

**Terms of Reference for International Consultancy firm
Preparation of Low Emission Development Strategy (LEDS)
for Food Security in Bhutan (Agriculture and Livestock sector)**

1. Introduction

The Paris Agreement requires all parties to submit an updated NDC periodically with increasing ambition and in 2020 parties are to submit their updated and enhanced NDCs for the period 2025-2030. Based on the decisions for transparency and clarity, it is expected that the NDCs would be submitted before the session of COP 26 in 2021.

The Kingdom of Bhutan submitted one of the few Intended Nationally Determined Contributions (INDC) that was rated as sufficient towards the Paris Agreement goals in 2015. Bhutan reiterated the pledge to remain carbon neutral that was first made in 2009 at the Copenhagen Climate Summit. Bhutan is now in the process of preparing its second NDC and several rounds of consultations at various levels has been conducted, including a stock take and gap assessment. In the past few years a few sectoral Low Emission Development Strategies (LEDS) and other elaboration of climate change actions in the form of programs and projects were also prepared. The review and consultation process thus far have resulted in the prioritization for the development of an integrated LEDS for the agriculture and livestock sector.

As revealed in the latest draft Third National GHG Inventory, the agriculture and livestock sector continue to be a significant sector in terms of total GHG emissions and is also an important sector for the population of Bhutan as an important source of livelihood for the majority of the population. In terms of mitigation options, this sector has the least readiness to identify well defined mitigation actions despite having the highest GHG emissions as there has not been any comprehensive assessments of mitigation potential, besides the ongoing projects on household-level biogas plants. However, the development of LEDS for these sectors may need to critically consider the likely impact on national economy and the livelihoods of the farming communities, as enforcing mitigation action may not necessarily justify the investment made.

The stock take process and consultations has revealed that there are several activities that can be included in the 2nd NDC. A major area of opportunity is the focus and commitment of the Royal Government in pursuing organic agriculture at both the household farm level and also through intensive commercial production systems. However, a comprehensive LEDS and mitigation assessment of the sector would provide a clearer scope of the emission reductions and strategic direction for low emission development activities for the sector. Given the current situation of the COVID-19 pandemic and disruptions in the food supply chain system, the need to emphasize on food security, resilience and building forward better in the post pandemic situation has become even more critical and evident.

In addition, the report on Gender and Climate Change in Bhutan (2020) assessed the gender-climate nexus in Bhutan with a focus on agriculture, energy (including transport) and waste sectors. The findings and recommendations also identified opportunities to integrate gender and climate issues and action in the agriculture and livestock sector.

Towards this objective of preparing an integrated LEDS for the agriculture and livestock sector in Bhutan, an international expert with the assistance of a national expert is to be recruited.

2. Main Task of International Consultant (s)

The objective of this consultancy is to develop a Low Emission Development Strategy for the Agriculture and Livestock Sector in Bhutan, by integrating national priorities for food security, the promotion of sustainable and resilient food systems, and low emission development approaches.

The main tasks for the international consultant include:

- a) Review and assess the 3rd National GHG Inventory and any other relevant assessments as a basis for mitigation assessment in the agriculture and livestock sector. Provide any recommendations for updates to the inventory and improvements in data collection and reporting.
- b) Review national goals, as well as plans, priorities and programs of the agriculture and livestock sector with an emphasis on the national organic flagship program, to identify potential mitigation options. The mitigation assessment should cover all existing farming systems, including (but not limited to) mitigation opportunities from farm machineries and post harvest management practices in the country.
- c) Lead consultation workshops with sectoral experts and stakeholders to identify and prioritize mitigation actions for agriculture and livestock sector.
- d) Develop and conduct a training on GHG inventory and mitigation assessment for agriculture and livestock sector.
- e) Draft a LEDS for food security covering the agriculture and livestock sector. Elements to be included in the draft are described in Annex I.
- f) Based on the analysis, articulate opportunities for synergies with crosscutting issues including gender equality and biodiversity.

3. Timeline and duration.

The engagement will be for 40 days staggered from mid-October 31 December 2020 as per the anticipated timeline and workplan below:

	Activity	# days (estimate)	Oct		Nov				Dec				
			Wk 3	Wk 4	Wk 1	Wk 2	Wk 3	Wk 4	Wk 1	Wk 2	Wk 3	Wk 4	
1	Desk review (Data collection and review of relevant national priorities, plans, programs and reports).	5 day											
2	Inception meeting w/ national stakeholders and inception report submission	2 days		v/D									
3	Consultations with sector task force members + stakeholders & analysis. (online workshop + follow up meetings with focal persons)	14 days (1 day full team, 4 days agri, 4 days livestock, 4 days organic program, 1 day full team final)			v	v	v						
4	Training on GHG inventory & mitigation assessment including emission and economic modelling (agri & livestock) (online workshop)	5 days			v/D								
5	Analysis and drafting	10 days											

6	Presentation of draft and review by task force	2 day, (presentation day and follow up)								V/D			
7	Revision of final draft	1 day Review of report											
8	Final draft presentation	1 day										V/D	

V = video conference D = deliverables M = mission (if possible, for #3, #4, #6, #8)

4. Deliverables

- a) Inception report detailing methodology and workplan (*jointly with national consultant*)
- b) Training report for GHG inventory, emission modelling and mitigation assessment for agriculture and livestock focal persons
- c) Report on review of the Agriculture and Livestock sections within the National GHG inventory including recommendations for updates and improvement in data collection and reporting.
- d) Final draft document for a 'LEDS for Food Security in Bhutan. See Annex I for elements to be included in the draft. Incorporate comments, formatting, finalize and submission

5. Institutional Arrangements

- a) *An international consultancy* (home based) and a *national consultant* (Thimphu based) will be recruited by United Nations Development Program-Bhutan (UNDP) for this task.
- b) Both the international and national consultants will report directly to UNDP and Ministry of Agriculture and Forests (MOAF), and UNDP and MOAF shall liaise with the National Environment Commission Secretariat (NECS) for guidance and further endorsement of any document.
- c) The *international consultant* will lead the development of the LEDS including the training, technical assessments and consultations as described in the above sections.
- d) The *national consultant* will function as per the respective TOR to liaise and coordinate closely with the international consultant to assist and facilitate consultations with key national stakeholders in the country, and collection of necessary information and documents. The national consultant will also review the information and reports prepared by the international consultant to provide proper local and national context and relevance.

6. Station

Given the current restrictions on travel presented by the CoVID-19 Pandemic, it is anticipated that most of the work of the International consultants will be conducted remotely(homebased) . This working arrangement will include regular video conferencing with lead focal persons from UNDP, NEC and MOAF, the Sectoral Task Force members and other stakeholder representatives. UNDP-Bhutan will arrange and provide online meeting facility through virtual/zoom teleconferencing.

The national taskforce under the coordination of the National Consultant will attend in person in a organized venue to facilitate internal discussions while also attending the meeting virtually with international consultant.

If the situation evolves and so permits, at least one visit to Bhutan by the *international consultant* may be necessary to validate national and local circumstances and relevance of information and recommendations.

The *national consultant* will be stationed in Thimphu, Bhutan.

7. Payment Modality

Payment	Milestones & Deliverables
1 st payment – 20%	Contract signing & inception report
2 nd payment – 30%	GHG inventory and mitigation assessment training workshop completed. Submission of report on training and consultation workshops including recommendations for improvements in data collection.
3 rd payment – 30 %	Submission of Draft LEDS
4 th payment – 20%	Submission of final draft LEDS

8. Qualifications

- The assigned expert(s) must have at least 10 years of working experience on climate change mitigation issues, ideally in developing country and LDC context.
- must hold an advanced degree in agriculture, agro-economics, food production systems, animal husbandry or similar.
- At least one expert must have at least five years of demonstrated experience in sectoral mitigation assessment including in (i) baseline and mitigation scenario development as well as experience in prioritizing mitigation options (ii) measuring and evaluating the impact of mitigation actions on sustainable development and (iii) Sectoral Marginal Abatement Cost Curves (MACCs) that incorporate multi-criteria (co-benefit) analysis.
- Demonstrated experience in drafting Low Emission Strategies, particularly for agriculture and livestock sectors, preferably in the region.
- Knowledge on farming systems analysis.
- familiarity with international negotiations and processes under the UNFCCC.
- Strong communication, written and presentation skills in English.

Annex I: Indicative Outline for LEDS for Food Security

The LEDS for Food Security (Agriculture and Livestock Sector) should include at a minimum the following elements:

- An Introduction including overview of relevant policies and programs and institutions and rationale for LEDS.
- Mitigation scenarios (BAU and different emission scenarios) for the sector. The methodologies used to project emissions as well as mitigation assessment must be described. The time frame should cover priority actions in short, medium and long term from 2020-2050. The assessment should cover different farming systems, and also opportunities from farm machineries and improved technologies as well as commercializing agriculture and livestock sectors in Bhutan.
- Prioritized mitigation options with estimated mitigation potentials and costs. The approach and criteria leading to the selection of actions through a multi-criteria analysis including costs and benefits, should be described.
- Include emission and economy modeling under different scenario, upto 2050.
- An implementation plan and strategy for the short, medium to long term, including suitable improvements in programs, market and value chain system, financing mechanisms (international), national policy measures and institutional arrangements.
- Identify and include any potential synergies such as:
 - Opportunities for integration with any post CoVID-19 recovery programs and the 21st Century Economic Roadmap (being prepared as part of a separate process).
 - Synergies with climate resilience and ongoing co-benefits with adaptation programs such as the National Adaptation Plan.
 - Synergies with other sectors such as forestry and industries.
 - Integration of findings and recommendations on gender issues as identified in the report on Gender and Climate Change in Bhutan (2020).