SCOPE OF WORK
FOR
THE STUDY
ON
IMPROVEMENT OF WATER ENVIRONMENT
IN
VIENITANE CITY,
LAO PEOPLE'S DEMOCRATIC REPUBLIC

AGREED UPON BETWEEN
MINISTRY OF PUBLIC WORKS AND TRANSPORT
AND
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

VIENITANE, 3rd November, 2008

Mr. Hiroaki TAKASHIMA
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(MPWT)
I. INTRODUCTION

In response to the request from the Government of Lao People’s Democratic Republic (hereinafter referred to as “the Government of Lao PDR”), the Government of Japan has decided to conduct “the Study on Improvement of Water Environment in Vientiane City, Lao People’s Democratic Republic” (hereinafter referred to as “the Study”) 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 programs of the Government of Japan, will undertake the Study in close cooperation with the relevant authorities concerned of the Government of Lao PDR.

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

II. OBJECTIVE OF THE STUDY

The specific objectives of the Study are:
1. To survey and analyze the existing conditions of water environment in the Study area
2. To formulate a master plan for water environment management in Vientiane City
3. To transfer the technique on how to formulate a master plan for water environment management to Lao counterparts

III. STUDY AREA

The Study area is seven (7) districts (Sikhottabong, Chanthabury, Sissatanak, Xaisetha, Hadxaifong, Xaithany, Pakngum) especially Mak Hiao river basin in Vientiane city as shown in the attached sheet of Annex I.

IV. SCOPE OF THE STUDY

To achieve the above objectives, the Study will cover the following items:

Phase I
Baseline Survey and making draft master plan for water environment management in Vientiane City
1. Review of the existing data and information such as governmental environment policy, related legal system, hydrology, meteorology, geography, geology, natural and social environmental information and related existing reports
2. Monitoring survey for natural conditions in the Mak Hiao river basin
3. Survey of current situation of the storm water and wastewater management systems in the Study area
4. Review of the existing urban development plan, water supply project plan, wastewater treatment plan, urban drainage plan in the Study area
5. Formulation of the draft master plan for water environment management in Vientiane City including following items
   (1) Water Environment Improvement Strategy for 2020
   (2) Implementation plan based on the strategy
      1) Improvement plan of drainage water quality in Vientiane City
      2) Promotion plan of environmental education for water environment improvement
3) Consolidation plan of the legal framework for water environment
   (3) Implementation of Initial Environmental Examination (IEE)
   (4) Identification of priority items(s) among each plan showed in above: 5.(2).
       1),2)and 3).
   (5) Recommendations

   6. Selection of the target item(s) from priority ones showed in 5.(2).1)2)and 3) for a pilot
      project and a pre-Feasibility Study

   7. Conducting (a) seminar(s) and/or (a) workshop(s)

Phase II
Implementation of a pilot project and a pre-Feasibility Study (pre-F/S)

  1. Implementation of an environmental education pilot project

  2. Implementation of a pre-F/S
     (1) To conduct field survey at the construction site (Topographic survey,
         Environmental survey)
     (2) To formulate a construction plan and a procurement plan
     (3) To formulate an operation and maintenance plan
     (4) To estimate the project cost
     (5) To conduct the IEE survey (See attached Annex II)
     (6) To evaluate the project by economical, financial, technical, social and
         environmental aspects

   3. Finalization of the master plan based on the result of 1) and 2) of Phase II.

   4. Conducting (a) seminar(s) and/or (a) workshop(s)

V. STUDY SCHEDULE

The Study will be carried out in accordance with attached tentative schedule shown in the Annex
III. The schedule is tentative and subject to be modified when both parties agree upon and any
necessity that arises during the course of the Study.

VI. REPORTS

JICA shall prepare and submit the following writing reports and a digital data to the Government
of Lao PDR.

1. Inception Report:
   Twenty five (25) copies in English at the commencement of the Study

2. Progress Report (1)
   Twenty five (25) copies in English during Phase I

3. Interim Report:
   Twenty five (25) copies in English at the end of Phase I

4. Progress Report (2)
   Twenty five (25) copies in English during Phase II

5. Draft Final Report:
   Twenty five (25) copies in both English and Lao at the end of Phase II
   The Government of Lao PDR shall submit its comments within one (1) month after receipt of
   the Draft Final Report.

6. Final Report:
   Fifty (50) copies in both English and Lao within one (1) month after receipt of the comments on
   the Draft Final Report from the Government of Lao PDR.
VII. UNDERTAKING OF THE GOVERNMENT OF LAO PDR

1. To facilitate smooth conduct of the Study, the Government of Lao PDR shall take the following necessary measures;

(1) To secure the safety of the Japanese study team (hereinafter referred to as "the Team"),
(2) To permit the members of the Team to enter, leave and sojourn in Lao People’s Democratic Republic (hereinafter referred to as “Lao PDR”) for the duration of their assignments 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 and out of Lao PDR 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 Lao PDR from Japan in connection with the implementation of the Study,
(6) To secure permission for the Team to enter into private properties or restricted areas for the implementation of the Study,
(7) To secure permission for the Team to take all data and documents including maps and photographs related to the Study out of Lao PDR to Japan, and
(8) To provide medical services as needed. Its expenses will be chargeable to the members of the Team.

2. The Government of Lao PDR 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.

3. Public Works and Transport Institute (hereinafter referred to as “PTI”) shall act as counterpart agency to the Team and also as coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.

4. PTI and the related organizations shall nominate a counterpart team that will work closely with the Team throughout the study period.

5. PTI shall, at its own expense, provide the Team with the followings, in cooperation with other organizations concerned:

(1) available data and information related to the Study,
(2) counterpart personnel,
(3) suitable office space with necessary equipment such as desks, chairs, telephone,
(4) credentials or identification cards to members of the Team,
(5) necessary permission by security authorities for field surveys of the Team, and
(6) information on as well as support in obtaining medical services.

6. Ministry of Public Works and Transport (MPWT) will be the executing agency for the Study. A Steering Committee will be organized under the chairmanship of MPWT consisting of all the concerned organizations, such as PTI, DHUP, the related departments of the Water Resources and Environment Administration (WREA), Department of Public Works and Transport of Vientiane city and Vientiane Urban Development Administration Authority (VUDAA). The Committee will be convened at times when there is a need to discuss and resolve critical issues related to development policies and strategy.

VIII. OTHERS

JICA and PTI shall consult with each other in respect of any matter that may arise from or in connection with the Study.
Terms of Reference for the Environmental and Social Considerations Study

Environmental and Social Considerations Study (IEE Level)

1. Analysis of environmental baseline data
   (1) Social and economic conditions
       - population, economy, employment, infrastructure/public facilities (water supply, sewerage, etc.),
       - land use, water use, landownership, public health, local conflicts, religious groups, cultural
         heritage/historical site, hazards(risk), accident, protection/reserve area, etc.
   (2) Natural conditions
       - Topography, geology, soil, ground water, meteorology, hydrology (water level, tidal current,
         wave, etc.), ecology (fauna & flora), vegetation/forests, water bodies (river, canal, reservoir,
         pond, etc.), erosion, landscape, natural disaster, etc.
   (3) Polluted situations
       - Air pollution/quality, water pollution/quality, soil contamination, noise and vibration, land
         subsidence, offensive odor, waste materials, etc.
   (4) Laws
       - Laws concerning Environmental Impact Assessment, compensation and resettlement and
         environmental issue, etc.

2. Scoping
   - "scoping" means deciding alternatives to be analyzed, and grasping a range of significant and
     likely significant impacts, and considering study methods.

3. Initial environmental examination and study on mitigation measures (including study on
   alternatives)

4. Consultations with stakeholders (stakeholders meetings) at the appropriate study stage.
## Tentative Schedule of the Study

| Month | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|-------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Work Schedule | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phase I | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phase II | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reports | Δ | Δ | Δ | Δ | Δ | Δ |
| IC/R | PR/R(1) | IT/R | PR/R(2) | DF/R | F/R |

IC/R: Inception Report  
IT/R: Interim Report  
PR/R: Progress Report  
DF/R: Draft Final Report  
F/R: Final Report
MINUTES OF MEETINGS
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1. COUNTERPART ORGANIZATION

Department of Housing and Urban Planning (DHUP), Ministry of Communication, Transport and Construction (MCTPC) requested the proposal of the Study in August, 2007. After that MCTPC was reorganized and changed its name to Ministry of Public Works and Transport (MPWT) in 12 October, 2007. MPWT assigned PTI (the former URI: Urban Research Institute) as the counterpart agency for the Study.

PTI shall nominate a counterpart team that work closely with the Japanese Study Team throughout the Study period. And related organization such as DHUP, the related departments of the Water Resources and Environment Administration (WREA), Department of Public Works and Transport of Vientiane city and Vientiane Urban Development Administration Authority (VUDAA) shall nominate member(s) of the counterpart team mentioned above. Lao side will provide a list of counterpart team personnel before commencement of the Study.

2. STUDY PERIOD

The duration of the Study will be two (2) years and six (6) months.

3. COLLECTING DATA AND INFORMATION

Both sides agreed that PTI will provide JICA Study Team with all available data and information related to the Study. PTI will also make best efforts to provide data and information of other organizations. JICA Study Team will utilize those data and information for the purpose of the Study.

Necessary information and data should be provided by Lao side before formulating a master plan for Water Environment Management in Vientiane City, such as quality and quantity of water discharge to That Luang Marsh and Mak Hiao River basin and those related to legal framework changes with respect to EIA.

Especially, “Vientiane New Town Project” will affect the contents of the Study in quality and quantity. Lao side shall provide JICA Study Team with basic design including target population, planned standard quality of effluent from residents, facilities etc as pre-condition for the Study.

4. STEERING COMMITTEE

Both sides agreed that PTI would set up a steering committee for the smooth implementation of the Study. It will consist of the representatives of relevant organizations under the chairpersonship of MPWT. Organizations as follows are assumed to join the committee at the present moment. The JICA Study Team and JICA representative will also attend the committee.

(1) Ministry of Public Works and Transport (MPWT) (Chair)
(2) Vientiane city
(3) PTI
(4) WREA
(5) Department of Housing, and Urban Planning (DHUP)
(6) Department of Public Works and Transport (DPWT), Vientiane city
(7) Health Department, Vientiane city
(8) Agriculture and Forestry Department, Vientiane city
(9) Industry and Commerce Department, Vientiane city
(10) Environment Office, Vientiane city
(11) Vientiane Urban Development Administration Authority (VUDAA)
(12) Vientiane New Town Project, Vientiane City
(13) Other related organizations
5. Local sub contractor
The Japanese study team will contract local specialists to assist the Study. The Lao study
director and Japanese Study Team Leader are responsible for preparing terms of the references
(TOR) for recruiting the local specialists and their work plans. The finalization of contract of local
sub-contractor(s) will be carried out under rules and regulations of JICA

6. Equipment for the study
JICA would provide an equipment and supplies for the Study, if necessary.
The equipment will remain the property of JICA for the duration of the Study. Its ultimate
ownership shall be decided by JICA in consultation with Lao side.

7. Counterpart fund
Lao side shall bear the allocation of the counterpart fund for the study, in accordance with the
Agreement on Technical Cooperation between the Government of Japan and the Government of
Laos signed on 12 December in 2003.

8. Dispatch of Japanese study team
JICA will dispatch, at its own expense, the Japanese study team to Laos. The Japanese study
team will jointly work with Laos study team and pursue technology transfer to ensure the effective
management of water environment in Vientiane City in the course of the Study.

9. Disclosure of the reports
MPWT and JICA agreed that the final reports specified in the S/W would be disclosed to all
interested parties to facilitate the dissemination of the Study.