



REQUEST FOR PROPOSAL (RFP)

Ref. no. RFP APRC/03/2014

Date: January 28, 2014

Dear Sir / Madam:

We kindly request you to submit your Proposal for International Expertise on Maximizing Carbon Sink and Conserving Biodiversity through Sustainable Conservation, Restoration, and Management of Peat-Swaps Ecosystems.

Please be guided by the form attached hereto as Annex 2, in preparing your Proposal.

Proposals may be submitted on or before **Tuesday, February 11 2014, 2014**, via email, courier mail or fax to the address below:

United Nations Development Programme
UN Service Building 3rd Floor, Rajdamneon Nok Avenue, Bangkok 10200
Ms. Somlak Supkongyu
rcb.procurement.th@undp.org; Fax. 662-280-2700

Your Proposal must be expressed in the English language, and valid for a minimum period of 120 days.

In the course of preparing your Proposal, it shall remain your responsibility to ensure that it reaches the address above on or before the deadline. Proposals that are received by UNDP after the deadline indicated above, for whatever reason, shall not be considered for evaluation.

Services proposed shall be reviewed and evaluated based on completeness and compliance of the Proposal and responsiveness with the requirements of the RFP and all other annexes providing details of UNDP requirements.

The Proposal that complies with all of the requirements, meets all the evaluation criteria and offers the best value for money shall be selected and awarded the contract. Any offer that does not meet the requirements shall be rejected.

Any discrepancy between the unit price and the total price shall be re-computed by UNDP, and the unit price shall prevail and the total price shall be corrected. If the Service Provider does not accept the final price based on UNDP's re-computation and correction of errors, its Proposal will be rejected.

No price variation due to escalation, inflation, fluctuation in exchange rates, or any other market factors shall be accepted by UNDP after it has received the Proposal. At the time of Award of Contract or Purchase Order, UNDP reserves the right to vary (increase or decrease) the quantity of services

and/or goods, by up to a maximum twenty five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.

Any Contract or Purchase Order that will be issued as a result of this RFP shall be subject to the General Terms and Conditions attached hereto. The mere act of submission of a Proposal implies that the Service Provider accepts without question the General Terms and Conditions of UNDP, herein attached as Annex 3.

Please be advised that UNDP is not bound to accept any Proposal, nor award a contract or Purchase Order, nor be responsible for any costs associated with a Service Providers preparation and submission of a Proposal, regardless of the outcome or the manner of conducting the selection process.

UNDP's vendor protest procedure is intended to afford an opportunity to appeal for persons or firms not awarded a Purchase Order or Contract in a competitive procurement process. In the event that you believe you have not been fairly treated, you can find detailed information about vendor protest procedures in the following link: <http://www.undp.org/procurement/protest.shtml>.

UNDP encourages every prospective Service Provider to prevent and avoid conflicts of interest, by disclosing to UNDP if you, or any of your affiliates or personnel, were involved in the preparation of the requirements, design, cost estimates, and other information used in this RFP.

UNDP implements a zero tolerance on fraud and other proscribed practices, and is committed to preventing, identifying and addressing all such acts and practices against UNDP, as well as third parties involved in UNDP activities. UNDP expects its Service Providers to adhere to the UN Supplier Code of Conduct found in this link : http://www.un.org/depts/ptd/pdf/conduct_english.pdf

Thank you and we look forward to receiving your Proposal.

Sincerely yours,



Samak Supkongyu

Procurement and Administrative Services Manager

28 January 2014

Description of Requirements

Context of the Requirement	International Expertise on Carbon Benefit and Carbon			
Implementing Partner of UNDP	<ul style="list-style-type: none"> Office of Natural Resources and Environmental Policy and Planning under Ministry of Natural Resources and Environment (Thailand) National Park, Wildlife and Plant Conservation Department Ministry of Natural Resources and Environment (MONRE) Tambon Administrative Offices (TAO) at project sites 			
Brief Description of the Required Services	See TOR attached.			
List and Description of Expected Outputs to be Delivered	<ol style="list-style-type: none"> Detailed Work Plan and Approach Baseline report on: <ul style="list-style-type: none"> Site based measurement points Assist in the selection and description of measurements and extrapolation methodologies for GHGs relevant to the project First draft of the report Final report 			
Person to Supervise the Work/Performance of the Service Provider	Programme Analyst, Environment Unit, UNDP Thailand			
Frequency of Reporting	See TOR attached.			
Progress Reporting Requirements	See TOR attached.			
Location of work	<input checked="" type="checkbox"/> At Contractor's Location with scheduled visits to UNDP and ONEP office for briefing, meeting and de-briefing			
Expected duration of work	1 March -30 June 2014			
Target start date	1 March 2014			
Latest completion date	30 June 2014			
Travels Expected	Destination/s	Estimated Duration	Brief Description of Purpose of the Travel	Target Date/s
	Bangkok (up to 2 trips)	3 days per trip	Meeting with UNDP Advisor and UNDP Programme Analyst. Site visits in two provinces along the south-eastern coast of Thailand	15 March to 15 June 2014
	Visit in two Southern provinces (up to 2 trips)	3 days per trip		

Names and curriculum vitae of individuals who will be involved in completing the services	<input checked="" type="checkbox"/> Required																				
Currency of Proposal	<input checked="" type="checkbox"/> USD																				
Value Added Tax on Price Proposal	<input checked="" type="checkbox"/> must be exclusive of VAT and other applicable indirect taxes																				
Validity Period of Proposals (Counting for the last day of submission of quotes)	<input checked="" type="checkbox"/> 120 days In exceptional circumstances, UNDP may request the Proposer to extend the validity of the Proposal beyond what has been initially indicated in this RFP. The Proposal shall then confirm the extension in writing, without any modification whatsoever on the Proposal.																				
Partial Quotes	<input checked="" type="checkbox"/> Not permitted																				
Payment Terms	<table border="1"> <thead> <tr> <th>Outputs</th> <th>Percentage</th> <th>Timing</th> <th>Condition for Payment Release</th> </tr> </thead> <tbody> <tr> <td>Detailed Workplan and Approach</td> <td>10%</td> <td>One week after contract signing</td> <td>Work plan and approach approved by UNDP.</td> </tr> <tr> <td>Baseline report</td> <td>40%</td> <td>15 April 2014</td> <td>Baseline report approved by UNDP.</td> </tr> <tr> <td>First draft of the report</td> <td>30%</td> <td>15 May 2014</td> <td>First draft of the report approved by UNDP.</td> </tr> <tr> <td>Final report prepared and accepted by UNDP.</td> <td>20%</td> <td>30 June 2014</td> <td>Final report prepared and accepted by UNDP.</td> </tr> </tbody> </table>	Outputs	Percentage	Timing	Condition for Payment Release	Detailed Workplan and Approach	10%	One week after contract signing	Work plan and approach approved by UNDP.	Baseline report	40%	15 April 2014	Baseline report approved by UNDP.	First draft of the report	30%	15 May 2014	First draft of the report approved by UNDP.	Final report prepared and accepted by UNDP.	20%	30 June 2014	Final report prepared and accepted by UNDP.
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Person(s) to review/inspect/ approve outputs/completed services and authorize the disbursement of payment	Programme Analyst, Environment Unit, UNDP Thailand																				
Type of Contract to be Signed	<input checked="" type="checkbox"/> Professional Contract																				
Criteria for Contract Award	<input checked="" type="checkbox"/> Highest Combined Score (based on the 70% technical offer and 30% price weight distribution)																				
Criteria for the Assessment of Proposal	Technical Proposal (70%) <input checked="" type="checkbox"/> Expertise of the Firm 15% <input checked="" type="checkbox"/> Methodology, Its Appropriateness to the Condition and Timeliness of the Implementation Plan 45% <input checked="" type="checkbox"/> Management Structure and Qualification of Key Personnel 40% Financial Proposal (30%)																				

	<p>the Implementation Plan 45%</p> <p><input checked="" type="checkbox"/> Management Structure and Qualification of Key Personnel 40%</p> <p>Financial Proposal (30%)</p> <p>To be computed as a ratio of the Proposal's offer to the lowest price among the proposals received by UNDP.</p>
UNDP will award the contract to:	<input checked="" type="checkbox"/> One and only one Service Provider
Annexes to this RFP	<p><input checked="" type="checkbox"/> Form for Submission of Proposal (Annex 2)</p> <p><input checked="" type="checkbox"/> General Terms and Conditions / Special Conditions (Annex 3)</p> <p><input checked="" type="checkbox"/> Detailed TOR</p> <p><input checked="" type="checkbox"/> GEF Project Identification Form (Annex 4)</p>
Contact Person for Inquiries (Written inquiries only)	<p><i>Ms. Somlak Supkongyu</i></p> <p><i>Procurement and Administrative Services Manager</i></p> <p><i>email: rcb.procurement.th@undp.org</i></p> <p>Any delay in UNDP's response shall be not used as a reason for extending the deadline for submission, unless UNDP determines that such an extension is necessary and communicates a new deadline to the Proposers.</p>
Other Information <i>[pls. specify]</i>	

Detailed Terms of Reference for International Expertise on Carbon Monitoring Methodologies

I. Introduction

In line with the UN Partnership Assistance Framework with the Royal Thai Government (2012-2016) the proposal for ‘Maximizing Carbon Sink and Conserving Biodiversity through Sustainable Conservation, Restoration, and Management of Peat-Swaps Ecosystems, was developed by the Office of Natural Resources and Environmental Policy and Planning (ONEP), and the United Nations Development Programme (UNDP), for funding support from the Global Environment Facilities (GEF).

The proposed project aims to conserve and restore peat-lands to increase their capacities to act as carbon sinks, as habitats for globally important species, and as sources of ecosystem services for improved livelihoods.

For full details on the Project Identification Form (PIF), please refer to annex 5 of this RFP.

The Project Identification Form (PIF) and the project preparation grant have been approved by GEF’s Chief Executive Office. As per GEF project development procedures, the next step is to develop the project document for the full-sized project which will include 5 components as follows:

a. Technical Review

- Baseline data collection;
- Studies on environmental and social impacts, feasibility studies on incentive package to vulnerable groups, and gender analysis;
- Identification of specific sites for intervention
- Integration with development plans, policies, budgets and complementary projects
- Completion of GEF focal area tracking tools: BDS02, Climate Change and Sustainable Forest Management Tracking Tool
- Stakeholder consultations during technical review.

b. Institutional arrangements, monitoring and evaluation

- Finalize project results framework
- Develop Monitoring and Evaluation Workplan
- Define Sustainability plan
- Decide Project Board structure
- Organize Stakeholders consultations during this stage

c. Financial planning and co-financing investments

d. Validation workshop

- e. *Completion of final documentation* including CEO endorsement request form and translation of project document into Thai language and any further documentation required for preparing the implementation

II. Goal & Objectives of the RFP

The successful bidder is to provide UNDP with the expertise on Carbon Benefit and Carbon Monitoring Methodologies, to form part of project preparation team that will develop the full-sized project document and to prepare the GEF CEO Endorsement Request and all required annexes for final submission to GEF.

III. Main Requirements

The successful bidder will work with the GEF Project Design Specialist, the national GHG expert, and provide support and guidance to the national team in the establishment of a carbon benefit measurement and monitoring system, including on site measurements.

Specifically, the institution engaged on this contract will be responsible for the following tasks:

- Assist in the development of the site based measurement points
- Assist in the selection and description of measurements and extrapolation methodologies for GHGs relevant to the project.
- Assist in calculation of the baseline and project emission scenarios, in particular: (i) the non-depletion of the carbon pool contained in the peatlands as a result of the prevention of degradation of 4,300 ha of peatland under Component 2; (ii) the sequestration dividend from planting of 300 ha of native forest species [Detailed tCO₂e estimates in line with IPCC Tier 2 level will be presented including separate estimations for protection of peat swamps, rewetting, prevention of fires and reforestation and comparison with appropriate baseline scenarios. Detailed information needs to be provided on how the baseline oxidation rates are estimated based on the STAP comment].
- Propose and describe in detail the peat-swamp carbon monitoring system proposed in the PIF and address the comments on this system made by the STAP.

In addition, the bidder will be required to send their consultant to:

- Bangkok (up to 2 trips) for meetings with UNDP Advisors and UNDP Programme Analyst. The approximate length of each is three days per trip.
- Undertake the field visits in selected project sites in Thailand (up to 2 trips). The approximate length of each trip is three days per trip.

IV. Deliverables

Output/ Deliverable	Description	Approximate Date of Submission	% of overall effort
1. Detailed Work Plan and Approach	<ul style="list-style-type: none"> Detailed Work Plan and Approach 	One week after contract signing	10%
2. Baseline report	<ul style="list-style-type: none"> Site based measurement points Assist in the selection and description of measurements and extrapolation methodologies for GHGs relevant to the project. 	15 April 2014	40%
3. First draft of the report	<ul style="list-style-type: none"> Calculation of the baseline and project emission scenarios, in particular: (i) the non-depletion of the carbon pool contained in the peatlands as a result of the prevention of degradation of 4,300 ha of peatland under Component 2; (ii) the sequestration dividend from planting of 300 ha of native forest species [Detailed tCO₂e estimates in line with IPCC Tier 2 level will be presented including separate estimations for protection of peat swamps, rewetting, prevention of fires and reforestation and comparison with appropriate baseline scenarios. Detailed information needs to be provided on how the baseline oxidation rates are estimated based on the STAP comment]. Propose and describe in detail the peat-swamp carbon monitoring system proposed in the PIF and address the comments on this system made by the STAP. 	15 May 2014	30%
4. Final report	<ul style="list-style-type: none"> Improved version of the first draft, incorporating comments and additions as suggested by the review team to provide inputs to the full project document to be finalised by the GEF project design specialist.² 	30 June 2014	20%

² The institution shall remain on stand-by to address any additional clarification, information needed during the finalization of the project document and the review and comments from the GEF, until the project finally receives CEO endorsement.

V. Payment

Payment shall be made following certification by UNDP that the services related to each deliverable, as specified in the contract, have been satisfactorily performed and the deliverables have been achieved by or before the due dates specified, if any.

FORM FOR SUBMITTING SERVICE PROVIDER'S PROPOSAL²

(This Form must be submitted only using the Service Provider's Official Letterhead/Stationery³)

[insert: Location].

[insert: Date]

To: Ms. Somlak Supkongyu

Dear Sir/Madam:

We, the undersigned, hereby offer to render the following services to UNDP in conformity with the requirements defined in the RFP dated 28 January 2014 , and all of its attachments, as well as the provisions of the UNDP General Contract Terms and Conditions :

A. Qualifications of the Service Provider

The Service Provider must describe and explain how and why they are the best entity that can deliver the requirements of UNDP by indicating the following :

- a) Profile – describing the nature of business, field of expertise, licenses, certifications, accreditations;*
- b) Business Licenses – Registration Papers, Tax Payment Certification, etc.*
- c) Track Record – list of clients for similar services as those required by UNDP, indicating description of contract scope, contract duration, contract value, contact references;*
- d) Written Self-Declaration that the company is not in the UN Security Council 1267/1989 List, UN Procurement Division List or Other UN Ineligibility List.*

B. Proposed Methodology for the Completion of Services

The Service Provider must describe how it will address/deliver the demands of the RFP; providing a detailed description of the methodology/approach for how the organization will achieve the ToR and implementation timeline, reporting conditions and quality assurance mechanisms that will be put in place, while demonstrating that the proposed methodology will be appropriate to the local conditions and context of the work.

² This serves as a guide to the Service Provider in preparing the Proposal.

³ Official Letterhead/Stationery must indicate contact details – addresses, email, phone and fax numbers – for verification purposes

C. Qualifications of Key Personnel

If required by the RFP, the Service Provider must provide :

- a) *Names and qualifications of the key personnel that will perform the services indicating who is Team Leader, who are supporting, etc.;*
- b) *CVs demonstrating qualifications must be submitted if required by the RFP; and*
- c) *Written confirmation from each personnel that they are available for the entire duration of the contract.*

D. Cost Breakdown per Deliverable*

	Deliverables <i>[list them as referred to in the RFP]</i>	Percentage of Total Price <i>(Weight for payment)</i>	Price <i>(Lump Sum, All Inclusive)</i>
1	Deliverable 1		
2	Deliverable 2		
3	Deliverable 3		
4	Deliverable 4		
	Total	100%	

**This shall be the basis of the payment tranches*

E. Cost Breakdown by Cost Component

Description of Activity	Remuneration per Unit of Time	Total Period of Engagement	No. of Personnel	Total Rate
I. Personnel Services				
1. Services from Home Office				
a. Expertise 1				
b. Expertise 2				
2. Services from Field Offices				
a. Expertise 1				
b. Expertise 2				
3. Services from Overseas				
a. Expertise 1				
b. Expertise 2				
II. Out of Pocket Expenses				
1. Travel Costs				
2. Daily Allowance				
3. Communications				
4. Reproduction				
5. Equipment Lease				
6. Others				
III. Other Related Costs				

*[Name and Signature of the Service Provider's Authorized Person]
[Designation]*

General Terms and Conditions for Services

1.0 LEGAL STATUS:

The Contractor shall be considered as having the legal status of an independent contractor vis-à-vis the United Nations Development Programme (UNDP). The Contractor's personnel and sub-contractors shall not be considered in any respect as being the employees or agents of UNDP or the United Nations.

2.0 SOURCE OF INSTRUCTIONS:

The Contractor shall neither seek nor accept instructions from any authority external to UNDP in connection with the performance of its services under this Contract. The Contractor shall refrain from any action that may adversely affect UNDP or the United Nations and shall fulfill its commitments with the fullest regard to the interests of UNDP.

3.0 CONTRACTOR'S RESPONSIBILITY FOR EMPLOYEES:

The Contractor shall be responsible for the professional and technical competence of its employees and will select, for work under this Contract, reliable individuals who will perform effectively in the implementation of this Contract, respect the local customs, and conform to a high standard of moral and ethical conduct.

4.0 ASSIGNMENT:

The Contractor shall not assign, transfer, pledge or make other disposition of this Contract or any part thereof, or any of the Contractor's rights, claims or obligations under this Contract except with the prior written consent of UNDP.

5.0 SUB-CONTRACTING:

In the event the Contractor requires the services of sub-contractors, the Contractor shall obtain the prior written approval and clearance of UNDP for all sub-contractors. The approval of UNDP of a sub-contractor shall not relieve the Contractor of any of its obligations under this Contract. The terms of any sub-contract shall be subject to and conform to the provisions of this Contract.

6.0 OFFICIALS NOT TO BENEFIT:

The Contractor warrants that no official of UNDP or the United Nations has received or will be offered by the Contractor any direct or indirect benefit arising from this Contract or the award thereof. The Contractor agrees that breach of this provision is a breach of an essential term of this Contract.

7.0 INDEMNIFICATION:

The Contractor shall indemnify, hold and save harmless, and defend, at its own expense, UNDP, its officials, agents, servants and employees from and against all suits, claims, demands, and liability of any nature or kind, including their costs and expenses, arising out of acts or omissions of the Contractor, or the Contractor's employees, officers, agents or sub-contractors, in the performance of this Contract. This provision shall extend, inter alia, to claims and liability in the nature of workmen's compensation, products liability and liability arising out of the use of patented inventions or devices, copyrighted material or other intellectual property by the Contractor, its employees, officers, agents, servants or sub-contractors. The obligations under this Article do not lapse upon termination of this Contract.

8.0 INSURANCE AND LIABILITIES TO THIRD PARTIES:

- 8.1** The Contractor shall provide and thereafter maintain insurance against all risks in respect of its property and any equipment used for the execution of this Contract.
- 8.2** The Contractor shall provide and thereafter maintain all appropriate workmen's compensation insurance, or the equivalent, with respect to its employees to cover claims for personal injury or death in connection with this Contract.
- 8.3** The Contractor shall also provide and thereafter maintain liability insurance in an adequate amount to cover third party claims for death or bodily injury, or loss of or damage to property, arising from or in connection with the provision of services under this Contract or the operation of any vehicles, boats, airplanes or other equipment owned or leased by the Contractor or its agents, servants, employees or sub-contractors performing work or services in connection with this Contract.
- 8.4** Except for the workmen's compensation insurance, the insurance policies under this Article shall:
 - 8.4.1** Name UNDP as additional insured;
 - 8.4.2** Include a waiver of subrogation of the Contractor's rights to the insurance carrier against the UNDP;
 - 8.4.3** Provide that the UNDP shall receive thirty (30) days written notice from the insurers prior to any cancellation or change of coverage.
- 8.5** The Contractor shall, upon request, provide the UNDP with satisfactory evidence of the insurance required under this Article.

9.0 ENCUMBRANCES/LIENS:

The Contractor shall not cause or permit any lien, attachment or other encumbrance by any person to be placed on file or to remain on file in any public office or on file with the UNDP against any monies due or to become due for any work done or materials furnished under this Contract, or by reason of any other claim or demand against the Contractor.

10.0 TITLE TO EQUIPMENT:

Title to any equipment and supplies that may be furnished by UNDP shall rest with UNDP and any such equipment shall be returned to UNDP at the conclusion of this Contract or when no longer needed by the Contractor. Such equipment, when returned to UNDP, shall be in the same condition as when delivered to the Contractor, subject to normal wear and tear. The Contractor shall be liable to compensate UNDP for equipment determined to be damaged or degraded beyond normal wear and tear.

11.0 COPYRIGHT, PATENTS AND OTHER PROPRIETARY RIGHTS:

- 11.1** Except as is otherwise expressly provided in writing in the Contract, the UNDP shall be entitled to all intellectual property and other proprietary rights including, but not limited to, patents, copyrights, and trademarks, with regard to products, processes, inventions, ideas, know-how, or documents and other materials which the Contractor has developed for the UNDP under the Contract and which bear a direct relation to or are produced or prepared or collected in consequence of, or during the course of, the performance of the Contract, and the Contractor acknowledges and agrees that such products, documents and other materials constitute works made for hire for the UNDP.
- 11.2** To the extent that any such intellectual property or other proprietary rights consist of any intellectual property or other proprietary rights of the Contractor: (i) that pre-existed the performance by the Contractor of its obligations under the Contract, or (ii) that the Contractor may develop or acquire, or may have developed or acquired, independently of the performance of its obligations under the Contract, the UNDP does not and shall not claim any ownership interest thereto, and the Contractor grants to the UNDP a perpetual license to use such intellectual property or other proprietary right solely for the purposes of and in accordance with the requirements of the Contract.
- 11.3** At the request of the UNDP; the Contractor shall take all necessary steps, execute all necessary documents and generally assist in securing such proprietary rights and transferring or licensing them to the UNDP in compliance with the requirements of the applicable law and of the Contract.
- 11.4** Subject to the foregoing provisions, all maps, drawings, photographs, mosaics, plans, reports, estimates, recommendations, documents, and all other data compiled by or received by the Contractor under the Contract shall be the property of the UNDP, shall be made available for use or inspection by the UNDP at reasonable times and in reasonable places, shall be treated as confidential, and shall be delivered only to UNDP authorized officials on completion of work under the Contract.

12.0 USE OF NAME, EMBLEM OR OFFICIAL SEAL OF UNDP OR THE UNITED NATIONS:

The Contractor shall not advertise or otherwise make public the fact that it is a Contractor with UNDP, nor shall the Contractor, in any manner whatsoever use the name, emblem or official seal of UNDP or THE United Nations, or any abbreviation of the name of UNDP or United Nations in connection with its business or otherwise.

13.0 CONFIDENTIAL NATURE OF DOCUMENTS AND INFORMATION:

Information and data that is considered proprietary by either Party and that is delivered or disclosed by one Party ("Discloser") to the other Party ("Recipient") during the course of performance of the Contract, and that is designated as confidential ("Information"), shall be held in confidence by that Party and shall be handled as follows:

- 13.1** The recipient ("Recipient") of such information shall:
- 13.1.1** use the same care and discretion to avoid disclosure, publication or dissemination of the Discloser's Information as it uses with its own similar information that it does not wish to disclose, publish or disseminate; and,
 - 13.1.2** use the Discloser's Information solely for the purpose for which it was disclosed.

13.2 Provided that the Recipient has a written agreement with the following persons or entities requiring them to treat the Information confidential in accordance with the Contract and this Article 13, the Recipient may disclose Information to:

13.2.1 any other party with the Discloser's prior written consent; and,

13.2.2 the Recipient's employees, officials, representatives and agents who have a need to know such Information for purposes of performing obligations under the Contract, and employees officials, representatives and agents of any legal entity that it controls controls it, or with which it is under common control, who have a need to know such Information for purposes of performing obligations under the Contract, provided that, for these purposes a controlled legal entity means:

13.2.2.1 a corporate entity in which the Party owns or otherwise controls, whether directly or indirectly, over fifty percent (50%) of voting shares thereof; or,

13.2.2.2 any entity over which the Party exercises effective managerial control; or,

13.2.2.3 for the UNDP, an affiliated Fund such as UNCDF, UNIFEM and UNV.

13.3 The Contractor may disclose Information to the extent required by law, provided that, subject to and without any waiver of the privileges and immunities of the United Nations, the Contractor will give the UNDP sufficient prior notice of a request for the disclosure of Information in order to allow the UNDP to have a reasonable opportunity to take protective measures or such other action as may be appropriate before any such disclosure is made.

13.4 The UNDP may disclose Information to the extent as required pursuant to the Charter of the UN, resolutions or regulations of the General Assembly, or rules promulgated by the Secretary-General.

13.5 The Recipient shall not be precluded from disclosing Information that is obtained by the Recipient from a third party without restriction, is disclosed by the Discloser to a third party without any obligation of confidentiality, is previously known by the Recipient, or at any time is developed by the Recipient completely independently of any disclosures hereunder.

13.6 These obligations and restrictions of confidentiality shall be effective during the term of the Contract, including any extension thereof, and, unless otherwise provided in the Contract, shall remain effective following any termination of the Contract.

14.0 FORCE MAJEURE; OTHER CHANGES IN CONDITIONS

14.1 In the event of and as soon as possible after the occurrence of any cause constituting force majeure, the Contractor shall give notice and full particulars in writing to the UNDP, of such occurrence or change if the Contractor is thereby rendered unable, wholly or in part, to perform its obligations and meet its responsibilities under this Contract. The Contractor shall also notify the UNDP of any other changes in conditions or the occurrence of any event that interferes or threatens to interfere with its performance of this Contract. On receipt of the notice required under this Article, the UNDP shall take such action as, in its sole discretion; it considers to be appropriate or necessary in the circumstances, including the granting to the Contractor of a reasonable extension of time in which to perform its obligations under this Contract.

14.2 If the Contractor is rendered permanently unable, wholly, or in part, by reason of force majeure to perform its obligations and meet its responsibilities under this Contract, the UNDP shall have the right to suspend or terminate this Contract on the same terms and conditions as are provided for in Article 15, "Termination", except that the period of notice shall be seven (7) days instead of thirty (30) days.

14.3 Force majeure as used in this Article means acts of God, war (whether declared or not), invasion, revolution, insurrection, or other acts of a similar nature or force.

14.4 The Contractor acknowledges and agrees that, with respect to any obligations under the Contract that the Contractor must perform in or for any areas in which the UNDP is engaged in, preparing to engage in, or disengaging from any peacekeeping, humanitarian or similar operations, any delays or failure to perform such obligations arising from or relating to harsh conditions within such areas or to any incidents of civil unrest occurring in such areas shall not, in and of itself, constitute force majeure under the Contract..

15.0 TERMINATION

15.1 Either party may terminate this Contract for cause, in whole or in part, upon thirty (30) days notice, in writing, to the other party. The initiation of arbitral proceedings in accordance with Article 16.2 ("Arbitration"), below, shall not be deemed a termination of this Contract.

15.2 UNDP reserves the right to terminate without cause this Contract at any time upon 15 days prior written notice to the Contractor, in which case UNDP shall reimburse the Contractor for all reasonable costs incurred by the Contractor prior to receipt of the notice of termination.

15.3 In the event of any termination by UNDP under this Article, no payment shall be due from UNDP to the Contractor except for work and services satisfactorily performed in conformity with the express terms of this Contract.

15.4 Should the Contractor be adjudged bankrupt, or be liquidated or become insolvent, or should the Contractor make an assignment for the benefit of its creditors, or should a Receiver be appointed on account of the insolvency of the Contractor, the UNDP may, without prejudice to any other right or remedy it may have under the terms of these conditions, terminate this Contract forthwith. The Contractor shall immediately inform the UNDP of the occurrence of any of the above events.

16.0 SETTLEMENT OF DISPUTES

16.1 Amicable Settlement: The Parties shall use their best efforts to settle amicably any dispute, controversy or claim arising out of this Contract or the breach, termination or invalidity thereof. Where the parties wish to seek such an amicable settlement through conciliation, the conciliation shall take place in accordance with the UNCITRAL Conciliation Rules then obtaining, or according to such other procedure as may be agreed between the parties.

16.2 Arbitration: Any dispute, controversy, or claim between the Parties arising out of the Contract or the breach, termination, or invalidity thereof, unless settled amicably under Article 16.1, above, within sixty (60) days after receipt by one Party of the other Party's written request for such amicable settlement, shall be referred by either Party to arbitration in accordance with the UNCITRAL Arbitration Rules then obtaining. The decisions of the arbitral tribunal shall be based on general principles of international commercial law. For all evidentiary questions, the arbitral tribunal shall be guided by the Supplementary Rules Governing the Presentation and Reception of Evidence in International Commercial Arbitration of the International Bar Association, 28 May 1983 edition. The arbitral tribunal shall be empowered to order the return or destruction of goods or any property, whether tangible or intangible, or of any confidential information provided under the Contract, order the termination of the Contract, or order that any other protective measures be taken with respect to the goods, services or any other property, whether tangible or intangible, or of any confidential information provided under the Contract, as

appropriate, all in accordance with the authority of the arbitral tribunal pursuant to Article 26 ("Interim Measures of Protection") and Article 32 ("Form and Effect of the Award") of the UNCITRAL Arbitration Rules. The arbitral tribunal shall have no authority to award punitive damages. In addition, unless otherwise expressly provided in the Contract, the arbitral tribunal shall have no authority to award interest in excess of the London Inter-Bank Offered Rate ("LIBOR") then prevailing, and any such interest shall be simple interest only. The Parties shall be bound by any arbitration award rendered as a result of such arbitration as the final adjudication of any such dispute, controversy, or claim.

17.0 PRIVILEGES AND IMMUNITIES:

Nothing in or relating to this Contract shall be deemed a waiver, express or implied, of any of the privileges and immunities of the United Nations, including its subsidiary organs.

18.0 TAX EXEMPTION

18.1 Section 7 of the Convention on the Privileges and Immunities of the United Nations provides, inter-alia that the United Nations, including its subsidiary organs, is exempt from all direct taxes, except charges for public utility services, and is exempt from customs duties and charges of a similar nature in respect of articles imported or exported for its official use. In the event any governmental authority refuses to recognize the United Nations exemption from such taxes, duties or charges, the Contractor shall immediately consult with the UNDP to determine a mutually acceptable procedure.

18.2 Accordingly, the Contractor authorizes UNDP to deduct from the Contractor's invoice any amount representing such taxes, duties or charges, unless the Contractor has consulted with the UNDP before the payment thereof and the UNDP has, in each instance, specifically authorized the Contractor to pay such taxes, duties or charges under protest. In that event, the Contractor shall provide the UNDP with written evidence that payment of such taxes, duties or charges has been made and appropriately authorized.

19.0 CHILD LABOUR

19.1 The Contractor represents and warrants that neither it, nor any of its suppliers is engaged in any practice inconsistent with the rights set forth in the Convention on the Rights of the Child, including Article 32 thereof, which, inter alia, requires that a child shall be protected from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical mental, spiritual, moral or social development.

19.2 Any breach of this representation and warranty shall entitle UNDP to terminate this Contract immediately upon notice to the Contractor, at no cost to UNDP.

20.0 MINES:

20.1 The Contractor represents and warrants that neither it nor any of its suppliers is actively and directly engaged in patent activities, development, assembly, production, trade or manufacture of mines or in such activities in respect of components primarily utilized in the manufacture of Mines. The term "Mines" means those devices defined in Article 2, Paragraphs 1, 4 and 5 of Protocol II annexed to the Convention on Prohibitions and Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects of 1980.

20.2 Any breach of this representation and warranty shall entitle UNDP to terminate this Contract immediately upon notice to the Contractor, without any liability for termination charges or any other liability of any kind of UNDP.

21.0 OBSERVANCE OF THE LAW:

The Contractor shall comply with all laws, ordinances, rules, and regulations bearing upon the performance of its obligations under the terms of this Contract.

22.0 SEXUAL EXPLOITATION:

22.1 The Contractor shall take all appropriate measures to prevent sexual exploitation or abuse of anyone by it or by any of its employees or any other persons who may be engaged by the Contractor to perform any services under the Contract. For these purposes, sexual activity with any person less than eighteen years of age, regardless of any laws relating to consent, shall constitute the sexual exploitation and abuse of such person. In addition, the Contractor shall refrain from, and shall take all appropriate measures to prohibit its employees or other persons engaged by it from, exchanging any money, goods, services, offers of employment or other things of value, for sexual favors or activities, or from engaging in any sexual activities that are exploitive or degrading to any person. The Contractor acknowledges and agrees that the provisions hereof constitute an essential term of the Contract and that any breach of this representation and warranty shall entitle UNDP to terminate the Contract immediately upon notice to the Contractor, without any liability for termination charges or any other liability of any kind.

22.2 The UNDP shall not apply the foregoing standard relating to age in any case in which the Contractor's personnel or any other person who may be engaged by the Contractor to perform any services under the Contract is married to the person less than the age of eighteen years with whom sexual activity has occurred and in which such marriage is recognized as valid under the laws of the country of citizenship of such Contractor's personnel or such other person who may be engaged by the Contractor to perform any services under the Contract.

23.0 AUTHORITY TO MODIFY:

Pursuant to the Financial Regulations and Rules of UNDP, only the UNDP Authorized Official possesses the authority to agree on behalf of UNDP to any modification of or change in this Contract, to a waiver of any of its provisions or to any additional contractual relationship of any kind with the Contractor. Accordingly, no modification or change in this Contract shall be valid and enforceable against UNDP unless provided by an amendment to this Contract signed by the Contractor and jointly by the UNDP Authorized Official.



PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Full-sized Project
 TYPE OF TRUST FUND: GEF Trust Fund

PART I: PROJECT INFORMATION

Project Title:	Maximizing carbon sink capacity and conserving biodiversity through sustainable conservation, restoration, and management of peat-swamp ecosystems		
Country(ies):	Thailand	GEF Project ID:	5330
GEF Agency(ies):	UNDP	GEF Agency Project ID:	4951
Other Executing Partner(s):	Ministry of Natural Resources and Environment (MONRE)	Submission Date: Resubmission:	Mar 9, 2013 April 12, 2013
GEF Focal Area (s):	Multi Focal Areas	Project Duration (Months)	48
Name of parent program (if applicable): • For SFM/REDD+ <input checked="" type="checkbox"/> • For SGP <input type="checkbox"/>		Agency Fee (\$):	317,719 (306,319+11,400)

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK¹:

Focal Area Objectives	Trust Fund	Indicative Grant Amount, (\$)	Indicative Co-financing, (\$)
CCM-5	GEFTF	1,977,945	7,987,208
BD-1	GEFTF	436,544	1,685,577
SFM/REDD-1	GEFTF	809,911	3,350,215
Total Project Cost		3,224,400	13,023,000

B. INDICATIVE PROJECT FRAMEWORK

Project Objective: To conserve and restore peat-lands to increase their capacities to act as carbon sinks, as habitats for globally important species, and as sources of ecosystem services for improved livelihoods

Project Component	Grant Type ²	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
1. Expanding protection of high conservation value peat-swamp forests and demonstrating their sustainable use within broader landscape	TA	Integrated approach to peat-swamp forests management implemented at a 128,000 ha Kuan Kreng Environmental Conservation Area, including: - 13,000 ha of high conservation peat-swamps (raised peat-bogs) put under protection, enlarging the presence of peat-swamps in PA estate by 62% - Zoning arrangements at surrounding economic areas as a model for wider landscape integration of peat-swamp forests - Sustainable peat-swamp forest use	Output 1.1: Feasibility study and designation documentation finalized for Government approval on formal designation of Kuan Kreng as Environmental Conservation Area (equivalent to IUCN Cat.IV). Output 1.2: Participatory management plan, with functional zones identified in consultative way designed, economic regimes within zones around natural and secondary peat-swamp forests reconciled with ecosystem requirements, and boundaries of conservation areas and economic zones clearly demarcated. Output 1.3: Kuan Kreng sub-district land use plans adjusted to reflect the new zones: drainage, arable agriculture, and large-scale oil palm excluded from permissible activities; alternatives (krajoed grass harvesting, fishing, sustainable NTFR) delineated in land use plans. Enforcement system put in place to monitor compliance with adjusted land use regimes within the ECA. Output 1.3: ECA administration unit equipped with patrolling and enforcement capacities.	GEFTF	1,000,000 (BD: 370,000; SFM/REDD: 560,000; CCM:70,000)	3,923,686

¹ Refer to the reference attached on the [Focal Area Results Framework](#) when completing Table A.

² TA includes capacity building, and research and development.

		<p>promoted through community forests at 5,000 ha</p> <p>Release of pressures such as oil palm plantation encroachment and fires on the peat-swamp ecosystems, ensuring preservation of the 24 mln tC pool and habitat of IUCN Red List Species (<i>ref. to main text for detailed description of BD values</i>)</p>	<p>Output 1.5: Community forest support scheme in Kuan Kreng: local co-management committees supported (representing protected areas administrations, forest administrations and local communities). For those areas designated primarily as conservation areas, the project would provide support to communities for livelihoods which can be implemented in natural peat swamp or grassland without disrupting the hydrological regime or vegetation cover (<i>kra-jood grass collection, fishing, other activities pending PPG feasibility study</i>).</p>			
2. Implementing technologies to avoid peat-swamp forest degradation and restore degraded peat-swamp forests	TA	<p>Avoided degradation of 4,300 ha of high nature value peat-swamp forests, preventing emissions of 953,095 tCO₂-eq from peat oxidation and 546,137 tCO₂-eq from peat fires (20-year direct emissions; <i>ref. Section on global benefits for details</i>)</p> <p>Sequestration of additional 59,558 tCO₂-eq (20-year perspective) from reforestation at 300 ha of peat-swamp forests</p> <p>Peat-swamp carbon monitoring system designed and integrated in the national UNFCCC reporting protocols</p>	<p>Output 2.1: Hydrotechnical facilities constructed at 5 blocks of natural primary and secondary peat-swamp forests in Kreng sub-district and 4 blocks in neighboring sub-districts to prevent encroachment of the degraded oil palm plantations and fires.</p> <p>Output 2.2: Native tree reforestation of areas damaged by storms and fires in Kreng sub-district (300 ha).</p> <p>Output 2.3: Peat swamp carbon flux monitoring system set up based on Tier-1 methodology of 2013 IPCC Wetlands Supplement, complimented by 3-4 sample plots for camera / subsidence measurements to obtain more precise site-specific data; set-up in Kuan Kreng (for disturbed and secondary peat-swamps) and Kunthulee peat-swamps (primary undisturbed peat-swamp) for comparative data reference.</p>	GEFTF	1,500,000 (CCM: 1,450,000; SFM/REDD: 50,000)	5,792,214
3. Improving policies, standards and enforcement mechanisms for conservation and sustainable use of peat-swamp forests	TA	<p>Effective national policy framework for management of peat swamps addresses degradation threats and stipulating ecologically optimal management regimes for all peatlands in Thailand</p>	<p>Output 3.1: <i>National Strategy for Peat-swamps</i> (NSP) defines optimal peatland management regimes for all key peat-swamp areas in the country, institutional roles and responsibilities in planning, financing, and management of peat-swamps.</p> <p>Output 3.2: Specific criteria and methodologies for assessment of peat-swamp values, functions, and services (incl. economic potential, habitat support, resilience capacity & carbon sequestration) developed and approved.</p> <p>Output 3.3: A comprehensive inventory of peat-swamps completed (using the criteria and methodologies from the previous output), as an important input for the NSP.</p> <p>Output 3.4: Standards for avoidance and mitigation of encroachment of oil-palm plantations and fires on natural peat-swamps designed and mechanisms for their enforcement integrated in the NSP.</p>	GEFTF	570,857 (BD: 45,756; SFM/REDD: 161,344; CCM: 363,575)	2,659,100
Subtotal					3,070,857	12,375,000

Project Management Cost (PMC) ³		GEFTF	153,543	648,000
Total Project Cost			3,224,400	13,023,000

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount (\$)
National Government	MONRE-ONEP(OCCC)	Grant	6,560,000
National Government	MONRE-ONEP (biodiversity)	Grant	4,560,000
National Government	MONRE-RFD	Grant	63,000
National Government	MONRE-DNP	Grant	1,210,000
GEF Agency	UNDP	Grant	550,000
Private Sector	Private Sector	Grant	30,000
Local Government	Tambon Administrative Offices (TAO) at project sites	In-kind	50,000
Total Cofinancing			13,023,000

D. INDICATIVE TRUST FUND RESOURCES (\$) REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY¹

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (\$) (a)	Agency Fee (\$) (b) ²	Total (\$) c=a+b
UNDP	GEF	CCM	Thailand	1,977,945	187,905	2,165,850
UNDP	GEF	BD	Thailand	436,544	41,472	478,016
UNDP	GEF	SFM	Thailand	809,911	76,942	886,853
Total Grant Resources				3,224,400	306,319	3,530,719

¹ In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table.

² Indicate fees related to this project.

E. PROJECT PREPARATION GRANT (PPG)⁴

Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grant:

	<u>Amount Requested (\$)</u>	<u>Agency Fee for PPG (\$) ⁵</u>
• No PPG required.	_____	_____
• (upto) \$50k for projects up to & including \$1 million	_____	_____
• (upto)\$100k for projects up to & including \$3 million	_____	_____
• (upto)\$150k for projects up to & including \$6 million	<u>120,000</u>	<u>11,400</u>
• (upto)\$200k for projects up to & including \$10 million	_____	_____
• (upto)\$300k for projects above \$10 million	_____	_____

PPG AMOUNT REQUESTED BY AGENCY(IES), FOCAL AREA(S) AND COUNTRY(IES) FOR MFA AND/OR MTF PROJECT ONLY

Trust Fund	GEF Agency	Focal Area	Country Name/ Global	(in \$)		
				PPG (a)	Agency Fee (b)	Total c = a + b
GEF	UNDP	CCM	Thailand	76,850	7,301	84,151
GEF	UNDP	BD	Thailand	16,961	1,611	18,572
GEF	UNDP	SFM	Thailand	26,189	2,488	28,677
Total PPG Amount				120,000	11,400	131,400

MFA: Multi-focal area projects; MTF: Multi-Trust Fund projects.

³ To be calculated as percent of subtotal.

⁴ On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

⁵ PPG fee percentage follows the percentage of the GEF Project Grant amount requested.

PART II: PROJECT JUSTIFICATION⁶

PROJECT OVERVIEW

A.1 Project Description

Global environmental problems.

Peatlands are one of the planet's major carbon pools, irreplaceable habitat for threatened species, sources of organic fertilizer, raw materials for chemistry, textiles, insulation materials, balneological, therapeutic and medical products; natural providers of clean water, regulators of micro-climate, soil and hydrological conditions, effective means for controlling fires, erosion, floods, contamination. Globally, there are approximately 400 million ha of peatlands (3% of the world's land area), containing up to 528,000 megatonnes of carbon (about 1/3 of the global soil carbon). The largest areas of peatlands occur in South-East Asia, which alone has about 27.1 million ha. Tropical peatlands, such as those in Thailand, have been accumulating carbon 4.5 times faster than temperate peatlands. They also store more carbon than other tropical forests that are on non-peat soils: a 10 m deep peatland in the tropics stores about 5,800 tC/ha compared to 300-800 tC/ha for tropical forests on other soils.

By various estimates, there are between 64,000 and 75,000 ha of peatlands (=peat-swamps) in Thailand, of which the majority are found in the provinces along the south-eastern coast, particularly in Nakhon Si Thammarat (Kuan Kreng landscape) Surat Thani, and Narathiwat Provinces. They comprise a diversity of land cover classes, including predominantly woodlands (raised bog peat swamp forests), but also non-forested wetlands (open fens and lakes), and flooded grasslands. Kuan Kreng is the second-largest peatland landscape in Thailand, with still substantial parcels of non-degraded peat-swamp ecosystems. This is a 31,287 ha landscape stretching across five districts of Nakhon Si Thammarat Province and one district of Phattalung Province. About half of the area has been designated as a national "Non-Hunting" protected area (Thale Noi and Borlor)⁷, which includes zones of strict protection (including two Ramsar sites). The other half of the area are forest reserves (under the jurisdiction of the Royal Forestry Department – RFD, also under MONRE), and includes areas with settled and unsettled land ownership claims from local communities. The area has relatively large population density and high economic use demands. There are 33 villages in the area, with a population of around 15,000 people, who are primarily engaged in rice farming, rubber tree and oil palm planting, and some fishery and livestock activities at approximately 1,000 ha of drained peatlands in the periphery of the landscape, close to natural and secondary peat-swamp forest tracts. The peatland is a major source of water critical for ecosystems and human settlements in the Songkhla Lake Basin and Pak Panang Basin, supporting agricultural production while buffering from the impact of rains and floods; additionally, it acts as a natural sediment filter before waters drain into Songkhla Lake. Local communities fish, collect food and medicinal plants and NTFP for handicraft production, from natural peat swamp forests.

Kuan Kreng represents a major store of carbon (58 million tC). Within the landscape, there are areas with well preserved peat and vegetation layer (some primary but predominantly secondary forest). In addition to the carbon values, such parts house important biodiversity including a number of endemic and/or globally threatened species: surveys have produced lists containing 260 plant, 77 bird, 10 mammal and a number of key freshwater species: including globally threatened Catfish - *Prionailurus viverrinus*, Smooth-coated Otter - *Lutrogale perspicillata*, etc.

In 2002, Thailand's peatlands were sequestering 2,482,336 tons of carbon per year; by 2008 their sequestration capacity fell to 1,694,653 tC/ha (Source: national papers used in preparing the UNFCCC National Communications). The area of natural peatlands with sequestration capacity reduced due to threats described below.

- *Encroachment of oil palm plantations.* Peat swamp forests in South East Asia and Thailand in particular have historically been drained and converted primarily to oil palm and rubber tree plantations. In Kuan Kreng alone, over 1,000 ha has been converted for oil palm, both by large-scale private investors and by small-scale farmers. The drainage for oil palm has lowered the ground-water table to 20-70 cm below soil, drying the peatland thus exposing peat to fires and mineralization. By conservative estimates of the authors of the IPCC 2013 Wetlands Supplement, CO₂ emissions from tropical peatlands drained for oil-palm are 40.33 tCO₂-eq/ha/y, as well as emissions of dissolved organic carbon through the drainage ditches. No buffer zones have been established between oil palm plantations and remaining peat swamp forests, which produces a vicious-cycle of peat land loss: the plantations' drainage networks work as constant draining effect on neighboring natural swamps, those would degrade as a result, and communities or investors find it easier to obtain permit to add new areas to their existing plantations pointing that those have degraded recently (which is easy due to policy barriers described below), and they further extend their drainage ditches that in effect would again initiate a new wave of degradation of additional peat-swamps. In the driest seasons, the oil palm plantations owners use water from the drains for irrigation and that has a further draining effect on the neighboring peat land areas. In addition to the effect on carbon fluxes, the construction of numerous flood barriers, roads, canals and other facilities associated with oil palms results in the deceasing of fish production and lowers the biological diversity of the peat swamp forests.

⁶ Part II should not be longer than 5 pages.

⁷ Non-hunting areas are a type of national protected area category, and is governed by Department of National Parks, Wildlife, and Plant Conservation (DNP) of the Ministry of Natural Resources and Environment (MONRE)

- *Fires.* Since much of the peatlands have been drained, dry peat catches fire extremely quickly. These include unintentional or intentional fires (to clear land or burning by encroachers and hunters to flush out prey) cause large-scale peat fires in peat-swamp especially during the dry seasons (January – March). In 2010, in Kuan Kreng Peat-swamp alone, fires affected 3,200 ha of peatlands. A wildfire on a drained tropical peatland results in a loss of a record 747.11 tCO₂/ha + 9.21 tCH₄/ha (Page *et al.*, 2002; Ballhorn *et al.*, 2009; Christian *et al.*, 2003).

Other threats of secondary importance are stemming primarily from unsustainable use of peatlands by local communities due to low awareness of the value of peat-swamps and lack of alternatives for “wet” use of these ecosystems. This includes unsustainable logging as many local communities cut trees for use as firewood. Also, villagers often harvest *Melaleuca cajuputi* for making charcoal or construction support materials at some sites, doing so in an unsustainable way.

The threats of drainage for oil palm plantations and fires work as a sequence. In the beginning of the 20th century, Kuan Kreng peat swamp was covered almost entirely by primary peat-swamp forest. After much of it was drained for economic use, the ecosystem was exposed first to storms (due to disrupted soil root zone capacities) and later to fires. During the 1950s almost 70% of the original primary tree vegetation was destroyed by storms, which was followed by a series of fires during periods of drought. Consequently, the primary peat swamp forest shrank and even though some of areas affected by storms and fires regenerated as secondary forest, they remain constantly under threat of further conversion and new fires. By estimates, about 65% of Kuan Kreng landscape stays under constant threat of degradation from various threats.

Root causes and barriers that need to be addressed

Inadequate protection of the primary and secondary natural peat-swamps. By 2012, just some 30% of peat swamps have been included in the national protected area system, which is approximately 21,000 ha, all of which are primarily fen peatlands found in the Northern part of the country. Very few (precise statistics are not available) another unique type of peatlands - raised peat-bogs (those found in Southern provinces such as Kuan Kreng peatland) are currently protected as a national protected area. The baseline program on protected areas, described further, does not have sufficient resources to enable expansion and more effective protection of peatlands. Especially in Kuan Kreng, the population density is among the highest in the country, much of the areas is constantly under land use pressure for more oil palm production or small scale farming, and given these complexities, the Government has not been able so far to fully engage communities in dialog on the establishment of the Environmental Conservation Area. A proposal to gazette Kuan Kreng as an Environmental Conservation Area has not been concluded yet because inadequate consultation with local communities, leading to low local support for such a designation. While the principle of zoning has been legally proclaimed as a way to integrate protected areas into wider landscape, there is no practical experience available in Thailand in developing Environmental Conservation Area zones for peatlands as complex (in terms of land use matrix and peatland type diversity), such as in Kuan Kreng that would stipulate particular land uses in particular ecosystems of and restrict further ecosystem degradation. Patrolling and conservation capacities of the non-hunting areas and forest administrations remain limited. Engagement of communities in co-management of peatlands has been ad hoc, supported primarily by NGO and not expanded onto wider peatland PAs. Since a part of the peat land is under a land reform scheme, whose status remains unsettled, the area is attracting interest to large-scale land developers. While villagers in the Thale Noi area seem in agreement with proposals to enhance protection of the peat swamp, others are concerned that their access to the land would be restricted.

Technologies to avoid peatland degradation not available and major gaps in carbon value knowledge of peatlands. The international research on co-existence of peatlands with economic use areas has demonstrated a need to put in place certain hydrotechnical measures that would separate the plantation from the surrounding landscape and would eliminate or minimize the cycle of draining effects and resulting fires. The expertise and resources of the baseline program run by the Irrigation Department (mentioned in the Baseline sub-section below) is unlikely to be sufficient to take into account the full complexity of the Kuan Kreng ecosystem and design a system that would rewet uniformly all dry peatland areas that are most prone to fires. The current idea promoted by the Irrigation Department is to build two large scale embankments in the Northern and Southern parts of the Thale Noi part of the Kuan Kreng might result in creating two large scale reservoirs along the embankments while leaving the central part dry and still prone to fires. There are a number of technical alternatives which this UNDP-GEF proposes to consider, including supporting the initiative of the Kreng Local Government Organization to considering embankment of smaller patches of natural and semi-natural peatland areas rather than a large scale embankment (Kreng subdistrict has identified at least 5 such areas totaling over 2,300 hectares), or a combination of an embankment around the natural areas, while blocking of smaller drains and ditches in the central parts of the raised bog peat-swamps, and possibly also consideration of a combination of hydrological restoration with subsequent assisted natural regeneration (in areas damaged by storms or fires). Local NGOs have implemented ad hoc restoration projects – these can be effective in a small scale, however, these projects have used no proper research on calibrating water tables with sluices and dykes; in many cases the NGOs have been using sand bags as drain blocks instead of proper solid regulated sluices. The expertise to design and implement solutions of the complexity that Kuan Kreng requires has not been yet available in Thailand.

Further to this, lack of precise data on carbon fluxes from tropical peatlands remains one of the highest international knowledge gaps recognized by the IPCC (conclusion stemming from the process of preparation of the 2013 IPCC Wetlands Supplement). There is very little data on carbon fluxes in tropical peatlands overall and practically NO Thailand-specific data on fluxes from oil palm plantations under various water regimes, nor on primary or secondary peat-swamp forests at raised bogs, nor on fluxes from

other types of peatlands (such as fens under paludiculture). Lack of data has been mentioned as a major obstacle in the IPCC Wetlands Supplement, but it also contributes to inability to provide arguments for decision makers in Government and to communities in Thailand as to why peatlands are important from the global climate change perspective.

Inadequate peat-swamp land-use policies. Being fragile ecosystems due to dependence on water table fluctuations, peat-swamps require clear standards about what uses and in what way can be allowed within such ecosystem's carrying capacity. While, as described further, Thailand has developed National Wetlands Action Plan as its *Ramsar Strategy* (mentioned below), it does not include specific standards and enforcement mechanisms that are critical to ensure sustainable peatland use. For example, the expansion of oil palm plantations – which is the key threat - has been as a result of a vacuum in national policies that would put certain limitations on it from the point of view of its impact on ecosystems. For example, oil palm plantations establishment plans are not required to go through Environmental Impact Assessment. Hence, there is no requirement for oil palm investors to establish buffer zones or embankments to curb the obvious draining encroachment effect described earlier in this document. Similarly, there have been inconsistencies in the policies about community forest management: how community forests be established and managed in a way that they would not pose threat to peat soil degradation have not been clarified nor codified.

Baseline scenario and associated baseline projects

Several baseline programs are addressing the threats and barriers described above, and hence serve as a foundation for this UNDP-GEF project. However, under the business-as-usual scenario they will not be sufficient to afford the full protection of these ecosystems, nor to demonstrate more sustainable management of peat swamp forests. These are briefly described below, alongside with their business-as-usual scenarios.

- Protected Area management: The Ministry of Natural Resources and Environment annually spends about US\$ 44 million dollars on nature conservation activities, yet the total budget for protected areas on peat swamp forests is only a small fraction of this, which is approximately. US\$1.5 M. The budget is allocated primarily to maintain recurrent activities of protected area administrations and partly for equipment renovation. The baseline program also includes the recent activities to declare the Environmental Conservation Area in Kuan-Kreng, but the proposal has been stalled due to the complexity of the ecosystems, complications in the land use claims, and lack of adequate discussion with local communities. Under business-as-usual scenario, the funding available under this baseline program will not be sufficient to expand the protected area estate on peatlands; zoning of Kuan Kreng will not happen and as such no integration of key conservation areas in wider landscape will happen; by conservative estimates, in the next 5 years, this will result in further degradation of over 2,000 hectares of peat-swamp forests in Kuan Kreng due to encroachment and resulting peat mineralization and fires.
- Rewetting to avoid fires by the program under the Royally-Initiated Project for Pak Phanang⁸ executed through the Royal Irrigation Department (RID) of the Ministry of Agriculture and Agricultural Cooperatives (MOAC): in 2013, after a series of large-scale fires in previous year, DNP is in consultation with RID, to design a hydrotechnical scheme to raise the water table in Kuan Kreng in order to avoid fires, The budget of this proposed project is being finalized – including the technical design and the area of coverage (currently estimated to cover around 10,00 ha); initial estimation is within the range of USD 1.5 M. This UNDP-GEF supported project will seek to collaborate with this project during the PPG. Under the business-as-usual scenario, the expertise and resources of the program is unlikely to be sufficient to consider the full complexity of the Kuan Kreng ecosystem and design a system that would rewet uniformly all dry peatland areas most prone to fires, as described further in the barriers section earlier. At least 30% of the target areas is assessed to still be at risk of fire if the baseline project is implemented without GEF support. Based on historical dynamics in peatland loss in Thailand, most of these areas, but conservatively at least 25% of the remaining natural and secondary wet peat swamp areas in Kuan Kreng, are going to be lost to drainage and fires in the next 6 years. With this UNDP-GEF project support, international expertise would be available to Thailand specialists in designing a truly effective rewetting plan that would stop peat oxidization and help avoid fires.
- The local sustainable development programs implemented by local government units (*Tambon Administrative Offices, TAOs*) include support to conservation camps for local youths, supporting establishment of community volunteer groups for wildfires prevention, establishment of small areas for fish conservation, establishment of community forests and awareness on natural conservation through local curriculum in schools, and other programs aimed at awareness raising. In the next 5-6 years, an estimated USD 1.5 mln is estimated to be invested in these programs. In addition, there are 143 registered community forests within the Kuan Kreng Peat Swamp. These community forests are managed by the communities together with the local government organisations. These community forests are registered with and received some funding supports from the Royal Forestry Department (RFD). A few of these community forests within Kuan Kreng received national recognition as model cases. This represent a strong baseline to build on to strengthen co-management approaches as well as to enhance sustainability and replication of these communities' networks. Under business-as-usual scenario, the awareness raising activities alone will not be sufficient to address the technological barriers in restoration and sustainable use of peatlands, and

⁸ The Royally-Initiated Project for Pak Phanang River Basin, based in Nakhon Si Thammarat is an integrated approach to regulate the hydro-ecosystem in Pak Phanang River Basin for sustainable livelihood. The river basin covers the area of 3100 sq.m2 across 3 provinces: Nakhon Si Thammarat, Patthalung, and Songkla. Kuan Kreng Peat Swamp constitutes a large part of this basin. This royally-initiated umbrella project started in 1995 with the Royal Irrigation Department and other relates agencies under the Ministry of Agriculture and Agricultural Cooperative operationalised the projects according to His Majesty the King's vision and initiatives.

hardly any new community forests are likely to be established. These programs also would not be able to influence policies for peatland use and conservation at the national level.

Proposed alternative scenario, with a brief description of expected outcomes and components of the project, incremental cost reasoning and expected contributions from the baseline, the GEFTF, LDCF/SCCF and co-financing

The long-term solution sought is to change the trajectory of the baseline approaches in order to facilitate a transformative shift from unsustainable to a sustainable and integrated use of peat-swamp forests in Thailand. The project strategy is to address the three barriers described through a incremental outcomes organized into three components: the first one focusing on improving the protection status of remaining natural peat-swamp forests in the second-largest peat-swamp landscape of Thailand; the second one helping to implement innovative approaches to avoid degradation and restore peat-swamps; and the third component helping to improve peat-swamp use policies. In doing so it will influence the production practices employed by local economic actors and will support measures to avoid GHG emissions from peat degradation and fires, and demonstrate approaches to increase sequestration through afforestation. This would result in global benefits in the climate change, biodiversity and SFM focal areas, both in the short and long term, as further described in the Global Benefits sub-section table later in this document.

Under the first component focusing on protection, the GEF project scenario will enable an integrated ecosystem approach to manage the Kuan Kreng peatland landscape. Through this, the project will expand the protected area estate of Thailand to include approximately 13,000 ha of previously unprotected natural primary or secondary peat-swamp forest and non-forested peatland ecosystems (raised bogs) of high conservation and carbon value. The regime of the economic activities in areas surrounding these high conservation and carbon value sites will be revised to exclude such activities that might cause ecosystem degradation, such as large-scale unregulated drainage, oil palm plantations, and any expedient burning activities. The zoning will be carefully planned and discussed in collaboration between the local communities (and local Government organizations), the non-hunting area administrations, Office of Natural Resources and Environmental Policy and Planning (ONEP), forest administrations, Royal Irrigation Department of the Ministry of Agriculture and Agricultural Cooperatives. The proposed total area of the Environmental Conservation Area, with all zones included, is expected to be about 128,000 ha, including water bodies such as two small lakes. A management plan for each zone will be put in place, as well as ground-water table standards that would need to be maintained in each zone reconciling the ecosystem stability requirements on the one hand and local community use needs on the other hand. A Co-management Committee will be set up representing all conservation and land use stakeholders to make decisions about land use and conservation activities, patrolling, monitoring and enforcing of the zoning arrangements. Patrolling and conservation capacities of the ECA administration will be strengthened. Community forests will be set up at approximately 2,000 ha of high-conservation value peat-swamp forests: within these forests, communities will be allowed and supported in collection of kra-jood grass, fishing, water buffalo grazing, and other sustainable livelihood activities provided they adhere to land use standards so that the hydrological regime in the peatlands, the vegetation cover and biodiversity remain intact or regenerate within their natural regeneration capacities⁹. The baseline program on protected areas, described above, will contribute 1.2 mln USD for the feasibility studies and regular PA staff support. In addition, the project will also work to raise awareness of potential investors on the conservation status of the area and associated regulations, as well as to raise their awareness on the importance of the peatlands, such as through the local Chamber of Commerce, in order to minimize the risks from big investors in landuse conversion in this area.

Using best local and international expertise, the project will, under the second component, design and implement hydrotechnical measures to prevent the encroachment of the draining effect and fires on primary and secondary natural peat-swamp forest at approximately 2,300 ha in Kreng sub-district and at least 2,000 hectares elsewhere within Kuan Kreng peatland landscape. This will be achieved primarily through construction of an embankment around the targeted natural and semi-natural swamp forests, in combination with activities aiming at blocking of drains and ditches where necessary and putting in place regulated sluices to enable the water table regulation within the target sites¹⁰. The project will design the hydrological rehabilitation plans with the aim to maintain and establish permanently wet conditions in the target areas (which is in line with the natural ecosystem requirements of peat-swamp bogs), which will help to stop peat oxidization and fires. The plans will be designed upon careful study of the area peat accumulation history and peat depth mapping, hydrology, topography, vegetation and precipitation regimes, engaging local Government engineers, Royal Irrigation Department of Ministry of Agriculture, Ministry of Natural Resources and Environment, and international experts. In addition to the hydrological restoration, approximately 300 ha of forest that has degraded in the past due to fires, will be regenerated through planting of native species. The baseline programs on water table regulation aiming at fire prevention are going to provide major co-financing (4,100,000 USD) for hardware and infrastructure costs under this component.

⁹ The activity on sustainable livelihoods has been proposed tentatively on the assumption of local and central Governments' opinion, supported by UNDP country office experience, that such as scheme would be feasible. This is, however, is subject to a detailed feasibility study at the PPG stage, which would clarify the financial mechanism, the co-financing, lending and return terms, hosting agency, success monitoring protocols and processes.

¹⁰ The methodology for this activity has been discussed with local hydrotechnical engineers at Kreng sub-district and was found appropriate, pending a more detailed elaboration during the PPG stage. The methodology is also known internationally, as it has been applied for temperate peatlands; for case of its application in temperate peatlands of the same type (raised bogs) in Belarus, the reference is to Section 4 of this [UNDP-GEF Belarus Guidebook on Peatland Rehabilitation](#). As a result of this proposed project in Thailand, a similar guideline will be developed for tropical peat lands, which could be applied in Thailand and neighbouring countries.

The project will set up a peat-swamp carbon monitoring system. It will help to clarify and communicate to scientists, public and politicians the true value of peatlands, the cost of degradation and carbon market opportunities related to peatland conservation and rehabilitation. The monitoring system will rely on the methodologies that are currently being developed under the IPCC 2013 Wetlands Supplement. In order to fill the international and local gap in the knowledge on the carbon fluxes in the tropical peat-swamp forests and reduce the current high fluctuation in the expert assessment on some of the coefficients, the project will facilitate establishment of 3-4 site-based carbon measurement (subsidence, chamber measurements of CH₄, measurements of dissolved organic carbon, possibly test application of the “vegetation proxy” method) stations to measure carbon fluxes (CO₂, N₂O and CH₄) at degraded drained soil (oil palm and rubber tree plantations), secondary wet peat-swamp forests, fire-degraded forests, and other sub-types of land-uses as necessary. In addition to the Kuan Kreng landscape, the carbon monitoring system will also cover the Kunthulee Peat Swamp - in the adjacent province, where most of the areas are still primary peat-lands, to provide comparative data.

Under the third component, the project scenario will address the policy gap in the conservation and use of peatlands. The inventory of peatlands will be carried out enabling precise knowledge of the amount of peatlands in Thailand, their status, land uses, biodiversity and carbon values. The national strategy and action plan on peatlands will consolidate roles and responsibilities of various institutions managing and conserving peatlands and streamline them. The policy will establish standards on peat land use, such as standards to ensure buffers between economic and natural peatlands, standards for avoidance of encroachment, standards for hydrological rehabilitation, operation of community forests at peat-swamps, regulation of water table in the peat-swamps to avoid oxidization and fires. The strategy will define how many peatland areas and where would need to be set aside as protected areas, where and how peatlands would need to be rehabilitated, and how peatlands could be managed sustainably in economic landscapes.

Global environmental benefits

Prevention of degradation at the 4,300 ha targeted by Component II of the project will ensure non-depletion of the carbon pool contained in these peatlands, conservatively estimated to amount to 24 M tC. Under the baseline scenario, based on historical records of peatland drainage in Thailand, at least 25% of the target areas (25%*4,300 ha=1,075 ha) will be lost to drainage primarily for oil palm plantations. Peat oxidization will happen at a rate of 40.33 tCO₂-eq/ha/y¹¹. Emissions from oxidization (20 years perspective in line with GEF SFM tracking tool and Voluntary Carbon Market standards for peatland projects) under baseline will equal to 1,075 ha * 44.33 tCO₂-eq/ha/y * 20 years = 953,095 tCO₂-eq. In addition, based on fire statistics on drained oil palm plantation at least 17% of the area (731 ha) would be burned in a wild fire in the next 20 years. Emissions from fires are projected to be 731 ha * 747.11 tCO₂/ha¹² = 546,137 tCO₂-eq. The total CO₂-eq emissions avoided by the project scenario, therefore, will amount to 1,499,232 tCO₂-eq, conservatively¹³. The hydrological measures sought to be put in place for prevention of emissions under Component II, do not represent “re-wetting” as defined by IPCC 2013 Wetlands Supplement in draft, and therefore emissions of CH₄ are not going to change significantly between baseline and project scenario (subject to confirmation at PPG stage based on exact parameters of the water table to be set and maintained). The sequestration dividend from planting of 300 ha of native forest species has been calculated based on the IPCC AFOLU Guidance (tropical moist deciduous forest in Asia; soil and litter pools ignored for conservatism; subject to precise calculations at PPG): Table 4.10 Above-ground net biomass growth in tropical and subtropical forest plantations is 8 tonnes of dry matter per ha per year. The above-ground to below-ground ratio is assumed to be 0.20 (IPCC Table 4.4); carbon fraction of above-ground forest biomass is 0.47 (IPCC Table 4.3). Total carbon dividend from afforestation: 8 t.d.m*0.47+8*0.2*0.47=3.76+0.752=4.512 tC/ha/y=4.512*44/12=16.54 tCO₂-eq/ha/y. For 300 ha in a 20 year perspective this equates to 59,558 tCO₂-eq. From the climate change mitigation cost-effectiveness perspective, the total investment in the project’s Component II (investments leading to direct life time emissions avoided or carbon sequestered) of US\$7,292,214 (GEF plus co-financing) will conservatively generate total carbon benefits (emissions avoided plus carbon sequestered) amounting to 1,558,790 tCO₂-eq over a 20-year time horizon. The unit cost of mitigation is therefore US\$4.68/tCO₂, which is far below the cost of most of the presently known climate change mitigation approaches. At the stage of CEO endorsement more detailed tCO₂e estimates in line with IPCC Tier 2 level will be presented, including separate estimations for protection of peat swamps, rewetting, prevention of fires and reforestation and comparison with appropriate baseline scenarios.

From the biodiversity perspective, the project will enlarge the presence of under-represented raised bog peatland ecosystems in the national PA system, enlarging the overall presence of peatlands in the PA estate by 62% percent. The project permanently removes threats of habitat degradation stemming from economic encroachment and fires, and ensure protection of key raised bog species including the Fishing Cat *Prionailurus viverrinus*, Smooth-coated Otter *Lutrogale perspicillata*, Striped New Guinea Softshell Turtle *Pelochelys bibroni*, Southeast Asian Box Turtle *Cuora amboinensis*, Giant Asian Pond Turtle *Heosemys grandis*, Sunburst Turtle *Heosemys spinosa*, Malayan Snail-eating Turtle *Malayemys subtrijuga* and Black Marsh Turtle *Siebenrockiella crassicolis*.

¹¹ IPCC 2013 Wetlands Supplement in draft: 11 tCO₂-C/ha/y is conservatively emitted from drained tropical oil palm plantations: for CO₂: = 11*44/12=40.33 tCO₂-eq/ha/y.

¹² Source of coefficient is IPCC 2013 Wetlands Supplement in draft.

¹³ A more precise calculation will be carried out at the PPG stage.

The project's target areas are forests, and the approach is such that while delivering climate and biodiversity benefits, it also creates incentives for communities for sustainable use of forests. Namely, the project scenario supports establishment of community forests at 5,000 ha, with specific regimes of forest use, allowing harvesting of trees, kra-joog grass and NTFR in a way which does not disrupt the hydrology or vegetation cover of the peat-swamp forests. It thus creates income streams from sustainable use of peat-swamp forests while putting a close to activities that lead to peat-swamp forest degradation (e.g. large-scale oil-palm plantations). Under the second component, the project delivers knowledge on the carbon and biodiversity values of peat-swamp forests that will be used by decision makers in advocating for replication of the project approach beyond the target sites and beyond Thailand.

Innovativeness, sustainability and potential for scaling up

The project demonstrates many approaches for the first time in Thailand, including zoning for ecologically complex peat-swamp landscapes, hydrotechnical engineering to prevent drainage effect from oil palm encroachment and fires, and carbon monitoring. While this is a relatively small investment, its replication potential goes far beyond the target areas. The second component of the project includes a tropical peatland carbon flux monitoring system. While the system is going to be implemented at the project target sites but would also be applicable in similar ecosystems in Thailand and neighboring countries. By now, data on emissions of GHG, and especially CH₄, from drained or rewetted tropical peatlands has been extremely scarce at the international level. IPCC has encouraged more site-based pilot projects that would enable precise assessment of GHG fluxes in these ecosystems. The peatlands in Thailand are similar to those in Indonesia, Malaysia and other Southeast Asian countries and this project would therefore create valuable input to the IPCC Wetlands Supplement discussions. It will also enable more precise planning of peat-swamp conservation and restoration projects, focusing on carbon mitigation, in tropical and subtropical regions.

With respect to embedding project results in-country, the very nature of the third component is about strengthening law, policies and standards that would curb encroachment, define accurate ways to regulate water tables in peat-swamps so as to achieve ecosystem sustainability and avoid fires. The national strategy and action plan on peatlands, to be developed under the third component, will streamline the institutional context of peat-swamp management in the country and will define management regimes for different peatland areas so that ecosystem resilience is retained in the long-term.

A.2 Stakeholders

STAKEHOLDER	RELEVANT ROLES
MONRE- ONEP	ONEP will be a key Implementing Partner of this project through its Biodiversity and Climate Change Coordination Offices. ONEP is the focal point for UNFCCC and CBD. It is responsible for the Environmental Conservation Area (ECA). It will link the project to other divisions and offices within the MoNRE and among other line ministries. It will play an important role in reaching out to local communities and, in coordination with Irrigation Department and forest administrations.
MONRE-DNP	DNP is responsible for the Non-Hunting Areas and will be engaged in the first component Department of Nature Protection will be engaged in the first component on the establishment of the ECA and zoning.
MONRE-RFD	RFD (Royal Forestry Department) is responsible for the National Reserve Forest Areas, which constitute a large part of Kuan Kreng Peat Swamps. It will be engaged particularly in the outcomes with regards to zoning and sustainable utilisation including the establishment of community peat swamps forests.
Ministry of Interior	Ministry of Interior's Department of Local Administration Office is for ensuring the implementation of local initiatives (such as community forests and local hydrotechnical constructions) and therefore is an important partner for all three components of the project.
Local government organizations (TAOs) and local communities which they represent	Three TAOs in the demonstration areas will be focal points for local peat-swamp management at various intervention including policy & planning, capacity building, local collaboration and partnership, etc. The local government units (TAOs) are responsible for local sustainable development. They also coordinate actions of different agencies and facilitate the resolution of land-use conflicts; they will need to be involved in the process of development of new protected areas; and oversee and allocate budgets that communities may access for funding livelihood projects and other development work. TAOs will be involved throughout the establishment of the ECA, but also to design and implement hydrotechnical facilities to prevent degradation of natural and secondary peat-swamp forests, proposed under Component 2. They are primary beneficiaries also of those project activities which deal with community forest management.
The Prince Songkhla University	The Prince Songkhla University in Songkhla Province will provide technical assistance and capacity building to local stakeholder groups located in the three demo sites and could be involved in the carbon fluxes studies
Royal Irrigation Department of Ministry of Agriculture	The role of the Royal Irrigation Department, which is in charge of planning hydrotechnical projects in peat-swamps, is important, as they provide the technical expertise that could be built on especially for component 2

A more detailed stakeholder engagement plan (including full engagement of communities and gender aspects) will be developed at the PPG stage.

A.3 Risks

Risks	Level	Mitigation
Competing agency interests for peatlands bar the approval of National Peatland Strategy and Action Plan	M	Indeed, in Thailand, peatlands fall under different categories of land use: forest administrations, protected area departments, Irrigation Department, local Government organizations each have their roles or claims for use or conservation of peatlands. Some stakeholders lean toward continued consideration of peatlands as wastelands, while others may favour a complete hands-off protection of high ecological values of peatlands. As a mitigation to this, under Component III, as a first step towards consensus-building for the National Strategy and Action Plan, the project is going to create the even ground for decision making open for all stakeholders, doing so by elaborating detailed stocktaking of peatlands, clearly defining their values and proposing scenarios for each key block of peatlands - ultimately aiming at retaining maximum ecological resilience of the ecosystems, and hence – their maximum productivity in the long-term which should be in the interest of the country. the formulation of the National Strategy will be based on inter-disciplinary studies that will feed into the Strategy and multiple stakeholder consultations (at central and local levels) before the Strategy is proposed for ultimate approval.
Local land-use conflicts hamper the efforts to ensure protection of natural peat-swamps in Kuan Kreng	M	Land tenure at Kuan Kreng is complex issue. The landscape includes many small patches where formal land-use title has not been established. The project here relies on the Government efforts which have recently started consider each case of unsettled land use rights and solve them. The work on the zoning and land-use planning under the second component of this GEF project will be instrumental in providing arguments for both sides and mediating in such a way that regardless of the land title the land use regime as established is going to be economically attractive to the user while staying with the ecosystem carrying capacity. The expected timeline of the Government for land use claim settlements in Kuan Kreng seems to be in synchrony with the tentative GEF cycle expected for this project.
Climate change impact and consequences	L	Thailand is prone to climate change impacts and disaster consequences, such as floods and storms. The South of Thailand where Kuan Kreng is located has been assessed as low risk at this stage. Whether climate change will bring increased rains and storms or droughts to southern Thailand, the restoration of the peat swamp area can be expected to provide significant adaptation co-benefits to local communities and biodiversity. It will offer a stable water supply, reducing the occurrence and impacts of floods and droughts at the same time, and by extension reducing the vulnerability of the agricultural, water, health and disaster management sectors. These values will be assessed, discussed with communities, and integrated in the National Strategy and Action Plan under Component III of the project.

A.4 Coordination

The project will ensure coordination with the GEF project “Integrated community-based forest and catchment management through an ecosystem service approach (CBFCM)”. This project’s work on bio carbon assessment methodology from ecosystems and promotion of PES related to bio carbon and other ecosystem services; the peatlands project, if approved, is going to generate data that would strengthen the case for PES application in Thailand. This project will also benefit from the results and experience of another GEF project “Catalyzing sustainability of Thailand’s Protected Area System”; the mechanisms for community involvement and sustainable financing options put in place by this project will be considered when designing community forest scheme under Component I. Furthermore, the experience of that GEF project will be used for building the capacities of the ECA at Kuang Kreng. Since these two projects are also under implementation by MONRE, the Ministry will ensure coordination and lessons sharing as well as working level contacts between the implementation teams working on these projects. Outside of GEF, the project will ensure strong cooperation with the Pak Panang River Basin Project initiated by His Majesty the King of Thailand to support local environmental management and local livelihoods. That project has supported a number of local actions to maintain water level in the fen peat lands in the northern part of the country through construction of small-scale infrastructure, amongst other things and also seasonal flood management. These aspects will be carefully considered in the design of the hydrotechnical facilities proposed by this project under Component II. This project will also establish contacts and information exchange with the IFAD-GEF regional project “Rehabilitation and Sustainable Use of Peat land Forests in South-East Asia”, that is operational in Malaysia, Indonesia, Philippines, Vietnam, Singapore, and Brunei.

The project development and implementation will also be built on ongoing work and lessons from the GEF-ADB Greater Mekong Subregion Forests and Biodiversity Program. As this project is working “to increase investments and improve the management and climate resilience of high priority forest biodiversity conservation landscapes including protected area systems of the Greater Mekong Subregion (GMS), recognizing the pressures on these landscapes from development and climate change” in several

Greater Mekong countries, including Thailand, its work on carbon accounting systems and protocols, information sharing on good practice for forest carbon management and finance and sustainable PA, forest and watershed management will be directly relevant to this proposed project.

DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1 National strategies and plans or reports and assessments under relevant conventions

This project is in line with Thailand's *Strategic Plan on Climate Change (SPCC 2008-2012)*. Component II of the project pilots technologies for GHG mitigation which speaks to SPSS Strategy I (Protect, conserve and add values to natural resource base, and protect, conserve and improve environmental quality and the quality of living from climate change impacts; promote activities such as water and forest conservation and restoration, infrastructure improvement and land use change to reduce vulnerabilities in hot spot areas), and Strategy 2 (Promote greenhouse gas mitigation activities based on sustainable development which focuses on increased carbon sinks; and sustainable forest conservation, afforestation and reforestation to increase carbon sinks). The project tackles some of the key barriers mentioned in the SPCC, namely lack of scientific knowledge base on climate change to support policy formulation and evaluation, and decision making; lack of public awareness; lack of capacity among relevant agencies; and lack of clear direction and continuity towards international cooperation. The role of ecosystems in carbon storage in Thailand has been also noted in Thailand's *Second National Communications (2010)*, which noted the importance of the forestry as a win-win policy in Thailand for GHG emission reduction and for other ecosystem services and hence the need to promote such an approach in the country.

Thailand's National Report on the Implementation of Convention on Biological Diversity (2009) has noted the diversity of peat land ecosystems in Thailand, including those in the lowlands of Southern Thailand. Thailand has designated 11 peat lands as Ramsar sites, while the National Biodiversity Strategy and Action Plan has a goal to have at least 35% of wetland areas (most of which are peat swamps) "restored and conserved". The current percent is 30, but almost no presence of raised peat bog ecosystems in it. With enlargement of the peatland coverage in the PA system by 65% and specifically including 13,000 ha of raised bog peatlands in the PA estate, this project contributes in a significant manner to Thailand reaching this national PA targets for peatlands. The project will also directly support the achievement of Aichi Target's Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use; particularly Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced; and Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services – particularly Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including prevention of degradation of natural ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.

The importance of peat lands as wetlands are also being recognized in Thailand. In this aspect, this project will also support the implementation of Thailand's Action Plan (2009 – 2014) for Wetland Conservation which focuses on five goals regarding the utilization of wetland; wetlands with significant international importance; international cooperation; institutional performance and efficiency; and a full membership of the Ramsar Convention by 2014. A Cabinet Resolution from a meeting on November 3, 2009 approved several measures for wetlands conservation, including the principles of protection of ecosystem services and rehabilitation of degraded wetlands. By developing a new National Strategy and Action Plan for peatlands (Component III) this project will extend the current Thailand Action Plan and compliment it with missing conservation standards and inventories.

B.2 GEF focal area and/or fund(s) strategies, eligibility criteria and priorities

The project will generate multiple global environmental benefits by demonstrating improved conservation and sustainable management of peat-swamps and strengthening national policies governing peatland management of all types (including *inter alia* peat-swamp forests). Under the climate change focal area, the project will generate benefits by avoiding degradation of peatlands and restoration of peat-swamp forests. This will result in GHG emission avoided and carbon sequestered as presented in the Global environmental benefits sub-section above. These project objectives are line with the expected outcomes of GEF CC SO-5 (*Restoration and enhancement of carbon stocks in forests and non-forest lands, including peatlands*).

The project generates benefits under the biodiversity focal area insofar as it will improve the conservation status and management effectiveness of existing peat-swamp non-hunting areas in Kreng sub-district and establishing 13,000 ha of protected sites within the Environmental Conservation Area that will help increase the representation of raised bog peat-swamps in the national protected area estate. This will be accompanied by creation of sustainable use zones around key conservation sites, which will supplement the protected areas helping to integrate them in wider landscape. This approach is line with GEF BD-1 (*Improving management of existing PAs and expanding protection of under-represented ecosystems within the PA system*).

Over 60% of the targeted landscape is forested. Under the GEF's Sustainable Forest Management focal area, the project will develop a model for the sustainable management of peatland swamp forests as "community forests" and provide incentives to communities to use peat-swamp forest ecosystems in wet state, without draining them. In addition, under the second component,

the project is setting up a carbon monitoring system which addresses multiple international and local gaps in understanding the true value of peat-swamp forests.

B.3 The GEF Agency’s comparative advantage for implementing this project

UNDP has accumulated years of experience in managing peatland projects. UNDP has focused on policy-making, capacity building, hands-on research, and piloting and adapting management measures to conserve, restore, and sustainably manage peatlands, particularly in South-East Asia and Europe. In Asia, UNDP has worked on peatlands in Malaysia through the GEF-supported UNDP project “Conservation and Sustainable use of Tropical Peat Swamp Forest and Associated Wetland Ecosystems. UNDP is also working under the UN-REDD program to improve the management of peatlands in neighboring Indonesia. In Europe, UNDP has managed peatland projects in a number of countries. This includes the aforementioned peatland management projects in Belarus. UNDP is also implementing a German funded peatland restoration project, in partnership with RSPB, in Belarus, and EC-funded projects on peatlands in Russia, Ukraine and Belarus. A GEF project in Bosnia and Herzegovina focuses on conservation of unique karst peatlands. UNDP has been implementing an innovative project on restoration and protection of permafrost and steppe peatlands in Russia. Wetland conservation projects in Lithuania and Ukraine promote protection and sustainable management of peatlands. In addition, a number of UNDP-GEF small-grant projects in South East Asia and Europe working with local communities to engineer the wise use of peatlands. Final evaluations for the Belarus and Lithuania projects rated both as highly satisfactory, in terms of addressing their stated objectives and generating global benefits.

With respect to SFM, UNDP is central to implementation of the UN-REDD program. UNDP is working in 29 countries around the world on SFM and REDD+, focusing on forest governance frameworks, planning, and monitoring. In Europe and CIS, UNDP is supporting over 60 ecosystem projects worth USD 107 million. These include sustainable forest management in a number of ecoregions, including the large areas in South East Asia, LAC and Europe. UNDP is the implementing agency for forest carbon projects in Russia and Kazakhstan funded by the German International Climate Initiative (USD 11 million), which is testing innovative carbon mitigation techniques within protected areas. UNDP was the first agency to develop a Guidebook for countries on how to develop and implement Low Emission Development Strategies and NAMAs, including for the forestry sector.


The proposed project is in line with the UNPAF framework (2012-2016) for Thailand and UNDP Thailand’s Country Program Document (2012-2016), namely its Pillar 1 *Low Emission and Climate Resilient Society Initiatives*. UNDP has a network of Regional Technical Advisors, with experience in peatland conservation and management, which will be made available to this project. At the country level, the UNDP Thailand country office has sufficient staff who can effectively provide supervision to the project staff who will be recruited to implement the project at a later stage.

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Mr. Chote Trachu	Permanent Secretary	MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT	APRIL 2013

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
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