

INFORME DE APOYO PARA EL CAPÍTULO 1

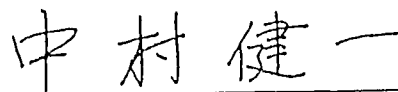
SCOPE OF WORK
FOR
THE STUDY
ON
INTEGRATED RIVER IMPROVEMENT
OF
THE ORINOCO RIVER
IN
THE REPUBLIC OF VENEZUELA

AGREED UPON BETWEEN
THE MINISTRY OF ENVIRONMENT AND NATURAL RENEWABLE RESOURCES
AND
THE JAPAN INTERNATIONAL COOPERATION AGENCY

Caracas, April 22, 1998



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General Director,
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I. INTRODUCTION

In response to the request of the Government of the Republic of Venezuela (hereinafter referred to as "the Government of Venezuela"), the Government of Japan has decided to conduct the Study on Integrated River Improvement of the Orinoco River in the Republic of Venezuela (hereinafter referred to as "the Study") in accordance with the Agreement on Technical Cooperation between the Government of Japan and the Government of Venezuela signed on April 6, 1988 (hereinafter referred to as "the Agreement").

The Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of technical cooperation programs of the Government of Japan, will undertake the Study, in close cooperation with the authorities concerned of the Republic of Venezuela.

The present document sets forth the Scope of Work with regard to the Study.

II. OBJECTIVES OF THE STUDY

The objectives of the Study are:

1. to formulate a integrated river improvement master plan of the Orinoco river
2. to conduct a feasibility study on river improvement for the priority project identified in the master plan study
3. to transfer technology to the counterpart personnel in the course of the Study.

III. STUDY AREA

The study area shall cover the downstream of Orinoco river from Ciudad Guayana.
The study area is shown in the appendix 1.

IV. SCOPE OF THE STUDY

Phase I: Formulation of the Master Plan

1. Collection and review of related data and information
 - (1) natural conditions, including meteorological, hydrological and geological data, and topographic maps
 - (2) social and economic conditions
 - (3) national and regional development plans
 - (4) mining and industrial development plans
 - (5) on-going / planned projects and plans relevant to the Study such as flood control, channel stabilization and port construction
 - (6) existing river improvement facilities
 - (7) canalization of the Orinoco river
 - (8) port facilities
 - (9) cargo transportation
 - (10) fluvial and marine navigation
 - (11) laws, regulations, policies and customary practices relevant to the Study

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- (12) present institutions, organizations, administration and their function relevant to the Study
- (13) other relevant data and information

2. Basic Survey and Investigation

- (1) Review of studies and plans relevant to the Study
- (2) Field reconnaissance
- (3) Field survey, if necessary
 - a. aerial photo survey and/or satellite imagery processing
 - b. topographic survey
 - c. survey of sediment including littoral drift sand
 - d. longitudinal and cross sectional profile of the river course
 - e. hydrological and hydraulic measurement
- (4) Analysis of hydraulic characteristics of the Orinoco river

3. Formulation of the Master Plan

- (1) confirmation of socio-economic framework
- (2) evaluation of existing navigation capacity of the Orinoco river
- (3) review and forecast of cargo transportation and navigation
- (4) confirmation of basic concepts, policies and targets
- (5) study on alternatives for river improvement
- (6) formulation of alternatives and selection of the optimum plan
- (7) preliminary design of facility(ies)
- (8) non-structural measure(s)
- (9) operation and maintenance plan
- (10) institutional development plan
- (11) cost estimation and financial plan

4. Initial environmental examination (IEE)

5. Evaluation of the master plan

- (1) economic evaluation
- (2) financial evaluation
- (3) environmental evaluation, including social aspects

6. Formulation of phasing implementation program(s)

7. Selection of priority project(s)

Phase II: Feasibility Study on the Priority project(s)

1. Supplemental data collection and analysis

2. Supplemental field survey

3. Confirmation of planning framework

4. Formulation of plans for the priority project(s)

- (1) design of facility(ies)

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- (2) construction plan
 - (3) non-structural measure(s)
 - (4) operation and maintenance plan
 - (5) institutional development plan
 - (6) cost estimation and financial plan
5. Environmental impact assessment (EIA)
6. Project evaluation
- (1) economic evaluation
 - (2) financial evaluation
 - (3) environmental evaluation, including social aspects
7. Formulation of implementation plan
8. Recommendation

V. STUDY SCHEDULE

The study will be conducted in accordance with the tentative schedule as attached in the Appendix 2. The schedule is tentative and subject to be modified when both parties agree upon any necessity that arise during the course of the Study.

VI. REPORTS

JICA shall prepare and submit the following reports in English to the Government of Venezuela.

1. Inception Report:

Twenty (20) copies at the commencement of the first field survey in Venezuela. This report will contain the schedule and methodology of the Study as well as outline of the field survey.

2. Progress Report (1):

Twenty (20) copies at the end of the first field survey.

3. Interim Report:

Twenty (20) copies at the end of Phase I. This report will contain the results of the Phase I survey and outline of the Phase II study program.

4. Progress Report (2):

Twenty (20) copies at the end of the second field survey.

5. Draft Final Report:

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Twenty (20) copies at the end of the third field survey. The Government of Venezuela shall submit its comments within one (1) month after the receipt of the Draft Final Report.

6. Final Report:

Forty (40) copies within one (1) month after the receipt of the comments on the Draft Final Report.

VII. UNDERTAKINGS OF THE GOVERNMENT OF VENEZUELA

The Government of Venezuela will accord privileges, exemptions and other benefits to the JICA study team (hereinafter referred to as "the Team") in accordance with the Agreement.

1. To facilitate the smooth conduct of the Study, the Government of Venezuela will take the following necessary measures:
 - (1) To inform the members of the Team of any existing risk in the study area and to take any measures deemed necessary to secure the safety of the Team
 - (2) To permit the members of the Team to enter, leave and sojourn in Venezuela for the duration of their assignment therein, and exempt them from foreign registration requirements and consular fees
 - (3) To exempt the members of the Team from taxes, duties, fees and any other charges on equipment, machinery and other materials brought into Venezuela for the conduct of the Study
 - (4) To exempt the members of the Team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Team for their services in connection with the implementation of the Study
 - (5) To provide necessary facilities to the Team for remittance as well as utilization of the funds introduced into Venezuela from Japan in connection with the implementation of the Study
 - (6) To permit for entry into private properties or restricted areas within the laws and regulations in force in the Republic of Venezuela, in accordance with its necessity for the conduct of the Study
 - (7) To facilitate permission for the Team to take all data and documents (including photographs and maps) related to the Study out of Venezuela to Japan
 - (8) To provide medical services as needed, expenses for which will be chargeable to the members of the Team.
2. The Government of Venezuela shall bear claims, if any arises, against the members of the Team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the member of the Team.

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3. Ministry of Environment and Natural Resources (hereinafter referred to as "the MARNR") shall act as a counterpart agency to the Team and also as a coordinating body in relation with other governmental and non-governmental organizations for the smooth implementation of the Study. The MARNR shall, at its own expense, provide the Team with the followings, in cooperation with other organizations concerned:
- (1) available data and information relevant to the Study
 - (2) counterpart personnel
 - (3) suitable office space with necessary equipment in Caracas
 - (4) credentials or identification cards

VIII. UNDERTAKINGS OF JICA

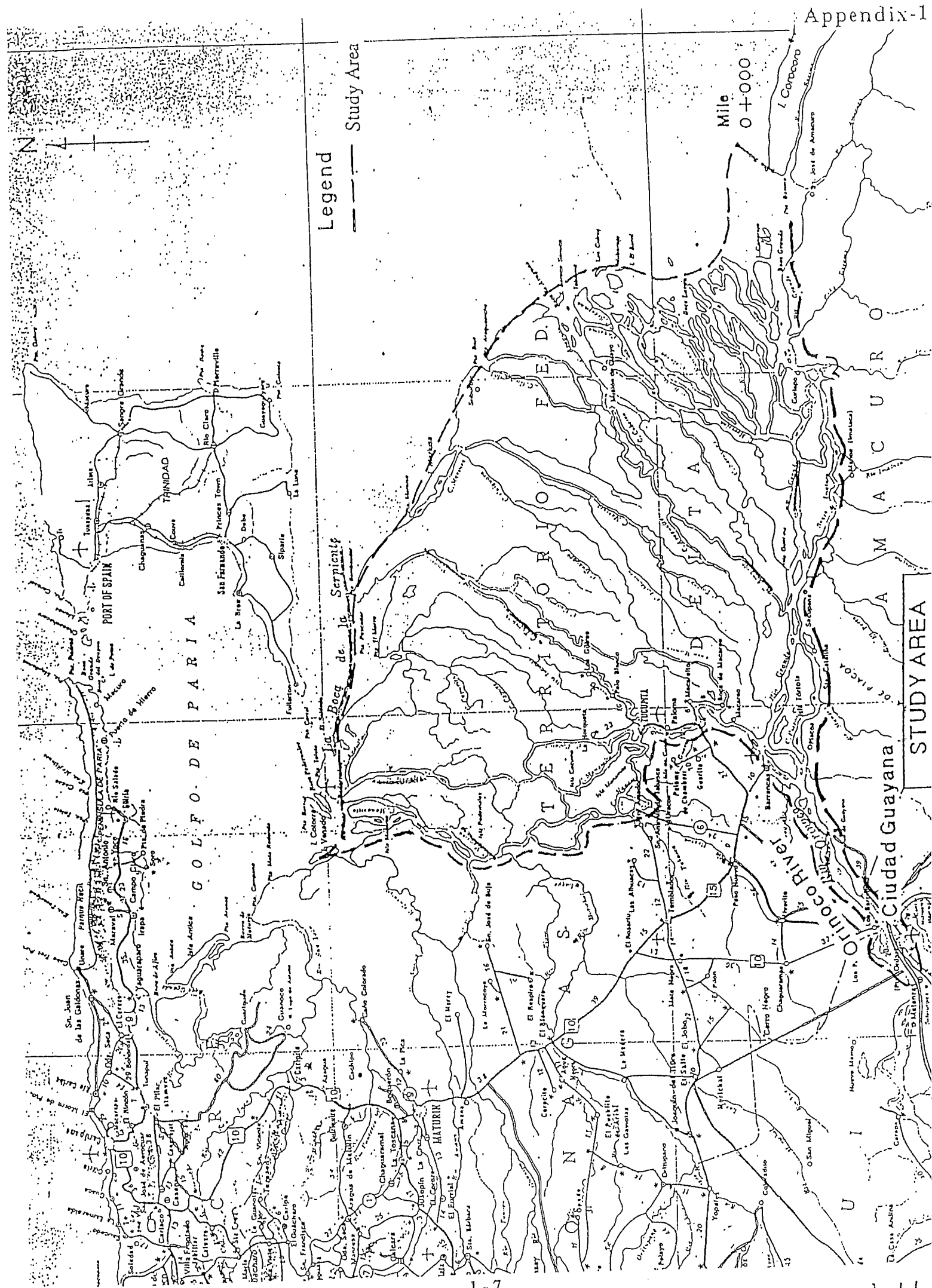
For the implementation of the Study, JICA shall take the following measures:

1. to dispatch, at its own expense, study teams to Venezuela
2. to pursue technology transfer to the counterpart personnel in the course of the Study.

IX. CONSULTATION

JICA and the MARNR shall consult with each other in respect of any matter that may arise from or in connection with the Study.

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STUDY AREA

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TENTATIVE SCHEDULE

MONTH DESCRIPTION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
WORK IN VENEZUELA																						
WORK IN JAPAN																						
PHASE OF THE STUDY																						
REPORT PRESENTATION																						

■ : JICA Study Team's Work in Venezuela

□ : JICA Study Team's Work in Japan

IC/R : Inception Report DFR : Draft Final Report

P/R : Progress Report F/R : Final Report

ITR : Interim Report