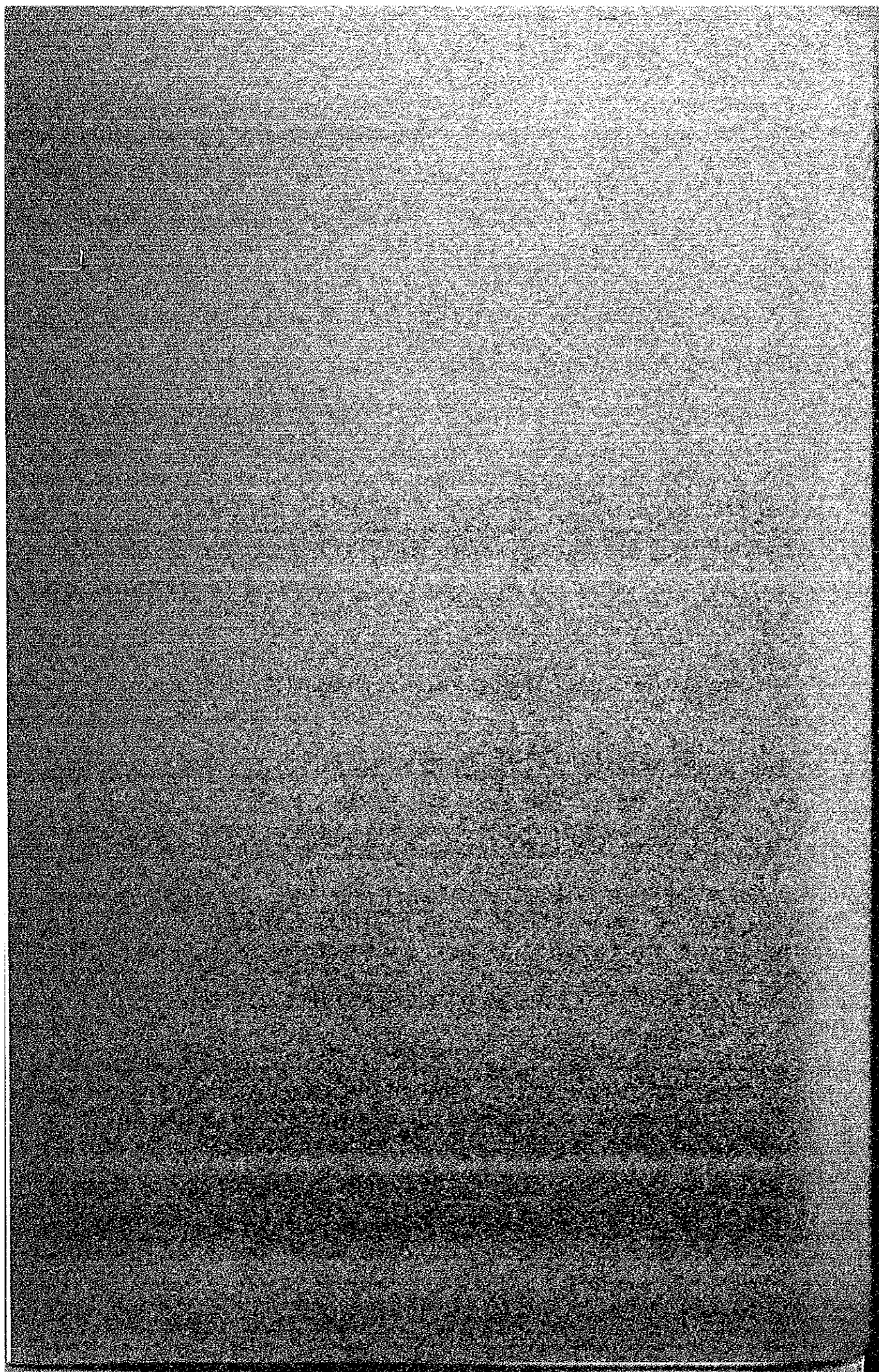


ANNEX "A" SCOPE OF WORK



SCOPE OF WORK

IMPLEMENTING ARRANGEMENT ON THE TECHNICAL
COOPERATION BETWEEN THE JAPAN INTERNATIONAL
COOPERATION AGENCY AND THE MINISTRY OF PUBLIC
HIGHWAYS FOR THE FEASIBILITY STUDY OF THE
METRO MANILA OUTER MAJOR ROADS PROJECT
(SOUTHERN PACKAGE)

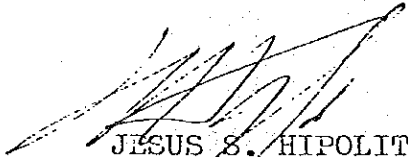
AGREED


BETWEEN

JAPAN INTERNATIONAL COOPERATION AGENCY

AND

MINISTRY OF PUBLIC HIGHWAYS


JESUS S. HIPOLITO
Minister
Ministry of Public Highways

DATED: 12 MARCH 1981

TOSHIKAZU MIURA
Resident Representative
Japan International
Cooperation Agency

IMPLEMENTING ARRANGEMENT ON THE TECHNICAL
COOPERATION BETWEEN THE JAPAN INTERNATIONAL
COOPERATION AGENCY AND THE MINISTRY OF PUBLIC
HIGHWAYS FOR THE FEASIBILITY STUDY OF THE
METRO MANILA OUTER MAJOR ROADS PROJECT
(SOUTHERN PACKAGE)


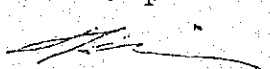
I. INTRODUCTION

In response to the request of the Government of the Republic of the Philippines, the Government of Japan despatched a preliminary survey team to the Philippines in December 1980 prior to a feasibility study of the METRO MANILA OUTER MAJOR ROADS PROJECT (SOUTHERN PACKAGE) (referred to as the "The Study").

Based on the report of the above survey team, the Government of Japan decided to undertake the Study in accordance with laws and regulations in force in Japan with regard to the technical assistance programs.

The Japan International Cooperation Agency (hereinafter to be referred as "JICA"), the official agency responsible for the implementation of the technical cooperation programs of the Government of Japan, will carry out the works necessary for the Study.

The Ministry of Public Highways (hereinafter to be referred as "MPH") shall serve as counterpart to the Japanese study teams and also as coordinating body to other related governmental and non-governmental organizations for the smooth implementation of the Study.



The present document sets forth the Implementing Arrangement agreed between JICA and MPH for the Study which is to be implemented by JICA in close collaboration with MPH and other agencies concerned.

II. IMPLEMENTATION OF THE STUDY

1. The JICA shall provide technical cooperation to the MPH for the implementation of the Feasibility Study of the Metro Manila Outer Major Roads Project (Southern Package).
2. The Study shall be implemented in accordance with the Scope of Work which was given in APPENDIX I.
3. The Study shall be undertaken in accordance with the Study Schedule (APPENDIX II) which was formulated on the basis of the Scope of Work.

III. DISPATCH OF JAPANESE STUDY TEAMS

The JICA shall, at its own expenses, dispatch Japanese study teams in accordance with the schedule mutually agreed upon by both JICA and MPH.

IV. PROVISION OF MACHINERY EQUIPMENT AND OTHER MATERIALS

The JICA shall, at its own expenses, provide machinery equipments and other materials which are necessary for the implementation of the Study.

V. TRAINING OF PHILIPPINE COUNTERPARTS

1. The Study is also aimed at assisting the Philippine counterpart personnel to further their skills to the extent possible through Japanese professional staff during the course of the study.
2. The JICA shall, at its own expenses, receive Philippine Government personnel for technical training in Japan in connection with the Study in accordance

with the normal procedures under the Colombo Plan Technical Cooperation Scheme.

VI. MEASURES TO BE TAKEN BY THE GOVERNMENT OF THE PHILIPPINES

1. The Government of the Philippines, in accordance with the Notes Verbale exchanged between the two Governments, shall be responsible for dealing with claims which may be brought by third parties against the Japanese survey team members, and shall hold them harmless in respect of claims or liabilities arising in the course of or otherwise connected with the discharge of their duties in the implementation of the Study, except when such claims or liabilities arise from the gross negligence or wilful misconduct of the above-mentioned individuals.

Should any question arise in connection with the foregoing, both Governments shall immediately consult with each other.

2. The MFH shall, at its own expenses, provide the following:
 - 1) Available data and information related to the Study.
 - 2) A Preliminary inventory survey of existing land uses within the study area.
 - 3) Counterparts of the Government of the Philippines consisting of a coordinator and engineers necessary for the Study.

- 4) Credentials or Identification (ID) cards to the members of the Study team who shall be working in the Philippines for the execution of the Study.
 - 4) Suitable office space in the MPH office.
 - 6) Appropriate number of vehicles with drivers.
3. The MPH shall make the necessary arrangements for the following:
- 1) Recommend a local consulting firm that will undertake survey and boring if necessary.
 - 2) Secure permission for entry into private properties and restricted areas.
 - 3) Hire laborers as needed, but wages shall be chargeable against JICA funds allotted for the Study.
 - 4) Availability of medical facilities when needed but medical expenses shall be chargeable to JICA funds allotted for the Study.
4. The MPH shall make the necessary arrangements with proper agencies concerned:
- 1) To ensure the safety of the study team.
 - 2) To provide the necessary facilities to the Japanese study teams for the remittances as well as utilization of funds introduced into the Philippines from Japan in connection with the implementation of the Study.
 - 3) To exempt the Japanese study team members from taxes, duties, fees and other charges on machinery,

equipment and other materials brought into the Philippines for the conduct of the Study.

- 4) To secure clearance for the release of the aerial photography.

SCOPE OF WORK
FOR
THE FEASIBILITY STUDY OF THE METRO MANILA OUTER MAJOR
ROADS PROJECT, SOUTHERN PACKAGE

I. OBJECTIVE OF THE STUDY

This study will assess the technical and economic viability of the Project.

II. PROJECT ROADS

2.1 The Project will cover the following roads:

- 2.1.1 Paranaque-Sukat Road (Dr. A. Santos Avenue) from the proposed Manila-Cavite Coastal Road to the Manila South Expressway, about 7.70 kilometers in length.
- 2.1.2 Zapote-Alabang Section of the Manila South Road and its extension to the Manila-Cavite Coastal Road, about 10.50 kilometers.
- 2.1.3 Taguig-Las Pinas-Muntinlupa Loop Road, from the Bicutan Interchange, to cross the Paranaque-Sukat Road and the Zapote-Alabang section of the Manila South Road, and then a loop to pass thru the Susana Heights Interchange in the Manila South Expressway Extension, and to end at the Manila South Road, about 21 kilometers.

III. SCOPE OF THE STUDY

3.1 The study includes the following components:

- a) data collection and analysis .
- b) traffic studies
- c) selection of the route
- d) environmental and social impact studies
- e) design standards and preliminary engineering
- f) cost estimation
- g) economic evaluation
- h) implementation program

3.2 The study shall consider the following relevant development studies and projects.

- a) Urban Transport Study of the Metropolitan Manila Area;
- b) Existing and planned Circumferential and Radial Roads;
- c) R-10 Feasibility Study;
- d) C-3 and R-4 and Related Roads Feasibility Study;
- e) New Manila International Airport;
- f) Manila-Cavite Coastal Road and Reclamation Project;
- g) Metro Manila Transport Cum Land Use and Development Plan;
- h) Metro Manila Expressway; and
- i) Metro Manila Urban Development Projects

3.3 In the conduct of the study, the following work items shall be undertaken.

3.3.1 Data collection and analysis

- a) traffic data
- b) social condition data
- c) economic data
- d) financial data
- e) institutional data
- f) administrative and managerial data
- g) engineering data (ex. topographical, geological, hydrological, etc.)
- h) other data necessary for the study

3.3.2 Traffic studies

- a) review of population distribution and land use plan
- b) supplementary traffic survey

- c) analysis and estimation of the traffic demands
- d) traffic assignment
- e) traffic impact of project to other major roads in the area

3.3.3 Environmental and social impact studies in accordance with the National Environmental Protection Council (NEPC) guidelines.

- a) environmental impacts
- b) social impacts
- c) economic impacts
- d) other related impacts

3.3.4 Selection of the route

An alignment study will be undertaken for the purpose of selecting the best route among competitive routes on the basis of cost, functionality, social impact and environmental impact, among others.

3.3.5 Design standards and preliminary engineering

- a) design standards
- b) preliminary design
- c) construction methods

3.3.6 Cost estimation

- a) right-of-way acquisition cost
- b) construction cost
- c) mechanized maintenance cost

3.3.7 Economic evaluation

- a) estimation of benefits
- b) N.P.V., IRR, B/C
- c) sensitivity analysis

3.3.8 Implementation program

An implementation program will be prepared based on the construction program and the financial studies.

IV. STUDY SCHEDULE

The study will be executed in accordance with the attached tentative schedule.

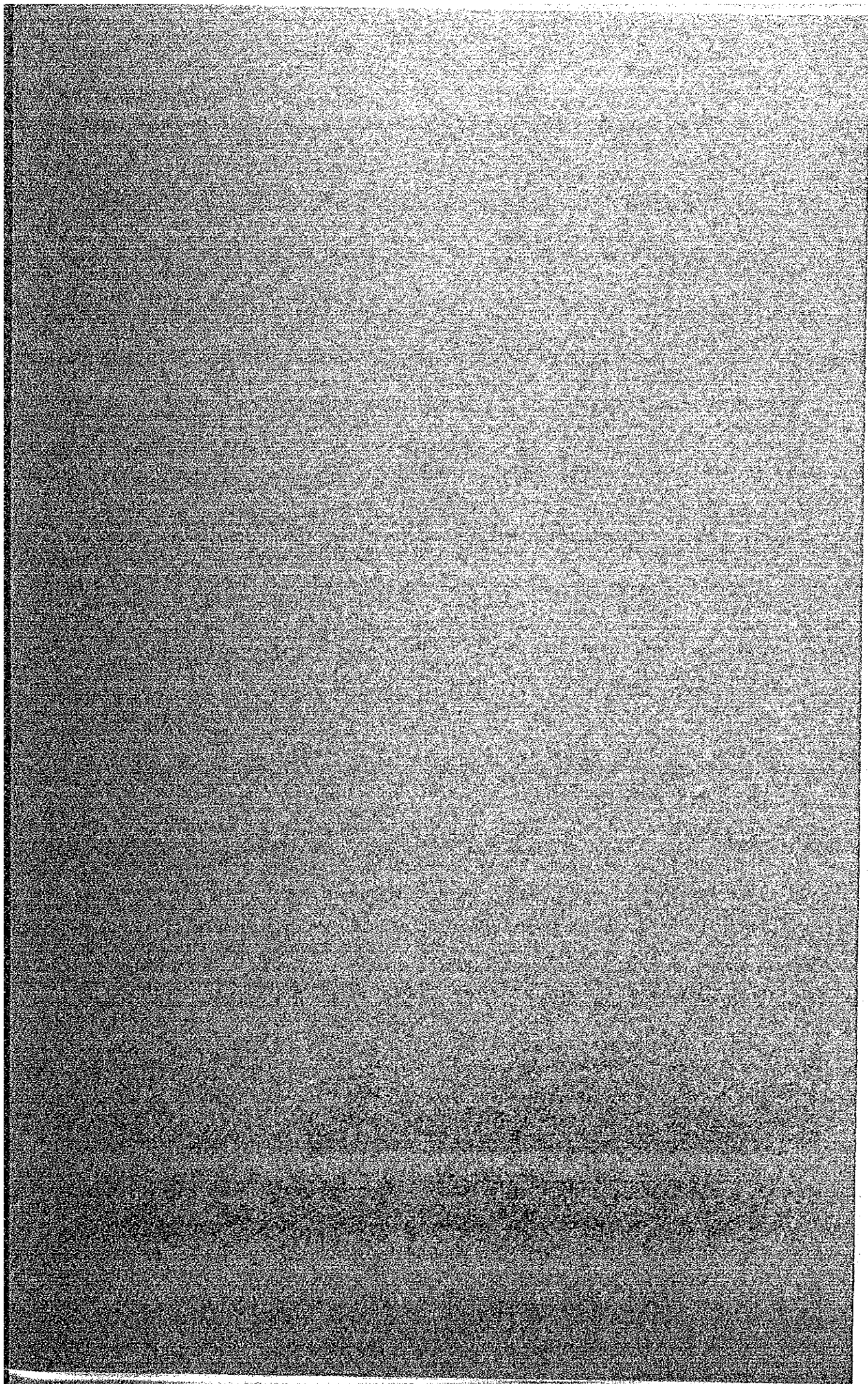
V. REPORT

JICA will prepare and submit the following reports to the GOP.

- 5.1 Twenty (20) copies of the inception report shall be submitted at the beginning of the study.
- 5.2 Twenty (20) copies of the interim report shall be submitted eight (8) months after the study.
- 5.3 Twenty (20) copies of the draft final report shall be submitted not later than two (2) months after the submittal of the interim report. The GOP will submit to the JICA its comments within one (1) month after the receipt of the draft final report.
- 5.4 Fifth (50) copies of the final report shall be submitted within two (2) months after the receipt of the GOP's comments on the draft final report.

- E N D -

JFC/GZG/rdd



JICA