Terms of Reference

National or International consultant: National Consultant

Description of the assignment (Title of consultancy): Forestry expert – Short-term consultancy for the update of the GHG inventory and mitigation for "Forestry and Other Land Use" category

Project Title: Lebanon's Third Biennial Update Report and fourth National Communication

Period of assignment/services: 50 work-days spread over 6 calendar months

1. Background / Project Description

The project aims to enable Lebanon to prepare, produce and disseminate its Third Biennial Update Report (BUR) and Fourth National Communication to the UN Framework Convention on Climate Change (UNFCCC) in order to fulfill Lebanon's commitments as a Non-Annex 1 Party to the Convention. The reports present the country's GHG inventory, implemented sectoral mitigation actions that are contributing in reducing GHG emissions, vulnerability and adaptation to climate change, in addition to the main barriers for fulfilling Lebanon's reporting requirements.

The latest inventory was prepared and submitted in 2016 under BUR2, reporting emissions of the base year of 2012, using the 1996 IPCC Guidelines methodology, combine with the update IPCC Good Practice Guidelines. Starting the 3rd BUR onwards, the 2006 IPCC Guidelines will be adopted for all national inventories.

The purpose of this consultancy is to review and update the GHG inventory for the period 2015-2018 for Forestry and Land Use (FOLU) according to the 2006 IPCC guidelines, to report the progress of sectoral mitigation actions for the same period and to update the NDC targets of the Forestry sector for 2030.

2. Scope of work, responsibilities and description of the proposed analytical work

The consultant shall review and update Lebanon's GHG inventory of the Forestry and Land Use for the years 2016-2018 using the IPCC 2006 Guidelines, report the progress of mitigation actions for the LULUCF sector in Lebanon for the period 2016-2018, in addition to the review of year 2015 data.

The consultant shall also undertake a mitigation options analysis based on NDC targets for the forestry sector.

General tasks

The tasks mentioned below shall be performed in close cooperation with the UNDP/Climate change team and the Ministry of Environment.

The Consultant shall be responsible for carrying out all the necessary data collection work and investigations to compile information and data required for the work. The tasks involved will cover the following items:

Task 1: Review the GHG inventory for Forestry and Land Use for the year 2015 (calculation tables in IPCC model, documentation sheets and NIR chapter, gaps and constraints, including cross cutting issues with Agriculture categories) and suggest amendments and recommendations to improve completeness (5 days).

Task 2: Update GHG inventory for Forestry and Land Use for the years 2016-2018 using 2006 IPCC Guidelines and software including (15 days):
- Collect activity data using the2006 IPCC guidelines Approach 3[1] and complete calculations using the IPCC software version 2.54 [2]
- Update trend analysis for the period 1994-2018 and provide an interpretation of the results and drivers behind the trend.
- Complete archiving and documentation sheets (provided by the project management unit) to include the new collected data, emission factors, parameters, methodology used, recalculations, improvement plans, gaps and constraints etc.
- Complete narrative report following outline in Annex 1.

Task 3: Update mitigation actions undertaken by the public and private sectors in Forestry and Land Use for the period 2016-2018 report information in a tabular format (provided by the project management unit) that includes the below (7 days):
- Name and description of the mitigation action including information on the nature of the action, coverage, budget (financial costs) and source of funding, qualitative goals and progress indicators.
- Information on methodologies and assumptions.
- Objectives of the action and steps taken or envisaged to achieve that action.
- Information on the progress of implementation of the mitigation actions and the underlying steps taken or envisaged and the results achieved such as estimated outcomes and estimated emission reduction.

Task 4: Undertake a mitigation options analysis based on NDC targets for the forestry sector including (13 days)*:*
- Assessment of the progress made by 2019 to achieve Lebanon's Target of emission reduction from the forestry sector.
- Development of progress indicators to enable regular tracking and reporting of NDC progress.
- Recommendation of measures to improve efforts to meet the NDC 2030 conditional and unconditional targets of the Forestry and land use sector.

Task 5: Organize and facilitate a 1-day workshop for the dissemination of GHG inventory results, validate data collected and analysis for mitigation actions and options (venue and catering will be covered by the project) (*3 days)*

Task 6: Assess gain and loss in tree cover from time-series satellite images using appropriate global dataset and recommend improvements in AD, EF or methodology for subsequent inventory preparation *(7 days)*

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[1] https://www.ipcc-nggip.iges.or.jp/public/2006gl/vol4.html

[2] https://www.ipcc-nggip.iges.or.jp/software/index.html

Methodology of Work

The methodology of work will follow approach 3 of the 2006 IPCC guidelines to assess the changes in land use and forestry for the period 2016-2018 in addition to desk review of relevant national and international reports, scientific publications and other resources. In addition, direct consultations and data validation with key stakeholders are required. The consultant should also get familiar with previous BUR and National Communications publications to ensure continuity.

The work is expected to be carried out by one nationally recruited consultant with expertise in forestry and climate change as well as adequate technical knowledge and experience.

3. Expected Outputs and deliverables

In consultation with UNDP, the Consultant will:

1. Produce a review report on the 2015 inventory calculation for FOLU including main recommendations for improvement.
2. Produce a report on the updated GHG inventory for years 2016- 2018 as outlined in annex 1.
3. Complete tables on mitigation actions for 2016-2019.
4. Produce a report on the mitigation options analysis of the Forestry sector and recommend progress indicators.
5. Organize and facilitate a dissemination and validation workshop for relevant stakeholders.
6. Produce a report on the assessment of gain and loss in tree cover including improvement recommendations for future inventories.
7. The Consultant is expected to work closely with the other experts (where applicable and relevant) working under the LECB, NDCSP, and 3BUR4NC projects to optimize and synchronize outputs.

Deliverables/ Outputs	Estimated Duration to Complete	Target Due Dates
Review of inventory 2015	5 work-days	15 September 2019
Updated inventory 2016-2018	15 person-days	01 December 2019
Updated tables on mitigation actions	7 work-days	01 December 2019
NDC target review and indicators	13 work-days	15 January 2020
1-day dissemination and validation workshop	3 work-days	15 January 2020
Assessment report on gain and losses	7 work-days	15 February 2020

4. Institutional arrangements

a) The Consultant will be accountable to UNDP's climate change team, for all matters relating to the preparation of the deliverables, as well as the respect of the deadlines. During this process, the Consultant will brief UNDP's climate change portfolio manager about the progress at least every two weeks. The supervision will include approvals/acceptance of the outputs as identified in the previous section.

b) In the event of delay, the Consultant will inform UNDP promptly so that decisions and remedial action may be taken accordingly.

c) Should the UNDP Country Office deem it necessary, it reserves the right to commission additional inputs, reviews or revisions (including omissions), as needed to ensure the quality and relevance of the final Report.

d) Any public speaking (including social media usage) about the activity (whether with the target groups or indirect) should be coordinated with UNDP.

5. Duration of work
The consultancy is for 50 work-days and is expected to last for 6 calendar months from the signature of the contract.

6. Duty station
The consultant's work will be home based with several meetings to be held with the project team and stakeholders.

7. Requirements for experience and qualifications
I. Academic Qualifications:
Masters in Forestry or closely related fields; Ph.D. is an asset.

II. Years of experience:
Minimum of 10 years of relevant work experience in research related to forestry and land-use, GHG emissions, and/or climate change or sustainable development.

III. Technical experience:
- A well-established track record in research related to forestry and/or climate change;
- Previous experience in preparation of similar studies and reviews;
- Experience or strong familiarity with the work of UNDP and/or other multilateral, bilateral and civil society development partners;
- Familiarity with national communications and BUR processes under the UNFCCC is a plus.

IIV. Other Assets (Competencies):
- High proficiency in Arabic and English languages;
- Substantial knowledge of IPCC manuals and guidelines
- Demonstrable analytical skills, such as an extensive list of publications, etc.;
- Excellent interpersonal and communication skills as well as ability to establish and maintain good relationship with stakeholders;
- Excellent analytical, and facilitation skills; and
- Ability to meet deadlines and prioritize multiple tasks.

Annex 1

1. Summary for policy makers

2. National circumstances (update as of 2019)
3. GHG inventory for 2018
   a. Methodology
   b. Activity data
   c. Emissions factors
   d. Results and analysis for 2018
4. Time-series analysis 1994-2018
5. QA/QC procedures
6. Gaps and constraints
7. Improvement plans

The report is expected to include a table of contents, chapters, figures, graphs, tables, text boxes, statistical data, annexes, footnotes and citations, checked, edited and verified; the consultant is also expected to produce a **Summary for Policymakers** and a **PowerPoint presentation** which are considered part of the final product.