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MINUTES OF MEETING
FOR
THE PROJECT FORMULATION STUDY
ON
FEASIBILITY STUDY FOR EXPANSION OF VICTORIA HYDROPOWER
STATION
IN SRI LANKA

AGREED UPON BETWEEN
CEYLON ELECTRICITY BOARD
AND
JAPAN INTERNATIONAL COOPERATION AGENCY

Colombo, 16th August, 2007



M M C Ferdinando
Secretary
Ministry of Power and Energy



Akira Niwa
Leader
Project Formulation Study Team
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D. R. Puliaperuma
General Manager
Ceylon Electricity Board



M P D U K Mapa Pathirana
Director, Japan Division
Department of External Resources
Ministry of Finance and Planning

The Project Formulation Study team (hereinafter referred to as "the Team") of Japan International Cooperation Agency (hereinafter referred to as "JICA") headed by Dr. Akira Niwa, visited the Government of Sri Lanka (hereinafter referred to as "Sri Lanka") from August 2nd to 17th, 2007.

The Team had a series of discussions on the Feasibility Study for Expansion of Victoria Hydropower Station (hereinafter referred to as "the Study") with the officials of Ministry of Power and Energy (hereinafter referred to as "MPE"), Ceylon Electricity Board (hereinafter referred to as "CEB") and other relevant officials in Sri Lanka.

1. Confirmation of the Official Request

Both the Sri Lankan side and the Team (hereinafter called "Both sides") reconfirmed on the validity of the whole contents of Application Form for Japan's Development Study Program on Feasibility Study for Expansion of Victoria Hydropower Station (hereinafter called the Study), which was officially entered to Government of Japan on August 2004, and agreed in principle that addition of power supply for peak time to the National Grid is urgently needed in Sri Lanka to prevent serious electric power shortages in the coming years and the proposed capacity expansion in Victoria Power Station is one of the important options to be implemented.

2. Readiness for Expansion work at Victoria Power Station

The Team conducted close consultations with the relevant authorities concerned of Sri Lankan Government and site survey of the existing conditions of Victoria Power Station, and confirmed on the readiness for speedy and economical capacity expansion up to 210 MW maximum.

Both sides agreed, in principle, that the proposed expansion of Victoria Power Station was justified and recommended for the feasibility study to produce optimum expansion designs in consideration of the technical, economic, and environmental aspects.

3. JICA Assistance on Feasibility Study

CEB requested JICA assistance in conducting the feasibility study as soon as possible to realize the commissioning additional power generation by year 2013, and the Team agreed to convey to the authorities concerned of Government of Japan. Based on above mutual understandings, both sides made discussions about detailed contents of the Study and agreed in principle on the components and schedule of the Feasibility Study as shown in the tentative Scope of Work of the ANNEX 1&2.

4. JICA Assistance on EIA Study

CEB requested JICA assistance for an EIA/IEE Study as part of the Feasibility Study, and the Study Team agreed to convey to the authorities concerned of Government of Japan. CEB will submit immediately a request letter to the relevant authority for the arrangement of issuing the Terms of Reference for the EIA/IEE Study.

The Team explained the contents of the JICA's Guidelines for Environmental and Social Considerations, and mentioned that JICA will monitor the Study activities according to the procedures stated in the Guidelines. The Sri Lankan side understood the issue and assured their support to meet the JICA's consideration stated in the Guidelines.

5. Procedure before Implementation of the Study

The Team explained to the Sri Lanka side of the procedure before Implementation of the Study as follows

- (1) Consultation process in the Government of Japan for approval of the Study.
- (2) Dispatching Preparatory study team for finalizing the Scope of Work for the Study if necessary.
- (3) Signing the Scope of Work by representatives of both sides.

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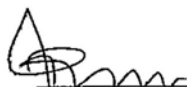
- ANNEX 1 Tentative Scope of Work
- ANNEX 2 Tentative Schedule of Environmental and Social Study Between Sri Lanka and Japan
- ANNEX 3 List of main participants



**TENTATIVE SCOPE OF WORK
FOR
FEASIBILITY STUDY
FOR
EXPANSION OF VICTORIA HYDROPOWER STATION
IN SRI LANKA**

**AGREED UPON BETWEEN
CEYLON ELECTRICITY BOARD
AND
JAPAN INTERNATIONAL COOPERATION AGENCY**

Colombo, xxxxxxxx



M M C Ferdinando
Secretary
Ministry of Power and Energy

Takumi Ueshima
Resident Representative,
Sri Lanka Office
Japan International Cooperation
Agency

D.R. Pullaperuma
General Manager
Ceylon Electricity Board

M P D U K Mapa Pathirana
Director, Japan Division
Department of External Resources
Ministry of Finance and Planning



1. Introduction

In response to the request of the Government of Democratic Socialist Republic of Sri Lanka (hereinafter referred to as "Sri Lanka"), the Government of Japan decided to conduct the Feasibility Study (hereinafter referred to as "the Study") for Expansion of Victoria Hydropower Station in Sri Lanka (hereinafter referred to as "the Expansion") in accordance with the relevant laws and regulations in force in Japan. Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation program in the Government of Japan, will undertake the Study in close cooperation with the authorities concerned in Sri Lanka. The present document sets forth the Tentative Scope of Work with regard to the Study.

2. Objectives of the Study

The Study aims at formulating the optimum plan and assessing its technical, economic and financial, and environmental viabilities of the Expansion by means of the technology transfer to Sri Lanka counterpart personnel in the course of the Study and recommending further process of the Expansion implementation.

3. Scope of the Study

In order to achieve the Study, JICA shall carry out the following study.

(1) Data Collection and Site Visit

- To collect and review the existing data, reports and other relevant information for the Study
- To visit the Victoria Hydropower Station to confirm the current situation and collect the relevant data and information
- To discuss with World Bank and Mahaweli Authority of Sri Lanka to confirm the progress and content of "Dam Safety and Water Resources Planning (DSWRPP)", especially relating to Component 3: Multi-sectoral Water Resources Planning

(2) Preliminary Study on Alternative Options

- To conduct preliminary economic study on the simple expansion option as annex to the existing power station and other options such as a pumped storage option (Victoria Reservoir as the upper pondage and Randenigala reservoir as the lower pondage) in consideration of the following parameters:

- (a) Installed capacity
- (b) Location of power house

(3) Optimization of Expansion Plan

- To optimize number of units and unit capacity considering the following viewpoints;
 - (a) Water resources management of Mahaweli River Basin
 - (b) Power demand in future
 - (c) Generation expansion plan including IPP projects
 - (d) Constraints and measures relating to topography, geology, water use, environment,

investment amount and transmission lines, if any

(4) F/S Grade Design

- To conduct basic design*) of which expected outcomes are;

- (a) Salient feature of the expansion plan
- (b) General layout and profile
- (c) Plans and sections of main structures
- (d) Geological plan and profile
- (e) Control system configuration
- (f) Reservoir operation
- (g) Power system stability
- (h) Construction Plan
- (i) Project cost estimate
- (j) Implementation schedule

*) basic design will be carried out by coping already available design drawing, and needs to be updated to produce commonly called "basic design"

(5) Environmental and Social Considerations

- Sri Lanka shall be responsible for the following items relating to EIA (Environmental Impact Assessment)/IEE (Initial Environment Examination), and JICA will support the activities and monitor the progress following JICA 's Guidelines for Environmental and Social Considerations.

- (a) Impact on ground water and soil stabilities
- (b) Impact on flora and fauna
- (c) Impact on social environment
- (d) Others, if any
- (e) Preparation of an Environmental Monitoring Plan

(6) Economic Analysis and Financial Evaluation

- To conduct economic analysis
- To conduct financial evaluation considering expected finance sources

4. Schedule of the Study

The Study shall be conducted in accordance with the tentative schedule in Appendix I attached herewith.

5. Reports

JICA shall prepare and submit the following reports in English to Sri Lanka, in accordance with tentative schedule attached in Appendix I.

- (1) Inception Report (15 copies)
- (2) Interim Report (15 copies)
- (3) Draft Final Report and its summary (15 copies)
- (4) Final Report and its summary (15 copies) with a compact disc.

The Government of Sri Lanka will provide its comments on the draft final report within one month after

receipt of the draft final report.

6. Undertakings of Sri Lanka

(1) To facilitate the smooth conduct of the Study, Sri Lanka shall take necessary measures:

- 1) To permit the members of the Team to enter, leave and sojourn in Sri Lanka for the duration of their assignments therein and exempt them from foreign registration requirements and consular fees;
- 2) To exempt the members of the Team from taxes, duties and any other charges on equipment, machinery and other material brought into Sri Lanka for the implementation of the Study;
- 3) 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;

(2) Sri Lanka shall bear claims, if any, 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 Team.

(3) CEB shall, at its own expense, provide the Team with the following, in cooperation with other organizations concerned:

- 1) Security-related information on as well as measures to ensure the safety of the Team;
- 2) Information on as well as support in obtaining medical services;
- 3) Available data (including maps and photographs) and information related to the Study;
- 4) Counterpart personnel;
- 5) Suitable office space with necessary equipment; and
- 6) Credential or identification cards.

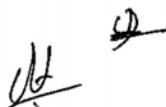
7. Undertakings of JICA

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

- 1) to dispatch, at its own expenses, the Japanese teams to Sri Lanka
- 2) to pursue technology transfer to Sri Lanka counterpart personnel in the course of the Study.

8. Others

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

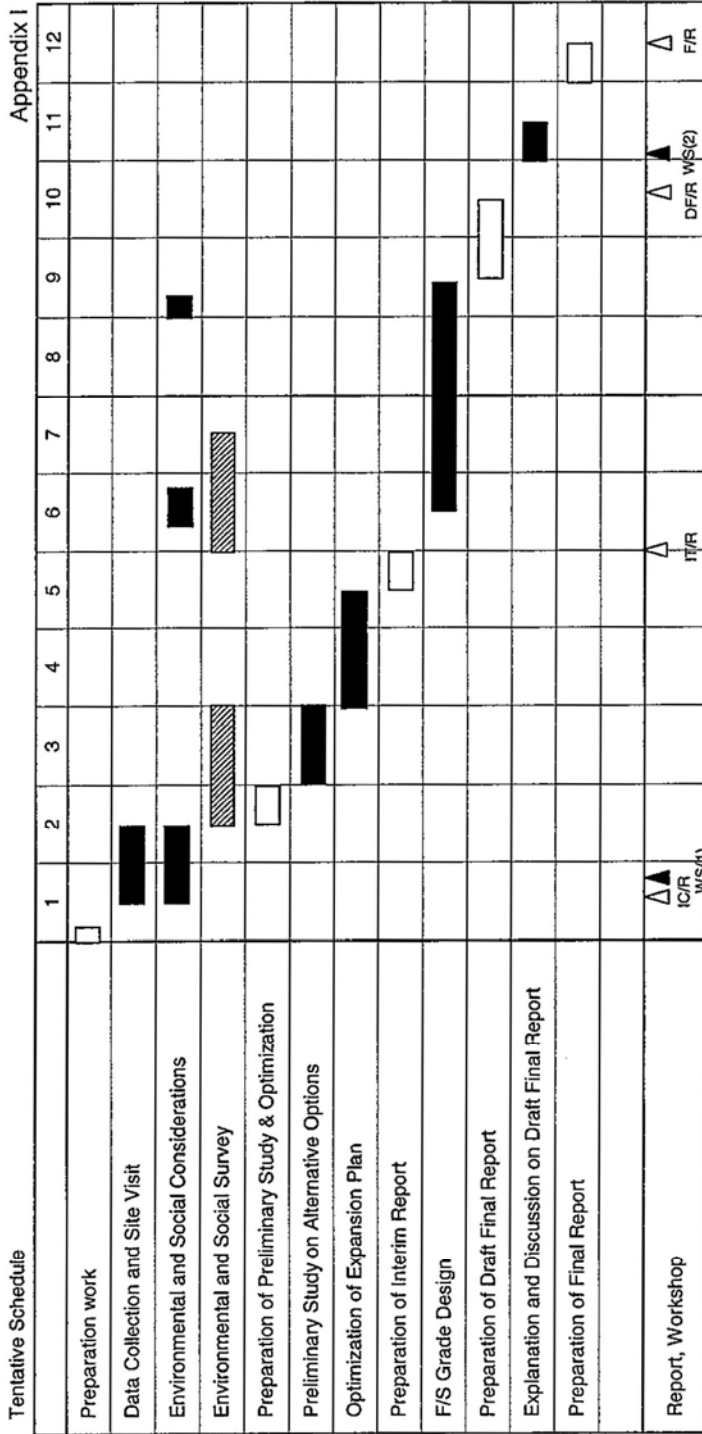


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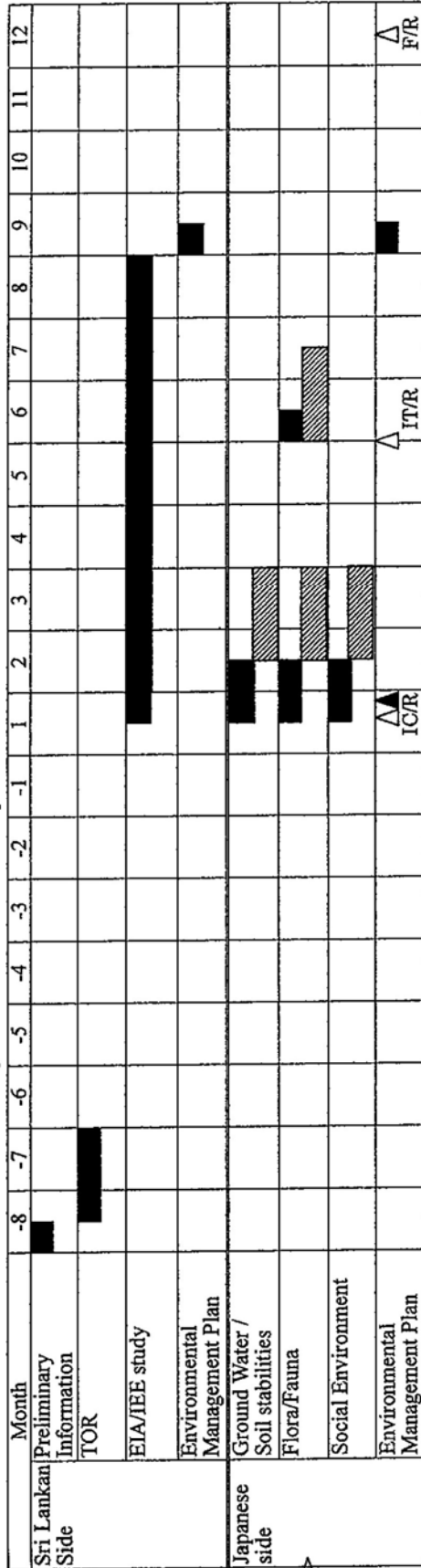
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The Feasibility Study for Expansion of Victoria Hydropower Station in Sri Lanka



Legend; ■ : works in Sri Lanka, □ : works in Japan, ▨ : works by subcontract, W/S: Workshop
 IC/R: Inception Report IT/R: Interim Report DF/R: Draft Final Report F/R: Final Report

The Feasibility Study for Expansion of Victoria Hydropower Station in Sri Lanka
Tentative Schedule of Environmental and Social Study Between Sri Lanka and Japan



Legend: ■ : works in Sri Lanka, ▨ : works by subcontract

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List of Attendance**Ministry of Power and Energy (MPE)**

Mr. M M C Ferdinando Secretary
 Mr. Tissa M. Herath Additional Secretary (Technical)

Department of National Planning , Ministry of Finance and Planning

Mr. B. Abeygunawardena Director General
 Mr. Bandusena Director

Department of External Resources, Ministry of Finance and Planning

Mr. M P D U K Mapa Pathirana Director

Ceylon Electricity Board (CEB)

Mr. Udayasri Kariyawasam Chairman
 Mr. D. R. Pullaperuma General Manager
 Mr. Rohitha Gunawardhana Environment Officer

Ministry of Environment and Natural Resources

Mr. M.A.R.D. Jayatillaka Secretary
 Mr. W.R.M.S. Wickramasinghe Additional Secretary

Central Environment Authority

Ms. Ellapola Deputy Director General
 Ms. Kanthi De Silva Director

Mahaweli Authority

Mr. Ivan De Silva Director General
 Mr. S.R.K. Aruppola Chief Engineer

JICA Project Formulation Study Team

Dr. Akira Niwa Team Leader
 Dr. Kanji Usui Environmental Impact Assessment
 Mr. Masanori Ajima Study Planning
 Mr. Yasuharu Matsuda Power Development Planning
 Mr. Kazunori Inoue Hydropower Planning

JICA Sri Lanka Office

Mr. Haruo Kubo JICA Expert, CEB
 Mr. Manabu Iida Assistant Resident Representative
 Mr. Cabral Indika Program Officer