

Terms of References

Preparation of Sri Lanka's Third National Communication on Climate Change

A National Expert on GHG inventory preparation - One post

1. Project background information

Sri Lanka has ratified the United Nations Framework Convention on Climate Change (UNFCCC) in 1993 and Kyoto Protocol in 2002. Consequently, the Ministry of Mahaweli Development and Environment (MMDE) is the National Focal Point to UNFCCC. Parties to the UNFCCC should prepare and submit their National Communications on climate change to the Secretariat of UNFCCC, fulfilling the requirement of the Convention under the Article 12 in respect of National Communications. Accordingly, Sri Lanka has submitted its Initial and Second National Communications in 2000 and 2012 respectively. Presently, Climate Change Secretariat (CCS) of the MMDE is in the process of preparing its Third National Communication (TNC) on Climate Change.

The project for preparation of the Third National Communication on climate change is a logical continual step towards further implementation of the UNFCCC at national level. Its main objective is to prepare a comprehensive report on the climate change related issues. The analysis conducted within the Second National Communication will be updated and upgraded/extended, which will result in preparation of a comprehensive national report. Furthermore, it will work towards ensuring that climate change issues are not considered as separate to national and local environmental concerns by integrating objectives into national and local strategic planning processes.

The TNC comprises of mainly 5 components as follows;

01. National Circumstances
02. GHG Inventory
03. Vulnerability and Adaptation Measures
04. Mitigation Options
05. Other relevant information (capacity building, education and public awareness, technology transfer and gap related to financial, technical and capacity needs)

In order to prepare GHG inventory, a national expert will hire on consultancy basis for period of 18 months.

11. Scope of Work

A national GHG inventory is a key element of the national communication to the UNFCCC. In the context of the UNFCCC, it is a comprehensive listing by source of annual GHG emissions and removals resulting directly from human activities for one year or a number of years. It comprises compiling of emissions and removals of Greenhouse Gases of major sectors such as Energy, Industrial Process & Product, Agriculture, Forestry & Other Land Use (AFOL) and Waste.

In this purpose, MMDE is planning to appoint a National Expert to take lead in preparation of GHG inventory for Sri Lanka's Third National Communication (TNC), in accordance with the GHG Inventory Preparation Guideline developed by the UNFCCC and IPCC, in collaboration with all the relevant stakeholders. This exercise will be based on 2010 data and information. Thus, in order to assist the national expert in preparation of GHG inventory a team of experts on Energy, Industrial Process & Product, Agriculture, Forestry & Other Land Use (AFOL) and Waste sectors will be hired by the CCS under this consultancy.

All tasks related to GHG inventory preparation to be carried out in close communication and collaboration with the CCS in coherent and transparent manner.

III. Duties and Responsibilities:

Specific tasks to be performed by the National Expert are as follows;

- i. Major GHGs such as CO₂, CH₄, N₂O and other indirect GHGs like HFCs, PFCs and SF₆ as well as CO, NO_x, SO_x and NMVOCs Should be calculated as per the Guidelines of UNFCCC and IPCC.
- ii. Guide to national expert team and PMU to arrange institutional setup for preparation of GHG Inventory and identify key stakeholders in the process of preparation of the inventory.
- iii. Guide the expert team to collect/gather all the necessary information and data required to prepare the GHG inventory on Energy, Industrial Process & Products, Transport, Agriculture, Forestry & Other Land Use (AFOL) and Waste sectors.
- iv. Guide the members of expert team to identify and calculate sector wise GHG emissions and validate standardized methodologies on GHG inventory preparation.
- v. Provide necessary technical guidelines, that developed by the UNFCCC and the IPCC on GHG inventory preparation and inventory reporting, to the expert team in order to collect data and calculation GHG emission.
- vi. Verify the calculated emissions for the year 2010 for all the sectors on the above by using validation methodologies for GHG Inventory estimates and Quality Control and Quality Assurance.
- vii. Assisting to establish a database for GHG activity data analyzing for present and future trends
- viii. Guide to build scenarios for GHG emission in each sector separately and one consolidated by using improved methodology developed by UNFCCC and IPCC.
- ix. Guide to develop a baseline scenario to abate the increase of GHG emissions based on the results from the GHG Inventory and future development plans, particularly in the Energy and Land Use Change and Forestry sectors.
- x. Revise the input data, taking into consideration data gaps and areas need to be improved and identified in the Second National Communication (SNC).
- xi. Identify and develop advanced methods for overcoming inventory data gaps for unavailable data.
- xii. Identify barriers and propose solutions in obtaining and/or collecting existing activity data for key sources.
- xiii. Establish research collaborations on identified data gaps, improve activity data and emission factors that are reflecting better in GHG inventory process.

- xiv. Guide to describe procedures and arrangements undertaken to collect and archive data for the preparation of national GHG inventories, as well as efforts to make this as a continuous process, including information on the role of the institutions involved.
- xv. Archive relevant data, information, and formats used for the project period and for future communications.
- xvi. Organize workshops in cooperation with the PMU and other experts to present and discuss the results obtained from the GHG Inventory.
- xvii. Prepare and submit updated GHG Inventory of Sri Lanka.
- xviii. Design and conduct the training workshop on the use of IPCC Guidelines.

IV. Qualifications and Skills:

The national expert for undertaking project activities should meet the following minimum criteria;

- I. A degree from a recognized university and a M.Sc. in the field of Engineering, Science, Environment and environmental management, economic or equivalent qualifications in any other field related to the project.
- II. Minimum of 8 years-experience of working on climate change or a related field
- III. Sound and broadly-recognized scientific expertise on various technologies on climate change mitigation in Sri Lanka;
- IV. Experience on GHG inventory preparation for National Communications to UNFCCC
- V. Understanding the relation of environment / development issues and climate change;
- VI. Familiarity with the methodologies for technology needs assessment and the UNFCCC guidelines.
- VII. Good communication skills and competence in handling GHG inventory preparation and identify mitigation potentials.
- VIII. Advance computing skills on data collection, gathering, filtering, analysis and modeling.
- IX. Knowledge on analytical capacity for determining mitigation options for decision-making.
- X. Knowledge on Quality Control and Quality Assurance.

V. General:

- I. All selected experts shall have excellent communication and reporting skills in English and satisfactory knowledge on essential computer applications.
- II. All Experts should be able to plan, execute and monitor programs and meet the targets with no/minimum additional support.
- III. All experts shall have sufficient physical fitness to work under busy and pressurized environment.
- IV. Initially all contract will be for durations given in each consultancy and would be extended as decided by the project management.
- V. All consultants should have correspondence with the Project Director through Technical Coordinator of the Project Management Unit.

V. Payment and deliverables:

SLR 3,750,000 - 4,000,000

The overall duration of the assignment covered by this ToR is 18 months from the date of contract signature.

VI. Expected output:

The Final Report of the National GHG Inventory in accordance with the UNFCCC guidelines with the details information on direct and indirect GHGs.