

# PARTNERSHIP FOR MARKET READINESS- Thailand

---

(Ref. No. CS-13) Terms of Reference for Study on GHG emission and identify potential GHG emission reduction. Develop Local GHG Abatement Plans in 8 municipalities (Region 3). Develop GHG abatement plan guideline that include environmental and social management framework (ESMF)

## 1. Background and Overview of the Partnership for Market Readiness

The World Bank established a Partnership for Market Readiness (PMR) program, which is supported by a grant-based capacity building trust fund.<sup>1</sup> The PMR aims to provide financial and technical support to developing countries to build their capacity and pilot market instruments that would allow them to scale up their mitigation efforts. In addition, the PMR will provide a platform for technical discussions, and collective innovation on new market instruments. The PMR will also create and share, including with the UNFCCC, a body of knowledge on market instruments and lessons learned.

**Thailand Greenhouse Gas Management Organization (Public Organization) (TGO)- under the Ministry of Natural Resources and Environment, the Royal Thai Government - as an Implementing Country Participant** has proposed to the PMR to explore potential new domestic market mechanisms on four main components that cover several activities for the preparation and implementation phases. These components include:

- Component 1* Preparation of key market components for the voluntary Energy Performance Certificate scheme (EPC);
- Component 2* Development of Local Greenhouse Gas Abatement Plans and a study on Low Carbon City (LCC) Pricing and LCC Fund for the LCC program;
- Component 3* Policy recommendation on legal framework to establish the Emission Trading Scheme (ETS);
- Component 4* Project management.

The Low Carbon City (LCC) program will support the national goal to promote and assist municipalities and local communities to implement GHG mitigation actions while achieving sustainable development and low carbon society goals through domestic market mechanism. The emission reduction projects under LCC program may apply to the Thailand Voluntary Emission Reduction Program (T-VER), and the credits generated under the LCC program (LCC-TVERs) can be used for offsetting carbon footprints in voluntary market. Once the domestic emission trading scheme in Thailand is established, the LCC-TVERs credits will be eligible for compliance purpose in the scheme with a possibility to export to other countries' ETS. The PMR's support for **Component 2** will focus on activities including the study on GHG emission, identify potential GHG emission reduction, and develop local GHG abatement plans and guidelines for municipalities. It shall also study on the pricing mechanism for LCC-TVERs and incentive options for LCC-TVERs buyers respectively.

The LCC program consists of four main activities for the preparation and operation phases including:

- Activity 1* Study on the city carbon footprint;
- Activity 2* Identify the potential greenhouse gas emission reduction activities;
- Activity 3* Develop greenhouse gas abatement plans in accordance with local municipality context; and

---

<sup>1</sup> More information on the PMR is online available at: <http://www.thepmr.org>

# PARTNERSHIP FOR MARKET READINESS- Thailand

---

*Activity 4* Develop the local GHG abatement plans guideline which include environmental and social management framework (ESMF);

This term of reference (ToR) therefore aims at Activity 1, 2, 3, and 4 to study on GHG emissions, identify potential GHG emission reduction activities, develop local GHG abatement plans for municipalities and develop the local GHG abatement plan guidelines which include environmental and social management framework.

## 2. Objective of consultancy

- 2.1 To support municipalities and local communities in developing the appropriate greenhouse gas mitigation action plans while achieving sustainable development and low carbon society goals.
- 2.2 To develop the local GHG abatement plan guidelines which include environmental and social management framework (ESMF)<sup>2</sup>.

## 3. Scope of Work

- 3.1 The consultant must review the conceptual design of the LCC program and Thailand Market Readiness Proposal (MRP) and design the system/process based on the principles/concepts provided in the MRP.
- 3.2 Organize stakeholder consultations including the LCC working group, PMR steering committee and participating municipalities, preparations of meeting materials as well as documenting the outcomes and next steps of the work. The consultant shall take gender-sensitive aspects into account when organizing stakeholder consultations that perspective of men and women on GHG and its mitigation actions are taken into account.
- 3.3 Assist TGO to organize invitation seminars to persuade municipalities or local communities to this project and also setup the criteria for selecting the participating municipalities.
- 3.4 Organize a kick off meeting for participating municipalities.
- 3.5 Carry out tasks 4.3 - 4.5 for 8 participating municipalities..
- 3.6 Carry out task 4.2 as integration of knowledge and lesson learnt from participating municipalities or local communities together with international experiences to develop the greenhouse gas abatement plan guidelines. This task is also including setup MRV guidelines of those abatement plans, development of co-benefit evaluation and development of ESMF.
- 3.7 Generate documents as outlined in tasks 4.1 – 4.5.
- 3.8 Coordinate with the key stakeholders, such as participating municipalities, local communities and the other consultants, in order to ensure seamless coordination and data/information sharing between all stakeholders under the LCC program.
- 3.9 Provide response to comments of LCC Working Group, PMR Steering Committee and the World Bank then revise study report accordingly.
- 3.10 Present progress of works to TGO once every two (2) months including active consultation and data sharing with other relative consultants
- 3.10 Organize training/knowledge sharing for the TGO staffs, municipalities and relevant agencies at least once as shown below. The seminar will be held in Bangkok. The

---

<sup>2</sup> For more information regarding the Environmental and Social Management Framework (ESMF) of LCC program is presented in the Annex I.

## PARTNERSHIP FOR MARKET READINESS- Thailand

---

expenses for representatives from participating municipalities to attend the seminar including travel (air ticket/fuel charge) and accommodation will be covered in this ToR budget.

| Indicative training/knowledge sharing | Participant                                     | Number of participant (at least) |
|---------------------------------------|---|----------------------------------|
| Dissemination seminar                 | TGO staff, municipalities and relevant agencies | 60                               |

#### 4. Specific tasks to be carried out

##### 4.1 Setup the selective criteria for selecting municipalities and the project framework

The consultant shall assist TGO to setup the selective criteria for selecting municipalities or local communities to participate in this project. The 24 participating municipalities or local communities should diversify by area size, population, or economic profiles and then group by the regional location for the consultants of ToR CS-11, 12, and 13 to conduct under PMR-LCC program. In addition, the consultant shall setup the project framework by consulting with the LCC working group to ensure work consistency in all ToRs of LCC (CS-11, 12, and 13).

##### 4.2 Develop City Carbon Footprint, GHG Abatement Plan and Project Evaluation Guidelines

The consultant shall develop three guidelines to be used as a guidance/framework document in studying the greenhouse gas emissions (task 4.3), identifying the potential greenhouse gas emission reduction activities (task 4.4) and developing greenhouse gas abatement plan in accordance with local municipality context (task 4.5) for 24 municipalities/local communities under this PMR project support as well as for other municipalities and local communities in the future. Three guidelines consist of;

- (i) **The guideline for developing the city carbon footprint.** The consultant shall purpose to use one of GHG report standards suit to community level. The framework should include but not be limited to GHG inventory classification, standard of calculation methodology, and consolidation approach on emission boundary and scope. This guideline shall include the identification of emission sources/sinks with suggested methodology for emissions estimation and the prediction of emissions trend in Business as Usual (BAU) case for setting up emission baseline. The guideline shall compile to international GHG report standard at community level.
- (ii) **The guideline for developing the GHG abatement plan (including Environmental and Social Management Framework, ESMF).** This guideline shall include all necessary steps to develop the GHG abatement plan and the selection criteria for abatement technology, taking into account the implementation feasibility and requirements of environment and social management framework. The guideline shall provide the selective criteria and how to prioritize of those abatement measures. The list of criteria should include but not be limited to technical feasibility, financial, co-benefit, implementation readiness, community acceptance, and sustainable development. The guideline shall include a stand-alone ESMF, annexed to the guideline that covers contents described in annex I of this ToR at minimum.
- (iii) **The guideline for project evaluation.** This guideline shall include the methodology for evaluating the GHG emission reduction and evaluation criteria for assessing the benefits of project implementation such as co-benefit and sustainable development.

---

## **PARTNERSHIP FOR MARKET READINESS- Thailand**

---

The consultant shall conduct consultation workshops with stakeholders to ensure the quality and acceptance of these guidelines.

These guidelines will be used in identifying the potential greenhouse gas emission reduction activities and developing greenhouse gas abatement plan in 24 municipalities/communities under this PMR project. Lessons learned from these 24 municipalities/communities will be taken into account in finalizing the guidelines.

### **4.3 Study on the city carbon footprint in 8 participating municipalities**

The consultant shall study on the local context of greenhouse gas emissions of each participating municipality. This study should (i) identify the major of greenhouse gas emission activities within local context, (ii) estimate the emission amount of those activities, and (iii) predict the emission trend of Business as Usual (BAU) scenario to setup emission baseline of each participating municipality. Study of the city carbon footprint would follow procedures outlined in the draft city carbon footprint guideline developed in task 4.2.

### **4.4 Identify the potential greenhouse gas emission reduction activities in 8 participating municipalities**

The consultant shall find the emission potential of each participating municipality or local community through consultation with local stakeholders. The consultant shall suggest the potential abatement activities with appropriate technology solutions to suit the local need. The suggested potential abatement activities shall be screened for environmental and social benefits and impacts per guidance developed in the ESMF. The consultant shall also arrange consultations on suggested abatement activities with local stakeholders to ensure the sustainable development of participating municipalities or local communities. Gender-sensitive aspects e.g. perspective of men and women on GHG and its mitigation actions shall be taken into account when organizing stakeholder consultations.

### **4.5 Develop greenhouse gas abatement plans in accordance with local municipality context in 8 participating municipalities**

The consultant shall demonstrate selecting or screening criteria and also the rational to prioritize those abatement measures. The list of criteria should include but not be limited to technical feasibility, financial, co-benefit, implementation readiness, community acceptance, environmental and social aspects and sustainable development. The criteria shall discuss among consultants of CS-11, CS-12, CS-13 and TGO to ensure work consistency. The consultant shall develop the appropriate greenhouse gas abatement plans for each participating municipality and arrange consultations on abatement plan with local stakeholders to ensure the sustainable development and prioritize the reduction activities for short-term, middle-term and long-term implementation plan. In addition, the consultant shall conduct the financial analysis of each abatement option which also considers environmental and social aspects. This can support financial feasibility of the implementation plan and feasible technology options. Development of greenhouse gas abatement plan shall follow ESMF guidance in order to enhance environmental and social benefits and minimize impacts.

## **5. Contract Supervision**

The consultant will work under the overall oversight of the Thailand Greenhouse Gas Management Organization (Public Organization; TGO), and in close cooperation with The World Bank.

---

# PARTNERSHIP FOR MARKET READINESS- Thailand

---

## 6. Timeline and Key Deliverables

The Consultant shall prepare the reports as following:

- 6.1 Inception report 10 copies and CD recording 10 copies within **1 month** from the date of the contract. This report should include the work plan and timeline.
- 6.2 Progress report (1) 10 copies and CD recording 10 copies within **3 months** from the date of the contract. This report should cover the selective criteria for selecting municipalities to participate in this project and project framework as mentioned in task 4.1 and the draft guidelines as mentioned in tasks 4.2 (i, ii and iii).
- 6.3 Progress report (2) 10 copies and CD recording 10 copies within **9 months** from the date of the contract. This report should cover tasks 4.1-4.3
- 6.4 Progress report (3) 10 copies and CD recording 10 copies within **14 months** from the date of the contract. This report should cover tasks 4.1-4.4
- 6.5 Draft final report 10 copies and CD recording 3 copies within **20 months** from the date of the contract. This report should cover tasks 4.1 - 4.5 and revised guidelines.
- 6.6 Final report 10 copies and CD recording **10 copies** within **23 months** from the date of the contract.

**All reports should be submitted both in Thai and English.**

- Reports as mentioned in 6.1-6.4 should be full report in Thai and summary in English.
- Draft final report and final report should be submitted both in Thai and English.

## 7. Minimum Qualifications Requirement

The consultants will be selected through Consultant's Qualifications Selection (CQS) process.

The consulting firm is expected to meet the following minimum qualifications:

- Minimum five (5) years of substantive experience in greenhouse gas management, energy planning, waste management and social and community engagement;
- Familiar with Thai' circumstances, especially energy legal and regulations, policies and strategies, and/or related issues;
- Experience in consultation and need assessments; and

Key staff: (The qualifications of the proposed key staff will be evaluated at the proposals stage)

Key staff of consultant and their committed availability to have experience in similar projects.

- Team Leader's minimum requirement:
  - (i) Advanced degree in energy engineering, environmental engineering, environmental science, environmental management, and environmental economic, urban management and planning, or other related field.
  - (ii) At least 10 years experience in related field.
  - (iii) Experience in strategic planning for local community.
  - (iv) Proved coordination skill in project management.
- Energy management specialist's minimum requirement:
  - (i) Advanced degree in energy engineering, or other related field

## **PARTNERSHIP FOR MARKET READINESS- Thailand**

---

- (ii) Experience at least 5 years and expertise in energy planning at local community level.
- (iii) Experience in strategic planning for local community advantageous.
- Transportation specialist's minimum requirement:
  - (i) Advance degree in transportation engineering, material handling engineering, logistic management, urban management and planning, or other related field.
  - (ii) Experience for at least 5 years and expertise in environment and energy planning at local community level.
- Environmental management specialist's minimum requirement:
  - (i) Advance degree in environment engineering, environmental science, environmental management, and environmental economic, agriculture science, forestry, or other related field.
  - (ii) Experience for at least 3 years and expertise in environment and energy planning at local community level.
  - (iii) Experience in strategic planning for local community is advantageous.
  - (iv) Familiarity with World Bank Safeguards policies is advantageous.
- Social engagement specialist's minimum requirement:
  - (i) Degree in social science, environmental management, and environmental economic, urban management and planning, or other related fields.
  - (ii) At least 3 years experience in stakeholder/social engagement, stakeholder consultation, community development.
  - (iii) Experience in conducting a consultation workshop is advantageous.
  - (iv) Familiarity with World Bank Safeguards policies is advantageous

# **PARTNERSHIP FOR MARKET READINESS- Thailand**

---

## **ANNEX I : The Environmental and Social Management framework (ESMF) and Environmental Management Plan (EMP)**

The Environmental and Social Management framework (ESMF) aim to establish procedures for screening all potential greenhouse gas emission reduction activities for their potential adverse environmental and social impacts and specifying measures to address and monitor those identified impacts during the project operation.

### **The ESMF Contents shall consist of;**

1. Introduction
  - 1.1. Description of the project background and targeted locations.
  - 1.2. Rationale for ESMF, objective of ESMF preparation, scope and methodology
2. Institutional and Legal Frameworks
  - 2.1. National and local environmental and social legislation and regulations pertinent to the project;
  - 2.2. Applicable World Bank Safeguard Policies
3. Project Description  
Project descriptions and components (Emphasize on LCC component). The description should include anticipated/typical types of sub-projects (or GHG abatement activities).
4. Environment and social screening criteria and process for the selection of GHG abatement activities
  - 4.1. This section may include sub-projects or activities which provide great environmental and social co-benefits in addition to benefit on GHG reduction (Positive List) and sub-projects or activities which should be excluded from Abatement Plan development (Negative List).
  - 4.2. Screening checklist for environmental and social impacts and process for the selection of abatement activities.
5. Identification of appropriate safeguard tools/instruments e.g. environmental management plan (EMP) etc., to be prepared during feasibility study in the future. The ESMF shall include a template Environmental Management Plan (EMP) for each of the typical GHG abatement activities identified during the course of the project following example of EMP content provided in this annex.
6. Stakeholder consultation and information disclosure
  - 6.1. Provide summary on consultation activities and stakeholders consultation on the ESMF and concerns raised and responses. Locations and dates of ESMF to be disclosed should be provided.
  - 6.2. Requirements on stakeholder consultation and information disclosure for local GHG abatement plan development
7. Institutional arrangements for ESMF implementation and capacity building and training program;

# PARTNERSHIP FOR MARKET READINESS- Thailand

---

## Environmental Management Plan (EMP)

### Content (sample)

1. *1. Introduction* - provide brief but concise information on objective of the EMP and its connection with the ESMF of the Project.
2. *Policy, regulations, and institutional frameworks*
  - 2.1. *GOV's regulations* - provide brief description of GOV regulations and standards applied for the subproject
  - 2.2. *ESMF requirements*
3. *Project description* – provide description of the subproject including location maps showing location in the project area as well as details at the subproject level. This is to provide reader who is not familiar with the area to understand the issue clearer.
4. *Environmental background* – provide key information on the environmental background of the subproject as well as its connection with the project area, including maps (if possible). Focus should be given to identify area/community that may be affected by the subproject.
5. *Potential impacts and mitigation measures* – provide results of the safeguard screening following the criteria in the ESMF, identify potential impacts (positive and negative) and mitigation measures; the impacts should be described for pre-construction, construction, and operation phases; using a matrix format could help understanding connection between the impacts and mitigation better.
6. *Actions to be carried out under the subproject* – explain the mitigation measures and agencies responsible for the implementation during preconstruction, construction, and operation stages of the subproject.
7. *Implementation arrangement* – explain responsible agencies (including their capacity to carry out the activities identified in the EMP and the need for training), implementation schedule, cost estimate, and how the EMP will be integrated into the subproject.
8. *Consultation and information disclosure* – provide summary on consultation activities and stakeholders consultation on the EMP at subproject level and concerns raised and responses. Locations and dates of EMP to be disclosed should be provided.