

Term of Reference

Title: Consultant for Baseline Data Collection and GIS Integration of Tree Planting Activities in Kaeng Krachan National Park, Phetch Buri province

Location: Home-based

Duration: from November 2025 to June 2026

Expected Start Date: after contract signed

Reporting to: Protected and Conserved Areas, Programme Officer

Project ID: CI-Million Trees (P04865)

1. Background

The IUCN Asia Regional Office and Thailand Country Office are embarking on an initiative to enhance forest landscape restoration (FLR) in several locations across Thailand by planning FLR in a manner that is adaptive and participatory, combining best available science and local knowledge. FLR is a process of regaining ecological functionality and enhancing human well-being across deforested or degraded landscapes. It encompasses various strategies, from natural regeneration to active planting, tailored to the local context and aiming for long-term resilience. As a prime example of Nature-based Solutions (NbS), FLR harnesses the power of nature to address environmental challenges and societal needs. IUCN is a key proponent of FLR globally. It provides best practices, tools, and international standards for FLR, drawing upon decades of expertise. IUCN's significant role in the UN Decade on Ecosystem Restoration, leading the Taskforce on Science, further highlights its expertise in supporting evidence-based restoration efforts. The FLR projects in Thailand aim to improve the resilience of vulnerable ecosystems and the well-being of local communities dependent on natural resources for their livelihoods. This initiative will focus on applying interventions in Kaeng Krachan National Park, Phetchaburi Province.

The project, part of Mastercard's Priceless Planet Coalition, focuses on restoring degraded areas and safeguarding conservation zones within community-managed land in the Kaeng Krachan National Park by planting trees. It will support the National Park's diverse forest types and the flora and fauna vital to the local ecosystem. The project, which is conducted in close collaboration with the Department of National Parks, Wildlife and Plant Conservation, will work closely with seven local communities, including the Karen ethnic group, who have been residing in the Kaeng Krachan Forest Landscape for centuries. This close collaboration will ensure the project's long-term success and provide socioeconomic benefits to the local people.

Covering 165 hectares, the project will focus on restoring land along buffer zones, riparian areas, and land previously dominated by monocropping. The project will engage local communities in all stages of the project, from planning and implementation to monitoring. This participatory approach will help to ensure that the project meets the needs of the local communities and contributes to the sustainable management of the National Park.

As part of its commitment to climate change mitigation and ecosystem restoration, IUCN, Thailand is implementing a large-scale tree planting initiative across Kaeng Krachan National Park, Phetch Buri province. To effectively track progress, ensure accountability, and plan future interventions, there is a need to establish a reliable baseline dataset of all existing and planned tree planting sites and integrate this information into a Geographic Information System (GIS) platform.

2. Objective of the Assignment

The objective of this consultancy is to:

1. Conduct a comprehensive baseline assessment of tree planting sites in the project area.
2. Collect and verify geo-referenced data on existing and planned tree planting activities.
3. Develop a GIS database and produce maps for visualization, monitoring, and reporting.
4. Support the Million tree project funded by the Conservation International (CI) to prepare baseline data integrated with GIS and metadata for uploading on the Donor's project monitoring platform.

3. Scope of Work

The consultant will be responsible for:

1. Review existing documentation, reports, and maps relevant to tree planting including the Donor's project monitoring platform.
2. Design and implement a methodology for baseline data collection, including site visits, remote sensing as appropriate and align with the Donor's project monitoring requirement and platform.
3. Design a platform capable of efficiently collecting and managing GPS coordinates, species data, planting dates, survival rates, and other relevant biophysical or management-related information
4. Integrating all data into a TerraMatch and design platform to support carbon credit and tree bank initiatives by including the necessary layers and attributes.
5. Produce high-quality static and interactive maps.
6. Train project staff on how monitoring dataset can be collected and managed.
7. Provide a final report with metadata documentation, methodology, limitations, and recommendations

4. Deliverables

Deliverable	Description	Deadline (after contract signing)	Payment plan (%)
	initial signed contract	30 Nov.-2025	30
D1	Inception reports: including background, workplan, methodology and training schedule and table of content of the reports in English version	30 Dec. 2025	30
D2	Baseline dataset, raw and cleaned geo-referenced data (Excel/CSV & shapefiles)	30 Feb. 2026	
D3	GIS Database Integrated GIS system with relevant layers and metadata	30 Feb. 2026	
D4	Maps static and web-enabled maps of tree planting sites	30 Mar. 2026	
D5	Final Report Including methodology, lessons learned, and recommendations	28 Apr. 2026	40

D6	Training Session one training session for staff with user manual	30 Jun. 2026	
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5. Qualifications and Experience

- At least master's degree in Biological Sciences, Forestry, Environment, Computer Science or related
- At least 5 years of experience in environmental and ecological fieldwork on environmental ecosystems.
- At least 3 years of proven expertise in GIS mapping using tools such as ArcGIS and QGIS, with strong skills in spatial data modelling and integration of biophysical data into geodatabases.
- Demonstrated experience with baseline field surveys and in-situ data collection, including GPS mapping, species mapping, and ecological monitoring.
- Strong analytical, reporting, and communication skills, with multiple peer-reviewed scientific publications in spatial ecology and restoration.
- Experience in coordinating and training with multiple and local stakeholders.
- Demonstrate knowledge in Southeast Asian and tropical forests, including knowledge of regional forest species.
- Experience engaging with local stakeholders and NGOs across project sites in Thailand, Malaysia, and Singapore.

6. Supervision and Reporting

The consultant will report to the Protected and Conservation Area, Programme Officer. Regular progress updates will be expected through weekly calls and bi-weekly written briefs.

7 Payment Schedule:

The consultant(s) will be expected to conduct the work within 8 months, through fieldwork, interviews and consultation with IUCN and relevant stakeholders if needed (in total 36 working days input). Note that costs related to workshops and training sessions will be borne by IUCN. However, the consultant will be expected to include travel costs in their proposed budget. Payment timeline will be as follows:

- 1) A first instalment is corresponding to 30% of the Remuneration upon receipt of a signed copy of this Agreement together with a first invoice.
- 2) A second instalment is corresponding to 30% of the Remuneration upon delivery and IUCN written acceptance of [deliverables 1 to 4 will trigger payment] and presentation of the corresponding invoice; and
- 3) A third and last is corresponding to remaining 40% of the Remuneration upon satisfactory and timely completion and IUCN written acceptance of all Services. The final invoice must be submitted no later than [30 days] after IUCN's written acceptance of all Services or after the contract end date whichever is later.