

**RECORD OF DISCUSSIONS**

**FOR**

**PROJECT FOR THE FLOOD CONTROL MASTER PLAN FOR THE  
METROPOLITAN AREA OF SULA VALLEY**

**AGREED UPON BETWEEN**

**MINISTRY OF INFRASTRUCTURE AND TRANSPORTATION**

**AND**

**JAPAN INTERNATIONAL COOPERATION AGENCY**

**8 MARCH 2024**

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Based on the Minutes of Meetings on the Detailed Planning Survey for the Project for the Flood Control Master Plan for the Metropolitan Area of Sula Valley (hereinafter referred to as “the Project”), signed on 29<sup>th</sup> June 2023 between the Center for Studies and Development of the Sula Valley (CEDVS) of the Ministry of the Infrastructure and Transportation (SIT) (hereinafter referred to as “the Counterpart”) and Japan International Cooperation Agency (hereinafter referred to as “JICA”), JICA held a series of discussions with the Counterpart and relevant organizations to develop a detailed plan of the Project.

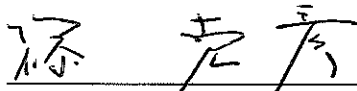
The purpose of this record of discussions (hereinafter referred to as “the R/D”) is to establish a mutual agreement for its implementation by both parties and to agree on the detailed plan of the Project as described in the followings and the Annexes, which will be implemented within the framework of the Note Verbales exchanged on 19<sup>th</sup> April 2022 between the Government of Japan and the Government of Honduras.

The Counterpart will be responsible for the implementation of the Project in cooperation with JICA, coordinate with other relevant organizations, and ensure that the self-reliant operation of the Project is sustained during and after the implementation period to contribute toward social and economic development of the Government of Honduras.

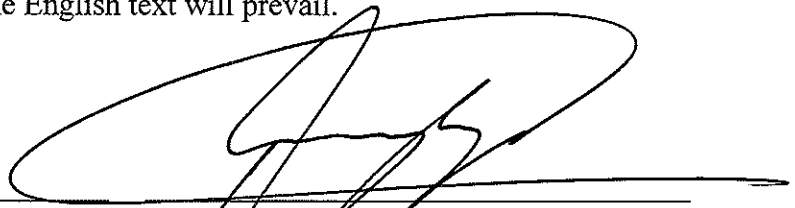
Both parties agreed that the Project will be implemented in accordance with the “Basic Principles for Technical Cooperation”, published in 2016 (hereinafter referred to as “the BP”), unless other arrangements are agreed in the R/D.

The R/D is delivered at Tegucigalpa as of the day and year first above written. The R/D may be amended by minutes of meetings between both parties. The minutes of meetings will be signed by authorized persons of each side who may be different from the signers of the R/D.

Done in duplicate in English and Spanish languages, both are equally authentic. In case of any divergence of interpretation, the English text will prevail.



**Shino Katsuhiko**  
Chief Representative  
Japan International Cooperation Agency  
(JICA) Honduras Office



**Octavio José Pineda Paredes**  
Minister  
Ministry of Infrastructure and  
Transportation  
Republic of Honduras

- Annex 1 Project Description
- Annex 2 Main Points Discussed
- Annex 3 TOR for Environmental and Social Consideration Studies
- Annex 4 Implementation Structure and Members of Steering Committee for the Project
- Annex 5 M/M

## PROJECT DESCRIPTION

### (1) Title of the Project

The Project title is the “Project for the Flood Control Master Plan for the Metropolitan Area of Sula Valley”

### (2) Goals of the Project

Expected Goals which will be attained through implementing the Project

1) Goal of the Project

The FCMP is approved by the Government of Honduras.

2) Goal which will be attained by implementing the FCMP

FCMP is implemented to reduce the flood risk in the Ulua river basin and the Chamelecon river basin through the preventive investment in disaster risk reduction by the Government of Honduras.

#### Output

Output 1: The flood phenomenon and its mechanism are identified.

Output 2: The FCMP and pre-feasibility study for priority projects are formulated.

Output 3: The implementing structure is established to implement flood risk reduction countermeasures based on the FCMP.

### (3) Activities

The Project will be carried out in the following three (3) stages with technical transfer during the entire period of the Project:

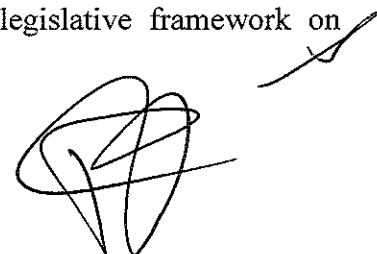
Stage-1: Basic study

Stage-2: Formulation of the FCMP

Stage-3: Pre-feasibility study

#### **Stage-1: Basic study**

- 1-1 Data collection of the existing policies, strategies, plans, related documents, and current philosophy on flood control
- 1-2 Identification of gaps in the existing policies, strategies, plans, related documents, and current philosophy on flood control
- 1-3 Conduct of supplemental cross section survey in rivers and canals in the valley.
- 1-4 Implementation of preliminary rainfall and runoff analyses
- 1-5 Survey of existing drainage channels in the Sula Valley
- 1-6 Conduct of preliminary study on inundation and flood damage
- 1-7 Preliminary discussion on adaptation strategies against flood risk in terms of urban planning, development plan of critical infrastructure and environmental and social considerations
- 1-8 Implementation of the baseline survey and relevant legislative framework on environmental and social considerations



## **Stage-2: Formulation of the FCMP**

- 2-1 Determination of planning conditions (target year, target safety level (flood return period), design rainfall and tidal condition, etc.) for the FCMP
- 2-2 Analysis of flood risk for the Ulua river basin and the Chamelecon river basin based on the outputs of activities 1-6
- 2-3 Study on a combination of measures in consideration of the concept of comprehensive flood management
- 2-4 Implementation of Strategic Environmental Assessment (SEA) for the countermeasures against flood
- 2-5 Consideration of conceptual design, construction method, cost estimation and implementation schedule
- 2-6 Implementation of preliminary financial and economic analysis.
- 2-7 Selection of the priority project for the Pre-feasibility study

## **Stage-3: Pre-feasibility study**

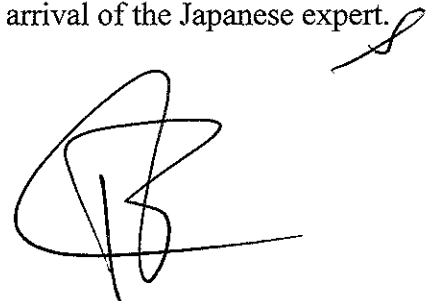
- 3-1 Collection and arrangement of additional data and information
- 3-2 Implementation of additional topographic and geotechnical survey
- 3-3 Analysis of flood risk for the priority projects
- 3-4 Implementation of Preliminary design for the priority projects
- 3-5 Elaboration of Construction and procurement plan, formulations of cost estimation and implementation schedule for the priority project
- 3-6 Consideration of operation and maintenance plan
- 3-7 Implementation of Initial Environmental Examination (IEE) level study for the priority project
- 3-8 Provision of support for a preparation of the abbreviated Resettlement Action Plan (RAP) if any
- 3-9 Implementation of financial and economic analysis for the priority project

## **Entire Stages: Building cooperation mechanism between related organizations**

- 4-1 Identification and analysis of the issues regarding the Government's implementation structure and legal framework for efficient implementation of flood risk reduction countermeasures
- 4-2 Hold of task team meetings to introduce and discuss the tasks of relevant team members in the FCMP
- 4-3 Definition of the allocation of responsibilities by relevant agencies.
- 4-4 Creation of cooperation mechanism and proposing the implementation structure among related government organizations for effective implementation of flood control countermeasures

### (4) Duration of the Project

The duration of the Project is three (3) years from the first arrival of the Japanese expert.



(5) Project Implementing Agency

The implementing agency of the Project is the Center for Studies and Development of the Sula Valley (hereinafter referred to as "CEDVS") of SIT.

(6) Project Inputs (Japanese Side)

(a) Expert

- Team Leader/ Flood Management Planning/Movement of Sediment
- Hydrology and Hydraulics
- Structural Measures for River Management
- Land Use Planning/Urban planning/Land System
- Bridge Design (as necessary of the Project)
- Construction and Procurement Planning/Cost estimation
- Organization, Legal System and Governance
- Economic and Financial Analysis
- Environmental and Social Considerations
- Training/Coordination

(b) Others

Tentative training course name: Training course for flood control planning

(a) Number of Training: 2 times training during the Project

(b) Duration: 12 days/training

(c) Number of participants: 7 people/training

(d) Purpose:

- To learn river management policy and planning of Japan that is applicable to the FCMP formulation in this Project and in Honduras. (The training will include site visits in Japan.)

(7) Other details

Other details are described in the Annexes as attached.

END



**MAIN POINTS DISCUSSED****(1) Definition of the Flood Control Master Plan in the Project**

Both sides understood the importance to formulate a master plan of flood control for the Ulua river basin and the Chamelecon river basin to reduce flood risks in the Sula Valley. Both sides also agreed to call the master plan as the FCMP of Sula Valley, in accordance with the laws and policies regarding flood control. The FCMP Sula Valley is defined as follow:

- The FCMP of Sula Valley Definition:

The FCMP of Sula Valley requires a holistic approach that stresses the interrelationship between flood risk management and socio-economic development. It is formulated in a river-basin-wide scale to primarily reduce flood risk, including the human lives and impact on livelihoods and economic assets by implementing protective measures such as river structure and land use while taking the productivity and the use of floodplains into consideration.

SIT should be responsible for ensuring the collection of hydrological data, formulating, and updating the FCMP of Sula Valley, and increasing preventive investment before the disaster happen in river infrastructure based on the FCMP of Sula Valley. This is because the FCMP of Sula Valley is expected to coordinate balances between upstream versus downstream, and between right bank versus left bank, as well as various stakeholders who have different objectives to use the floodplain. As it may take a long time to achieve total implementation of the FCMP of Sula Valley, both sides agreed to break it into i) a long-term policy that describes the ultimate state of the basin and ii) a middle and short-term implementation plan that includes specific countermeasures for Disaster Risk Reduction (hereinafter referred to as “DRR”).

**(2) Hydrological Data**

Both sides agreed that before the Project starts, SIT shall gain consensus with Ministry of Environment and Natural Resources (hereinafter referred to as “SERNA”), Permanent Contingency Commission (hereinafter referred to as “COPECO”), National Electric Power Company (hereinafter referred to as “ENEE”), and the National Port Authority to enable SIT to obtain the hydrological data (e.g. rainfall data, water level data, discharge data, and tide data) that is indispensable for formulating the FCMP of Sula Valley.

**(3) Effect of Climate Change**

Both sides understand that the effect of climate change should be taken into consideration for flood risk assessment in formulating the FCMP, and this project contributes to climate change adaptation.



**(4) Consistency with Other Flood Control Plans in Honduras**

Both sides understand the importance of the consistency on the FCMP of Sula Valley with other flood control plans in Honduras. Presently, The United States Army Corps of Engineers (hereinafter referred to as "USACE"), the Inter-American Development Bank (hereinafter referred to as "IDB"), and Central American Bank for Economic Integration (hereinafter referred to as "CABEI") are preparing studies on the flood control plans in Sula Valley. Both sides should maintain fluid communication with such relevant organizations so that the studies of USACE, IDB, and CABEI will be conducted in line with the FCMP of Sula Valley.

**(5) Environmental and Social Considerations**

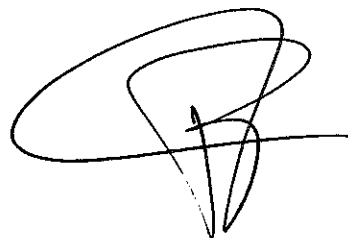
With regard to the Section 10.1 of the BP, since the Project is categorized as B under the 'JICA Guidelines for Environmental and Social Considerations (April 2010)' (hereinafter referred to as "the Guideline"), the necessary procedures are taken in accordance with the Guideline. Some examples include;

1) Strategic Environmental Assessment

The Project conducts Strategic Environmental Assessment in accordance with the Guideline. Terms of reference for the Environmental and Social Considerations is attached as Annex 3.

2) Disclosure of the information regarding environmental and social considerations

Both parties agreed that JICA discloses the front page of the R/D and TOR for environmental and social considerations studies attached as Annex 3 as agreement documents designated by the 3.4.2.7 of the Guideline. The front page of the R/D and TOR are disclosed on JICA's official website promptly after concluding the R/D.



## TOR FOR ENVIRONMENTAL AND SOCIAL CONSIDERATIONS STUDIES

### 1. Title of the Project

The Project title is the “Project for the Flood Control Master Plan for the Metropolitan Area of Sula Valley.”

### 2. Type of the study

Master Plan

### 3. Categorization and the Rationale

The Project is classified as a “Category B” owing to the fact that the master plan to be formulated under the Project is not likely to have significant adverse impacts on the environment under the JICA Guidelines for Environmental and Social Considerations (April 2010), (hereinafter referred to as “the Guideline”) in terms of its sectors, characteristics, and areas. The necessary procedures are taken in accordance with the Guidelines.

### 4. Agency or Institution Responsible

The institution agency responsible for the Project is the Ministry of Infrastructure and Transportation (hereinafter referred to as “SIT”).

### 5. Project Implementing Agency

The implementing agency of the Project is the Center for Studies and Development of the Sula Valley (hereinafter referred to as “CEDVS”) in SIT.

### 6. Outline of the Project

#### 6.1 Background (Based on the Request form submitted by SIT)

Honduras has approved a national vision and national plan based on Decree No. 286-2009, which includes a long-term vision until 2038. Within those strategic guidelines, there are provisions for addressing and mitigating climate change, as well as developing productive infrastructure as a driving force for economic activity. The national vision consists of 11 objectives, with the third objective stated as follows; "Honduras will improve production, generate opportunities and create suitable employment. It will utilize resources in a sustainable manner and mitigate environmental vulnerability." Subsection 3.7 of the objective mentions exceeding a global climate risk index of 50.

According to the World Climate Risk Index, Honduras is ranked as the second-most affected country. Honduras has experienced severe impacts from various natural phenomena, including Hurricane Mitch in 1998 and more recently, Hurricane Eta and Iota in November 2020. These heavy rains have caused river flooding and landslides throughout the country, particularly affecting the region of Sula Valley. Approximately 437,000 people suffered direct damages, while 3.9 million people were affected indirectly.



According to data from the United Nations Economic Commission for Latin America and the Caribbean, the estimated economic impact was approximately \$2.17 billion. The most affected sectors were production (68.2%), trade and industry (45.2%), social sectors (18%), and infrastructure (10.5%). The damages to infrastructure amounted to \$76.9 million, with 62 bridges destroyed, 72 bridges damaged, and 927 road segments affected. Bridges accounted for 43% of the damages, while primary and secondary roadways accounted for 21% of the damages.

Based on this, the Honduran government has initiated the development of the "Plan for Reconstruction and Sustainable Development." This plan will be implemented based on the following four strategic axes: (1) welfare and social protection, (2) promotion of productivity reforms, (3) modernization and strengthening of infrastructure, (4) climate change mitigation and adaptation, and (5) human and cross-sectoral impacts.

Sula Valley is the largest alluvial valley in Honduras. It is in the Caribbean region of Central America and is home to important cities such as San Pedro Sula, El Progreso, Choloma, Puerto Cortes, Villanueva, and Tela. The average elevation of these cities ranges from 20 to 80 meters above sea level.

Hydrologically, water flowing into the valley is primarily discharged through two major rivers, which represent the most significant watersheds in the country. These watersheds are the Ulua River Basin, with a drainage area of 21,233.50 km<sup>2</sup>, and the Chamelecon River Basin, with a drainage area of 4,350,081 km<sup>2</sup>. During the rainy season, various regions experience continuous flooding in the valley, hindering comprehensive development in the area.

Approximately 65% of Honduras' Gross Domestic Product is produced in Sula Valley, accounting for around 40% of the country's exports. About 25% of the population resides in this basin, making it the largest labor force in both urban and rural areas. Over 80% of Honduras' manufacturing and textile industries are concentrated in the metropolitan area of Sula Valley.

## 6.2 Expected Goals which will be attained through implementing the Project

### Goal of the Project

The FCMP is approved by the Government of Honduras.

### Goal which will be attained by implementing the FCMP

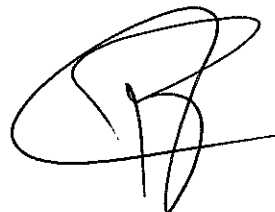
FCMP is implemented to reduce the flood risk in the Ulua river basin and the Chamelecon river basin through the preventive investment in disaster risk reduction by the Government of Honduras.

## 6.3 Output

Output 1: The flood phenomenon and its mechanism are identified.

Output 2: The FCMP and pre-feasibility study for priority projects are formulated.

Output 3: The implementing structure is established to implement flood risk reduction countermeasures based on the FCMP.



#### 6.4 Location of the Project

The project site: The Ulua river basin and the Chamelecon River basin.

#### 6.5 Duration of the Project

The duration of the Project is three (3) years from the first arrival of the Japanese Expert (hereinafter referred to as “the JICA Expert”).

#### 6.6 Proposed Activities

The Project will be carried out in the following three (3) stages with technical transfer during the entire period of the Project:

- Stage-1: Basic study
- Stage-2: Formulation of the FCMP
- Stage-3: Pre-feasibility study

### 7. Terms of Reference for Environmental and Social Considerations

#### 7.1 Stage 1: Baseline Data Collections

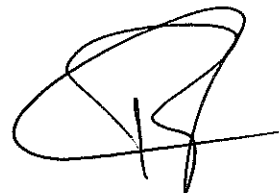
In Stage 1, it is necessary to collect the relevant legislative framework and baseline information regarding environmental and social considerations for planning the FCMP. The following shows the Terms of Reference (hereinafter referred to as “TOR”) for baseline data collections.

- (1) Relevant legislative and institutional formwork on environmental and social considerations in Honduras.
- (2) Environmental and Social Baseline data in the Ulua river basin and the Chamelecon River basin (including pollution prevention measures, natural environment, designated area for conservation of nature and cultural heritage, land use and date gathering of areas of social economic, social situation and others, such as inhabited by indigenous peoples, involuntary resettlement, land acquisition and others).
- (3) Gaps analysis between the JICA Environmental Guidelines and the legal framework on Environmental and Social Considerations and bridging the gap.

#### 7.2 Stage 2: Strategic Environmental Assessment for the Compilation of the Master Plan

JICA applies a Strategic Environmental Assessment (hereinafter referred to as “SEA”) when conducting Master Plan studies etc., in accordance with the JICA Guidelines to be applied to the Project.

In addition, the requirement of SEA complies with the Regulation of the National System of Environmental Impact Assessment, which describes SEA as an environmental assessment process applied to large-scale projects classified by sector, intersectoral and regional development, strategic decision-making, policies, plans, programs (PPPs), and projects classified as strategic initiatives by Ministry of Environment and Natural Resources. This process involves the preparation of a report on the assessment results, serving to inform decision-making and streamline and systematize environmental considerations and permitting processes for projects.



Complying with the requirement of SEA under the Project elaborated in the FCMP and the JICA Guidelines, the TOR of SEA is summarized as follows.

- (1) Support the implementing organization of the FCMP to set up the SEA implementation framework, analyze the roles of relevant organizations, and team up with the JICA Experts
- (2) Review of legal and technical bases for SEA
- (3) Define the spatial range and time range of SEA implementation, which are likely to be affected by the implementation of the FCMP
- (4) Identify the environmental composition, natural heritage, regional socio-economic conditions likely to be affected by the FCMP and prepare the baseline of the environmental and social impact assessment.
- (5) Assess the suitability of the contents of the FCMP with viewpoints, goals, and policies on environmental protection. Assess the impact of the alternative plans.
- (6) Assess and forecast trends of major environmental issues in the case of implementation of the FCMP.
- (7) Predict likely impacts by the FCMP
- (8) Assess the likely impacts and comparative analysis of alternative of proposed projects, including 'Without project' option
- (9) Examine the mitigation measure (to avoid, minimize and compensate)
- (10) Support to conduct consultations and summarize the outputs to be incorporated into the FCMP.
- (11) Support to the SEA Report to be jointly approved with the FCMP.
- (12) Identify the issues which need to be further studied during the implementation stage of the FCMP and prioritized projects.

### 7.3 Stage 3: Initial Environmental Examination Level Study for the Priority project

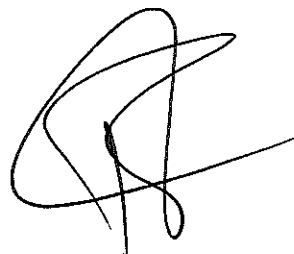
Following the JICA Guidelines, an Initial Environmental Examination (hereinafter referred to as "IEE") level survey is conducted for the priority project selected during the pre-feasibility study. The following shows the TOR for the IEE level study.

- (1) The environmental and social baseline data including pollution, natural environment and social environment, and relevant legislative and Institutional framework collected in Stages 1 and 2 are further refined and updated, focusing on the priority project areas.
- (2) Interviews are held with officials in the related governmental agencies, specialists in various fields, and people who understand the environmental and social conditions in the priority project's areas.
- (3) Reconnaissance surveys are implemented to confirm the present environmental and social conditions and issues in the priority project's areas.

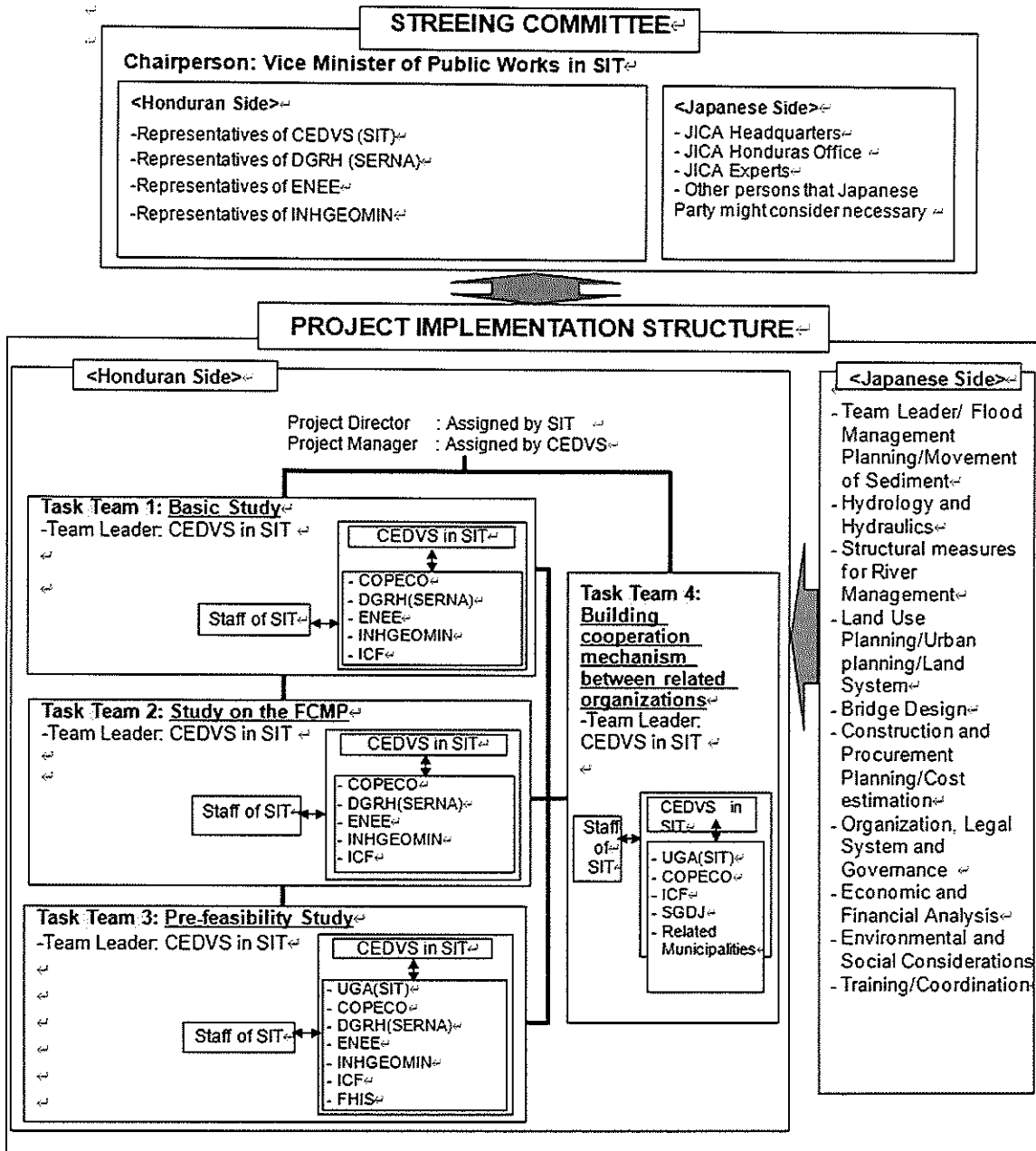


- (4) During the study period, necessary stakeholder meetings about the priority project are held and coordinated in collaboration with the Honduras side and the JICA Experts. (Including examination of objective, participants, methods, contents, and others.)
- (5) Legislative and institutional framework related to resettlement, land acquisition, and compensations in Honduras
- (6) Survey on the project site (land acquisition and/or resettlement area, if any)
- (7) Environmental and social considerations for alternative land, if any.
- (8) Support for a preparation of the abbreviated Resettlement Action Plan, if any.

END



## IMPLEMENTATION STRUCTURE AND MEMBERS OF STEERING COMMITTEE FOR THE PROJECT



**<Japanese Side>**

- Team Leader/ Flood Management Planning/Movement of Sediment
- Hydrology and Hydraulics
- Structural measures for River Management
- Land Use Planning/Urban planning/Land System
- Bridge Design
- Construction and Procurement Planning/Cost estimation
- Organization, Legal System and Governance
- Economic and Financial Analysis
- Environmental and Social Considerations
- Training/Coordination

