-2



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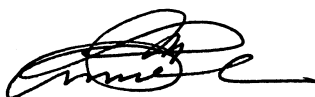
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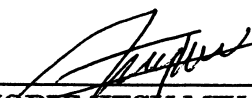
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MINUTES OF MEETING
ON
THE INTERIM REPORT
FOR
THE STUDY ON MAPPING AND LAND COVER ASSESSMENT
OF
MANGROVE AREAS
IN
THE REPUBLIC OF THE PHILIPPINES

Manila
November 20, 1998



LIBERATO A. MANUEL
BGen AFP (Ret.) MNSA
Administrator
National Mapping and Resource
Information Authority
Department of Environment and
Natural Resources
Republic of the Philippines

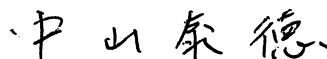


Mr. NOBUMITSU MIYAZAKI
Team Leader of the Study Team,
Japan International Cooperation
Agency

Witnessed by:



Mr. VIRGILIO I. FABIAN, JR
Acting Director
Land Classification and
Evaluation Department
National Mapping and Resource
Information Authority
Department of Environment and
Natural Resources
Republic of the Philippines



Mr. YASUNORI NAKAYAMA
Forestry and Fisheries Development
Study Division,
Agriculture, Forestry and Fisheries
Development Study Department,
Japan International Cooperation
Agency

In pursuance to the objectives of the Implementation Arrangement (I/A) for the Study on Mapping and Land Cover Assessment of Mangrove Areas (hereinafter referred to as "the Study"), agreed upon between the Preparatory Study Team of Japan International Cooperation Agency (hereinafter referred to as "JICA") and National Mapping and Resource Information Authority (hereinafter referred to as "NAMRIA"), Department of Environment and Natural Resources (hereinafter referred to as "DENR") on February 19, 1997, JICA dispatched a Study Team (hereinafter referred to as "the Team") headed by Mr. Nobumitsu Miyazaki who conducted the Study starting from November, 1997.

The Team submitted 20 copies of Interim Report of the Study and conducted a series of discussion on the implementation of the Study with Mr. Virgilio I. Fabian, Jr., Acting Director of Land Classification and Evaluation Department, NAMRIA, as well as technical staff members of NAMRIA and DENR. The list of participants in the meeting is shown on Appendix-1 attached hereto.

The results as well as comments in the meeting are as follows:

1. Interim Report

The Philippine side inquired if there is a clear criteria on the classification of fishponds as described on the Interim Report and mentioned that the classification system might be in conflict with what has been adopted by Bureau of Fishery and Aquatic Resources (BFAR). The Study Team explained that the said classification was made mainly to reflect differences as observed on the aerial photograph images on surface texture, vegetation cover and fishpond bank conditions. This classification serves only as the supporting information for the actual field work activities.

The Team also explained that Mangrove Forest Types were identified mainly by the following characteristics:

Aparri Area : Nipa dominance
Lamon Bay Area : Mangrove vegetation
Ulugan Bay Area : Prevalence of primary and secondary mangrove cover

The Philippine side suggested that due to the change of administration on the Government, it is necessary to include new policies on mangrove management specifically on conservation and rehabilitation aspects. The Team agreed to include such aspects on the Draft Final Report.

2. Geographic Information System (GIS)

Both sides agreed that the GIS data base shall consist of thematic maps as well as data on forest inventory and socio-economic survey using the prescribed forms, and other related information.

3. Technical Manuals

Both sides agreed that the Technical Manuals shall be prepared on the following concepts:

(1) Manual on Field Survey Method

- a. Expected users : CENRO officials and Non-Government Organizations (NGOs) who are active in mangrove conservation movements
- b. Main items :
- How to identify the main mangrove species (roughly 20 common species generally observed in the Philippines)
 - Procedures for Transect Survey Method
 - Procedures for Plot Survey Method to identify mangrove forest stands structures

(2) Manual on Interpretation of Aerial Photographs

- a. Expected users : NAMRIA and CENRO officials with little experience on aerial photographs interpretation
- b. Main items :
- How to make stereo view
 - Pre-interpretation and verification in the field
 - Typical photo imagery selection
 - Classify similar areas on the aerial photographs (Delineating sub-compartment boundary lines)
 - Interpretation of forest stand conditions
 - Transfer of sub-compartment lines on the aerial photographs to the base maps

(3) GIS Operation and Maintenance Manuals

- a. Expected users : NAMRIA officials involved in GIS
- b. Main items :
- Introduction on the components of the operating manual
 - Explanation of functions and capabilities including menus, screen layouts and icons
 - Data base structures
 - Trouble shooting and answers to frequently asked questions

The Maintenance Manual may follow the ArcView GIS 3.0a References; therefore, the explanation is focused on additional or original functions to prepare the system.

4. Technology Transfer Seminar

Both sides agreed to conduct a Technology Transfer Seminar as follows:

- Invited participants : Officials from PENRO, CENRO and other concerned agencies
- Place : NAMRIA Lecture Hall
- Date : After the presentation of the Draft Final Report (tentatively June 1999)
- Topics : Methodologies of the Study
Mangrove forest conservation/rehabilitation initiatives
Other related topics
- Facilitator : NAMRIA



LIST OF PARTICIPANTS

I. Philippines Side

National Mapping and Resource Information Authority (NAMRIA), DENR

BGen. Liberato A. Manuel	Administrator
Ms. Evangeline C. Cruzado	Deputy Administrator
Mr. Virgilio I. Fabian, Jr.	Acting Director, Land Classification and Evaluation Department
Mr. Jesus M. de la Cruz	OIC Assistant Director, LCED
Ms. Rijaldia N. Santos	Chief, Physiography & Aquatics Division
Mr. Jesus L. Gerardo	Acting Chief, Land Classification Division
Mr. Avelino Caronan	Chief, Forest Management Specialist
Mr. David Nacino	Spvg. RS Technologist
Mr. Mariano D. Farrales	Spvg. RS Technologist
Ms. Olivia R. Molina	Spvg. RS Technologist
Mr. Alfred Zuraek	Sr. RS Technologist
Mr. Zosimo Andres	Sr., RS Technologist
Mr. Edgardo Vilorio	RS Technologist II
Mr. Aljerico Alcala	RS Technologist II
Ms. Alita D. Sangalang	RS Technologist II
Ms. Sylvia M. Laude	RS Technologist II
Ms. Rosita Fabian	POD
Ms. Herminia Garcia	POD
Ms. Elinor delos Reyes	Media, IMD

Department of Environment and Natural Resources (DENR)

Mr. Jesus Carino	PDO -IV, FASPO- DENR
Mr. Maridel Villalon	PDO-II, FASPO-DENR
Mr. Claro S. Astoveza	Forester III, Region IV
Mr. Ruben Mabesa	Forester, Calauag, Quezon

II. Japanese Side

JICA Representatives

Mr. Yasunori Nakayama	Forestry and Fisheries Development Study Division, Agriculture, Forestry and Fisheries Development Study Department, JICA Headquarters
Ms. Michiru Ishiga	Asst. Resident Representative, JICA Philippines
Mr. Kazuya Ando	JICA Expert, DENR

JICA Study Team

Mr. Nobumitsu Miyazaki	Team Leader
Mr. Takashi Toyoda	Team member
Mr. Kazuhisa Kato	-do-
Mr. Hiroki Tomiya	-do-
Mr. Akira Sudo	-do-
Mr. Zenichi Chiba	-do-
Mr. Takeshi Toyooka	-do-