

MANGROVES FOR COASTAL RESILIENCE PROJECT (P178009)

IDF Grant No. TF-B8778

REQUEST FOR EXPRESSIONS OF INTEREST (REOI) ASSIGNMENT TITLE: CONSULTING SERVICES FOR BLUE CARBON OFFSET PREPARATION CONSULTANT COORDINATING MINISTRY FOR MARITIME & INVESTMENT AFFAIRS

The Mangroves for Coastal Resilience (M4CR) Project is a partnership between the World Bank Group and the Government of Indonesia (GoI) with the development objective of enhancing the management of mangroves and livelihoods of local communities in selected areas within Indonesia. The M4CR Project will operate until May 2027 in four provinces (East Kalimantan, North Kalimantan, North Sumatra and Riau) that contain a significant portion of existing and degraded mangroves.

Restoration will include activities such as hydrological remediation works of disused aquaculture ponds, and the planting of propagules where appropriate, to reinstate ecosystem functioning (e.g., carbon storage and sequestration, coastal protection, and biodiversity enhancement) across a provisional 75,000 ha of degraded mangrove habitat. The intent is to use best-practice techniques to both increase the success of mangrove rehabilitation and encourage institutional learning as a form of adaptive management by building capacity at the national, subnational, and village level.

The M4CR Project also aims to reduce mangrove deforestation through conservation and sustainable management activities such as: (a) the establishment and operation of Mangrove Stewardship Villages; (b) village-based mangrove management planning and integration into village sustainable development and spatial planning; (c) implementation of mangrove management activities, including training, awareness campaigns, forest monitoring, at the village level; (d) conflict resolution; (e) formation and enhancement of stakeholder forums in target provinces to strengthen mangrove management; and (f) the preparation and adoption of subnational mangrove management plans for each selected province.

The M4CR Project will also support Indonesia's readiness to access finance for blue carbon. Specifically, the project will support bringing the emissions reductions generated under M4CR's restoration and conservation activities to market by developing a blue carbon program that is eligible for payments, designed according to internationally recognized standards. North Kalimantan has been identified as the initial pilot province for conducting blue carbon activities under the project, with results and lessons learnt to be upscaled and applied across the other provinces as the project progresses under an adaptive management approach.

The Coordinating Ministry for Maritime & Investment Affairs as one of the program implementers or the National Steering Committee (NSC) in the Mangroves for Coastal Resilience (M4CR) project, has a role in sub-component 1.4 is designed to support Indonesia's readiness to access blue carbon finance by developing a blue carbon program for the M4CR project aligned to best practice and relevant international standards, which now intends to proceed with consulting services, namely for BLUE CARBON OFFSET PREPARATION CONSULTANT.



Sub-component 1.4 is designed to support Indonesia's readiness to access blue carbon finance by developing a blue carbon program for the M4CR project aligned to best practice and relevant international standards. Specific scopes include:

- Undertaking field research and analysis of carbon stocks and fluxes;
- Monitoring, reporting and registration of carbon enhancements resultant from project activities; and
- Capacity building of the GoI for blue carbon finance readiness.

The duration of the assignment is expected to be completion of implementation the end 30 November 2026. The detailed Terms of Reference (TOR) for the assignment are attached in Annex of this Request for Expression of Interest.

M4CR now invites eligible consulting firms ("Consultants") to indicate their interest in providing the Services. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services. Interested consultants must provide sufficient description of similar assignments (including location/country, name of the Employer/Client, type of services provided, period of contract, contract amount, starting and completion dates), and availability of appropriate skills among permanent staff, etc. The shortlisting criteria are:

1. The firm should have at least 5 years of experience in working on the field of in mangrove ecology, including assessments of mangrove health/condition.
2. Solid Experience in mangrove ecosystems for (i) assessing carbon stocks (above and below ground biomass, dead and downed wood, and soil carbon); (ii) assessing GHG fluxes (including autotrophic and heterotrophic CO₂ emissions, N₂O and CH₄ emissions); (iii) assessing net sequestration as mangrove forests develop (e.g. using metrics such as net ecosystem production or net ecosystem carbon balance); (iv) eddy-covariance flux towers; and (v) assessing the lateral export and air/water to atmosphere exchange of DIC/DOC and N₂O/CH₄ .
3. Experience in with mangrove conservation and restoration in the context of blue carbon e.g., measuring and reporting of blue carbon offsets.
4. Experience in executing at least three complex, scientifically robust projects while working with multiple teams across a range of different countries.

Key Experts will not be evaluated at the shortlisting stage.

The attention of interested Consultants is drawn to Section III, paragraphs, 3.14, 3.16, and 3.17 of the World Bank's "Procurement Regulations for IPF Borrowers" November 2020 ("Procurement Regulations"), setting forth the World Bank's policy on conflict of interest.

Consultants may associate with other firms to enhance their qualifications in the form of a joint venture or a sub-consultancy. In case of an association, the EOI must explicitly specify whether the association is in the form of a Joint Venture (all members shall be jointly and severally liable for the entire assignment), or Sub-consultancy. In the case of a joint venture, the member firm appointed to represent the joint venture must be clearly identified and all the partners in the joint venture shall be jointly and severally liable for the entire contract, if selected. Only the qualifications and experience of members of joint venture, but not of sub-consultants, shall be considered in the EOI evaluation process.

A Consultant will be selected in accordance with the Quality and Cost-Based Selection (QCBS) method set out in the Procurement Regulations.

Further information can be obtained at the address below during office hours

08.00 – 16.30 WIB.

Expressions of interest must be delivered in a written form to the address below (in person, or by mail, or by e-mail) by **4 June 2024**.

Procurement Committee BPDH

JB Tower Lantai 29

Jalan Kebon Sirih Nomor 48-50

RT 11/RW 2, Gambir, DKI Jakarta

Email: pokja.pemilihan@bpdh.id

Terms of Reference

Sub-component 1.4 *Blue Carbon Offset Preparation Consultant*, Mangroves for Coastal Resilience (M4CR) Project

A	Project name	M4CR Project.
B	Sub-component	Sub-component 1.4 blue carbon measuring and reporting for carbon offset
C	Sub-component activity	1.4.2 Blue carbon measuring and reporting for carbon offset - technical work to undertake carbon monitoring and reporting.
D	Activity goal	<i>'To establish a world class, applied research program which quantifies the maximum volume of Mitigation Outcomes able to be generated under the M4CR Project'.</i>
E	Assignment location	Remotely but with regular travel to, and engagement with, the Government of Indonesia (GoI) office for this ToR: Kemenko Marves - M4CR Project, Tarakan, North Kalimantan.

1. Background

1.1. Overview of the M4CR Project

The Mangroves for Coastal Resilience (M4CR) Project is a partnership between the World Bank Group and the Government of Indonesia (GoI) with the development objective of enhancing the management of mangroves and livelihoods of local communities in selected areas within Indonesia. The M4CR Project will operate until May 2027 in four provinces (East Kalimantan, North Kalimantan, North Sumatra and Riau) that contain a significant portion of existing and degraded mangroves.

Restoration will include activities such as hydrological remediation works of disused aquaculture ponds, and the planting of propagules where appropriate, to reinstate ecosystem functioning (e.g., carbon storage and sequestration, coastal protection, and biodiversity enhancement) across a provisional 75,000 ha of degraded mangrove habitat. The intent is to use best-practice techniques to both increase the success of mangrove rehabilitation and encourage institutional learning as a form of adaptive management by building capacity at the national, subnational, and village level.

The M4CR Project also aims to reduce mangrove deforestation through conservation and sustainable management activities such as: (a) the establishment and operation of Mangrove Stewardship Villages; (b) village-based mangrove management planning and integration into village sustainable development and spatial planning; (c) implementation of mangrove management activities, including training, awareness campaigns, forest monitoring, at the village level; (d) conflict resolution; (e) formation and enhancement of stakeholder forums in target provinces to strengthen mangrove management; and (f) the preparation and adoption of subnational mangrove management plans for each selected province.

The M4CR Project will also support Indonesia's readiness to access finance for blue carbon. Specifically, the project will support bringing the emissions reductions generated under M4CR's restoration and conservation activities to market by developing a blue carbon program that is eligible for payments, designed according to internationally recognized standards. North Kalimantan has been identified as the initial pilot province for conducting blue carbon activities under the project, with results and lessons learnt to be upscaled and applied across the other provinces as the project progresses under an adaptive management approach.

1.2 An overview of Sub-component 1.4 Blue Carbon readiness.

Sub-component 1.4 is designed to support Indonesia's readiness to access blue carbon finance by developing a blue carbon program for the M4CR project aligned to best practice and relevant international standards. Specific scopes include:

- Undertaking field research and analysis of carbon stocks and fluxes;
- Monitoring, reporting and registration of carbon enhancements resultant from project activities; and
- Capacity building of the GoI for blue carbon finance readiness.

Of specific relevance to this ToR, a critical prerogative of the project is the development of Mitigation Outcomes¹ (MO's) resulting from the implementation of restoration and conservation (avoided deforestation/degradation) activities.

2. Objective of the assignment

The M4CR Project seeks an experienced team to assist the GoI (Government of Indonesia) with the development, field monitoring, analysis and reporting of Mitigation Outcomes under Sub-component 1.4. The consultancy team will provide close scientific support to GoI counterparts, with a particularly strong emphasis on training and capacity building in measurement, analysis, and reporting techniques. Partnerships with Indonesian universities and the ability to facilitate tertiary education opportunities (e.g., PhD's, MSc) are strongly encouraged. The goal of this ToR is *'to establish a world class, applied research program which quantifies the maximum volume of Mitigation Outcomes able to be generated under the M4CR Project'*.

3. Methodology approach for carbon stock assessments

The Ministry of Environment and Forestry (MoEF) is in the process of finalizing the National Forest Inventory (IHN: Inventarisasi Hutan Nasional) methodology which is supported by M4CR Project Sub-component 1.3. Comparison of several known blue carbon methodologies can be found below:

¹ 'Mitigation Outcomes' (MO) is used under the Paris Agreement to replace most forms of international carbon credits. MO generated in a country could be transferred to another country, thereby becoming Internationally Transferred Mitigation Outcomes. 'Emissions Reductions and Removals' (ERR) are a similar term, whereby emissions are reduced against a project baseline (e.g. avoided emissions) and removals equate to the atmospheric removal of CO₂e as forests grow. In this ToR, ERR should be seen as synonymous with MO.

Methodology	Kauffman and Donato (2012)	IHN Redesign (IPSDH – MoEF)	SNI 7724:2019
Parameter	• Nested • Circle • 6 subplot/transect • Linear transect	• Nested • Circle • 3 subplots • Cluster plot	• Nested • Rectangular/circle
Aims	Microsite (tingkat tapak) scale inventory	National scale inventory (wide area)	Not specified
Methods	• IPCC (2006) • Winrock Intl (2011): plot number • Van Wagner (1968): downed wood	• IPCC (2006) • FAO tool and Cochran (1977): plot number • Hexagonal grid: plot distribution	IPCC (2006)
Advantages	• Detect ecosystem variation based on directional gradients • Set specifically for mangrove • Minimize species contagion • Uses statistic to increase precision in grassroot level • Method is accepted and applied in global/international scale with protocols	• Detect microsite variation • Reduce variation between plots • Comprehensive statistical analysis to increase inventory precision in national scale • Will be established as national forest inventory method soon	• Options available for rectangular and circular plots • Minimal requirements
Disadvantages	Site specific, thus not focusing on national/global scale inventory	• Formulated for general use, not specifically designed for mangrove (adjustment will be made) • New methods need further dissemination and acknowledgement in national and international level through guidance, trials, etc.	• Many disadvantages • Has not been used for international scale research

4. Scope of Work Tasks and Key Deliverables

In close collaboration with the Government of Indonesia (GoI), in particular the Coordinating Ministry for Maritime and Investment Affairs (Kemenko Marves), the Ministry of Environment and Forestry (KLHK), the Indonesian Bureau for Mangrove and Peatland Restoration (BRGM), the National Research and Innovation Agency (BRIN), and the World Bank and implementing partners, the consultancy team will be responsible for delivering the following key tasks under Sub-component 1.4 over the projects duration. The expected commencement date of this ToR is 1st November 2023 (to be negotiated), with a completion date for all tasks of 30th of November 2026.

Table 1: Key activities and deliverables for the ToR.

Activity	Government agency lead and role	Consultant Role	Consultant deliverable
(a) Lead the development of: (i) A Project Inception Note Project (PIN), a Project Design Document/ (PDD)², and any other documentation required by the selected Standard and / or Methodology; and (ii) Mitigation Action Plan (MAP)³. The PIN and PDD will outline the methodology for measuring and reporting Mitigation Outcomes from both restoration and conservation (avoided deforestation) activities using a Before - After/Control - Impact framework, biodiversity of flora and fauna, aligned to international best practice and an appropriate Standard and Methodology. The MAP (led by the GoI) is effectively a work plan for the delivery of carbon monitoring and reporting under the PIN and PDD.	GoI lead: Kemenko Marves for the development of the MAP.	PIN and PDD development, technical advice/support for MAP development.	• PIN • PDD • Any other documents required by the selected Standard and/or Method. • Demonstrated provision of advice/support for MAP develop as and where requested by the GoI.
(b) Lead field data collection, monitoring, and analysis through implementation of the MAP, including:	GoI lead: Kemenko Marves with the assistance from BRIN for	Lead the (i) installation of specialist equipment: Eddy-covariance GHG flux towers;	• Assistance to GoI for the procurement of specialist equipment, particularly

² Project Inception Notes (PIN), Project Design Documents (PDD), or Programme of Activities (POA) documents are similar terms and relate to the guidance provided by the selected standard / method.

³ The MAP is a work plan for conducting field measurements and reporting. It is a requirement of the GoI and will be closely aligned to the project's PDD/PIN.

(i) Installation of specialist equipment: • Eddy-covariance GHG flux towers; • Rod-Surface Elevation Tables (RSET's) to measure soil accretion; • Instruments and equipment to measure the lateral export, exchange, and fate of dissolved inorganic, dissolved organic, and particulate organic carbon as well as total alkalinity⁴. (ii) Conduction of baseline assessments of biomass, soil carbon stocks, and GHG flux. This will include the establishment of trenching plots to separate autotrophic from heterotrophic soil respiration.	(i) Installation of specialist equipment: Rod-Surface Elevation Tables (RSET's) to measure soil accretion. (ii) Conduction of baseline assessments of biomass, soil carbon stocks, and GHG flux (including trenching plots to separate autotrophic from heterotrophic soil respiration).	Measurements of the lateral export, exchange, and fate of dissolved inorganic, dissolved organic, and particulate organic carbon as well as total alkalinity. Technical support/advise for installation of other specialist equipment and activities under (ii).	eddy-covariance GHG flux towers; • Installation of eddy-covariance GHG flux towers; • Conduction of baseline assessments; • Demonstrated provision of advice/support for RSET installation and baseline assessments under (ii) as and where requested by the Gol.
(c) Development of the M4CR Project 'Baseline Report' / DRAM⁵ based on field data collection and analysis conducted under activity (b).	Gol lead: Kemenko Marves with support from BRIN or University for the development of the DRAM report.	Consultant for baseline assessments.	• Joint or co-authored 'Baseline Report' (min 10 years historical).
Biodiversity inventory for baseline information and relevant analysis works to assess the flora and fauna population, distribution, and biodiversity index	Gol lead: Kemenko Marves with the support of BRIN and University.	Carry out biodiversity inventory and development baseline report	• Biodiversity baseline report

⁴ This flux pathway is known to be substantial, with significant volumes of carbon exported seaward from the interstitial soils of mangrove ecosystems. If exported carbon stays within waterways and is not exchanged with the atmosphere, then it forms a net carbon sink. The M4CR Project presents an opportunity to quantify this carbon pool and delivering this scope will require the Consultant to use the Eulerian method whereby an instrument such as a Picaro or Licor is installed in a tidal creek (with no freshwater input) to undertake continuous time series measurements over both ebb and flow tidal cycles. The scope will also likely require a water quality sonde for measuring parameters such as pH, water current speed, and dissolved oxygen.

⁵ A *Dokumen Rancangan Aksi Mitigasi Perubahan Iklim*, or DRAM (Climate Change Mitigation Action Plan Document), is a document produced by project proponents which needs to be validated and reported to the SRN PPI as a requirement to obtain SPE-GRK used for carbon registration. It is effectively an 'output' from the MAP in that it reports field verified, baseline carbon stocks and fluxes (as opposed to the projects PDD and PIN which provide baseline *estimates* or projections of MO).

(d) Measuring and reporting of Mitigation Outcomes resulting from project implementation ('With Project Scenario') ⁶ .	Gol support: Kemenko Marves, with support from BRIN or University, to assist the Consultant.	Consultant for quantification of project derived Mitigation Outcomes.	Joint or co-authored 'Outcome Report' with BRIN or University.
(e) Provide training, capacity building, and mentoring of Gol staff and any students on methods/techniques for both collecting and processing field data. The following provides a guide to the format of workshops: (1) The process for converting field data results into carbon stocks; (2) The process for calculating Net Ecosystem Production/Net Ecosystem Exchange; and (3) How to quantify the lateral export and atmospheric exchange of carbon. It is expected that each workshop would take 2-3 days to deliver and include a mix of field-based techniques and data processing/analysis. This activity is also inclusive of the Consultants service fees for mentoring and supervising any PhD and/or MSc students recruited under the M4CR Project.	Gol support: PIU Kemenko Marves	Consultant to lead workshops/training and mentor/supervise any PhD or MSc students recruited.	• 3 times workshops led by the Consultant. • Recruitment and mentoring of any PhD and/or MSc students.
(f) Integration of Mitigation Outcome reporting into the Gol's national registration system for carbon offsets (SRN).	Gol Lead: Kemenko Marves.	Technical support/advice. Third party verification of mitigation outcome	MO incorporated within the SRN.
(g) Submission of project results as co-authored academic papers (minimum 3) to internationally recognised journals, in partnership with the Gol. Potential thematic scopes for academic papers include: • Carbon stocks (biomass, soil); • Net Ecosystem Production (NEP)/Net Ecosystem Exchange (NEE) as determined through via eddy covariance GHG flux towers; and • Lateral tidal export and atmospheric exchange of DIC/DOC.	Gol lead: Kemenko Marves, with BRIN support, for the carbon stocks paper.	Consultant to lead on: • Carbon stocks (biomass, soil); • NEP (eddy covariance GHG flux towers); • Lateral export of DIC/DOC.	• Lead 2 academic papers (NEP and lateral exchange) • Co-lead carbon stocks paper.

⁶ Also known as a Mitigation Action Achievement Report (LCAM) by the Gol, to be delivered in the last year of the project. This will use the same format as the DRAM.

4.1. ToR notes

The consultancy team will work with Kemenko Marves and BRIN to provide training on the installation, use, data collection and data analysis methods for specialised field equipment under Sub-component 1.4. There is budgetary allocation to Kemenko Marves for procurement of the following field equipment, as well as laboratory costs, under Sub-component 1.4.3 and Sub-component 1.4.4:

- Procurement of GHG flux instruments (e.g., Li-Cor 7810 Trace Gas Analyser for CO₂, CH₄, and N₂O and appropriate instruments for measuring pCO₂ and the lateral export of DIC/DOC and TA).
- Procurement of 4* eddy covariance GHG flux towers. Includes installation, training, and maintenance costs (4 units).
- 4 unit Rod Surface-Elevation Table (RSET, consists of rods, platforms and measuring instruments)
- 3 units Soil auger.
- Laboratory costs for soil analysis of the following parameters: carbon and nitrogen content, bulk density, sediment grain size, ²¹⁰Pb dating of sediments to calculate carbon accumulation rates, isotope δ¹³C derived organic and inorganic carbon sources.

6. Qualifications, Expertise, and Experience Propose Personil (Details Task)

- a) Demonstrated expertise in mangrove ecology, including assessments of mangrove health/condition.
- b) Demonstrated expertise in mangrove ecosystems for (i) assessing carbon stocks (above and below ground biomass, dead and downed wood, and soil carbon); (ii) assessing GHG fluxes (including autotrophic and heterotrophic CO₂ emissions, N₂O and CH₄ emissions); (iii) assessing net sequestration as mangrove forests develop (e.g. using metrics such as *net ecosystem production* or *net ecosystem carbon balance*); (iv) eddy-covariance flux towers; and (v) assessing the lateral export and air/water to atmosphere exchange of DIC/DOC and N₂O/CH₄.
- c) Experience with mangrove conservation and restoration in the context of blue carbon e.g., measuring and reporting of blue carbon offsets.
- d) Experience coordinating complex, scientifically robust projects while working with multiple teams across a range of different countries.
- e) Established relationships with the Government of Indonesia and/or Indonesian Universities.
- f) Demonstrated experience in capacity building, knowledge transfer, mentoring students, facilitating workshops, and leading multicultural teams to conduct field assessment in mangrove ecosystems.
- g) Fluency in Bahasa Indonesia (written and spoken) of some team members is strongly desired.
- h) Fluency in English (written and spoken) of all team members.
- i) Willing to travel to North Kalimantan (pilot province location) for data collection and partnership development with the project team and stakeholders.

No	Name of Position Key Experts	Qualifications, Expertise, and Experience	Number of personil
1	Blue Carbon and Mangrove Specialist (Team Leader/Project Manager)	• Have at least a Doctorate degree in forestry, marine, fisheries, biology, or other relevant scientific discipline. • Have at least 7 years' experience in blue carbon measurement and reporting. Experience of integrating mitigation action into the National Registry System (SRN: Sistem Registri Nasional) is desirable. Demonstrated experience in carbon inventory methods, capacity building, and data collection and analysis (baseline, carbon biomass, sediment, and emission factor). • At least 7 years' experience in project management. • Strong communication skills, with the ability to express their perspective clearly, and strong relational skills in lobbying and advocating, especially with key persons in government institutions, local communities, and other institutions.	1 person
2	Mangrove rehabilitation specialist	• Have at least a Master's degree in Marine Science/Biogeochemistry/Forestry, and/or other related discipline. • At least 5 years' experience in a similar position, especially for marine and coastal research. • Experienced in climate change action in Indonesia, proven by experience and research on climate change. • Knowledge of blue carbon and carbon measurement in mangrove and seagrass ecosystems as demonstrated by published scientific work. • Good working computer skills (worksheet, word processor, and database package), proven by relevant certificates or courses. • Experienced in building relationships and working with government organizations and non-governmental organizations, international organizations, academia, CSO, and private sectors in climate change sectors. • Should be able to work in a team with diverse and multicultural backgrounds.	1 person
3	GIS Expert	• Have at least Bachelor's degree in geography/forestry/environmental engineering/marine or other relevant discipline. • At least five years' experience in geographical information systems: mapping, aerial data analysis, spatial data analysis, GIS, and remote sensing • Skilled in GIS system and software. Also knowledgeable in (Monitoring, Reporting and Verification). • Demonstrated skills on making databases, writing, and producing technical documents/action guidance/other supporting documents.	1 person
4	Environmental Safeguard Specialist	• Hold a Master Degree in Biology, Forestry Science, Marine Science, and/or Environmental Science • At least 5 years' experience conducting biodiversity assessment, especially the field of aves, mammals, herpetofauna, and/or crustacea inventory. Aves and mammals experience is preferable	1 person

		• Experience and knowledge in biodiversity analysis and apply relevant analytical tools such as R or SPSS. Experience in using GIS tool is desirable • Possessed good writing skills, especially in formulating technical document and other supporting document • Experienced in building relationships and working with government organizations and non-governmental organizations, international organizations, academia, CSO, and private sectors in climate change sectors. • Should be able to work in a team with diverse and multicultural backgrounds	
5	Social Safeguard Specialist	• Hold a Master Degree in Social sciences, Environmental Health, Forestry Science, Marine Science, and/or Environmental Science • At least 5 years' experience conducting social assessment, especially the field of human activity on the mangroves area, special for training in social safeguard and market fish ponds experience is preferable • Comprehensive knowledge and understanding of social development and cultural issues, and experience in land acquisition and involuntary resettlement and Indigenous Peoples issues and safeguards. • Possessed good writing skills, especially in formulating technical document and other supporting document • Experienced in building relationships and working with government organizations and non-governmental organizations, international organizations, academia, CSO, and private sectors in climate change sectors. • Should be able to work in a team with diverse and multicultural backgrounds	1 person
6	Carbon Accounting and REDD++ Specialist	• Have at least a Master's degree in Marine Science/Biogeochemistry/Forestry, and/or other related discipline. • At least 5 years' experience in a similar position, especially for climate change or Blue Carbon research. • Experienced in climate change action in Indonesia, proven by experience and research on climate change. • Knowledge of blue carbon and carbon measurement in mangrove and seagrass ecosystems as demonstrated by published scientific work. • Good working computer skills (worksheet, word processor, and database package), proven by relevant certificates or courses. • Experienced in building relationships and working with government organizations and non-governmental organizations, international organizations, academia, CSO, and private sectors in climate change sectors. • Should be able to work in a team with diverse and multicultural backgrounds.	1 person
7	Program and Business Specialist	• Have at least Master's degree in rural economic development, socioeconomics, rural development, agriculture, forestry, fisheries, conservation science • At least 5 years of practical experience in rural economic/livelihood in the context of community-based marine conservation • Experience in assessing and monitoring rural livelihoods intervention; and familiar with approaches such as Sustainable Livelihood Framework (SLF), Market System Development (MSD), etc. • Familiar with participatory approach and work in partnership context	1 person

		• Good writing and analytical skill; able to interpret complex situation and put them in a simple and practical module that are easy to apply • Experienced in building relationships and working with government organizations and non-governmental organizations, international organizations, academia, CSO, and private sectors in climate change sectors. • Should be able to work in a team with diverse and multicultural backgrounds.	
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7. Deliverable and Payment Schedule

1st year (2024-2025)

Description	Deliverable	Payment	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Deliverable 1	Report should consist of: • Details work plan a year • Outline the activity • Timeline for the accomplishment of the tasks as described in the Scope of Work	10%												
Deliverable 2	• Development of PDD and mitigation action plan (MAP) • Lead field data collection, monitoring, and analysis through implementation of the MAP: 1. Installation field equipments 2. Conduction of baseline assessments of biomass, soil carbon stocks, and GHG flux • Development of the M4CR Project 'Baseline Report' / DRAM based on field data collection and analysis conducted under activity • Measuring and reporting of Mitigation Outcomes resultant from project implementation ('With Project Scenario')⁷. • Validation and report of PDD • Progress report	40%												

⁷ Also known as a Mitigation Action Achievement Report (LCAM) by the GoI, to be delivered in the last year of the project. This will use the same format as the DRAM.

Deliverable 3	- Lead analysis through implementation of the MAP: - Analyse Measuring and reporting of Mitigation Outcomes resulting from project implementation ('With Project Scenario')⁸. - Analyse baseline biodiversity flora and fauna - Mitigation Action Achievement Report (LCAM) - Verification and report Mitigation Action Achievement Report (LCAM) by third party - Progress report	40%												
Deliverable 4	- Integration of Mitigation Outcome reporting into the Gol's national registration system for carbon offsets (SRN). - Final report	10%												

2nd year (2025-2026)

Description	Deliverable	Payment	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Deliverable 1	Report should consist of: - Details work plan a year - Outline the activity - Timeline for the accomplishment of the tasks as described in the Scope of Work	10%												
Deliverable 2	- Provide Focus Group Discussion (FGD), workshop, capacity building, and mentoring of Gol staff and any students. The following provides a guide to the format of workshops: - Benefit sharing mechanism, social economic and policy of Blue Carbon - Carbon price and financing Blue Carbon - Lesson learn and policy brief of Blue Carbon - Progress report	40%												

⁸ Also known as a Mitigation Action Achievement Report (LCAM) by the Gol, to be delivered in the last year of the project. This will use the same format as the DRAM.

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3rd year (2026)

Description	Deliverable	Payment	Jul	Aug	Sep	Oct	Nov	Dec
Deliverable 1	Report should consist of: - Details work plans - Outline the activity - Timeline for the accomplishment of the tasks as described in the Scope of Work	10%						
Deliverable 2	- Continued to provide Focus Group Discussion (FGD), workshop, capacity building, and mentoring of Gol staff and any students. The following provides a guide to the format of workshops: a) Benefit sharing mechanism, social economic and policy of Blue Carbon b) Carbon price and financing Blue Carbon c) Lesson learn and policy brief of Blue Carbon - Progress report	35%						
Deliverable 3	- Continued to provide training, capacity building, and mentoring of Gol staff and any students on methods/techniques for both collecting and processing field data. The following provides a guide to the format of workshops: a) The process for converting field data results into carbon stocks; b) The process for calculating Net Ecosystem Production/Net Ecosystem Exchange; and c) How to quantify the lateral export and atmospheric exchange of carbon. - Progress report	35%						
Deliverable 4	- Submission of project results as co-authored academic papers (minimum 3) to internationally recognised journals, in partnership with the Gol. Potential thematic scopes for academic papers include: a) Baseline report b) Benefit sharing mechanism c) Social economic and policy of Blue Carbon d) Carbon price and financing of Blue Carbon - Final report	20%						

8. Duration of Consultancy

The consultancy is for a duration of approximately (2024 - 2026) , although negotiable depending on the award of contract.

9. Application Package

Please provide an application package consisting of:

- a) A cover letter;
- b) CVs, as one .pdf, of the project team (3 pages max per team member), and an organisational chart of team members and specific responsibilities aligned to Section 3;
- c) Please outline your team's technical skill set, experience and expertise (including relevant publications) against the qualification criteria listed in Section 6 Qualification expertise and experience personil (5 pages max);
- d) Please provide a detailed Work Plan of key work tasks and deliverables, including monitoring frequency and reporting, aligned to Table 1 in Section 3 (assuming a consultancy start date of 1st November 2023 and end date of 30th November 2026). Note that the Work Plan should reflect that initial blue carbon assessment and monitoring activities under Sub-component 1.4 will be conducted in North Kalimantan beginning in Year 1, with further assessments and monitoring expected to be applied across the other 3 provinces of the project for both restoration and avoided deforestation scopes over Years 2-4;
- e) A breakdown of fees by:
 - Service/salary fees delineated by each key task and deliverable under (d);
 - Any overhead fees charged by the service provider;
 - Disbursements e.g., flights, accommodation, per diem, local transport, and any equipment not already budgeted for under 1.4 such as a Picaro or water sonde for measuring lateral tidal exchange; and
 - Any non-salaried, in-kind contribution.

Interested firms are invited to send the application package to BPD LH *[insert name]* by *[insert deadline]*.

11. Weighting criteria for assessing application packages

Criteria	Assessment Weighting
Technical skills, experience, and expertise (Section 4, Section 6 Application Package [a] – [c]).	50%
Quality of Work Plan aligned to key tasks and deliverables (Section 3, Section 6 Application Package [d]).	30%
Competitiveness and thoroughness of service fees (Section 6 Application Package [e]).	20%