Annex 1

Terms of reference

GENERAL INFORMATION

Title: LTA – National GIS Consultant to calculate the GHG emission reduction for SPOI/GGP project.
Project Name: Reducing Deforestation from Commodity Production
Reports to: SPOI Landscape Coordinator
Duty Station: Home Based
Expected Places of Travel (if applicable): N/A
Duration of Assignment: Maximum 105 days, within 7 months contract (1 June – 31 December 2021)

REQUIRED DOCUMENT FROM HIRING UNIT

	TERMS OF REFERENCE
	CONFIRMATION OF CATEGORY OF LOCAL CONSULTANT, please select:
	(1) Junior Consultant
	(2) Support Consultant
3	**(3) Support Specialist**
	(4) Senior Specialist
	(5) Expert/ Advisor
	CATEGORY OF INTERNATIONAL CONSULTANT, please select:
	(6) Junior Specialist
	(7) Specialist
	(8) Senior Specialist
	APPROVED e-requisition

REQUIRED DOCUMENTATION FROM CONSULTANT

X	P11 or CV with three referees
X	Copy of education certificate
X	Completed financial proposal
X	Completed technical proposal

Need for presence of IC consultant in office:
☐partial (explain)
𝗫 intermittent (regularly coordination with UNDP)
☐full time/office based (needs justification from the Requesting Unit)

Provision of Support Services:
Office space: ☐Yes   XNo
Equipment (laptop etc):   ☐Yes   XNo
Secretarial Services   ☐Yes   XNo
If yes has been checked, indicate here who will be responsible for providing the support services:

Project Description

As global demand for edible oil keeps growing, palm oil has enjoyed unprecedented growth both in consumption and production. Used in everything from chocolate to ice-cream, lipstick to shampoo, palm oil is now the most consumed vegetable oil in the world. Palm oil is the main agricultural export of Indonesia, generating 8.8 % respectively of their exports in 2019. It is claimed that the sector provides direct employment for nearly 4 million in Indonesia. In 2019, foreign exchange earnings from the export of palm oil products reached around Rp. 246 trillion. That is why for now Indonesia is the bigger producent country for palm oil, and together with Malaysia supplying some 85 percent of global supply. This shows that the benefits and apparently positive economic impact of this commodity are huge for Indonesia.

Unfortunately, the fact of high economic value does not necessarily indicate a positive thing of development. Indonesia, as one of the world's largest producers of palm oil, has received much attention in recent years particularly from the global community concerning the sustainability of its palm oil production. Continued deforestation adds significant environmental pressures on ecologically sensitive areas, with extensive impacts on biodiversity, habitat fragmentation, land degradation and soil erosion. To address the concern of the international community, the Government of Indonesia (GoI) has taken steps towards building a greener economy that promotes growth, equity, improved livelihood and environmental integrity including in the palm oil sector. Aiming to support the government's actions, UNDP has been working together with the Indonesian Ministry of Agriculture to achieve the country's goals of sustainable palm oil production through the implementation of various initiatives, both at the national and landscape levels, such as, among others, the UNDP-GEF project, **Support to Reduced Deforestation Commodity Production**, (hereafter the '**Production project'**).

The overall objective is **to reduce the impacts of agriculture commodities on GHG emission and biodiversity by meeting the growing demand of aim oil through supply that does not lead to deforestation and related GHG emission**. Specifically, the production project will encourage sustainable practices for oil palm while conserving forest and safeguarding the rights of smallholder's farmers and forest-dependent communicates. The Production project comprises of four components: *(1) dialogue, action planning, policies and enforcement, (2) farmer support systems,* and *(3) land use mapping and planning*, and *(4) knowledge management*.

Context: Support the direct and indirect project contribution's evidence related to reducing the CO2e emissions from conserving priority areas within selected target landscape(s)

Starting in mid-2017, in the target landscapes[1], the project has facilitated the Local Government through multi-stakeholders' approach, develop their sustainable production policies and/ or spatial plans aimed at ensuring commodity production and expansion within appropriate areas, as well as the reduction and eventual elimination of deforestation associated with commodity expansion. For example, in Pelalawan, UNDP has supported the government to develop their peat ecosystem protection and management plan.

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[1] Pelalawan District, Riau Province; South Tapanuli District, North Sumatera; and Sintang District, West Kalimantan

As a project funded by the GEF, currently, the project intends to develop a comprehensive mapping to report on agreed performance indicators established with the GEF. This will be done through identifying key actions from each policy and/or regulation that will reduce the emissions of greenhouse gases in the three-district pilot until 2042. To provide the evidence on project performance, the Ex-Ante Carbon-balance Tool (EX-ACT)[2] will be used to estimate the GHG emission reduction at the three-landscape pilot area.

In line with this, UNDP would like to invite an experienced national consultant (GIS mapping and database) to conduct and produce a comprehensive mapping and management system to calculate the GHG Emission reduction in the landscape intervention areas of SPOI/GGP project. The candidate is also required to conduct a situation analysis of the spatial plan management and identify a likely development trajectory of this policy for the next 20 years, regarding emissions of greenhouse gases.

Note on Long Term Agreement (LTA):
UNDP Indonesia shall enter into an on-exclusive long-term agreement (LTA) with the selected consultant and shall provide specific deliverables and time frames for each task, as and when required. Prospective individuals are requested to take note of the following:

Long Term Agreement is a mutual arrangement between UNDP and an individual to provide the required services at prescribed prices or provisions over a period of 12-24 months, with potential extension of one year. UNDP reserves the right to rescind the agreement during that period should performance of the consultant not meet its requirements

Under a Long-Term Agreement, UNDP does not warrant that any quantity of services shall be purchased during the term of this agreement. Where a request for services arises, UNDP shall directly contract/purchase order the consultant based on its need to carry out those activities. A specific Term of Reference (TOR) outlining the outputs for each assignment shall be provided and an Individual Contract (former SSA) would be issued to the consultant, detailing the time frame.

II. SCOPE OF WORK, ACTIVITIES, AND DELIVERABLES

Scope of Work
1. Analyze baseline conditions and make an overview analysis of spatial plan and other sustainable/ conservation related policy in three-district pilot and establish a baseline scenario and projection to 2042:

   a. Review the existing documents on:
      o South Tapanuli Regent Regulation No 63 Year 2020 on Limited Cultivation Zone
      o Pelalawan District Regulation No 7 Year 2019 on Pelalawan Spatial Plan 2019-2039.
      o Sintang Regent Regulation No 88 Year 2018 on Sustainable Lake Management.
      o Pelalawan Regent Decree on Pelalawan's Peat Ecosystem Protection and Management Plan.
      o Sintang Sustainable Plantation Management Plan.
      o Riau Peat Ecosystem Protection and Management Plan.

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[2] http://www.fao.org/3/i8075e/i8075e.pdf

b. Identify sources of data and approach to obtain the data.
c. Identify and prioritize the conservation/ sustainable spatial plan measures and actions as well as the emission reduction potential with the latest available information.
d. Interpreting the high-resolution satellite imagery to identify the land cover of the three-districts pilot, at least 1: 50,000 scale maps according to expert criteria to be provided by project team.
e. Identify the most reliable source(s) for a description of a scenario for each regulation up to 2042. The consultant shall not develop a new scenario. The task is to review development plans with eyes of how they impact emissions of greenhouse gases.
f. Develop and documentation of a consistent Geographical Information and Database in close cooperation and coordination with the Environment and Policy Officer, local government, and Responsible Partner (IPB).

2. Together with Landscape Coordinator and Environment and Policy Officer, identify possible measures and actions to reduce emissions of greenhouse gases based on GEF Core Indicator and FAO EX-ACT:
a. Together with Landscape Coordinator and Environment and Policy Officer, identify the total of emissions of greenhouse gases mitigate based on GEF Core Indicator and FAO EX-ACT.
b. Document the measurement result and reasoning following the EX-ACT template and guidelines for describing the set aside criteria and indicator.

3. Propose indirect contribution of GHG (Greenhouse Gas) emission reduction targets in other landscape area.
a. Based on available data, identify and consult the potential action/ program and the reasoning as indirect contribution from the project for Indonesia in accordance with GEF Core Indicator.
b. Develop a land cover and base map through interpreting the high-resolution satellite imagery to identify the land cover of the three-districts pilot, at least 1: 50,000 scale maps.
c. Identify the most reliable source(s) for a description of a scenario for each regulation up to 2042. The consultant shall not develop a new scenario. The task is to review development plans with eyes of how they impact emissions of greenhouse gases.
d. Document the measurement result and reasoning following the EX-ACT template and guidelines for describing the set aside criteria and indicator.

Expected Outputs and deliverables

Deliverables/ Outputs	Estimated number of working days	Review and Approvals Required *(Indicate designation of person who will review output and confirm acceptance)*
1. Land Cover map with at least scale 1: 50,000 for three district pilot in 2021 2. Completion of BSAFE virtual courses manifested in the form of Certification of Achievement	10 working days for each district and one province (Riau); hence the total is 40 working days (within 105 working days Contract Duration)	Review by Environmental and Policy Officer, technical clearance by SPOI Landscape Coordinator and approval by National Project Manager.

3. Land cover map on (a) Business As Usual (BAU) and (b) the implementation of regulations in three district pilot and one province in 2042	5 working days for each district and one province; hence in total is 20 working days (within 105 working days Contract Duration)	Review by Environmental and Policy Officer, technical clearance by SPOI Landscape Coordinator and approval by National Project Manager.
4. The complete and functional geographical information system (map-based plan) and EX-ACT on total GHG mitigation based on each scenario for three district pilot and one province	10 working days (within 105 working days Contract Duration)	Review by Environmental and Policy Officer, technical clearance by SPOI Landscape Coordinator and approval by National Project Manager.
5. A complete and functional geographical information system (map-based plan) and EX-ACT on total GHG mitigation based on each scenario map for agreed indirect contribution	25 working days (within 105 working days Contract Duration)	Review by Environmental and Policy Officer, technical clearance by SPOI Landscape Coordinator and approval by National Project Manager.
6. Final report outlining the process of GHG calculation and the results for direct and indirect contribution	10 working days (within 105 working days Contract Duration)	Review by Environmental and Policy Officer, technical clearance by SPOI Landscape Coordinator and approval by National Project Manager.

III.	WORKING ARRANGEMENTS

Institutional Arrangement

a) *The consultant will work closely with the Landscape Coordinator and Environment and Policy Officer for SPOI.*
b) *The consultant will produce metadata (shapefile and/or another format) with at least 1:50,000 scale map on requests by the Landscape Coordinator and Environment and Policy Officer and report back once the deliverables achieved.*
c) *The consultant is required to use his/her own computers and any necessary applications.*

Duration of the Work

Maximum 105 working days, within 6 months contract (June 2021 – 30 November 2021)

Duty Station

Home Based, a regular coordination with SPOI project team is required through conference calls and face-to-face meetings.

IV.	REQUIREMENTS FOR EXPERIENCE AND QUALIFICATIONS

I. Academic Qualifications:

A Bachelor's degree in areas related to forestry, geography, computer science, agriculture science.

II. Required Experience:

- A minimum of 3 years of professional experience in utilizing geographical information systems in Indonesia.
- A minimum of 1 year of professional experience conduct spatial analysis in the development of national/ sub-national spatial plan, strategic environment and social assessment, or other development plan.
- A minimum of 1 year of professional experience conduct GHG emission calculation.
- Have carried out at the minimum of 1 (one) map modelling project (for example: R, Terrset, ESRI, FalconView, GeoDa, QGIS, etc).

III. Competencies and special skills requirement:

- Extensive understanding in data gathering and in production of maps.
- Good understanding of spatial plan, conservation issue, forestry and other land-based sector.
- Vast network with government representatives.
- Excellent communication and inter-personal skills.
- Proficiency in English and Bahasa Indonesia, spoken and written.

V.	EVELUATION METHOD AND CRITERIA

Cummulative Analysis

When using this weighted scoring method, the award of the contract should be made to the individual consultant whose offer has been evaluated and determined as:
  a. Responsive/compliant/acceptable, and
  b. Having received the highest score out of a pre-determined set of weighted technical and financial criteria specific to the solicitation.
    - Technical criteria weight: 70%
    - Financial criteria weight: 30%

Only candidates obtaining a minimum of 70 points would be considered for the Financial Evaluation.

Criteria	*Weight*	*Maximum Point*
Technical		

• *Criteria A: qualification requirements as per TOR:*	70%	**70**		
I. Academic Qualifications:				
• A Bachelor's degree in areas related to forestry, geography, computer science, agriculture science.		*5*		
• A minimum of 3 years of professional experience in use of geographical information systems in Indonesia.		*10*		
• A minimum of 1 years of professional experience conduct spatial analysis in the development of national/ sub-national spatial plan, strategic environment and social assessment, or other development plan.		15		
• A minimum of 1 years of professional experience conduct GHG emission calculation.		20		
• Have carried out at the minimum of 1 (one) map modelling project (for example: R, Terrset, ESRI, FalconView, GeoDa, QGIS, etc).		20		
• *Criteria B: Brief Description of Approach to Assignment*		**30**		
• Detail and logic of proposed work plan		*15*		
• Detail approach and methodology as per the requirement in the TOR		*15*		
Financial	*30%*	*100*		