**Position:** National consultant

**Project Title:** State of the art in mitigation and adaptation indicators of the Agriculture sector

**Duration:** 14 weeks until August 2021

**Application deadline:** 9 April 2021

1. **Background**

The Paris Agreement was adopted at the Twenty-First Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change. Paragraph 84 of the COP decision adopting the Paris Agreement decided to establish “a Capacity-building Initiative for Transparency in order to build institutional and technical capacity, both pre-and post-2020”. The Capacity-building Initiative for Transparency (CBIT) “will support developing country Parties, upon request, in meeting enhanced transparency requirements as defined in Article 13 of the Agreement in a timely manner”. As established in paragraph 85 of said decision, the purpose of the Transparency Capacity Building Initiative (CBIT) is to:

a) Strengthen national institutions for activities related to transparency, in accordance with national priorities;

b) Offer tools, training and assistance to comply with the provisions of Article 13 of the Agreement;

c) Help improve transparency over time;

CBIT Chile began to be implemented in October 2018, and has represented a relevant contribution for the country in the management of climate change, through the generation of products that contribute to the fulfillment of international commitments, the strengthening of coordination and collaboration between various entities, and joint exchange and learning in Latin America and the Caribbean.

In this context, CBIT Chile is preparing documentation to facilitate the development of capacities and analysis in some sectors, strengthening the path towards adaptation and mitigation of climate change.

1. **Objectives**

The objective of the consultancy is to support agricultural decision-making for climate change adaptation and greenhouse gas (GHG) mitigation. To this end, objectives are divided into these areas.

**Adaptation**

Develop a report that should take an in-depth look at agricultural risk assessments, based on impact chains associated with the IPCC's climate risk definition (2014) at the international level. In this context, a review of the construction of sensitivity, adaptability and resilience rates will be especially relevant.

The consultant should support work on climate change adaptation metrics and indicators, based on the development of subnational, national, and international indicators. The work will be developed based on relevant case studies, with a detailed level of information that will allow for a review of monitoring and evaluation processes in the agricultural sector at the national level.

**Mitigation**

Develop a report which should function as a decision support document on greenhouse gas mitigation (GHG) measures included in NDCs in the Americas, Europe, and Asia within the agricultural sector, based on the collection of information from national and international sources. In addition, critically analyze the GHG mitigation measures within the agricultural sector specified in Chile's updated NDC, proposing viable and feasible alternatives which could be considered.

The document to be developed should present an in-depth look at the solutions found by other countries and organizations to promote GHG mitigation in the sector and to move towards a sustainable relationship of the sector with society, taking into account current trends within production, consumption and regulation thereof.

1. **Scope**

**Adaptation**

The consultancy focuses on climate risk and vulnerability assessment methodologies according to GIZ guidance (2015, 2018) for the agricultural sector. The work will review the development of assessments that have studied impact chains with focus on climate scenarios associated with lower future water availability among other climate parameters that may affect crop yields. It will analyze how these methodologies have been incorporated in monitoring the assessment of adaptation progress at sub-national and national levels. For this purpose, 3 case studies relevant for Chile with an adequate level of information will be defined in agreement between parties according to the consultant's initial proposal. At a specific level it is expected:

* The incorporation of environmental sensitivity, social sensitivity and adaptive capacity indicators within the impact chain methodologies will be developed. The work should focus on the review of relevant cases where the following vulnerability indicators: irrigation and infrastructure technologies; Nature-based Solutions (NbS)[[1]](#footnote-1), gray infrastructure (at basin scale) and aquifer recharge. A detailed description of the methodologies for calculating these indicators within the impact chains is expected. The climate scenarios and hazards considered will be characterized to contextualize the analysis.
* From a monitoring and evaluation perspective, it will detail how the cases use climate risk and vulnerability calculations in national and subnational decision-making processes. The consultant should detail how such assessments are articulated in the framework of national policies-instruments and international reporting mechanisms of National Determined Contributions (NDC).

**Mitigation**

The consultant should identify and describe different interventions aimed to achieve greenhouse gas emission reduction from the agricultural sector. The interventions can be public policies, international plans, strategies, or commitments. In addition, the consultant should develop a comprehensive analysis of NDCs that explicitly consider actions in the agricultural sector, taking into account at least NDCs in America, Europe and Asia. Plans or strategies that consider actions for the sector in relevant countries should be analyzed and public policy exploration and analysis carried out for the same purpose. This should consider both actions aimed at the productive sector and policies that aim at behaviour changes, affecting the demand for agricultural products.

The consultant should develop a critical analysis, applied to the Chilean case, of the mitigation actions that are promoted in the world, and of the policies that would allow such mitigation actions to be implemented

The activities to be carried out by the consultant are:

1. Documentation and analysis of the agricultural sector in international NDCs considering as a starting point the documents developed by FAO in America, Europe and Asia, and then delving into NDCs containing content relevant to the development of the objectives of this consultancy.
2. Documentation and Analysis of public policies to reduce GHG emissions in the Agricultural sector considering at least the analysis of the European Environmental Agency (EEA) database and public policies of relevant Latin American countries.
3. Documentation and Analysis of disruptive, innovative technologies or relevant trends in the sector, both from supply and demand perspective.
4. Recommendations of how to promote a prioritized list of disruptive and/or innovative technologies.
5. Analysis and development proposals of the actions considered in the updated Chilean NDC. Propose a roadmap for the implementation of these measures considering the social, organizational, technical, financial, and regulatory aspects.
6. Purines Porcine Biodigesters
7. Technical assistance to the use of fertilizers
8. Analysis and proposals for development of actions not considered in the NDC, raised from national and international evidence, applicable to the country.

If necessary, the consultant must submit an additional literature that will be consulted to satisfy any of the consulting activities.

1. **Deliverables**

* The consultant must submit a progress report at the eighth week of the consultancy containing the 3 cases required by the adaptation component.
* The consultant must provide a final report with all activities completed at week 14 of the consultancy.
* The deliverables will be in Spanish.

1. **Organizational Setting and Reporting:**

* The Consultant will report to, and be directly supervised by the CBIT project team, consisting of a representative of the Chilean government (Ministry of Environment), and a representative from UNEP DTU Partnership.
* The consultant will be given access to relevant information necessary for execution of the tasks under this assignment;
* The consultant will be responsible for providing her/his own work station (i.e. Laptop, internet, phone, scanner/printer, etc.) and must have access to reliable internet connection;
* The consultant will be retained on a contract with the UNEP DTU Partnership and payments based on satisfactory delivery of expected outputs
* The position is home-based

1. **Runtime**

14 weeks

1. **Qualifications required (Minimum)**

The consultant must present a team of at least 2 members. The team must have at least the following qualifications:

* A postgraduate degree in the area of agriculture, who demonstrates in-depth experience in climate change issues for. (20%)
* Considerable experience in public policy analysis or development. (10%)
* Considerable experience in GHG mitigation analysis in the agriculture sector. (15%)
* Considerable experience in adapting to climate change in the agriculture sector. Knowledge and verifiable experience in sector climate risk assessments incorporating Ecosystem based Approaches (EbA), Nature Based Solutions (NbS), or similar is required. (15%)

A professional can meet one or more of the above characteristics, being sufficient to meet the requirement of the characteristics in which it meets.

Values in parentheses correspond to the individual contribution of each professional in the total score obtained by this proposal.

Likewise the methodology and implementation plan will be evaluated: The methodological proposal shows an in-depth knowledge of the required topics, clearly defining how the activities requested in these terms of reference will be carried out and demonstrating their knowledge of the required bibliography. (40%)

**Language skills:**

Fluency in Spanish and English

1. **Application procedure:**

The application should be **in Spanish** and contain:

* CV and cover letter.
* Methodology on how the consultant expects to implement the activities.

Please send the application to Per Harry Wretlind at [perwre@dtu.dk](mailto:perwre@dtu.dk) and Bruno Andres Campos Rubillo at [BCampos@mma.gob.cl](mailto:BCampos@mma.gob.cl).

1. **Budget**

The maximum budget corresponds to US 26,500.

1. **Bibliography**

**Minimum bibliographies required in the analysis**

EEA. 2020. Climate change mitigation policies and measures (greenhouse gas emissions) <https://www.eea.europa.eu/data-and-maps/data/climate-change-mitigation-policies-and-measures-1>

FAO. 2020. Regional analysis of the nationally determined contributions in Latin America: Gaps and opportunities in the agriculture and land use sectors. Environment and natural resources management working paper No. 81. <http://www.fao.org/publications/card/es/c/CA8249EN/>

FAO. 2018. Policy analysis of nationally determined contributions (NDC) in Europe and Central Asia. Budapest, 84 pp. Licence: CC BY-NC-SA 3.0 <http://www.fao.org/3/CA2684EN/ca2684en.pdf>

FAO. 2021. Assessing policy gaps and opportunities in the nationally determined contributions a sectoral methodology for agriculture and land use. <http://www.fao.org/3/cb1579en/CB1579EN.pdf>

FAO. 2020. Regional analysis of the nationally determined contributions in Asia, gaps and opportunities in the agriculture and land use sectors. <http://www.fao.org/3/ca7264en/ca7264en.pdf>

McKinsey. 2019. Article “Alternative proteins: The race for market share is on” <https://www.mckinsey.com/industries/agriculture/our-insights/alternative-proteins-the-race-for-market-share-is-on>

FAO 2013. Mitigation of greenhouse gas emissions in livestock production. <http://www.fao.org/3/i3288e/i3288e.pdf>

OECD. 2019. Enhancing Climate Change Mitigation through Agriculture <https://www.oecd-ilibrary.org/agriculture-and-food/enhancing-the-mitigation-of-climate-change-though-agriculture_e9a79226-en>

WBG. 2018. Realigning Agricultural Support to Promote Climate-Smart Agriculture <https://openknowledge.worldbank.org/bitstream/handle/10986/30934/132660-BRI-PUBLIC-RealigningAgriculturalSupportCSA.pdf?sequence=5&isAllowed=y>

GIZ (2014) “Desarrollo de Sistemas Nacionales de Monitoreo y Evaluación de la Adaptación: una Guía”

GIZ, EURAC & UNU-EHS (2018): Climate Risk Assessment for Ecosystem-based Adaptation – A guidebook for planners and practitioners. Bonn: GIZ.

1. Use of agro-ecological, agroforestry, soil management and related indicators. [↑](#footnote-ref-1)