# Maximizing Carbon Sink Capacity and Conserving Biodiversity and through Sustainable Conservation, Restoration and Management of Peat-Swamp Ecosystem

UNDP Project ID: PIMS 4951

GEF Project ID: 5330

## TERMINAL EVALUATION

## FINAL EVALUATION REPORT

**Crawford Prentice and Pawin Talerngsri**

**2 April 2021**

# Project Identification

| | |
|---|---|
| **Title:** | **Maximizing Carbon Sink Capacity and Conserving Biodiversity and through Sustainable Conservation, Restoration and Management of Peat-Swamp Ecosystem** |
| UNDP Project ID: | PIMS 4951 |
| ATLAS Project ID: | 00084475 |
| GEF Project ID: | 5330 |
| TE time-frame: | January – March 2021 |
| Date of TE Report: | 2 April 2021 |
| Region: | Asia-Pacific |
| Country: | Thailand |
| GEF-5 Focal Area: | Multi-Focal Areas |
| GEF-5 Strategic Programmes: CCM-1, BD-1, SFM/REDD-1 | |
| GEF Agency: | UNDP |
| Executing Agency: | Office of Natural Resources and Environmental Policy and Planning (ONEP), Ministry of Natural Resources and Environment (MONRE) |
| Evaluation Team: | Crawford Prentice and Pawin Talerngsri |

# Acknowledgements

This terminal evaluation took place during the exceptional circumstances of the COVID19 pandemic, which necessitated a largely remote approach to conducting the information collection, consultations and analysis. As such, the international consultant (Crawford Prentice) was unable to visit Thailand to meet the project proponents and stakeholders and observe the project area. This substantially weakened the overall exercise, including the important aspect of getting to know those involved, the journey they experienced while implementing this project, and being able to empathize with their personal situations and the professional challenges involved. There is no substitute for visiting the project sites and seeing the local conditions first-hand, and this has been reflected in the limitations section of this report.

The Terminal Evaluation Team wishes to express sincere thanks to all those involved with the UNDP/GEF Peat Swamp Ecosystem Project in Thailand who provided their assistance, time and views during the process of this terminal evaluation. All those who participated in the evaluation are listed in **Annex 2** at the end of this report. In particular, we wish to acknowledge the great assistance of the UNDP Country Office for their coordination and facilitation of the evaluation process. We also acknowledge the strong cooperation of the key project proponents – ONEP, RECOFTC, PSU and the diverse project stakeholders, consultants and experts consulted during the course of the evaluation. It is our great regret that no field mission was possible due to reasons of public health security during the COVID-19 pandemic at the time of the evaluation – a significant weakness in the overall evaluation process, but in this case unavoidable.

Following completion of the Draft Report on 26 February 2021, review comments were received that have been used to inform revisions for its finalization. The comments and our responses are given in the Audit Trail in **Annex 9**. We thank the reviewers sincerely for their feedback, which has undoubtedly improved the report.

The views expressed in this Terminal Evaluation report are intended to provide the opportunity to learn from the UNDP/GEF Peat Swamp Ecosystem Project, and to secure its outcomes through specific follow up actions. Tropical peat swamp forest is a unique, valuable and rapidly disappearing type of wetland, therefore the importance of proactive follow up must be emphasized. Overall, we have tried to provide an objective, fair and balanced assessment based on evidence in the project documentation, our own observations and the interviews with a wide range of individuals who have been deeply involved in the project's implementation. Any shortcomings rest with the authors.

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## Figures and Tables

# Acronyms and Abbreviations

| | |
|---|---|
| ALRO | Agricultural Land Reform Office |
| APR | Annual Progress Report |
| APRC | UNDP Asia Pacific Regional Centre |
| CBD | Convention on Biological Diversity |
| CBO | Community Based Organization |
| CBNRM | Community Based Natural Resources Management |
| CF | Community forestry |
| CPAP | UNDP Country Program Action Plan |
| CSO | Civil Society Organization |
| DNP | Department of National Parks, Wildlife and Plant Conservation |
| DOAE | Department of Agricultural Extension (under MOAC) |
| DOLA | Department of Land Administration (under Ministry of Interior) |
| EoP | End of Project |
| EPA | Environmental Protection Area |
| GEF | Global Environment Facility |
| GHG | Greenhouse Gas |
| IC | International Consultant (for the Terminal Evaluation) |
| IP | Implementing Partner |
| IPC | Integrated Provincial Committee |
| KKL | Kuan Kreng landscape |
| LDD | Land Development Department |
| M&E | Monitoring & Evaluation |
| METT | Management Effectiveness Tracking Tool |
| MOAC | Ministry of Agriculture and Cooperatives |
| MONRE | Ministry of Natural Resources and Environment |
| MTR | Mid Term Review |
| NBSAP | National Biodiversity Strategy and Action Plan |
| NC | National Consultant (for the Terminal Evaluation) |
| NEB | National Environment Board |
| NGO | Non-Governmental Organization |
| NHA | Non-Hunting Area |
| NPD | National Project Director |
| NRM | Natural Resources Management |
| NSP | National Strategy on Peat Swamps |
| NST | Nakhon Si Thammarat province |
| NSTRU | Nakhon Si Thammarat Rajabhat University |
| ONEP | Office of Natural Resources and Environmental Policy and Planning (ONEP) |
| PA | Protected Area |
| PB | Project Board |
| PIR | Project Implementation Report |
| PM | Project Manager |
| PMU | Project Management Unit |
| PSE | Peat Swamp Ecosystem |
| PWG | Provincial Working Group |
| QPR | Quarterly Progress Report |
| RECOFTC | The Center for People and Forests |
| REDD+ | Reducing Emissions from Deforestation and Forest Degradation + |
| RFD | Royal Forest Department |
| RID | Royal Irrigation Department |
| RP | Responsible Party |
| RTA | The UNDP Regional Technical Advisor |
| SESP | Social and Environmental Safeguards Procedure |

| | |
|---|---|
| SFM | Sustainable Forest Management |
| SLM | Sustainable Land Management |
| TAG | Technical Advisory Group |
| TAO | Tambon Administration Organizations |
| TE | Terminal Evaluation |
| TEI | Thailand Environment Institute Foundation |
| ToR | Terms of Reference |
| UNDP | United Nations Development Programme |
| UNDP CO | UNDP Country Office |
| UNDP IEO | UNDP Independent Evaluation Office |
| UNESCO | United Nations Education, Scientific and Cultural Organization |
| UNPAF | United Nations Partnership Framework |
| USD | United States Dollar |
| WG | Working Group |

# 1. Executive Summary

| Project Details | Project Milestones |
|---|---|
| Project Title: Maximizing Carbon Sink Capacity and Conserving Biodiversity and through Sustainable Conservation, Restoration and Management of Peat-Swamp Ecosystem | PIF Approval Date: 24 April 2013 |
| UNDP Project ID (PIMS #): 4951 | CEO Endorsement date: 24 December 2014 |
| GEF Project ID: 5330 | ProDoc Signature Date: 21 July 2016 |
| UNDP Atlas Business Unit, Award ID, Project ID: : 00084475 | Date Project Manager hired: 17 October 2016 |
| Country: Thailand | Inception Workshop Date: 17 July 2017 |
| Region: Asia Pacific | Mid-Term Review Completion Date: June 2019 |
| Focal Area: Multi-Focal Area | Terminal Evaluation Completion date: April 2021 |
| GEF Operational Programme or Strategic Priorities/Objectives: CCM-1, BD-1, SFM/REDD-1 | Planned Operational Closure Date: 21 July 2020 |
| Trust Fund: GEF TF | Actual Operational Closure Date: 21 January 2021 |
| Implementing Partner (GEF Executing Entity): Office of Natural Resources and Environmental Policy and Planning (ONEP), Ministry of Natural Resources and Environment (MONRE) | |
| NGOs/CBOs involvement: | RECOFTC - The Center for People and Forests<br>Kon Rak Tin Association<br>Thailand Environment Institute |
| Private sector involvement: | - |
| Geospatial coordinates of project sites: | See: https://swampforest.i-bitz.co.th/map |

| Financial Information | | |
|---|---|---|
| **PDF/PPG** | At approval (US$) | At PDF/PPG completion (US$) |
| GEF PDF/PPG grants for project preparation | 131,400* | 131,400* |
| Co-financing for project preparation | 0 | 0 |
| **Project** | | |
| [1] UNDP contribution: | 300,000 | |
| [2] Government: | 13,082,711 | |
| [3] Total co-financing [1 + 2]: | 13,382,711 | |
| [4] Total GEF funding: | 3,224,400 | |
| [5] Total Project Funding [4+5] | 16,607,111 | |

**Includes agency fees*

## 1.1 Brief Project Description

S1. This GEF Full-Sized Project was designed to conserve and restore peatlands to increase their capacities to act as carbon sinks, as habitats for global important species, and as sources for ecosystems services for improved livelihoods. The Kuan Kreng Landscape (KKL) in south-eastern Thailand contains the country's second largest peat swamp forest area. By some estimates, however, about 65% of the KKL remains under constant threat of degradation from various threats, of which the primary threat is conversion to oil palm cultivation with associated drainage and forest fires. The long-term solution is to change the trajectory of baseline approaches and facilitate a transformative shift from unsustainable to sustainable and integrated use of peat swamps in Thailand. In so doing, this aimed to improve the status of indicator species in KKL, demonstrate good peat swamp forest management practices, maintain the carbon pool, reduce emissions from peatlands, enhance institutional capacity to account for GHG emission reduction and increase in carbon stocks, and develop a national inventory and strategy to guide the management of peat swamps.

S2. **The Objective of the project is: To conserve and restore peatlands to increase their capacities to act as carbon sinks, as habitats for globally important species, and as sources of ecosystem services for improved livelihoods.** This objective will be realized through the achievement of the following inter-connected outcomes:

S3. **Outcome 1: Expanding protection of high conservation value peat swamp forests and demonstrating their sustainable use within the broader landscape**. This Outcome focuses on: (i) bringing the entire KKL under protected area management, and (ii) improving the management effectiveness of existing and new protected zones.

S4. **Outcome 2: Implementing technologies to avoid peat swamp forest degradation and restore degraded peat swamp forests**. This Outcome focuses on modelling and implementation of hydrotechnical measures to manage water levels in an area of 4,600 ha in the KKL, which will contribute towards the improved health of peat swamp ecosystems and help reduce greenhouse gas (GHG) emissions from mineralizing peat and fires. This outcome also includes activities to reforest peat swamp forests that have been damaged by fire and storms in the Kreng sub-district.

S5. **Outcome 3: Improving policies, standards and enforcement mechanisms for conservation and sustainable use of peat swamp forests**. This Outcome focuses on creating an enabling environment for a landscape approach to management of peat swamp areas. The outcome will result in a national inventory of peat swamps and a National Strategy for Peat Swamps.

**Evaluation Ratings Table**

| Monitoring & Evaluation (M&E) | Rating[1] |
|---|---|
| M&E design at entry | **MU** |
| M&E Plan Implementation | **MS** |
| Overall Quality of M&E | **MU** |
| Implementation & Execution | Rating |
| Quality of UNDP Implementation/Oversight | **MS** |
| Quality of Implementing Partner Execution | **MS** |
| Overall quality of Implementation/Execution | **MU** |
| Assessment of Outcomes | Rating |
| Relevance | **S** |
| Effectiveness | **MU** |
| Efficiency | **MU** |
| Overall Project Outcome Rating | **MU** |
| Sustainability | Rating |
| Financial resources | **ML** |
| Socio-political/economic | **ML** |
| Institutional framework and governance | **ML** |
| Environmental | **MU** |
| Overall Likelihood of Sustainability | **MU** |

## 1.2 Summary of findings, conclusions and lessons learned

### 1.2.1 Findings and conclusions

S6. The terminal evaluation in January-March 2021 examined all aspects of the project – strategy and design; supervision and management arrangements for implementation; project finances; use of basic project management tools; and implementation progress and achievements over the 4.5 years from July 2016 to January 2021. The evaluation has rated the quality of Monitoring and Evaluation at entry, during implementation and overall; and the quality of Project Implementation/Oversight provided by UNDP, Project Execution by the Implementing Partner and Overall Implementation/Execution. The main evaluation criteria

[1] Outcomes, Effectiveness, Efficiency, M&E, Implementation/Oversight & Execution, Relevance are rated on a 6-point scale: 6=Highly Satisfactory (HS), 5=Satisfactory (S), 4=Moderately Satisfactory (MS), 3=Moderately Unsatisfactory (MU), 2=Unsatisfactory (U), 1=Highly Unsatisfactory (HU). Sustainability is rated on a 4-point scale: 4=Likely (L), 3=Moderately Likely (ML), 2=Moderately Unlikely (MU), 1=Unlikely (U)

for project Outcomes were the Relevance, necessity or importance of the project in Thailand; the Efficiency with which the Project has been organised, supervised, financed, administered and activities delivered, considering the time and resources available; the Effectiveness of Project design, management and implementation, in contributing to achievement of the agreed objectives and expected or planned results; the Results/Impacts achieved by the Project; and the Sustainability of the achievements and impacts of the Project, after the Project has been concluded. In addition, the evaluation examined the project's contributions to Gender and Women's Empowerment, and the Cross-cutting Issues of Social and Environmental Safeguards / Human Rights-based Approach, Climate Change Adaptation, the Poverty-Environment Nexus and Capacity Development. The ratings for each of the evaluation criteria are summarized in the table above, based on the findings in **Section 4,** which are summarized in **Table 10**.

S7. The project completed significant results that contribute towards an effective management regime for the 74,363 ha covered by the Kuan Kreng Landscape (KKL) Strategy endorsed by the Provincial Governor of Nakorn Si Thammarat, which includes six sub-strategies on specific issues. Diverse activities across all three Outcomes have contributed towards this indicator in one way or another – summarized in **Annex 12**. It can be concluded that the Project has resulted in significant improvement of peat swamp management in the 74,363 ha under the KKL Strategy (some 48% of the original target area, with the remainder considered as downstream "benefit areas"). However, this remains a work in progress at project closure despite intensive efforts and significant advances across a number of areas including land use planning, community co-management, community forest management planning, capacity development for PA management, fire-control and water management, hydrological modelling and management planning, carbon monitoring and peat swamp restoration. Overall, despite strong efforts, the project was unable to fully recover from the change in government policy at the start of the project that set aside the intended strategy of establishing EPAs in the landscape, coupled with the major delays in implementation progress.

S8. The need for outreach to stakeholders across the remaining benefit area was pursued during the extension period through the exit strategy, aiming to apply incentive measures for maximizing carbon sink capacity in KKL beyond the KKL Strategy area, youth empowerment, and developing a finance mechanism for social impact investment. While these were all positive actions, the short time available (six months), ongoing COVID restrictions, and scale of intervention needed across the remaining area mean that these measures were insufficient to put in place a secure management regime for peat swamps across full KKL area. This will need to be achieved through follow up investments.

S9. Overall, progress towards **Outcome 1** was underpinned by the completion of the KKL Strategy covering 74,363 ha (48% of the targeted area) under the coordination of the KKL Task Force, supported by a significant area now covered by community forest management plans and/or co-management arrangements, and improved capacity especially for fire and water

management. There was inadequate progress on improving management effectiveness at Thale Noi NHA in particular, reflecting a lack of engagement by the project. The threat indicators for PA violations and wildfire areas both showed increasing trends of impact late in the project, indicating that further effort on developing effective governance and management capacity is required to address these still-prevalent threats in future. Overall progress towards Outcome 1 is rated **Moderately Unsatisfactory** in view of the fact that while good progress has made in a number of areas, the final results for KKL peat swamp conservation management have not been consolidated and fully operationalized, therefore requiring post-project follow up to ensure their internalization within the related government agencies and sustainability.

S10. **Outcome 2** was technically challenging, and the Output processes were not completed – due to delays early in the project they ran out of time to achieve the full completion and calibration of water and carbon monitoring tools, their socialization amongst key user groups, and their approval and adoption by relevant agencies. The lack of relevant measurable data for the RF indicators is symptomatic of this situation, as well as being an M&E issue. Of greatest concern is that the key agencies in the landscape should have the knowledge and capacity to be able to use these tools effectively. Feedback during the TE indicated that further work is needed to achieve that situation. Progress towards Outcome 2 is rated **Moderately Unsatisfactory** in that the relevant targets were not fully achieved by project completion, and that the monitoring data were inadequate to fully assess progress against the indicators.

S11. **Outcome 3** was successful in developing the landscape level task force, which has been working relatively effectively and may be sustainable if it continues to receive political support. The peat swamp inventory and database covers some 27 sites across Thailand and is a useful and important project deliverable. However, this took too long to complete (partially due to COVID-19 related delays), also delaying completion of the critical draft National Strategy on Peat Swamps. Both of these deliverables now need to be proactively reviewed by appropriate national level bodies, approved for use, and promoted among related stakeholders and initiatives. Progress towards Outcome 3 is rated **Moderately Satisfactory.**

S12. In view of the limited progress towards the Objective indicator as well as the contributing Outcomes, the overall progress towards the project Objective is rated **Moderately Unsatisfactory.** Overall, while the project has made a valuable contribution towards the sustainable management of Thailand's peat swamps, proactive follow up is required, especially by ONEP, to consolidate the protection of the KKL peat swamp, and to achieve real impacts through the dissemination and application of these results at both national and subnational levels. Considerable follow up is needed at national level to strengthen peat swamp conservation through policy actions that will support the protection of individual peat swamps as well as their representation in protected area networks and explicit consideration in land use planning and water resource management.

S13. The table of project achievements against results framework indicator targets in **Annex 12** and section **4.3.1** on progress towards objectives provide significant information on the extent of progress against planned targets (although some indicators were poorly defined / not SMART and progress was therefore difficult to measure). The results are summarized in

**Table 8**. This shows that the Objective-level indicator was partially achieved; for Outcome 1, two indicators were achieved, three partially and two not achieved; for Outcome 2, all four indicators were not rated due to monitoring failures; for Outcome 3, three indicators were achieved and one partially achieved. In total, five indicators (31.25%) were considered fully achieved, five (31.25%) partially achieved, two not achieved (12.5%) and four not rated (25%). Thus overall, at least 62.5% of indicators showed full or partial progress towards the planned targets. This figure would have been higher if monitoring for the Outcome 2 indicators had been correctly performed, as the related Outputs were partially or fully completed (see **Annex 11**).

### 1.2.2 Lessons Learned

**Improving project design**

- This project had biodiversity and climate change mainstreaming goals without providing sufficient dedicated support needed to achieve it. Mainstreaming takes significant effort, and is only likely to be effective if specific mechanisms are created or used to institutionalize inter-sectoral collaboration in the government system. Therefore, mainstreaming projects need to include dedicated staff roles to take this forward.

- A number of Results Framework indicators in the project document did not meet SMART standards and were genuinely difficult to understand, measure and report on effectively. This, together with the lack of a theory of change for the GEF-supported alternative strategy, impacted shared understanding of the overall project approach, and especially how the different outputs and outcomes were related and needed coordination and integration. The lesson is that clear design of the Results Framework and effective communication of the theory of change have far-reaching consequences and require careful attention to avoid problems during project implementation.

- The GEF Tracking Tool assessments provide valuable information on progress towards GEF Focal Area targets, as well as on the key actions needed to advance these targets. The fact that the Climate Change Mitigation and Sustainable Forest Management / REDD+ Tracking Tools were not even referred to in the Results Framework was a major oversight and led to lack of clarity in reporting on carbon emissions and reforestation efforts. The lesson learned is that all GEF projects need to integrate the GEF Tracking Tools into the RF indicators, preferably at objective level, in order to retain a clear focus on priorities.

**Strengthening implementation**

- Major delays at project outset, as experienced by this project, have significant knock-on effects on the overall implementation of the project, impacting its overall success. These include: reduction in the overall period available for productive work; the need for significant revision of project targets, workplan and budget to recover from such delays; more intensive and accelerated execution to achieve delivery targets; reduced internalization of project outputs by stakeholders due to shorter period of engagement; reduced sustainability of outcomes due to later completion of outputs and shorter stakeholder engagement processes.

- The project management structure described in the project document was changed at an early stage of the project, when the Implementing Partner passed over the PMU function and much

of the technical implementation to RECOFTC as a subcontracted Responsible Party. This change took significant time to put in place, stalling implementation progress while the RP underwent selection and contracting. When combined with the initial loss of some 18 months awaiting Cabinet approval for project implementation to begin, the time lost in productive implementation work was huge, and the project never really regained the lost ground – although RECOFTC worked relatively efficiently once fully on board by mid-2018, and the project implementation improved significantly thereafter, also as a result of the management response to MTR recommendations, and stronger support provided by UNDP for M&E and coordination. The lesson learned is that support should be provided to the IP to ensure full understanding and confirmation of its exact role in the project document before CEO Endorsement, thus avoiding such impacts during implementation.

- It is essential to effectively communicate the project "vision" – the change it intends to bring about and the key strategies that the project will embrace to achieve this vision (Theory of Change), among the key project partners, Project Board, and other stakeholders. This common understanding strengthens commitment and engagement, facilitates outreach to related projects and development partners, and ultimately will strengthen the sustainability of the overall project outcomes. The lack of unified vision and understanding was a weakness for much of the current project, impairing coordination and the overall effectiveness of the project strategy.

- As several stakeholders have expressed, the landscape approach needs integrated and coordinated efforts by all parties involved. If the groundwork done in the project landscape cannot be scaled up to provincial, national, and policy levels, the landscape approach to peat swamp conservation is not likely to become successfully established.

- Weaknesses were identified in the systematic approaches required for gender equality and women's empowerment and ensuring that social and environmental safeguards were integrated in project M&E. To advance these issues, UNDP should invest in the training of IP/PMU staff on UNDP standards for risk management, social and environmental safeguards and gender mainstreaming during the project inception period, and ensure adequate GEF budget provision in the ProDoc. This should be included in the UNDP guidance for project documents.

- As a general point, it should be noted that analysis of documents is of increased importance for conducting an evidence-based evaluation when it is limited to remote interviews without any field mission (i.e. as a COVID-19 induced limitation). Consequently, more systematic and intensive outcome-oriented reporting by the project team in the final year of implementation would support effective terminal evaluation (i.e. timely preparation of a Project Completion Report based on a set UNDP template including Results Framework and Output deliverables status tables; and more informative Outcome-oriented quarterly reports also based on a set UNDP template).

### 1.2.3 Recommendations summary table

As this project had reached its official (extended) completion date of 21 January 2021 during the TE period, owing to COVID19 related delays in implementing the terminal evaluation, the recommendations mainly

concern follow-up actions that may assist in bolstering the sustainability of the project's outcomes. The full text of the recommendations is given in **section 5.2**.

| Rec # | TE Recommendation (summary – see section 5.2 for full text) | Entity Responsible | Time-frame |
|---|---|---|---|
| **A** | **Category 1: Completing, applying and socializing project deliverables** | | |
| **A.1** | **Water management - Further apply the MIKE SHE Model for real testing of water management** so as to generate real "lessons learned" among related agencies and to provide practice for application in other peat swamp areas. | ONEP, RID | April-Dec 2021 |
| **A.2** | **Carbon monitoring – Support a critical technical review of the project-supported methodologies and results on carbon monitoring** in order to provide recommendations for their application in measuring and reporting on GHG emissions and carbon sequestration for peat swamps and other habitat types. The methodologies need to be workable for government monitoring and reporting procedures. | ONEP | April-Dec 2021 |
| **A.3** | **Strengthen the sustainability of livelihoods and expand the network to Thale Noi and Songkhla Lake areas**: Continued capacity development and networking support is needed to increase the environmental sustainability of livelihoods in KKL. In addition, stimulation of local involvement should be supported by TEI post-project through the new grant funding received via UNDP CO. TEI should also support expansion of the network to Thale Noi and Songkhla Lake areas through a consultative platform. Local people with different occupations apart from krajood production should be invited to join. | UNDP CO/TEI | April-Dec 2021; longer if funding available |
| **A.4** | **Link some ongoing peat swamp management activities in KKL area to the GCF readiness support project.** A UNDP/ONEP GCF project has been developed that includes NST and Songkhla, providing the opportunity to follow up on climate change adaptation measures in the KKL. | UNDP, ONEP | April-Dec 2021 / longer if GCF supports |
| **A.5** | **Test the integrated landscape approach linking climate change and biodiversity through the Innovation Accelerator Policy Lab.** The integrated landscape approach requires effective coordination mechanism, cross-functional management, joint plan, budget, and KPI. These are still quite challenging for the Thai government, therefore, UNDP can take this opportunity to propel the issue further through the UNDP policy lab which could help the government to explore ways and means to foster their integrated operation in particular areas such as KKL. | UNDP, ONEP | April-Dec 2021 / longer if funding available |
| **A.6** | **Locate additional external funding to support the sustainability of project outcomes:** UNDP's Rapid Financing Facility offers a potential avenue for financial support, in response to COVID-19 impacts on the local economy and community livelihoods in KKL. Also the BIOFIN Phase II project supporting Thailand implement the Biodiversity Finance Plan through the prioritized solution: *Government Budget Finance Solution – Enhancing effectiveness and biodiversity impact of local budgets in Thailand* - for example, to apply the peat swamp landscape approach as a demonstration of the effectiveness of integrated provincial budget. | ONEP, UNDP | April – Dec 2021 |
| **A.7** | **Disseminate completed project deliverables and lessons learned to all relevant national and provincial government agencies and other stakeholders and hold further workshops to generate co-learning.** | ONEP, UNDP | April-August 2021 |

| Rec # | TE Recommendation (summary – see section 5.2 for full text) | Entity Responsible | Time-frame |
|---|---|---|---|
| **A.8** | **Foster cooperation with the private sector on peat swamp management as businesses can benefit from peat swamp carbon restoration.** The Biodiversity Finance Initiative (BIOFIN)[2] Phase II project aiming to support Thailand implement its Biodiversity Finance Plan at national and subnational levels provides opportunity for support, especially through its *Private Sector Finance Solution: Mobilizing the private sector and impact investment in support of biodiversity*. | ONEP, UNDP, others | April-Dec 2021, longer if funding available |
| **A.9** | **Support further work on indirect economic valuation of ecosystem services of Kuan Kreng Peat Swamp** - to be used for policy decision making as the indirect benefits are greater than direct one (e.g. flood control, carbon sink, etc.). Link follow up to the UNEP/GEF project with ONEP on *Integration of Natural Capital Accounting in Public and Private Sector Policy and Decision-making for Sustainable Landscapes*[3] | ONEP | April-Dec 2021 / duration of UNEP / GEF NCA project |
| **B** | **Category 2: Facilitating outcome sustainability – Policy actions** | | |
| **B.1** | **Complete the process for government review and endorsement of the National Strategy on Peat Swamps, according to the following steps:**<br>**a)** Circulate the draft national strategy on peat swamps to related government agencies to review in detail (as the previous COVID situation prevented PSU to hold seminars / workshops<br>**b)** Submit the revised national strategy on peat swamps to the Wetland Technical Committee for review<br>**c)** Forward the revised draft (considered by Wetland Technical Committee) to the Wetland Management Sub-Committee, then National Environment Committee, and finally Cabinet for endorsement. | ONEP; facilitation support from UNDP CO | April 2021 – April 2022 |
| **B.2** | **Integrate the National Strategy on Peat Swamps into relevant national action plans and seek endorsement from Cabinet:**<br>a) the National Action Plan on Sustainable Conservation and Utilization of Biodiversity<br>b) National Action Plan on Climate Change | ONEP; facilitation support from UNDP CO | August 2021- August 2022 |
| **B.3** | **Propose an amendment to the Cabinet Resolutions** on 1 August B.E. 2543 and 3 November B.E. 2552 as follows:<br>a) **Revise and prioritize the list of wetland areas** by adding the peat swamps listed in the PSU inventory of peat swamps.<br>b) **Revise the list of critical wetland areas urgently requiring restoration and conservation**, based on the PSU and project's works specifying the peat swamp areas that are under threat. | ONEP; facilitation support from UNDP CO | April -Dec 2021- |
| **B.4** | **Propose to the Cabinet to designate Kuan Kreng Peat Swamp and other peat swamps as Wetlands of International Importance under the Ramsar Convention.** | ONEP; technical support for Ramsar Site datasheet, map and | April - 2021- April 2022 |

[2] http://www.biodiversityfinance.net/thailand

[3] https://www.thegef.org/project/integration-natural-capital-accounting-public-and-private-sector-policy-and-decision-making

| Rec # | TE Recommendation (summary – see section 5.2 for full text) | Entity Responsible | Time-frame |
|---|---|---|---|
| | | proposal are needed | |
| **B.5** | **Expand Kuan Ki Sien Ramsar Site to cover Thale Noi NHA** | ONEP; technical support for revised Ramsar Site datasheet, map and proposal are needed | April – Dec 2021 |
| **B.6** | **Propose to the Cabinet to designate To Daeng Peat Swamp as an ASEAN Heritage Site** | ONEP; technical support for ASEAN Heritage Site proposal is needed | April – Dec 2021 |
| **C** | **Category 3: Strengthening M&E and adaptive management** | | |
| **C.1** | **Systematically address PIR recommendations through adaptive management procedures.** | UNDP CO | April 2021 onwards |
| **C.2** | **Quarterly Progress Report (QPR) templates should be standardized as part of a global UNDP/GEF reporting system, and specify gender and safeguard reporting requirements.** | UNDP HQ | April 2021 onwards |
| **C.3** | **Strengthen engagement of Project Board members and other key staff of national agencies in GEF projects** through mechanisms such as special briefing sessions, round table discussions, field visits to project sites and involvement in technical Working Groups. | UNDP CO | April 2021 onwards |
| **D** | **Category 4: Resolving outstanding audit and safeguard issues** | | |
| **D.1** | **Conduct a full project audit of GEF-funded activities from December 2018 to project close in 2021 using remaining uncommitted GEF funds.** | UNDP CO | April-May 2021 |
| **D.2** | **Include an updated SESP in the project closure report and ensure enhanced oversight on safeguards for future projects.** | UNDP CO | April 2021 |
| **E** | **Category 5: Host country governance of GEF project implementation** | | |
| **E.1** | **Develop and agree on a streamlined mechanism for host country governmental approval of GEF projects.** | GEF OFP, ONEP, Ministry of Foreign Affairs, UNDP (and possibly other GEF IAs such as UNEP) | April-June 2021 |
| **E.2** | **Provide capacity development support to GEF project IPs to ensure stronger understanding of UNDP/GEF project policies and execution requirements** | UNDP CO | April 2021 onwards |

# 2. Introduction

## 2.1 Purpose and objectives of the evaluation

1. The 4.5 year UNDP/GEF Full-sized Project *Maximizing Carbon Sink Capacity and Conserving Biodiversity and through Sustainable Conservation, Restoration and Management of Peat-Swamp Ecosystem,* which started implementation in July 2016, was completed on 21 January 2021 after a six month extension period. The Terminal Evaluation (TE) has been conducted according to the guidance, rules and procedures established by UNDP and GEF as reflected in the *UNDP Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects (2020)*[4]. This report presents the conclusions of the Terminal Evaluation (TE), prepared by two independent experts hired by UNDP - the International Consultant (IC) (Crawford Prentice) and National Consultant (NC) (Pawin Talerngsri). It has been prepared according to UNDP's Terms of Reference (**Annex 1**).

2. The objectives of this TE were to evaluate the project's results and impacts, including an assessment of sustainability; to assess the effectiveness and efficiency of resource use; to provide a basis for decision-making on actions to be taken post-project at both the government and UNDP programming level, and to collate and analyze specific lessons learned and best practices, which might be of relevance to other projects in the country. For this, the TE aims to provide a comprehensive and systematic account of the performance of the completed project by assessing its project design, process of implementation, achievements vis-à-vis project objectives endorsed by the GEF including any agreed changes in the objectives during project implementation, and any other results achieved.

3. Evaluations for UNDP-supported GEF-financed projects have the following purposes:
   - To promote accountability and transparency, and to assess and disclose the extent of project accomplishments.
   - To synthesize lessons that can help to improve the selection, design and implementation of future GEF financed UNDP activities.
   - To provide feedback on issues that are recurrent across the UNDP portfolio and need attention, and on improvements regarding previously identified issues.
   - To gauge the extent of project convergence with other UN and UNDP priorities, including harmonization with other UN Development Assistance Framework (UNDAF) and UNDP Country Programme Action Plan (CPAP) outcomes and outputs.
   - To contribute to the GEF Evaluation Office databases for aggregation, analysis, and reporting on the effectiveness of GEF operations in achieving global environmental benefits and on the quality of M&E across the GEF system.

## 2.2 Scope

4. The evaluation assessed the progress of activities against the project's results framework. In addition, it analyzed adaptation to changing conditions (adaptive management), partnerships in implementation arrangements, changes in project design, overall project management main findings and key lessons including examples of best practices for future projects in the country, region and GEF. In addition, the evaluation has included assessment of cross-cutting

[4] http://web.undp.org/evaluation/guidance.shtml#gef

issues including: gender equality and women's empowerment, social and environmental safeguards / rights-based approach, climate change adaptation, poverty-environment nexus and capacity development.

**COVID-19**

5. According to the UNDP IEO guidance on COVID-19, any COVID-19 project or programme interventions that should be included in the scope of the evaluation should be described. In the case of reprogramming the TE should detail how the implementation and interventions of a project or programme may have been impacted by reprogramming. In the case of this project, some mitigation was required during implementation, including the extension of the project to allow for completion of activities that were delayed due to COVID-19 impacts.

## 2.3 Methodology for data collection and analysis

6. The overall approach and method for conducting this project terminal evaluation follows official guidance for UNDP-supported GEF-financed projects. In particular, the evaluation effort was framed using the criteria of **relevance, effectiveness, efficiency, sustainability, Gender equality and women's empowerment, and results/impact:**

- **Relevance** – the extent to which the activity is suited to local and national development priorities and organisational policies, including changes over time.
- **Effectiveness** – the extent to which an objective has been achieved or how likely it is to be achieved.
- **Efficiency** – the extent to which results have been delivered with the least costly resources possible.
- **Sustainability** – the likely ability of an intervention to continue to deliver benefits for an extended period of time after completion. Projects need to be environmentally as well as financially and socially sustainable.
- **Gender equality and women's empowerment** – the extent to which the project contributed towards gender equality and women's empowerment.
- **Results/Impact** – the positive and negative, and foreseen and unforeseen, changes to and effects produced by a development intervention. In GEF terms, results include direct project outputs, short-to medium term outcomes, and longer-term impact including global environmental benefits, replication effects and other, local effects.

7. Accordingly, an evaluation question matrix was deployed (**Annex 4)** that applies a set of questions covering each of these criteria to the project, in line with the UNDP TOR (**Annex 1**).

8. The evaluation aimed to provide evidence-based information that is credible, reliable and useful. The evaluation followed a participatory and consultative approach ensuring close engagement with government counterparts, in particular the GEF operational focal point, UNDP Country Office, project team, UNDP GEF Regional Technical Adviser and key stakeholders. During the course of the Terminal Evaluation, the following sources of primary data and information were examined.

9. First, a wide variety of documents covering project design, implementation progress, monitoring, evaluation and review studies, local and national development plans, policies/ legislation/ regulations on sustainable peatswamp forest management, protected area and natural resource management, reserve management plans and community co-management

and sustainable livelihood initiatives – among others. This covered and elaborated on the documents listed in the UNDP TOR, a list of which is presented in **Annex 3**. See also the section below on *Support from the UNDP CO*.

10. Secondly, remote and in line with COVID-19 Guidance, physical consultations with a wide range of stakeholders (see below), using "semi-structured interviews" with a key set of questions in a conversational format. The questions aimed to provide answers to the points listed in the evaluation matrix in **Annex 4**. Questionnaires used for stakeholders are provided in **Annex 5**. Interviews were confidential and the information used discreetly without accreditation. Interviews started with an introduction about the aims and nature of the evaluation and informing the interviewee that they had the right not to respond if they so wish. Triangulation of results, i.e. comparing information from different sources, such as documentation and interviews, or interviews on the same subject with different stakeholders, has been used to corroborate or check the reliability of evidence as far as possible.

11. The TE team also planned to conduct direct observations of project results and activities at the field demonstration sites in Kuan Kreng landscape (KKL) in Nakhon Sri Thammarat, Songkhla and Phatthalung Provinces, including consultations with provincial and local government and park administration staff, local community representatives, project partners, CSOs and participants in field activities. However, this was not possible due to the prevailing COVID-19 situation in Thailand at the time of the evaluation. Accordingly, the NC interviewed a selection of key local stakeholders remotely as far as possible, and obtained current photographs of specific project activities at the field sites. Please refer to the Limitations in Section 2.5 below for the TE Team's opinion of the coverage obtained.

12. Gender equality and women's empowerment has been assessed through collecting gender-disaggregated results arising from project activities, inclusion of women participants in the TE interviews and specific questions regarding the extent to which they were included in project implementation and/or benefited from the project. Specific attention has been given to analysing examples, best practices and lessons learned regarding women's empowerment arising through the project's scope of activities.

13. COVID-19 related impacts on project implementation and results have been specifically considered during the evaluation process and included in interview questions.

14. The stakeholders interviewed included:
    - Responsible staff of the Implementing Partner (ONEP, MONRE)
    - UNDP CO and regional UNDP staff with project-related responsibilities (eg RTA)
    - Project team (PMU, national consultants and out-posted staff and consultants)
    - Project Board members
    - Related national government agencies
    - Provincial/local government leaders
    - Protected area and project staff at the demonstration sites
    - Community representatives and community-based organisations (eg women's groups)
    - NGOs, including relevant women's organizations
    - Associated technical experts

15. Specific agencies that were interviewed include the following:

**Bangkok**

- Office of Natural Resources and Environmental Policy and Planning (Implementing Partner)
- UNDP Thailand Country Office
- GEF Operational Focal Point
- Department of National Parks, Wildlife and Plant Conservation
- Royal Forest Department
- Department of Marine and Coastal Resources
- Department of Water Resources
- Department of Land Development
- Royal Irrigation Department
- Office of Agricultural Land Reform
- RECOFTC
- Wisdom Vast Company Limited
- Thailand Environment Institute
- Kasetsart University

**Kuan Kreng Landscape (Nakhon Sri Thammarat, Songkhla, Patthalung)**

- Office of the Royal Development Projects Board in Nakhon Sri Thammarat province
- Provincial Offices for Natural Resources and Environment (Nakhon Si Thammarat)
- Provincial Offices for Natural Resources and Environment (Phatthalung)
- Provincial Offices for Natural Resources and Environment (Songkhla)
- General Affairs Division Office of Permanent Secretary of Natural Resources and Environment
- Protected Area Regional Office 5 – Forest Fire Control Division
- Protected Area Regional Office 6
- Forest Resources Regional Office 13
- Faculty of Environmental Management, Prince of Songkhla University

16. A list of proposed stakeholder interviews and field mission plans were presented to the UNDP Country Office in the TE Inception Report and discussed with UNDP CO staff. The final schedule for the consultations (without any field mission) is attached as **Annex 2**. The findings of the TE were presented to UNDP Country Office staff on 22 February 2021, and to ONEP and RECOFTC staff on 19 March 2021 and feedback taken into account during finalization of the TE report.

17. Throughout the course of the evaluation, the team aimed to take account of international best practice in biodiversity conservation, climate change mitigation and sustainable forest management in its assessment of project performance, especially in relation to the related CBD and UNFCCC guidance.

### 2.3.1 Evaluation criteria and ratings

18. An assessment of project performance was carried out based against expectations set out in the Project Results Framework. The evaluation covered the specified criteria of: relevance, effectiveness, efficiency, sustainability and impact, applying the following ratings (**Annex 6**) to the specified performance criteria in the table presented in the Executive Summary:
    6: **Highly Satisfactory (HS)**: no shortcomings
    5: **Satisfactory (S)**: minor shortcomings
    4: **Moderately Satisfactory (MS):** moderate shortcomings
    3. **Moderately Unsatisfactory (MU)**: significant shortcomings

2. **Unsatisfactory (U)**: major problems
1. **Highly Unsatisfactory (HU)**: severe problems

## 2.4 Ethics

19. The evaluation was conducted in accordance with the principles outlined in the United Nations Evaluation Group (UNEG) 'Ethical Guidelines for Evaluations'[5] and the UNEG 'Code of Conduct for Evaluation'[6]. Accordingly, the evaluators have signed the UNEG Code of Conduct in **Annex 7** of this report.

## 2.5 Limitations to the evaluation

20. The most significant limitations to the TE process centered around the global and national response to the ongoing COVID19 pandemic[7]. In particular, no international travel was possible for the international consultant, consequently all consultations involving the IC were conducted remotely. Consultations with national and local stakeholders were conducted by the national consultant with technical guidance from the IC and operational guidance from the UNDP CO. The national consultant then reported back to the IC on the results of these consultations, and in some cases, further questions were fielded to specific stakeholders. After completion of the draft TE report, there was a request from the final Project Board meeting on 23 March 2021 to conduct further interviews, but it was agreed with the UNDP CO and RTA that it was too late in the process to consider additional research and to recognize this as one of the limitations of the evaluation.

21. The planned field mission to the project study area had to be cancelled in view of the COVID-19 situation in Thailand at the time of the TE, and UNDP CO made it clear to the TE team that extending the duration of the TE was not possible in order to leave open the opportunity for a later mission (assuming the COVID-19 situation had sufficiently improved by that time). The NC attempted to cover this shortcoming as far as possible through remote consultations with local stakeholders and obtaining current photographs of certain project activities on the ground (see **Annex 13**). However, there is no doubt that this level of local coverage was far weaker than a dedicated field mission that allowed direct observation of project results on the ground and in-depth discussions with diverse local stakeholders. **This should be recognized as a significant constraint on the overall TE process, including the TE team's ability to confirm the status of final deliverables and indicators on the ground**.

22. The UNDP CO was very efficient in providing organized folders of the project-related documentation (see **Annex 3** for the list of documents reviewed), although the project final results report was completed very late for consideration (draft at 17 February 2021). As a general point, it should be noted that analysis of documents is of increased importance for conducting an evidence-based evaluation when it is limited to remote interviews without any field mission. Consequently, it is suggested that UNDP instigate more systematic and intensive outcome-oriented reporting by the project team in the final year of implementation to support effective terminal evaluation (i.e. completion of a Project Completion Report in advance of the TE based on a set UNDP template including Results Framework and Output results status tables; and Outcome-oriented quarterly reports also based on a set UNDP

[5] http://www.unevaluation.org/document/detail/102
[6] http://www.unevaluation.org/document/detail/100

template). A further related limitation was that the majority of technical and meeting reports were presented in Thai language, and many stakeholders were interviewed in Thai by the NC. The IC (who does not speak Thai) was therefore reliant on translated materials and summarized interview reports and guidance from the NC for much of the evaluation.

23. Overall, it must emphasized that this TE process has been radically different from usual practice that is centered around an intensive mission to meet all key stakeholder groups in person, to have time for both focused interviews and lengthy informal discussions about all aspects of the project, and to spend adequate time at the field sites to see with one's own eyes the actual differences on the ground that the project has achieved, to hear the experiences of communities and other stakeholders that have often worked hard to make it a success, and to experience the socio-economic conditions and local cultures and traditions in which the project is embedded. **Remote evaluation may work to an extent, but it must be clearly recognized that it is not comparable to the in-depth, intensive and personal approach to evaluation that UNDP and GEF standards require. The ratings provided in this report should be viewed with this point firmly in mind.**

## 2.6 Structure of the TE report

24. The structure of the evaluation report follows the ToR for this assignment (see **Annex 1**), which in turn is based on the *UNDP Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects (2020)*[8]. Section 1 summarizes the main findings, conclusions, lessons learned and recommendations. Section 2 describes the purpose, objectives, scope, methodology, approach and limitations of the evaluation. Section 3 provides the project description and development context for the intervention, including the underlying problem to be addressed, project objectives, expected results and theory of change. Section 4 presents the findings of the evaluation, relating to project design/formulation, implementation and results. Section 5 presents the evaluation's main findings, conclusions, recommendations and lessons learned. In addition, supporting information is provided in the annexes. The report includes additional sections that are not specified in the TOR: 3.8, 3.9, 4.2.6, 4.2.7 and Annexes 11-15 provide additional supporting material. The findings and conclusions in section 5 have been merged to reduce the amount of redundancy in the report structure.

# 3. Project Description

## 3.1 Project start and duration, including milestones

25. The GEF Project Identification Form (PIF) for the project was approved on 24 April 2013. The PPG phase of project preparation started at this time, coordinated by the UNDP Country Office in line with the UNDP PPG Implementation Plan. GEF CEO Endorsement was provided on 24 December 2014 and the Project Document was signed on 21 July 2016 (after Cabinet endorsement). The Project Manager was hired on 17 October 2016, and the Project Inception

[8] http://web.undp.org/evaluation/guidance.shtml#gef

Workshop only took place on 17 July 2017 (one year after project start-up). The initial Project Manager departed after the first PB meeting, following which most activities were suspended for several months. RECOFTC started as a Responsible Party in April 2018, hosting and operating the PMU, as well as executing a large portion of the technical activities under the project. The project underwent a mid-term review in April-July 2019, which reviewed progress in the first half of the project and recommended a one year extension to the project in view of slow progress during these initial years. The original project completion date of 20 July 2020 was extended by 6 months on the basis of COVID-19 impacts on the progress of project activities, with the project eventually terminating on 21 January 2021. During the extension period, the PMU function was taken up by ONEP with additional executing support from UNDP for remaining contracting and vendor payments, as RECOFTC's contract ended in July 2020. This Terminal Evaluation was conducted in January-February 2021, later than planned.

## 3.2 Development context

26. Peatlands are one of the planet's major carbon pools, and a key habitat for unique ecological communities including globally threatened species. They provide diverse ecosystem services including plant products, fisheries, and regulation of micro-climate, soil and hydrological conditions. Globally, there are approximately 400 million ha of peatlands (3% of the world's land area), containing up to 528 gigatonnes of carbon (about 1/3 of the global soil carbon). The largest areas of tropical peatlands occur in Southeast Asia, which accumulate 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. Consequently, the conservation and effective management of tropical peat swamp ecosystems is a high priority for climate change mitigation as recognized by the IPCC, as well as for biodiversity conservation under both the Convention on Biological Diversity (CBD) and the Ramsar Convention on Wetlands. Sustainable forest management through community forestry practices represents one of the most suitable approaches to maintain peat swamp forests in a healthy state under the waterlogged conditions essential to prevent peat soils oxidizing and releasing carbon dioxide.

27. Thailand's peat swamp resource is relatively limited at some 46,620 ha[9], of which the majority are found in the provinces along the south-eastern coast, particularly in Nakhon Si Thammarat, Surat Thani and Narathiwat Provinces. They comprise a diversity of land cover classes, predominantly peat swamp forests, but also non-forested wetlands (open fens and lakes), and flooded grasslands.

28. The Kuan Kreng Landscape (74,363 ha) (see **Fig 1**) contains Thailand's second largest peat swamp forest area, with substantial parcels of semi-natural peat-swamp ecosystems covering some 65% of the landscape in 2013. This landscape stretches across 7 districts of Nakhon Si Thammarat, Phatthalung and Songkhla Provinces. Much of the area has been designated as national "Non-Hunting Area" (Thale Noi and Bor Lor), which include zones of strict protection including two Ramsar sites. Most of the remaining forest is Forest Reserve under the jurisdiction of the Royal Forestry Department (RFD), also under MONRE), and includes areas

[9] Prince of Songkhla University (2020). Development of Peat Swamps Inventory towards a National Strategy for Peat Swamps Management in Thailand. (RFP-2018-18, 49523). Executive Summary (English).

with settled and unsettled land ownership claims from local communities. The area has relatively large population density and high economic use demands. There are 152 villages in and around the landscape, with a population of around 148,000 people, who are primarily engaged in rice farming, rubber tree and oil palm planting, and some fishery and livestock activities over approximately 22,000 ha of drained peatlands in the KKL, but close to natural and secondary peat-swamp forest tracts.

29. The peat swamps provide diverse ecosystem services, ranging from livelihoods for local communities, acting as a rainwater and runoff reservoir, buffering from the impact of rains and floods, acting as a natural sediment filter before water drains into Songkhla Lake, being a major store of carbon, and harbouring important biodiversity including several globally threatened species. The provision of these ecosystem services is threatened by unsustainable activities, especially conversion to oil palm cultivation and associated drainage and forest fires. This project aimed to address these threats through the engagement of stakeholders at national, provincial and local levels, and the collaborative implementation of a suite of activities, ranging from working closely with forest communities on sustainable forest management, through to designing and implementing technical hydrological interventions and developing a national strategy for peat swamps.

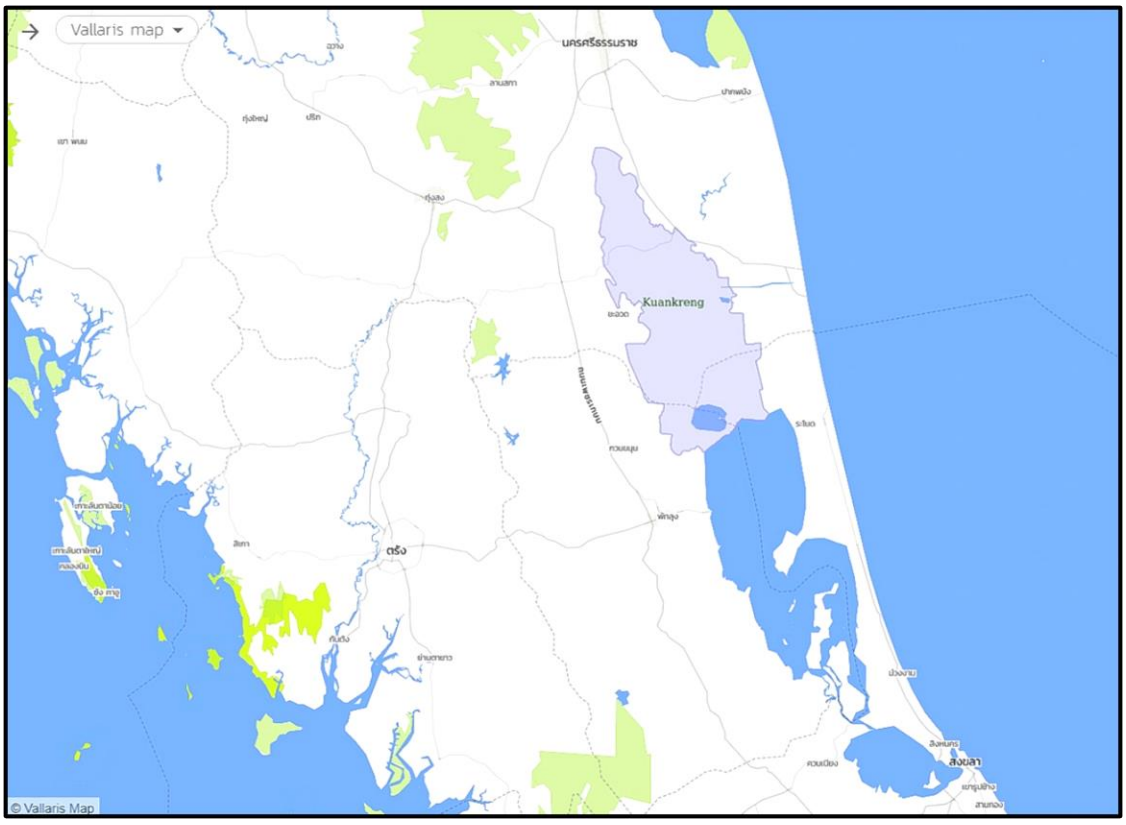


*Figure 1. Location map of the Kuan Kreng Landscape (Source: https://swampforest.i-bitz.co.th/map )*

30. In the baseline situation, several programs were addressing the threats and barriers described below, but these were recognized as insufficient to provide the protection needed to secure the natural peat swamp forests in the KKL or to achieve sustainable management of peatland resources within the landscape in their natural undrained condition. These baseline programs included PA management by MONRE for the Thale Noi and Bor Lor NHAs, however this legal status is insufficient to control land uses effectively and degradation is occurring; Songkhla Lake Basin

EPA was under consideration, for which the KKL is an essential water source; and community engagement was necessary to conserve other parts of the landscape. The drainage and irrigation network covering nearly the entire KKL continues to expand and has failed to take account of drainage impacts on the peat swamp ecosystem, which requires naturally high water tables to avoid peat oxidation and large scale fires. Water resource modelling and inter-agency coordination based on agreed water management objectives is required to resolve this problem. Major fires in KKL during dry conditions in August 2019[10] illustrated the continued risks to the peat swamps from such unnaturally low water tables. At the local level, the Tambon Administrative Offices (TAO) in three sub-districts of Nakhon Si Thammarat province supported environmental actions including conservation camps for youth, community volunteer groups for fire prevention, fish conservation areas, community forests and awareness raising.

## 3.3 Problems that the project sought to address, threats and barriers targeted

31. Tropical peatlands reach their greatest extent in Southeast Asia, where there are 248,000 km$^2$, representing 56% of the global tropical peatland resource and storing some 50 gigatonnes pf carbon[11]. At the regional level, land use changes are causing rapid loss and degradation of peat swamp forests driven by timber extraction and plantation development, with associated peat oxidation and fires contributing substantially to global GHG emissions. Overall, the resource is declining rapidly, contributing to biodiversity loss. In Southeast Asia, an estimated 36.8% of the historical extent of peat swamp forest remained in 2011, of which some 9.3% was protected[12].

32. The national peat swamps inventory supported by the project[13] found some 27 significant peat swamps covering approximately 46,620 ha (291,380 rai[14]), distributed across various regions of Thailand, including northern, northeastern, central, and (mostly) the eastern and southern regions. The dominant 27 swamps are divided into 6 types: peat swamps located in basins or behind river banks; behind coastal sand dunes; in river mouths; in basins and lakes; in shallow pools; and in the highlands. The peat swamp area in Thailand is rapidly decreasing due to the fact that many areas have been changed into economic zones such as oil palm plantations and other types of agriculture. Threats to peat swamps are many, the main causes of destruction and degradation being: 1) encroachment for agricultural or residential areas; 2) drainage; 3) bushfires; and 4) villagers and staff of related agencies lack knowledge of peat swamp ecology. The common view is that peat swamps are degraded lands that should be developed for economic benefits.

33. Historically, the KKL was covered almost entirely by primary peat swamp forests, but after much of it was drained for economic use, much of the original vegetation was destroyed by storms in the 1950s-early 1960s, followed by huge forest fires, and land claim by villagers for agricultural use. Some 65% of the remaining peat swamp forest remained under constant

[10] https://www.bangkokpost.com/thailand/general/1724947/southern-peat-swamp-fire-expanding
[11] Page S and Rieley J. 2018. Tropical Peat Swamp Forests of Southeast Asia. Pp1753-1761 In: Finlayson CM, Milton GR, Prentice RC, Davidson NC (eds). The Wetland Book II: Distribution, Description & Conservation. Vol 3. Springer Reference, the Netherlands.
[12] Posa, M.R.C., Wijedasa, L.S. and Corlett, R.T., 2011. Biodiversity and conservation of tropical peat swamp forests. BioScience, 61(1), pp.49-57.
[13] Prince of Songkhla University (2020). Development of Peat Swamps Inventory towards a National Strategy for Peat Swamps Management in Thailand. (RFP-2018-18, 49523). Executive Summary (English).
[14] 1 hectare = 6.25 rai

threat of degradation, reducing the area of natural peatlands and impacting its biodiversity and carbon sequestration values. Three **key threats** are identified in the project document:

**A) Encroachment of peat swamps by oil palm plantations**

34. Approximately 9,622 ha of peat swamps within KKL have been converted to oil palm plantations. Significantly, there is an ongoing process of peatswamp degradation through (often intentional) burning followed by land claim for plantation development. In addition, the oil palm plantations lower the groundwater table, which dries out adjacent peatland and exposes it to further fires and mineralization. This constitutes a vicious cycle of peatland loss. Associated roads, flood barriers, canals etc impact peatland biodiversity, and agrochemicals used in plantations impact water quality.

**B) Fires**

35. Much of the KKL has been drained and the dried peat substrate is extremely prone to ignition. Many fires are set deliberately, to clear vegetated land for agricultural activities. The results have been devastating, with large-scale peat fires occurring especially during dry seasons – for example, burning 3,200 ha in KKL in 2010, 1,920 ha in 2012, and a large area in 2019. Sporadic drought periods greatly increase the risk and the extent of such fires.

**C) Unsustainable use of peat swamps by local communities**

36. This is a secondary threat, stemming largely from low awareness of the values of peat swamps and lack of options for the sustainable use of these ecosystems in their wet state (so-called paludiculture). Local communities harvest the sedge *Lepironia articulata* (Krajood) for traditional handicrafts, as well as timber, grazing lands, fishing, etc. While some users are largely sustainable in their practices, others are responsible for illegal, unsustainable use of the resources, including illegal logging, electro-fishing, poisoning of fish, poaching of wildlife, and burning to improve grazing.

37. Underpinning the impacts of these threats is the critical role of hydrology in supporting the ecology and sustainable uses of peat swamps: tropical peat swamps form in naturally waterlogged conditions, and require a high water table in order to sustain the peat development process, maintain their natural ecological communities (eg blackwater fish communities, swamp-adapted vegetation), and sequester carbon from the atmosphere. Conversely, in peat swamps that are drying out due to drainage impacts, the peat soil oxidizes and subsides, and the dried organic soils are highly vulnerable to fires that can burn for months, releasing huge quantities of carbon into the atmosphere.

38. The project identified the critical need to shift from current unsustainable land-use policies and practices towards sustainable land and forest management that could be enforced and adopted at a landscape level. The project document identified three **main barriers** to this shift, as follows:

**Barrier 1: Inadequate protection of primary and secondary natural peat swamps**

39. Although peat swamps are well represented in Thailand's protected area system, many of these protected areas are not receiving effective protection due to poor patrolling and low conservation capacities of the administrators of protected areas and forests. Importantly, the management of these protected areas is typically not integrated with land-use management in the surrounding landscape, and PA designations (eg NHAs) are not fit for purpose as they do not provide land use or rights recognition. Further, the engagement of communities in co-management of peatlands has not been systematic. The project identified a need to find a

balance between protection of healthy peat swamps, rehabilitation of degraded areas, improvements in the water regime, and better land-use management to enhance sustainable utilization. The situation in the KKL mirrors this national situation, therefore the KKL was chosen as a pilot for developing such an integrated, landscape-scale model that balances protection and sustainable use.

**Barrier 2: Technologies to avoid peatland degradation are not available and there are major gaps in knowledge of the carbon value of peatlands**

40. The project document noted that international research on the coexistence of peatlands with economic use areas has demonstrated the importance of hydrotechnical measures to separate areas where drainage occurs from the surrounding landscape, thus eliminating or minimizing the cycle of draining effects and resulting fires. A lack of knowledge of hydrological processes in the KKL was identified, which means that the management of water levels at project sites is based on limited understanding of the underlying processes. Many small-scale swamp restoration projects had been *ad hoc*, without underpinning hydrological understanding. Further, a significant global knowledge gap on carbon fluxes from tropical peatlands was identified, which hinders effective discussions on the importance of peatlands in climate change mitigation.

**Barrier 3: Inadequate and unclear land-use standards and policies specifically related to peat swamps**

41. Thailand has a National Wetlands Action Plan, but this does not include specific standards and enforcement mechanisms for sustainable use of peat swamps. The project document identified that this lack of clear standards on sustainable peat swamp use has led to a number of problems, including the expansion of oil palm plantations, inconsistencies in policies on community forest management, and misunderstandings between local communities and state officials regarding the use of peat swamps by communities that were already residing within areas that are now declared as conservation zones. The project document also noted that there were many overlapping and conflicting rules, regulations and policies for the different land and forest classifications in the KKL.

## 3.4 Immediate and development objectives of the project

42. While no **development objective** *per se* is stated in the project document, the project's long-term goal is to contribute towards the conservation and sustainable use of all peatlands in Thailand to maintain the range of ecosystem services they generate. Its long term solution is to change the trajectory of baseline approaches to facilitate a transformative shift from unsustainable to sustainable and integrated use of peat-swamp forests in Thailand.

43. The project is aligned with the **UNPAF Framework** (2012-2016) for Thailand's Outcome on *Effective Responses to Climate Change* and the **UNDP Strategic Plan** on *Inclusive Growth and Sustainable Development*. It addresses **UNDP Thailand's Country Program (2012-2016)** Outcome – *Thailand is better prepared to coherently address climate change and environmental security issues through the enhancement of national capacity and policy readiness*, Outputs 1 & 3.

44. The project design is consistent with the **strategies and priorities of the Implementing Partner, ONEP**. In particular, the hydrotechnical rewetting of peat swamps in Component 2

speaks to Strategies 1 and 2 of Thailand's *Strategic Plan on Climate Change (SPCC 2008-2012)* and the project was designed to tackle some of the key barriers mentioned in the SPCC, namely the lack of a scientific knowledge base to inform policy formulation, lack of public awareness, lack of capacity among relevant agencies and lack of clear direction towards international cooperation.

45. The project broadly contributes towards Thailand's Biodiversity Strategy and Action Plan - The *Master Plan for Integrated Biodiversity Management B.E. 2558-2564 (2015-2021)* including the *National Biodiversity Targets* and the *Action Plan on Biodiversity Management B.E. 2558-2559 (2015-2016)*. The project is relevant to **National Biodiversity Targets** 1 (awareness raising), 2 (mainstreaming biodiversity into plans at all levels), 3 (incentives), 4 (rate of habitat loss), 5 (PA system connectivity and management effectiveness), 6 (species conservation), 7 (threat reduction), 8 (tools for mainstreaming biodiversity into sectors), 9 (efficiency of wetland management), and 15 (scientific support for policy making). The project also addresses Strategies 2 (awareness raising) and 4 (Restoration and sustainable conservation of forests) of the *National Forest Resources Protection Master Plan,* and towards implementation of Thailand's *Action Plan (2009-2014) for Wetland Conservation.*

46. The project design is consistent with the selected **GEF-5 Focal Area Strategies**: *CCM SO-5: Restoration and enhancement of carbon stocks in forests and non-forest lands including peatlands* by reducing rates of peat swamp forest degradation and contributing towards their rehabilitation, which will result in the reduction of GHG emissions and enhanced carbon sequestration. The project aimed to generate global environmental benefits under the **biodiversity focal area** – *GEF BD-1: Improving management effectiveness of existing PAs and expanding protection of under-represented ecosystems within the PA system* by increasing the area of peat swamps in the KKL under effective management beyond the existing two NHAs, developing a strategy and zoning for the KKL, and improving the management effectiveness of Thale Noi and Bor Lor NHAs. Overall, it promoted a landscape approach to the management of protected areas and associated areas, strengthening the protection of core areas while putting in place clearer rules for sustainable use and support for livelihoods. Under the **sustainable forest management/REDD+ focal area** – Outcome 1.2: *Good management practices applied in existing forests*; Outcome 2.1: *Enhanced institutional capacity to account for GHG emission reduction and increase in carbon stocks*, the project aimed to develop a model for the sustainable management of peat swamp forests as "community forests" including incentives for communities to use peat swamp forest ecosystems in their wet state, without draining them; and to develop and demonstrate a model approach for monitoring GHG emissions and carbon sequestration.

47. The project contributes towards **CBD Aichi Targets 5 (reduced habitat loss) and 15 (ecosystem contributions to climate change mitigation),** and **UN Sustainable Development Goals (SDGs) 8 (Decent work and economic growth), 13 (Climate action)** and **15 (Life on land)**.

48. The project strategy aims to address the three barriers described above through an integrated suite of outputs and activities grouped under three outcomes.

49. The **project Objective** is: *to conserve and restore peatlands to increase their capacities to act as carbon sinks, as habitats for globally important species, and as sources of ecosystem services for improved livelihoods*. This objective is to be realized through the three outcomes described below.

**Outcome 1: Expanding protection of high conservation value peat swamp forests and demonstrating their sustainable use within the broader landscape**

50. In the project document, this outcome focuses on: (i) strengthening protection measures to create the link between the protected areas and non-protected areas in KKL, and (ii) improving the management effectiveness of existing protected areas and new protected zones. The project develops an integrated landscape approach for management of KKL, involving some areas under strict protection and others under a systematic management plan for sustainable use. This outcome also addresses capacity building for responsible authorities for monitoring and managing land use, water levels, and fires in the KKL. It will also result in a land-use plan for the Kreng sub-district to demonstrate how to align sub-district plans with the landscape-scale protection approach.

**Outcome 2: Implementing technologies to avoid peat swamp forest degradation and restore degraded peat swamp forests**

51. This outcome aims to address existing gaps in knowledge of the carbon flux for KKL and for tropical peatlands more generally, as well as implementing specific hydrotechnical measures to manage water levels in an area of 4,600 ha in the KKL and an additional 65 ha in Kanthulee as a control site. This rewetting will contribute to improved ecological condition of the peat swamp and will help reduce GHG emissions from mineralizing peat and fires. This Outcome also seeks to reforest c.300 ha of peat swamp forests that have been damaged by fire and storms in the Kreng sub-district.

**Outcome 3: Improving policies, standards and enforcement mechanisms for conservation and sustainable use of peat swamp forests**

52. This outcome aims to create an enabling environment for a landscape approach to manage peat swamp areas, in which threats and associated management responses are planned and implemented at the landscape level through engagement of multiple stakeholders and land uses consider biodiversity conservation, soil conservation, and minimization of carbon emissions in addition to short-term economic factors. Consequently, this outcome focuses on creating a platform for cross-sectoral dialogue on a landscape approach to management of peat swamp areas, developing associated awareness and building capacity among the bodies responsible for peat swamp management, developing the tools to support informed decision-making including a national inventory of peat swamps, and securing approval of a National Strategy for Peat Swamps.

53. The project's activities are located in the KKL (see **Fig.1**), which spans three provinces: Nakhon Si Thammarat, Phatthalung and Songkhla, including two protected areas: Thale Noi Non Hunting Area (NHA) in Phatthalung and Bor Lor NHA in Nakhon Si Thammarat. The project document proposed that community forestry management activities would focus on three

community forests in the KKL (in the Baan Tul, Chau-uad and Kreng sub-districts) and one in Kanthulee sub-district of Surat Thani province (subsequently removed).

54. The project document's hierarchy of objectives is summarized in **Table 1**.

*Table 1. Structure of the Project's GEF Alternative Strategy*

| | |
|---|---|
| **Development Goal** | **To contribute towards the conservation and sustainable use of all peatlands in Thailand to maintain the range of ecosystem services they generate** |
| **Objective** | **To conserve and restore peatlands to increase their capacities to act as carbon sinks, as habitats for globally important species, and as sources of ecosystem services for improved livelihoods** |
| **Outcome 1** | **Expanding protection of high conservation value peat swamp forests and demonstrating their sustainable use within the broader landscape** |
| Output 1.1 | Improve Protection Status of the Kuan Kreng Landscape |
| Output 1.2 | Participatory management plan for Kuan Kreng Landscape |
| Output 1.3 | Kreng sub-district land-use plan adjusted to reflect the new zonation |
| Output 1.4 | Training workshops to increase capacity of the administrators and TAOs for patrolling, monitoring water levels, fire protection, and enforcement |
| Output 1.5 | Community forestry management strengthened and support scheme in place |
| **Outcome 2** | **Implementing technologies to avoid peat swamp forest degradation and restore degraded peat swamp forests** |
| Output 2.1 | Hydrotechnical measures implemented in pilot sites to prevent drainage and fires |
| Output 2.2 | Native tree reforestation of areas damaged by storms and fires in Kreng sub-district |
| Output 2.3 | Peat swamp carbon flux monitoring system set up |
| **Outcome 3** | **Improving policies, standards and enforcement mechanisms for conservation and sustainable use of peat swamp forests** |
| Output 3.1 | Working Group for promoting a landscape approach to management of peat swamp areas |
| Output 3.2 | Specific criteria and methodologies for assessment of state, functions and services of peat swamps developed and approved based on an economic valuation of ecosystem services provided by peat swamps in the KKL |
| Output 3.3 | Comprehensive inventory and database of Thailand's peat swamp areas |
| Output 3.4 | National strategy for peat swamp areas drafted for government approval |

## 3.5 Expected results

55. The key results expected from the project[15] can be summarized as follows:

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

- 154,363 ha of peat swamp area under effective management (IUCN Category IV, V) in KKL, under the framework of a National Strategy for Peat Swamps (NSP)

**Outcome 1: Expanding protection of high conservation value peat swamp forests and demonstrating their sustainable use within the broader landscape**

- Additional 16,347 ha of peat swamp forests in KKL under protection
- Enhanced management effectiveness at existing PAs (NHAs) and Songkhla and Kuan Kreng peat swamp landscapes as measured by METT : Thale Noi NHA: 75, Bor Lor NHA: 70, EPA Kuan Kreng: 20, EPA Songkhla: 30.
- Incidence of violations of NHA regulations: Bor Lor NHA – 0, Thale Noi NHA - No tree cutting, less than 6 invasions
- Incidence of wildfires burns on average 408 ha per year in KKL
- Number of units trained for patrolling, managing water levels, fire protection, and enforcement of regulations - 6 units in Thale Noi NHA, 2 units in Bor Lor NHA, 3 units in in Kreng, Cha-uad and Baan Tul sub-districts
- 435 ha under improved peat swamp forest participatory management plans and an additional 1,500 ha established under co-management
- Ecosystem Health Index (EHI) monitoring system for monitoring peatland health is developed and in place for 2 NHAs in order to ensure good quality habitat for Yellow-headed Tortoise, Fishing Cat
- Ramsar designation for KKL peat swamps

**Outcome 2: Implementing technologies to avoid peat swamp forest degradation and restore degraded peat swamp forests**

- 4,600 ha of peat swamp area in KKL is under effective water table management regime
- Drainage will be stopped or significantly reduced and the water level will substantially increase for all project pilot sites where hydrotechnical measures are to be implemented (4,600 ha of peat swamp forest). At least for 25% of the area (1,150 ha) the water level will never drop more than 20 cm below surface.
- GHG emissions at 4,600 ha of peat swamp forest (pilot sites where hydrotechnical measures are to be implemented) are reduced to 1.959 Mt CO2-eq
- Carbon sequestration through reforestation with native species achieves 129,000 $tCO_2$-eq over a 20 year period

**Outcome 3: Improving policies, standards and enforcement mechanisms for conservation and sustainable use of peat swamp forests**

- Cross-sectoral WG for promoting a landscape approach to peatlands conservation and sustainable use formed by Year 1

[15] Source: updated results framework indicator targets as provided in the TOR for the Terminal Evaluation

- Criteria and methodologies for assessment of peatlands' state, function and services that take into account full range of ecosystem services endorsed by Year 2
- Inventory of peatlands – a current and comprehensive listing of peatlands status, functions, services (based on above criteria) by Year 3
- New 20-year National Strategy for Peat Swamps that takes economic and ecological benefits into account in determining use of peatlands

## 3.6 Theory of Change

56. The project document does not include a "Theory of Change" *per se* as there was no specific requirement for this (before UNDP/GEF-6 and UNDP/GEF-7 projects). A retro-fitted Theory of Change has been developed during the evaluation, which is given in Figure 2 below[16].

[16] The TE team was later informed that the PMU had developed a TOC diagram after RECOFTC came on board.

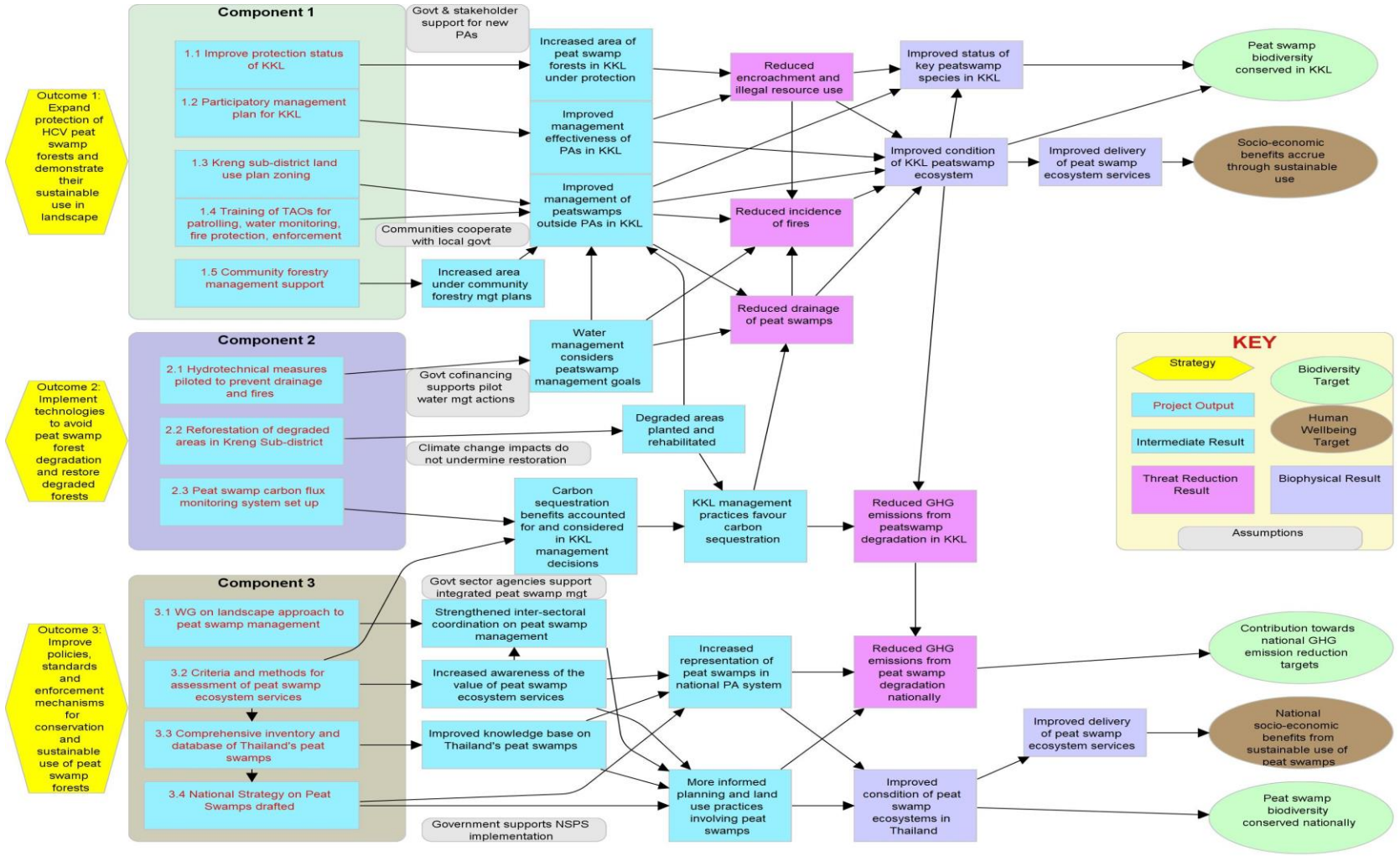


*Figure 2. Retro-fitted theory of change diagram for the project*

## 3.7 Summary of main stakeholders

57. The project document includes a comprehensive stakeholder assessment, in which the stakeholders are grouped into: (a) stakeholders with a direct role in implementation, and (b) stakeholders with a supporting role, as follows:

**Stakeholders with an implementation role - *National level***

58. Most of the identified stakeholders at the national level are within the Ministry of Natural Resources and Environment (MONRE). These include ONEP, the project's Implementing Partner; the Department of National Parks, Wildlife and Plant Conservation (DNP); the Royal Forest Department (RFD); the Royal Irrigation Department (RID); and the Land Development Department (LDD). Another key agency is the Agricultural Land Reform Office (ALRO), which is under the Ministry of Agriculture and Cooperatives (MOAC). Representatives of these agencies sit on the PB. Regional and/or provincial offices of these departments are engaged with the communities in project activities at the pilot sites.

***Provincial and local/project site level***

59. Key stakeholders at the project site level include the Pak Panang River Basin Royal Development Project, which works in KKL on irrigation schemes and community livelihood development; Tambon Administration Organizations (TAOs) in Kreng, Ban Tul and Cha-uad sub-districts, who are the local focal points for peat swamp management; and local communities who use resources in the peat swamps (e.g. wild beekeepers, krajood collectors, water buffalo herders, and fisher folk). These community groups are engaged in natural resources management decisions. Civil society organizations (CSOs) and local academic institutes/universities are partners in research-related activities.

**Stakeholders with a supporting role**

60. The Department of Agricultural Extension (DOAE) under MOAC has a role in the development of the National Strategy for Peat Swamps and in ensuring that agricultural land use in the pilot site is in line with the land zoning and management plan to be developed under Outcome 1. The Department of Local Administration (DOLA) under the Ministry of Interior is involved with interventions that require the participation of local authorities at provincial, district and sub-district levels.

## 3.8 Key project partners and implementation arrangements

61. The project was executed through UNDP's National Implementation Modality (NIM), with ONEP of the MNRE as the Implementing Partner and UNDP as the GEF Implementing Agency. The GEF OFP is under MNRE. RECOFTC (The Center for People and Forests) was engaged as a Responsible Party (RP) in April 2018, heading a consortium of three organizations that included the Faculty of Forestry of Kasetsart University and Kon Rak Tin Association (local NGO in the project site) with the mandate to manage most components of the project, except for Outputs 3.3 and 3.4, which were subcontracted to Prince of Songkhla University. The RECOFTC's Bangkok Office hosted the PMU staffed by a Project Team Leader, Project Manager and Project Coordinator.

62. A Project Board was established for the project, consisting of representatives of ONEP, DNP, RFD, RID, LDD, ALRO, UNDP and other relevant agencies. The PB approves the project's workplan, budget plan, progress reports and any proposed amendments to the project's results framework, and gives necessary support to project implementation as required. The

Secretary General of ONEP was chair of the PB and the Project Director. A co-financed project coordinator sits within ONEP.

63. The Standard Letter of Agreement signed by UNDP on 13 Sep and ONEP on 19 Sep 2016 for 100% Support Services, completed after signature of the project document on 21 July 2016. This is the only agreement on the project and it was not revised. The UNDP Country Office (UNDP CO) was responsible for: (i) providing financial and audit services to the project; (ii) recruitment of project staff and contracting of consultants and service providers; (iii) overseeing financial expenditures against project budgets approved by the PB; (iv) appointment of independent financial auditors and evaluators; and (iv) ensuring that all activities including procurement and financial services are carried out in strict compliance with UNDP/GEF procedures. A UNDP staff member is assigned with the responsibility for day-to-day oversight and control over project deliveries.

## 3.9 Total Resources

64. The project was supported by a grant of USD 3,224,400 from the GEF Trust Fund. Of this, USD 1,977,945 was allocated under CCM, USD 436,544 under Biodiversity, and USD 809,911 under the SFM Focal Area. Cofinancing commitments at the project start totalled USD 16,607,111, of which USD 13,382,711 was from government and USD 300,000 was from UNDP.

# 4 Findings

*In addition to a descriptive assessment, all criteria marked with (*) must be given a rating*[17]

## 4.1 Project Design/Formulation

### 4.1.1 Analysis of Results Framework: project logic and strategy, indicators

65. The project's **long-term goal** is to contribute towards the conservation and sustainable use of all peatlands in Thailand to maintain the range of ecosystem services they generate. Its **long term solution** is to change the trajectory of baseline approaches to facilitate a transformative shift from unsustainable to sustainable and integrated use of peat-swamp forests in Thailand, and its **Objective** is: to conserve and restore peatlands to increase their capacities to act as carbon sinks, as habitats for globally important species, and as sources of ecosystem services for improved livelihoods. As such, the project responds to a clear threat: the inexorable loss and degradation of peat swamp ecosystems in Thailand, with associated loss of globally significant biodiversity and ecosystem services including carbon sequestration. In the baseline situation, continued drainage, encroachment and fires will continue to destroy and degrade peatlands, with massive release of GHGs due to peat oxidation and burning of the peat soils. The scope of these objectives covers the main values of peat swamp ecosystems that the project aims to secure.

[17] See Annex 8 for rating scales

66. At the time of project preparation, the project was well aligned with national priorities for biodiversity conservation, climate change and wetland conservation – including Thailand's Biodiversity Strategy and Action Plan (2015-2021), Strategic Plan on Climate Change (SPCC 2008-2012), National Forest Resources Protection Master Plan, and Action Plan (2009-2014) for Wetland Conservation. While the project document references a "forthcoming" national Action Plan for Peatland Management, this was not found by the mid-term review. The project document also does not directly link with national development priorities, but the project does address development and sustainable resource use issues contained in the above-mentioned plans. As such, the project was designed to be country-driven, with ONEP as the logical national Implementing Partner, given its mandate for environmental policy development, and located in the same ministry (MoNRE) as related key agencies – the RFD and DNP.

67. During GEF-5, there was no overt UNDP or GEF requirement for the inclusion of a Theory of Change (TOC) *per se* in the project document (unlike GEF-6 and GEF-7), although a clear rationale for the project structure including the baseline analysis and incremental reasoning was needed. An approximation of a theory of change for this project has been retrofitted during the TE (see **Fig. 2**), which illustrates the connectivity between different elements of the project, yet such linkage was an apparent weakness of the implementation process. Arguably, the communication of a clear TOC at the start of the project might have served to strengthen understanding of the need for stronger coordination and integration across the Outcomes and Outputs, as well as a better understanding of how its activities would address the threats impacting peat swamp ecosystems.

68. Unusually, the project has no "Components" – these are instead called "Outcomes" – yet the language used for each Outcome is actually not correct as they refer to an action (expanding, implementing, improving) rather than a changed state. Thus, Outcome 1 could more accurately be expressed as: "Protection of HCV peat swamp forests expanded and their sustainable use within the broader landscape demonstrated".

69. The project design strategy in focusing on the peat swamps in the KKL, the second largest concentration of such swamps in Thailand, and strategically important as freshwater supply for the northern end of the Lake Songkhla Basin and including important PAs for biodiversity in Thale Noi and Bor Lor NHAs had a strong rational basis that was likely to result in globally significant outcomes for tropical peat swamp conservation.

70. A weakness in the design was insufficient emphasis on capacity development, awareness raising and communications support for related sector agencies at both national and provincial levels (i.e. mainstreaming of sustainable peat swamp management into their operations). Feedback from stakeholders during the TE stressed that this was important for building the understanding necessary to work collaboratively towards integrated peat swamp management, with the periodic PB and provincial WG meetings insufficient to provide a proper understanding of the project's methods. Local agency staff also noted that effective action for peat swamp management at provincial level requires directives from their national offices, which were simply not engaged to any significant extent. As the mid-term review noted, the delivery and sustainability of major results from the project (e.g. water level management, fire suppression and GHG emissions reduction) in KKL rely greatly on local

stakeholders and provincial planning and budgeting provisions, and this is not sufficiently emphasized in the project document.

71. Outcome 1 focused on expanding protection of peat swamps and on establishing an integrated landscape approach towards management of protected and non-protected areas, plus strengthening management effectiveness of existing PAs. Ramsar Site designation of the landscape was proposed as an entry point for strengthening governance of the area as a whole, followed by management plan and zoning for different management regimes. The primary protected area mechanism proposed in the project document was the establishment of two large Environmental Protection Areas (EPAs), which was appropriate at the time of project preparation based on the understanding of Thai government priorities and approaches. However, footnote 29 on p33 of the project document states:

[29] After the project approval, the policy direction has changed; it is no longer viable to have Songkla Lake Basin designated as EPA. New peatswamp areas, with equal value and importance will be selected to replace EPA Songkla Lake, during the Inception Phase. The preliminary assessment indicates that Cherng Sae Peatswamp in Songkla Province, Ban Nailum-Kumpae Peatswamps in Nakhon Si Thammarat Province, and the peatswamp areas in the Queen Sirikit's Botanical Garden in Patthalung Province could constitute the new target areas.

Consequently, changes to the results framework for this outcome were made during the inception phase in response to this, with the delivery of new EPAs removed and compensatory changes made to the **objective level indicator** to reflect the intention to have the target area of 154,363 ha covered under an integrated mosaic of appropriate land categories and sustainable co-management regimes, dependent on a feasibility study of community based conservation mechanisms. One change in scope of this Outcome was the subsequent removal of Kanthulee peat swamp from community forestry demonstration, as it lies outside KKL.

72. Outcome 2 focused on technologies to avoid peat swamp forest degradation and restore degraded peat swamp forests. This outcome had ambitious targets for reduction in GHG emissions, to be achieved through securing near-natural water levels over 4,600 ha in order to improve the ecological condition of the peat swamps through hydrotechnical measures. This was supported by reforestation of degraded peat swamp areas and carbon flux monitoring. As noted in the MTR, there is ambiguity in the project document in the terminology for Output 2.2 *Native tree **reforestation** of areas damaged by storms and fires in Kreng sub-district*. The description under the output refers to "reforestation" and "regeneration", whereas the intent from the wording of Outcome 2 appears to be "restoring degraded peat swamp forests". The indicator in the results framework for these activities is GHG sequestered through trees planted, which only measures one aspect of restoration and reforestation activities. RECOFTC subsequently noted its intention to develop different models with demonstration plots of community based peat swamp restoration for targeted small sites that had been degraded by fire, but the design of this Output omits mention of associated hydrological management for these sites, which is essential for peat swamp restoration and avoidance of further fires.

73. Outcome 3 focused on improving policies, standards and enforcement mechanisms for conservation and sustainable use of peat swamp forests, including the development of a national inventory and a National Strategy for Peat Swamps (NSP). This approach was generally well considered and appropriate, although there is some ambiguity over the intended nature of the criteria for the inventory (Outputs 3.2 and 3.3). This was intended to

follow up on the EU-funded ASEAN project *Sustainable Management of Peatland Forests in Southeast Asia (SEAPeat*, December 2010 - January 2016) that Thailand participated in, and under which countries were to develop National Action Plans on peatland management in support of the *ASEAN Peatland Management Strategy 2006-2020*[18] [19]. Work on the National Action Plan was initiated, but apparently it was never completed or approved.

74. The MTR identified a gap in the biodiversity aspects of the project design. The Objective includes the aim to "conserve and restore peatlands … as habitats for globally important species" and pages 10–12 of the project document provide details on flora and fauna present, including threatened species. Further, there is an indicator to prepare an Ecosystem Health Index that considers species. However, there are no specific actions to progress this (and this was not incorporated later during implementation). The apparent assumption is that biodiversity will benefit from the peat swamp restoration activities; however, there is no process to identify specific biodiversity values, species' habitat requirements and threats, and to determine appropriate results-based management actions. One of the main biodiversity mechanisms in the project document was PA establishment to protect the habitats of threatened species. However, with the project change from new EPA establishment, this mechanism is weakened unless the landscape approaches developed under Outcome 1 and in the NSP include biodiversity mainstreaming into sector management and explicit conservation priority is given to HCV peatlands and globally threatened species.

75. Overall, while Thailand has considerable baseline capacity and technical expertise to implement such a project, the research and development processes required to develop the technical tools for water and carbon monitoring and train up line agencies in their use; the outreach, communications and livelihood development processes required to achieve sustainable use of peat swamp resources by diverse communities; and the capacity development and coaching needed to mainstream integrated peat swamp management across provincial and local government agencies - was certainly ambitious for a four year project duration, and the sustainability issues identified in this report reflect the need for a longer project duration that would also have allowed a less rushed approach in the final stages of implementation. While delays at start up exacerbated the time pressure to complete the project targets, the original design should have allowed a longer period – at least five years, and the opportunity for a 12 month extension as recommended by the MTR should have been fully utilized.

**Results Framework**

76. The MTR conducted a critical analysis of the project's Results Framework (RF), systematically assessing how SMART[20] the indicators and end-of-project targets are. Unusually, no mid-term targets were set in the project document (this can be criticized as an oversight in the M&E plan, as at least the GEF tracking tools require assessment at mid-term). A number of RF indicators were modified following recommendations of the PB meeting on 18 January 2019,

[18] https://environment.asean.org/asean-peatland-management-strategy-2006-2020-updated-september-2013/
[19] A *Guideline on Peat Swamp Forest Rehabilitation and Planting in Thailand* was prepared under this project See: http://www.aseanpeat.net/aeimages//File/Publications/Thailand_Peat_manual_rev.pdf
[20] Specific, Measurable, Achievable, Relevant and Time-bound

with a subsequent request by ONEP to UNDP on 26 March 2019. No further changes were approved during the project period.

77. The overall structure of the RF is somewhat imbalanced, with only one Objective-level indicator, seven Outcome 1 indicators, four Outcome 2 indicators and four Outcome 3 indicators. In particular, while the Objective level indicator does not fully reflect the scope of the expected contributions of the project interventions on biodiversity, climate change mitigation and sustainable forest management (as expected re the three GEF focal areas, and the different geographical levels of intervention). Therefore additional indicators relating to these focal areas at this level should have been included – notably, no reference is given to the GEF CCM and SFM/REDD+ Tracking Tools, a major gap. In addition, the wide scope of field activities in Outcome 2 is poorly reflected by the choice of indicators, three of which (9,10,11) are inter-dependent. The TE has the following comments on specific indicators:

**Objective**

***Indicator 1:*** *Extent of peat swamp area under effective management (IUCN Category IV, V) in KKL, under the framework of a National Strategy for Peat Swamps (NSP). Target: 154,363 ha.*

- The objective indicator was modified in line with footnote 29 on p33 of the project document, to reflect the now redundant plans to develop a new EPA for Songkhla Lake Basin and replace this with the same area of an integrated mosaic of appropriate land categories and sustainable co-management regimes, dependent on a feasibility study on community based conservation mechanisms. As the MTR noted, the indicator could have been more specific by what it meant by "under effective management (IUCN Category IV,V) to ensure shared understanding. Arguably, this shift from EPA designation to a much more complex co-management set-up involving multiple stakeholders and diverse jurisdictions and sector objectives affected the achievability of this indicator within the period available (although either way, the challenges of achieving effective management / sustainable use of peat swamp resources remain the same).
- Secondly, regarding the 80,000 ha of the target area located in the Sathingphra Peninsula in Songkhla Province, the only remaining peat swamp area is in the northwest of the peninsula, particularly in Kasaesin District, where Chimpee peat swamp is located (formerly about 1,200 rai (192 ha) but now about 300-400 rai (48-64 ha) after losses due to land use change). The lower part of the peninsula in Had Yai District is mainly agricultural land. The logic of retaining the peninsula in the project target area was that this area would benefit from the conservation and restoration of Kuan Kreng peat swamp as the main water source for Thale Luang (northern part of Lake Songkhla) and the peninsula. Therefore the intervention in Kuan Kreng would directly benefit this downstream region, and the project aimed to exchange knowledge and experiences with stakeholders in this area. However, because all but a small part of this area was not peat swamp, and project interventions for co-management were, therefore, only needed for this small part of the area to sustain the ecological integrity of the peat swamp (most of the area being agricultural land), the TE's view is that the target area should have been substantially reduced at project inception (once the EPA proposals had been withdrawn by ONEP). Given that such a

change would have required GEF Secretariat approval, most likely the project should have been referred back to GEF at this stage.

**Outcome 1**

***Indicator 2:*** *Peat swamp forests in KKL under protection. Target: Additional 16,347 ha.*

- Not sufficiently specific on what "protection" means, and therefore it is difficult to interpret how this would be achieved or measured.

***Indicator 7:*** *Area of peat swamp forests in KKL under participatory community forestry management plans or co-management. Target: 435 ha under improved peat swamp forest participatory management plans. Additional 1,500 ha established under co-management.*

- This indicator was revised, with the explanation that RECOFTC will work with local communities and relevant government agencies to develop a community based conservation model in Baan Sai Kanoon to serve both conservation of 1500 ha of peat swamp and improve local livelihoods of those who manage the peat swamp. The 435 ha will build on existing forms of community forestry at the demonstration sites. Again, the specific meaning of co-management and towards what objectives are not clear from this indicator.

***Indicator 8:*** *Ecosystem Health Index (EHI) monitoring system for monitoring peatland health is developed and in place for 2 NHAs in order to ensure good quality habitat for Yellow-headed Tortoise, Fishing Cat. Target: Applied at 2 NHAs.*

- The EHI is an innovative approach to monitoring that has been piloted at a number of wetland sites under the UNDP/GEF-5 Mainstreams of Life Programme. It is not quite clear why it is targeted at two species whose ecological needs are likely not well understood, and not simply at indicating the ecological health of the peat swamp forest habitat within each of the two NHAs. A more practical alternative for this indicator would have been to link monitoring results to site management plans and actions to demonstrate the utility of the monitoring to habitat management.

**Outcome 2**

***Indicator 9:*** *Peat swamp area in KKL that is under effective water table management regime. Target: 4,600 ha*

- The indicator could be more specific and measurable, in that the term "effective water table management regime" is subject to wide interpretation. In reality this indicator is highly dependent on Indicator 10, therefore they should have been combined at design stage. The target was also set without a clear mechanism in place for covering the proposed area of 4,600 ha, raising questions at MTR on its feasibility.

***Indicator 10:*** *Water levels at 4,600 ha of peat swamp forest (pilot sites where hydrotechnical measures are to be implemented). Target: Drainage will be stopped or significantly reduced and the water level will substantially increase for all project sites. At least for 25% of the area (1,150 ha) the water level will never drop more than 20 cm below surface.*

- See Indicator 9 comments. This indicator could have stated a water level range in relation to the peat swamp soil surface (given that water levels will fluctuate under natural conditions driven by monsoon rains and intervening dry periods, and the

seasonal fluctuations in themselves are critical for ecological health – eg fish and seed dispersal during floodwaters). The same point about achievability applies to Indicators 9 and 10.

***Indicator 11**: GHG emissions at 4,600 ha of peat swamp forest (pilot sites where hydrotechnical measures are to be implemented). Target: 1.959 Mt CO2-eq*

- Indicator 11 is also dependent on the success of Indicator 10, in that GHG emissions are directly related to water level management, which influences the oxidation of the peat soil surface layers. The methodology deployed for measuring GHG emissions also requires 2 years of calibration, the achievability of which at MTR stage was questioned. Finally, the MTR noted that a different methodology was used for the baseline assessment, therefore the harmonization of baseline and target measures is required to assess the actual change in emission quantity.

***Indicator 12:** Carbon sequestration through reforestation with native species (projected over 20 years). Target: 129,000 tCO2-eq over a 20 year period.*

- This indicator was revised for reasons of achievability – now allowing estimated emissions reduction over a 20 year period, and allowing for reforestation demonstrations at small plots (up to 5 ha) over a smaller total area (of about 100 ha). The project delays, long lag times for planning, delivering and maintaining planting projects, challenges with obtaining approvals for planting at some sites, and planting density required to achieve targeted carbon sequestration rates necessitated the shift in time period for target achievement.

**Outcome 3**

***Indicator 13:** Cross-sectoral WG for promoting a landscape approach to peatlands conservation and sustainable use. Target: Working Group formed by Year 1.*

- This is an Output level indicator that gives no indication of the geographical scope, membership, functionality or effectiveness of the WG in supporting integrated management of peatlands.

**Indicator 15:** Inventory of all peatlands. Target: Current and comprehensive listing of peatlands status, functions, services (based on above criteria) by Year 3.

- This is an Output level indicator. While it is an important Output, the target conveys more information than the actual indicator.

**Indicator 16**. National Strategy for Peat Swamps. Target: New 20-year strategy that takes economic and ecological benefits into account in determining use of peatlands.

- Similarly, this is also an Output level indicator, for which the target conveys more information than the actual indicator. It would also be much more meaningful if the target indicated approval or endorsement of the Strategy by at least ONEP as the project's Implementing Partner.

### 4.1.2 Assumptions and Risks

78. Assumptions and risks are presented for the project objective and each outcome in the Project Document RF. Most of these assumptions have held during the project implementation period, but some assumptions were difficult to assess and others did not hold true. For instance, the assumption for the Objective is: *The government continues to support the sound management of peatlands in line with the principles and criteria enshrined in the NSP.* This assumption relies on the NSP being completed and approved by ONEP, which by the end of the project was still not the case. Despite this technicality, the government generally did show a genuine interest in supporting sustainable peat swamp management in line with other relevant policies on biodiversity, wetlands and climate change – just that there remains a long way to go in mainstreaming biodiversity conservation into sectoral agency policies and practices, which will extend into the coming decades.

79. For Outcome 1, the assumption that *Stakeholder support is secured for the creation and management of protected areas* held only partially true, in that while there was genuine support for the two NHAs amongst many stakeholders, the rate of violations of NHA regulations decreased and then increased again towards the end of the project – indicating that awareness levels and relations with adjacent communities had not reached the desired state. Secondly, the assumption that the *National plan to declare the Songkhla EPA remains unchanged. ONEP has the mandate to process declaration of the EPA* – did not hold, in line with project document footnote 29. Thirdly, the assumption that *There are no uncontrollable fire hazards such as lightning strikes and severe drought that confound fire control efforts* also did not hold true – as was very evident during the massive forest and peat fires that occurred in August 2019[21].

80. For Outcome 2, the assumption that government cofinancing for the project is provided in a timely manner for implementing the project strategy at pilot peatland sites where hydrological regime is to be improved appeared to hold true – this did not appear to be an obstacle. Secondly, the assumption that *Restoration activities… are not undermined by climate changes such as more frequent drought, warmer summers and winters* – the project period was too short to fully assess such trends, although in this region, extremes of floods and droughts are linked to the ENSO climatic phenomenon, with increased likelihood and severity of drought during the El Nino phase, and increased rainfall and flooding in the La Nina phase[22]. The IPCC assessments have linked the effects of climate change to monsoon conditions, with evidence of increased rainfall linked to surface temperature increases[23]. The implementation of certain project activities was affected by flooding on occasion, and extensive fires starting on 29 July 2019 destroyed 14,493 rai, or 2,318.88 hectares, of forest and farmlands in Pa Phru Kuan Kreng and surrounding areas, following dry conditions in the month of July. At least some of the fires were set deliberately[24].

81. For Outcome 3, the assumption that government cofinancing for the project is provided in a timely manner for development of the peatland inventory and NSP does not seem to have been an issue, however these Outputs were substantially delayed due to other reasons

[21] For example, see: https://www.bangkokpost.com/thailand/general/1722679/disaster-zones-declared-over-forest-fire
[22] https://archive.ipcc.ch/ipccreports/tar/wg1/index.php?idp=303
[23] https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter14_FINAL.pdf
[24] https://www.khaosodenglish.com/featured/2019/08/22/weeks-of-fire-destroyed-almost-14500-rai-of-forest-and-farms-in-southern-thailand/

including COVID-19 impacts on planned field and consultation activities, and additional scrutiny of the quality of the deliverables.

82. **Project document Annex 9: Risk Analysis** presents eight project risks with planned mitigation measures. One risk was rated Medium – that stakeholder support is not secured for the creation and management of protected areas, yet it acknowledges that this is an issue in Thailand and KKL in particular, as population density is high. All other risks are rated low, including *National plan to declare Songkhla EPA changes; ONEP does not have the mandate to process declaration of the EPA* – which did in fact come about, and had profound ramifications for the project approach as discussed elsewhere in this report. Secondly, the risk that *Restoration activities undertaken in pilot peatland sites are undermined by climate change such as more frequent drought, warmer hot seasons and cold seasons* – has sound logic backed by national climate change assessment information, and the approach to mitigation is also sound in that the project's actions will bring about a more resilient ecosystem if they are successful. However, these outcomes take time to accomplish at scale and do not account for shorter term impacts during implementation, such as intense rains (eg that interrupted implementation in September 2019) and floods or dry periods with associated large fires in peat swamp forest (as impacted the project area in August 2019).

83. The SESP in Project Document Annex 11 rated the project as **Category 3a** – impacts and risks are limited in scale and can be handled through application of standard best practice, but require some minimal or targeted further review and assessment… Three upstream activities were identified that could have potential social impacts – Output 1.1 (Designation of EPAs); Output 1.3 (Kreng sub-district land use plan adjustments); and Output 3.4 (NSP). The main concerns were that these designations and plans may result in recommendations for additional peat swamp areas not to be used for economic activities, and the rewetting of peat areas that have previously been drained for agriculture and livelihood purposes. At the site level, Output 2.1 (hydrotechnical measures); and Output 2.2 (reforestation of degraded areas) were identified as having potential very limited social impacts, such as loss of grazing areas.

84. The MTR considered that some important social and environmental risks could have been addressed in more detail in the project document and that some of these risks may have become more significant since project commencement. In particular, there are significant risks from changing land use and drainage programmes for irrigation that may adversely affect peat swamp condition that were not mentioned. The MTR therefore recommended that the project prepare a revised SESP assessment including mitigation measures for identified risks. The Management Response to the MTR recommendations dated 16 August 2019 agreed to this recommendation and tasked RECOFTC/ONEP/UNDP to revisit the SESP and revise the mitigation plan by December 2019, and the PMU to revise the Risk Management Plan with support from UNDP and ONEP. While new risks were logged in the 2019 and 2020 PIRs including new social and environmental risks, the SESP / Risk Management Plan was not updated before the end of the project.

### 4.1.3 Lessons from other relevant projects incorporated into project design

85. The Project document makes almost no specific mention of lessons from other relevant projects informing its design, although the baseline for Outcome 2 does include the Royally Initiated *Pak Panang River Basin Development Project* and specifically its work on water table regulation aimed at fire prevention. See section 4.1.5 below for coordination with related initiatives, which aimed to facilitate knowledge exchange during implementation.

### 4.1.4 Planned stakeholder participation

86. The Stakeholder Analysis section of the project document notes the project's emphasis on technical support and studies, demonstration of sustainable use of peatlands at pilot sites, and developing an overarching national peatland management strategy as a way to bring together different stakeholders, to be involved early and throughout the project. This was to be achieved through the central project management structures, the proposed technical working groups, and through formal and informal consultation meetings with government, non-government and local community representatives. The project also planned to run a number of awareness raising, training and consultation workshops to help increase engagement from a broader range of stakeholders and promote learning around the project's activities and outcomes. Within the project management arrangements, different stakeholder groups were to be engaged in the project advisory committee and project board.

87. This section includes *Table 10,* which summarizes the relevant role in the project for each stakeholder / stakeholder group, in some cases referring to specific Outcomes or Outputs. This included local communities, CSOs, Tambon Administrative Organizations (TAOs) and universities (but no specific groups associated with women's empowerment or vulnerable groups). No information is given on stakeholder engagement during project development in the project document.

88. The Implementation Arrangements section of the project document, subsequently adapted when RECOFTC were appointed as Responsible Party (**Fig. 3**) describes the mechanisms through which stakeholders were to be involved at national and local levels. These included: the Project Board (PB), Technical Advisory Group (TAG), Implementation Teams, and the Provincial Working Group (PWG) on Strategic Planning for the KKL.

89. The PB was to be chaired by the Secretary General of ONEP and included representatives of the DNP, RFD, RID, LDD, ALRO, UNDP and other relevant agencies, as well as representatives of CSOs and academia. The TAG role was to be assumed by the existing *National Technical Wetlands Working Group* under the *National Wetlands Management Committee* to create synergy and policy linkages. Representatives of related projects were to be invited to participate in TAG meetings, including: the national GEF projects *Integrated Community-based Forest and Catchment Management through an Ecosystem Service Approach (CBFCM)* and *Catalysing Sustainability of Thailand's PA System;* the IFAD/GEF project *Rehabilitation and Sustainable Use of Peatland Forests in SE Asia*; the ADB/GEF *Greater Mekong Subregion (GMS) Forests and Biodiversity Program*; and the Royally Initiated *Pak Panang River Basin Development projec*t.

90. The Provincial Working Group (PWG) was to be chaired by the Governor of Nakhon Si Thammarat (NST) province and most members drawn from this province, but also from neighbouring Phatthalung and Songkhla provinces. Members were to include representatives of Thale Noi and Bor Lor NHAs, Fire Protection Unit, DNP Regional Offices 5 & 6, Pak Panang River Basin Development project, provincial MONRE, ALRO and MOAC offices, CSOs and local academic institutions. The Integrated Provincial Committee (IPC) in NST and Songkhla provinces was to act as an advisory body to the PWG in the context of intended EPA development (this also included the local Chamber of Commerce and local Federation of Thai Industry). Members of the TAG were also assigned to two project Task Forces - #1 for protection, management and sustainable use; and #2 for technical innovation on fire protection, water control, rehabilitation and carbon monitoring. Task Force #3 was on enabling policy frameworks (linked with the TAG at national level).

91. Section 2.4 of the project document on Project Objective, Outcomes and Outputs describes the proposed working arrangements for implementation of each Output. For Outcomes 1 and 2 the approach was broadly participatory, involving provincial and local government, TAOs, the NHAs, community forestry committees, fire committees , local experts, etc. Output 3.1 aimed to set up a Working Group for promoting a landscape approach to management of peat swamp areas. This was a national level working group under the coordination of ONEP and consisting of leading experts from DNP, RFD, RID, LDD, DOAE, ALRO and representatives of environmental NGOs, to support the development of the national inventory and database on peat swamps and national strategy for peat swamps (NSP).

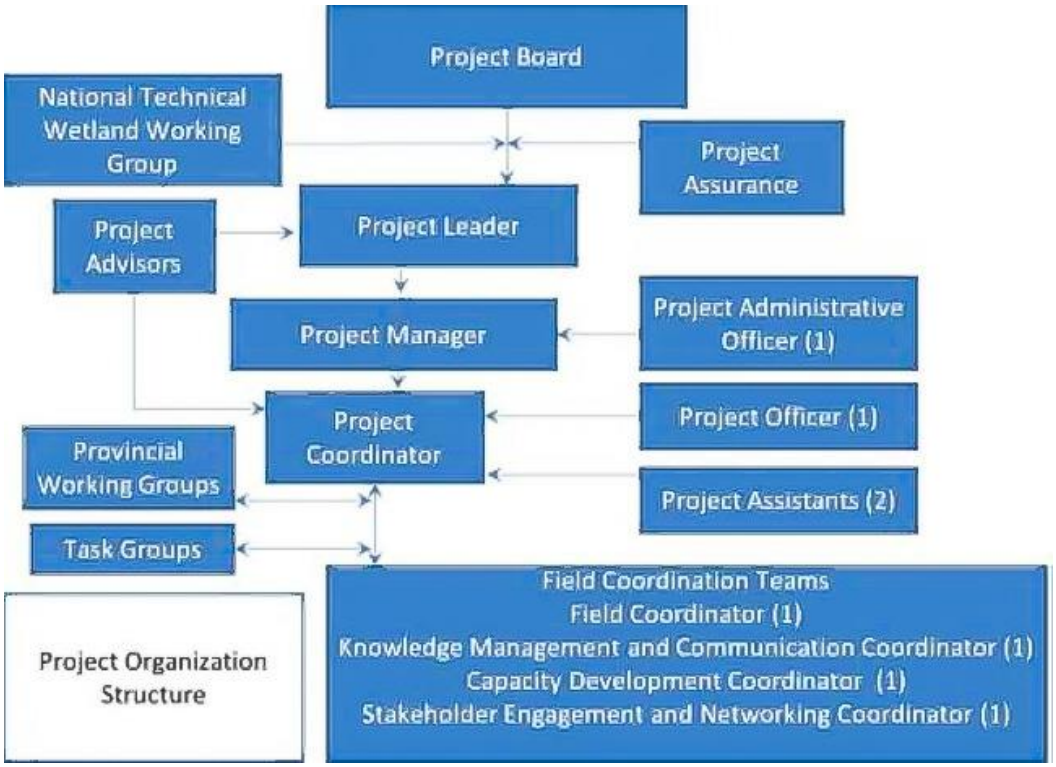


*Figure 3. Project organization structure*

*Source: RECOFTC Proposal to UNDP, 1 February 2018*

#### 4.1.5 Linkages between the project and other interventions within the sector

92. Coordination with related initiatives in the project design[25] includes two GEF Projects under implementation by MONRE – *Integrated Community-based Forest and Catchment Management through an Ecosystem Service Approach (CBFCM)* (bio carbon assessment methodology and for ecosystems and PES for carbon benefits); and *Catalysing Sustainability of Thailand's PA System* (mechanisms for community involvement and sustainable financing are relevant to community forestry in Outcome 1, and for building NHA staff capacity for PA management). Communication was proposed with the regional IFAD/GEF project *Rehabilitation and Sustainable Use of Peatland Forests in SE Asia* (which did not include Thailand); and the ADB/GEF *Greater Mekong Subregion (GMS) Forests and Biodiversity Program* across GMS countries including Thailand (including work on carbon accounting, forest carbon management, and sustainable management of PAs, forests and watersheds) – with coordination proposed through the Thematic WG on Sustainable Development among UN Agencies in Thailand. In addition, coordination with the Pak Panang River Basin Project initiated by His Majesty the King of Thailand was stressed in order to support local environmental management and livelihoods (this project supported local actions to maintain water levels in peatlands, for consideration in the design of hydrotechnical measures in Outcome 2; and the project was to be represented in the provincial working group under this GEF project). Component 2 makes mention of coordination with collaboration with the Rajamangala University of Technology Srivijaya, which has expertise on sago palm cultivation in KKL and other relevant issues, planned to partner the project on carbon flux monitoring. In Outcome 3, the EU funded ASEAN regional project *Sustainable Management of Peatland Forests in SE Asia* supported the development of National Action Plans on peatland management, including Thailand – of relevance to the development of the National Strategy of Peat Swamps under this project.

### 4.2 Project Implementation

#### 4.2.1 Adaptive management (changes to the project design and project outputs during implementation

93. Some changes in the project design are reflected in the analysis of the Results Framework (RF) above, noting that a number of RF indicators were modified following recommendations of the PB meeting on 18 January 2019, with a subsequent request by ONEP to UNDP on 26 March 2019. No further changes were approved during the project period. Most significantly among these, during the inception period ONEP asserted that the establishment of new EPAs was no longer a government policy priority, due partly to the extensive consultation involved and the challenges of achieving this during the project period. The objective indicator was modified[26], to reflect the now-redundant plans to develop a new EPA for Songkhla Lake Basin and replace this with the same area of an integrated mosaic of appropriate land categories and sustainable

[25] Project document section 2.9

[26] in line with footnote 29 on p33 of the project document

co-management regimes, dependent on a feasibility study on community based conservation mechanisms. This change had some impact on **Outputs 1.1 and 1.2** in that the protection of the landscape would no longer have an umbrella EPA designation, but materially the work in conducting stakeholder analysis, participatory resource assessment, mapping land uses and jurisdictions, and preparing a framework for co-management and a landscape management strategy would still have been required. There was also a change in scope of indicator 7, with the removal of Kanthulee as a demonstration site for a participatory management plan on the basis that it lies some 250 km from the KKL area and has ecological differences, affecting **Output 1.5**. It was agreed that RECOFTC would draw lessons learned from Kanthulee to inform KKL stakeholders. This represented a pragmatic adaptive management move on the part of project management, also taking into account differences in ecological conditions between Kanthulee and the KKL peat swamps. Given the geographical distance to Kanthulee, this also saved project time and resources in the form of travel costs.

94. As noted in the MTR, there is ambiguity in the project document in the terminology for **Output 2.2** *Native tree **reforestation** of areas damaged by storms and fires in Kreng sub-district*. The description under the output refers to "reforestation" and "regeneration", whereas the intent from the wording of Outcome 2 appears to be "restoring degraded peat swamp forests". Also the reforestation of 300 ha was considered unrealistic, as well as the associated carbon mitigation target for Indicator 12 (MTR Recommendation #4). RECOFTC subsequently noted its intention to develop different models with demonstration plots of community based peat swamp restoration for targeted small sites (of up to 5 ha, totalling some 50 ha) that had been degraded by fire, but the design of this Output omits mention of associated hydrological management for these sites, which is essential for peat swamp restoration and avoidance of further fires. **Output 2.3** was also adjusted with the removal of Kanthulee as a carbon flux measurement control site, leaving Pak Pra Botanic Garden and Bor Lor NHA as monitoring station sites.

95. In addition, the MTR made 15 recommendations, of which 11 were agreed, 3 were partially agreed and one disagreed by the Management Response in August 2019. The follow up to each of these recommendations is summarized in **Annex 14**. Significantly, MTR Recommendation #12 requested a **12 month extension to the project**, to allow time for key deliverables in Outcome 2 to be achieved, in view of time lost due to delays and the technically challenging nature of these Outputs (e.g. the GHG monitoring requires a 2 year calibration period after establishment of a water level monitoring programme). The decision was passed to the PB in September 2019, which agreed with the MTR and proposed an 18 month extension (subject to justification and budget planning).

96. Due to the Covid-19 outbreak situations and Thailand's use of the Emergency Decree on Public Administration in Emergency Situations (enforced from 3 April 2020, with restricted inter-provincial travel since 3 May 2020), project activities were affected from March to July and delays were experienced in completing certain activities by the project's end date of July 2020, in particular the project exit strategy for sustainability of impact by UNDP, and finalization of the new 20-year strategy for Peat Swamp Management by Prince Songkhla University[27]. UNDP therefore requested approval from the PB to extend the project for 6 months, starting from

[27] Summary report on the PB meeting of 8 June 2020

August 2020 until January 2021, to enable the project to continue working on targeted activities to ensure the achievement of its project objective and respective outcomes as well as the sustainability of impact. The project extension proposal stated that the project team and consultants needed more time to compensate for the inability to complete tasks by the original project end date of 20 July 2020, and proposed specific activities for the extension period as follows[28].

**a) Inability to complete the agreed project exit strategy for sustainability of impact**

97. According to the PB meeting in February 2020, the PB recommended ensuring the sustainability of the project through an exit strategy, with the following activities in the 2020 approved AWP: i) studying, assessing and developing **incentive measures** for enhancing the carbon sink in KKL, ii) promoting **youth action (university level)** for climate empowerment initiative in Nakhon Si Thammarat, Songkhla, and Phatthalung Province, and iii) studying and assessing options for **financial mechanisms** suitable for KKL and promoting the impact investment in KKL through the private sector. It was proposed that the consultants complete these activities by November/December 2020, allowing ONEP and UNDP to make use of these outputs for institutionalization.

**b) Delayed implementation of critical activities under Outcome 3**

98. The new 20-year National Strategy to guide the management of peat swamps was being drafted and the project team had planned to finalize it through public consultation at national and sub-national levels during March – June. However, this could not be done due to: i) meeting and travel restrictions, ii) missing important outputs from the project exit strategy. The extended project period provided the opportunity to enhance the quality of deliverables and ensure sustainability under each project outcome and wide acceptance of stakeholders of the new 20-year Strategy for Peat Swamp Management of Thailand. This required an additional 5-6 months (till November/December 2020) to finalize and obtain endorsement by relevant stakeholders and the government.

**c) Inability to hold knowledge sharing workshops and project closure conference**

99. The project knowledge sharing and closure meetings were originally planned for April and July 2020. The data gathering on lessons learned, knowledge management and dissemination workshop at the KKL could not be done during the Covid-19 outbreak. As the remaining work had not been completed, it was not possible to organize the project closure conference in July 2020.

**d) Inability to start the Terminal Evaluation process**

100. Since the remaining work had not yet been completed, it was not logical to conduct the Terminal Evaluation in April 2020 as per the original plan, therefore the TE was proposed to be held in the period October 2020-January 2021.

101. Based on the above reasons, it was proposed that a 6-month project extension be granted to enable the project to continue working on targeted activities to ensure the achievement of its project objective and respective outcomes as well as the sustainability of impact. The proposed extension period until 21 January 2021 aimed to compensate for the delayed activities during the Covid-19 outbreak, and was endorsed by the PB on 8 June 2020.

[28] Source: Detailed Justifications for the request for an extension of project implementation (15 June 2020)

The extension was approved by GEF on 6 August 2020. Targeted activities to be implemented during the extension period are outlined and the budget is provided in **Annex 15**. All costs of activities during extension period were to be covered by the approved project budget, while any direct project costs for admin related (HR/procurement/finance) support during the project extension were to be absorbed by non-GEF sources.

### 4.2.2 Actual stakeholder participation and partnership arrangements

102. The **Project Board** was appointed on 22 March 2017, and met first at the inception workshop in July 2017. It met a total of four times before the MTR in mid-2019, and a total of 8 times during the extended project period of 54 months, as shown in **Table 2**. The PB met initially upon inception in May 2017 and then there was a hiatus while the new Responsible Party was recruited through a competitive tendering process that took many months. After project re-commencement, the Board first on 30 May 2018. Like most Thailand UNDP-GEF projects, the board was large with 27 members. It appeared to be operating effectively despite this large size, and participation was quite good throughout the project (**Table 3**). Its membership included representatives of government departments involved in the project and their regional and/or provincial offices. Most of these agencies are under MONRE and research institutes. The MTR noted that much of the project focus is on provincial level line agencies therefore consideration should be given to including line agencies outside MONRE in the PB, especially from the Department of Provincial Administration and the DOLA, who control provincial and local planning processes.

103. While the PB provided the intended opportunity for inter-sectoral participation in project oversight at the national level, feedback from PB members indicated that participation in PB meetings was insufficient involvement for them to fully understand the project or to internalize the key issues of sustainable peat swamp management that the project was seeking to solve. Based on their perception, there were many progress updates on technical issues reported during the PB meetings so it was difficult for them to digest and understand these issues – therefore they were unable to comment meaningfully on the presented discussion items. They noted that additional engagement outside PB meetings was necessary.

*Table 2. Summary of Project Board meetings convened*

| No. | Date | Comments | Minutes available |
|---|---|---|---|
| 1 | 1 May 2017 | | Yes |
| 2 | 17 July 2017 | Inception Workshop – 60 participants; | Yes |
| 3 | 30 May 2018 | First meeting after RECOFTC appointed; approved revised project work plan | Yes |
| 4 | 18 Jan 2019 | Approved first set of changes to RF | Yes |
| **Mid Term Review** | | | |
| 5 | 19 Sept 2019 | Approved management response to MTR recommendations | Yes |
| 6 | 13 Feb 2020 | Endorsement of Workplan and budget for Jan-July 2020 | Yes |
| 7 | 8 June 2020 | Last meeting before original project closure date; approved extension proposal | Yes |
| 8 | 11 Nov 2020 | Meeting during project extension period | Yes |

*Table 3. Summary of Project Board meeting attendance*

| PB Meeting No. | Presence | Absence |
|---|---|---|
| 1 | 25 | 0* |
| 2 | 19 | 8 |
| 3 | 21 | 6 |
| 4 | 25 | 2 |
| 5 | 19 | 8 |
| 6 | 22 | 5 |
| 7 | 23 | 4 |
| 8 | 18 | 9 |

**There were 25 members for the first PB meeting; 27 for subsequent meetings at ONEP's request.*

104. The **Technical Advisory Group** specified in the project document is not mentioned in the PIRs or MTR report and does not appear to have functioned at any stage of the project. As this was intended to involve members of the National Technical Wetlands Working Group under the National Wetland Management Committee, there appears to have been little communication with this group until the extension period. Overall engagement of national level stakeholders was weak overall (confirmed in interviews with related stakeholders), with the focus of intervention on the KKL at regional level. One intended function of this national TAG was to review national peatswamp inventory and national peat swamp policy developed under Outcome 3, and during the 6-month extension, ONEP Biodiversity Management Division and Wetland Sub-Division Directors engaged the National Technical Wetland Working Group (as members of its Secretariat) to review and provide comment on the peat swamp inventory study and development of national strategy proposed by the Prince Songkhla University. The final report on the project has also been cleared by the Deputy Secretary General of ONEP (Project Director) as a member of the Secretariat of the WG.

105. **KKL Task Force**, consisting of 37 persons from different landscape government agencies and civil society representatives covering Nakhon Si Thammarat, Phatthalung, and Songkhla was formally appointed by Nakhon Si Thammarat governor with defined roles and responsibilities. The task force will function as a multi-stakeholder platform to design and draft a Kuan Kreng Landscape Integrated Management Strategy. Two landscape forums on the Values of Peat Swamps ecosystem and also Community based Forest Fire Control were held to create mutual understanding among key stakeholders and line authorities as well as raising awareness on sustainable peat swamps resource management. One of the recommendations from these forums led toward the formation of KKL Task Force. The Nakhon Si Thammarat provincial government also has strong interest in transforming this Landscape Task Force to a formal entity.

106. Feedback from relevant stakeholders in Phatthalung province noted that the project would have been more useful if the project work had been extended to Thale Noi (in Phatthalung province), and a provincial level environmental plan developed based on sound knowledge and understanding on peat swamp ecosystem PSE which integrated all aspects to conserve Thale Noi. This would have been consistent with the original project design which aimed to establish a working group in both NST and Phatthalung chaired by the provincial

environmental office to make use of project works for formulating a sound provincial environmental plan. The lack of engagement at Thale Noi NHA in particular was a weakness of implementation, given how important this PA is for the ecological integrity of the peat swamps and their biodiversity. Much of the Sathingphra Peninsula in Songkhla province is agricultural land, and mainly a downstream beneficiary area (especially the Thale Luang part of Lake Songkhla), except for small peat swamp areas in the northwest.

107. As per the Project Document, all listed stakeholders were included as members of the Project Board. However, some stakeholders were not actively engaged in project implementation. These included: the Department of Local Administration, Ministry of Interior; Department of Agriculture Extension (DOAE); Land Development Department (LDD); and Agriculture Land Reform Office (ALRO). UNDP encouraged the RP to engage with these agencies. In addition, the Love Homeland Association (located in Chian Yai District, Nakhon Si Thammarat Province) supports community-based natural resource management practices in Cha-uat and Baan Tul Sub-Districts (both in Cha-uat District, Nakhon Si Thammarat Province); it could provide support for coordinating and facilitating local participation.

108. Local stakeholders were effectively engaged by RECOFTC in works on the ground in NST province – including community co-management development, sustainable livelihoods such as krajood production, community learning centres, school and youth participation, establishment of community forestry groups, voluntary fire fighting network and others.

### 4.2.3 Project Finance and Co-finance

109. As Implementing Partner of the project, ONEP followed the programming guidelines for UNDP's NIM modality based on the signed project document. ONEP was accountable for the disbursement of GEF funds and the achievement of the project objective and outcomes according to the approved workplan. This included certifying expenditures in line with approved budgets and workplans; and facilitating, monitoring and reporting on procurement of inputs and delivery of outputs, *inter alia*. The Project Director was responsible for overall execution of the project, while the Project Manager was responsible for its day-to-day implementation. The UNDP CO was responsible for: i) providing financial and audit services to the project; ii) recruitment of project staff and contracting of consultants and service providers; iii) overseeing financial expenditures against project budgets approved by the PB; iv) ensuring that all activities including procurement and financial services are carried out in strict compliance with UNDP/GEF procedures. As part of its project assurance function, UNDP was responsible for undertaking financial and technical monitoring. The Project Board was responsible for reviewing and approving project work plans and budgets and project deliverables.

110. A HACT Micro Assessment Report was completed on RECOFTC as when it was appointed as Responsible Party in April 2018, with an overall risk assessment outcome of "Low". One Audit was scheduled in the Project Document, and this was conducted in November 2018 by an independent auditing company (Ernst and Young) in the form of a *Spot Check Report* on project disbursements to RECOFTC for the period 1 May – 30 September 2018. The Spot Check Report indicates that the financial procedures followed by RECOFTC were in line with the expected standards of the Micro Assessment (with only minor issues

raised about supporting documentation of expenditure and cash basis accounting), with the qualification that : "*these procedures do not constitute either an audit or a review made in accordance with International Standards on Auditing or International Standards on Review Engagements (or relevant national standards or practices), we do not express any assurance on the programme disbursements of the Implementing Partner for the 5 months period ended 30 September 2018*".

111. As such, it is both surprising and inadequate that only one audit was planned in the project document, as annual audits are the norm for UNDP/GEF full-sized projects, and that the Spot Check exercise conducted in 2018 was not even a full project audit – meaning that no such full audit of the project to UNDP standards was conducted.

**GEF financing**

112. The total GEF grant for this Full-sized Project was USD 3,224,400, plus USD 306,319 agency fee to UNDP and a PPG grant of USD 120,000. The source was the GEF Trust Fund, with USD 436,544 aligned with Biodiversity Focal Area Objective BD-1; USD 1,977,945 with CCM-5; and USD 809,911 with SFM/REDD-1.

113. The disbursement of the GEF budget for the four 'Activities' in the UNDP Combined Delivery Reports (CDR) across the project period including the project extension to 31 Dec 2020) is shown in **Table 4** below. The variance from the original project budget is shown at right. According to these figures, some USD 590,235.71 remained unspent at 31 December 2020. UNDP CO indicated that according to the latest budget revision, USD 586,005 remained for disbursement in 2021. At the time of this TE, some USD 400,000 of this had been committed to be paid against Purchase Orders. So, the remaining funds totalling some $180,000 are subject to CDR finalization in Q2/2021 (within the financial closure period). Therefore, the project is expected to have utilized around 95% of the total GEF funding by financial closure. It should be noted that the 2nd wave of Covid-19 in early January 2021 delayed some of the final activities, therefore some flexibility was required to allow the service providers to complete their inputs.

*Table 4. Summary of GEF budget disbursement (all figures in USD)*

| Outcome (Atlas AWP Activity) | Project Document Budget | Jan-Dec 2016 | Jan-Dec 2017 | Jan-Dec 2018 | Jan-Dec 2019 | Jan-Dec 2020 | Total | Variance (Total – Budget) | % Variance |
|---|---|---|---|---|---|---|---|---|---|
| **1** | **1,000,000** | 5,439.39 | 20,808.10 | 129,279.12 | 456,522.31 | 415,864.60 | **1,027,913.52** | 27,913.52 | 2.79 |
| **2** | **1,500,000** | 2,829.39 | 0 | 168,836.66 | 510,566.34 | 319,904.77 | **1,002,137.16** | -497,862.84 | -33.19 |
| **3** | **570,857** | 5,038.06 | 8,238.34 | 46,204.41 | 282,534.12 | 131,751.41 | **473,766.34** | -97,090.66 | -17.01 |
| **4 - PM** | **153,543** | 11,267.60 | 49,279.07 | 29,241.79 | 16,244.70 | 36,040.70 | **142,073.86** | -11,469.14 | -7.47 |
| **Correction*** | **0** | 0.00 | 0.00 | -4,553.50 | -7,173.09 | 0 | **-11,726.59** | -11,726.59 | NA |
| **Totals** | **3,224,400** | **24,574** | **78,326** | **369,008** | **1,258,694** | **903,561** | **2,634,164** | -590,235.71 | -18.31 |

**Unrealized loss for 76120; unrealized gain for 76130*

114. Delays in implementation, reflected by very low annual rates of disbursement were reflected in the PIRs (see **Table 5** and **Figure 4**).

115. **PIR 2018** noted that delivery was incredibly low, with only 4% of GEF grant disbursed by 30 June 2018. For 2017, delivery was at 78% of approved work plan, although with a revised budget of only $100,000, this does not mean much in practice. By 30 June, 2018 delivery was minimal, at only 3% of work plan. At this point, RECOFTC was now in place as RP and a revised work plan approved, therefore delivery was expected to dramatically improve, while it was noted that without strong disbursement over the remaining two years of implementation, full disbursement of GEF funds looked challenging.

116. **PIR 2019** noted that annual work plan (AWP) implementation had been impacted by delays with finalizing contracts and deliverables with responsible parties (e.g. Kasetsart University, Prince Songkhla University). Therefore, delivery for 2018 was at a low 38%, further compounding the delivery lag resulting from the disrupted inception. General ledger expenditures were $369,000 compared to approved annual budget of $1,038,702. For 2019, an ambitious delivery target of $1.7 million was set. By mid-year, only 28% of this had been delivered. To support timely delivery, it was recommended that the UNDP CO should continue to conduct quarterly three-way meetings with RECOFTC and ONEP to discuss progress with AWP implementation to maintain the enhanced attention on delivery.

117. In mid-2019, **the MTR report** recommended that ONEP consider requesting a 12-month extension, in view of the fact that based on current delivery rates, the project would struggle to disburse the remaining 70% of funds by operational close in June 2020. The MTR noted that the inception delays following ProDoc signature greatly restricted the intended implementation timeframe and made the range of project interventions and targets very ambitious, as also reported by the PM in the 2019 PIR.

118. **PIR 2020** noted that all contracts were in place with Responsible Parties working on remaining activities, setting the basis for increased progress on AWP delivery. Across 2019, the project disbursed around 70% of the very ambitious delivery target of $1.7 million – a commendable achievement based on prior year expenditures. By June 2020, around $500,000 had been disbursed, representing only one third of the 2020 AWP, leaving around $1 million to be delivered prior to the new operational close in January 2021, all of which was committed based on a detailed work plan for the extension period (see **Annex 15**). Social distancing restrictions in Thailand were lifted in mid-2020, facilitating completion of the planned activities within the 6-month extension phase – although another round of restrictions in January 2021 caused further delays. The major outstanding activities remaining to be paid in 2021 were under the contracts issued to Prince Songkhla University (for the national inventory and draft national strategy on peat swamps – Outputs 3.3, 3.4), Wisdom Vast Co Ltd (for Knowledge Management for Project Database), Individual Consultants (K. Nirawan for technical review on the national inventory and strategy on peat swamps) and the Project Terminal Evaluation.

*Table 5. Cumulative disbursement delivery by year (source: PIRs)*

| PIR Report>> | 2018 (30 June) | 2019 (30 June) | 2020 (30 June) |
|---|---|---|---|
| Cumulative GL delivery against total approved amount (in prodoc): | 4.06% | 29.64% | 69.38% |
| Cumulative GL delivery against expected delivery as of project year: | 4.06% | 29.64% | 69.38% |
| Cumulative disbursement as of date: | 130,913.3 | 955,841 | 2,237,003 |

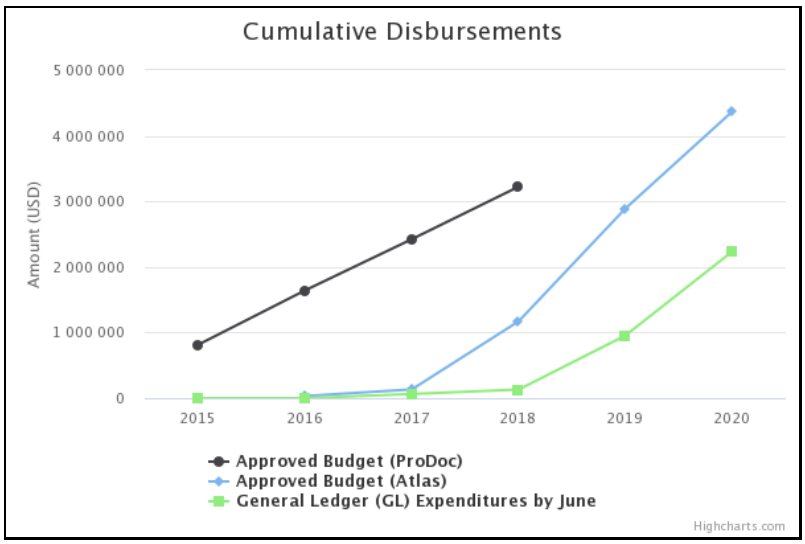


*Figure 4. Graph showing cumulative rate of disbursement in GL Expenditures against the approved budget in the ProDoc and Atlas (annually updated budgets) to 30 June 2020. Source: PIR 2020*

**Co-financing**

119. A total of USD 13,382,711 in cofinancing was committed at CEO Endorsement stage (see **Table 6**). Of this, USD 12,280,680 was identified as grant and USD 1,102,031 as in-kind. USD 4,247,701 of the cofinancing was planned to contribute to Outcome 1, USD 5,827,910 to Outcome 2, USD 2,659,100 to Outcome 3, and USD 648,000 to project management. The ratio of GEF funds to cofinancing was 1 : 4.15.

120. Delivery of cofinancing against the amounts committed at CEO Endorsement are given in **Tables 6 & 7** below. According to the figures provided by UNDP CO, the amount provided by different sources was generally consistent with that committed at CEO Endorsement, with additional co-financing provided by the RFD (under MONRE) of USD 63,000 and partner organization Prince of Songkhla University of USD 687,500. Overall the total cofinancing realized exceeded the committed amount by 5.63% due to these additional sources. Letters of commitment were provided for all cofinancing inputs, while delivery figures at completion were provided in summary form by UNDP CO. Certification of the cofinancing provided has given in 2020 for PSU, RFD, DNP, and the three TAOs, with UNDP and ONEP cofinancing inputs yet to be certified at this time.

*Table 6. Co-financing Table*

| Co-financing (type/source) | UNDP (USD) | | Government (USD) | | Partner Agency (USD) | | Total (USD) | |
|---|---|---|---|---|---|---|---|---|
| | Planned | Actual | Planned | Actual | Planned | Actual | Planned | Actual |
| Grants (Cash) | 300,000 | 300,000 | 11,980,680 | 11,984,681 | 0 | 88,719 | 12,280,680 | 12,373,400 |
| In-kind support | 0 | 0 | 1,102,031 | 1,165,031 | 0 | 598,781 | 1,102,031 | 1,763,812 |
| **Totals** | **300,000** | **300,000** | **13,082,711** | **13,149,712** | **0** | **687,500** | **13,382,711** | **14,137,212** |

*Table 7. Confirmed sources of cofinancing at TE Stage (Source: UNDP CO)*

| Sources of Co-financing | Name of Cofinancier | Type of Cofinancing | Investment Mobilized* | Amount delivered by Project Completion (USD) | Cofinancing Committed in CEO ER (USD) |
|---|---|---|---|---|---|
| Recipient Country Government | ONEP-MONRE | Grant | Recurrent / Investment mobilized | 11,124,001 | 11,120,000 |
| Recipient Country Government | DNP-MONRE | Grant | Recurrent / Investment mobilized | 860,680 | 860,680 |
| Recipient Country Government | Kreng TAO | In-kind | Recurrent Expenditure | 93,750 | 93,750 |
| Recipient Country Government | Ban Tul TAO | In-kind | Recurrent Expenditure | 886,250 | 886,250 |
| Recipient Country Government | Ca-uad TAO | In-kind | Recurrent Expenditure | 122,031 | 122,031 |
| Recipient Country Government | Royal Forest Dept - MONRE | In-kind | Recurrent Expenditure | 63,000 | 0 |
| Partner Organization | Prince of Songkhla University | In-kind | Recurrent Expenditure | 598,781 | 0 |
| Partner Organization | Prince of Songkhla University | Grant | Investment Mobilized | 88,719 | 0 |
| GEF Agency | UNDP | Grant | Investment mobilized | 300,000 | 300,000 |
| **Total** | | | | **14,137,212** | **13,382,711** |

*Source: UNDP CO*

### 4.2.4 Monitoring & Evaluation: design at entry (*), implementation (*), and overall assessment of M&E (*)

**M&E Design at entry***

121. The cornerstone of M&E in GEF projects is the Results Framework, which in the case of this project was inadequate in a few respects (see Results Framework analysis in **Section 4.1.1** above) – it lacked sufficient Objective-level indicators to reflect the scope of the three GEF Focal Area programmes, no reference was included to the GEF CCM and SFM/REDD+ Tracking Tools, a number of indicators were not SMART, some were insufficiently clear in their scope and exact meaning, no mid-term targets were set, and the technical interventions in Outcome 2 were not well served by the relevant indicators.

122. The M&E Plan included the following key elements: **Project Inception Phase**: a project inception workshop (including list of issues to be addressed) and inception report; **Quarterly** – monitoring of progress using the UNDP Enhanced Results Based Management Platform, regular updating of the risk log in Atlas, Project Progress Reports based on information in Atlas and use of other Atlas logs; **Annually** – the GEF Project Implementation Reports (PIR); **Periodic monitoring** through site visits; Mid-term Review and updating of GEF tracking tools; **End of project** terminal evaluation and updating of GEF tracking tools; preparation of a project Terminal Report during the last three months of implementation; **Learning and knowledge sharing** – through existing networks, sharing of lessons learned and coordination with related projects; **Communications** – compliance with UNDP and GEF branding requirements. Timeframes and responsibilities for the monitoring activities were specified. There was no specification for keeping the GEF OFP informed of progress. Audit requirements were not described in the M&E plan; although an indicative cost of USD 6,000 per year was identified in the M&E workplan and budget, only in Year 3 was USD 6,000 allocated in the main project budget. There is no specific allocation for SESP-related assessments, monitoring or reporting.

123. The relevant **GEF-5 tracking tools** for this project were the Biodiversity (BD-1) Tracking Tool (aka Management Effectiveness Tracking Tool), Tracking Tool for Climate Change Mitigation Projects, and Tracking Tool for SFM/REDD+ projects – for completion at baseline (project document Annex 15), mid-term and project completion stages (see **Annex 10**).

124. The budget for the M&E workplan in the project document totaled USD 55,100 (excluding project team time and UNDP staff and travel expenses, and significant monitoring work at the project sites), some 1.7% of the total GEF budget - representing a low level of investment (the current GEF-7 limit for M&E is 5%). Of this budget, USD 36,000 (65%) was allocated to the MTR and TE and USD 10,000 (10%) to the inception workshop. The TE concurs with the MTR's conclusion that the allocation to M&E in the original project budget was too low in view of the project's technical complexity and ambitious quantitative targets.

**M&E Implementation***

125. The UNDP CO 's Inclusive Green Growth and Sustainable Development Unit provided UNDP CO assurance for the project, financial services and facilitated the project team during the implementation process. UNDP was represented on the Project Board and played an

active role during PB meetings. Quarterly meetings were held with ONEP to discuss project management issues, UNDP also liaised with the PMU and participated in occasional site visits. Neither the UNDP team nor the PMU included any M&E specialist staff during the initial years of the project. Given the complexity and M&E demands of the project, MTR recommendation #15 (see **Annex 14**) advocated for an M&E Specialist to be taken on by UNDP, which was agreed in the Management Response and UNDP to include assessing the results of the project, writing the final results report and conducting project progress reviews.

126. The project inception workshop was held on 17 July 2017 and an inception report produced subsequently that met the UNDP criteria. While the inception workshop was supposed to review and agree on detailed reporting and M&E requirements including the M&E budget and workplan, these items are not mentioned in the workshop report – although the project indicators were discussed.

127. The monitoring systems used by the project followed the established UNDP and GEF procedures as laid out in the Project Document, including reports against the Annual Work Plans which were then submitted to UNDP-CO as Quarterly Progress Reports and Annual Reports, accompanied by the more results-oriented PIRs, which were completed for 2018, 2019 and 2020. The PIRs provided significant detail on progress towards RF indicator targets, and analytical comment from the UNDP CO and RTA assessments. While the PIRs picked up on key issues during implementation quite effectively, these were not always picked up and reflected in changes in project implementation - the adaptive management circle was not closed. PB meetings should have linked PIR assessments with implementation processes, and arguably the more frequent coordination meetings between partners should have systematically addressed these issues in a proactive manner.

128. The QPRs initially provided a lot of detail on project activities, but the MTR noted that only limited information was provided on how these activities contributed towards the project's intended results and MTR Recommendation #1 included that "quarterly reporting should be changed to place more emphasis on progress towards outcomes and less emphasis on activities". This was agreed in the Management Response and subsequently implemented, with the additional benefit that the QPRs and PIRs were subsequently well aligned (with the exception of reporting on gender and safeguards, which are not specified in the revised QPR template). In general, it seems inefficient that QPR templates for GEF projects used by UNDP COs have not been standardized globally towards a more integrated and progressive results-based reporting system that is aligned with the PIRs. This would benefit from systemic review by UNDP HQ, so that best practices can be taken on board.

129. The Project Manager made presentations on the activities and performance of the project against the annual work plan at the Project Board meetings, providing members with the opportunity to comment and advise on the following year's workplan and to incorporate adaptive management measures. While PB meetings were well attended (see **Table 3** above), some PB members were insufficiently informed to participate effectively in discussion of tabled matters and would have benefited from greater overall involvement.

130. Periodic UNDP monitoring visits were conducted to the project sites in accordance with the M&E plan, with findings given in BTORs. In total 9 such monitoring visits were

conducted, yielding BTORs with the findings to inform UNDP oversight. These were significant in guiding project implementation, especially the mission conducted before the MTR.

131. The GEF-5 tracking tools were completed at CEO Endorsement, Mid-term and End of Project stages and made available to both the MTR and TE teams for review (see **Annex 10**). The **GEF Biodiversity (BD-1) Tracking Tool (METT)** covered the two NHAs as well as the two intended EPA areas (even though the EPA proposals were dropped). However, the EPA site assessments were not considered in this evaluation as the METT can only be meaningfully applied to existing protected areas. Review of the METT scores against the RF indicators are given in **Annex 12**. The project completion assessments were conducted in May 2020.

132. The final **GEF CCM Tracking Tool** assessment was completed in August 2020 (project extension period). This shows Lifetime Direct GHG emissions avoided of 352,461 $tCO_2$-eq. against a target of 705,000 $tCO_2$-eq. at CEO Endorsement [this is the difference between total baseline emissions and the expected emissions in the project scenario (including carbon sequestration by oil palms, but not including reforestation with native trees sink)]. This target of 705,000 $tCO_2$-eq relates to the **SFM/REDD+ Tracking Tool** target of avoided deforestation and forest degradation over 4,600 ha of peat swamp forest in KKL, with the same end of project result shown. However, **Results Framework Indicator 11** - GHG emissions at 4,600 ha of peat swamp forest (pilot sites where hydrotechnical measures are to be implemented) sets a target of 1.959 Mt $CO_2$-eq, which far higher than the targets in both CCM and SFM/REDD+ tracking tools. It is not clear where this major inconsistency in targets comes from.

133. The CCM tracking tool also shows Lifetime Direct Carbon Sequestration of 9,520,000 $tCO_2$-eq. against a target of 129,000 $tCO_2$-eq. [This is the carbon sequestration in the project scenario through planting of native tree species – reflected in **RF Indicator 12**.] However, there is clearly some error in presentation here – as the end of project value is far above even the Lifetime **indirect** carbon sequestration target of 894,400 $tCO_2$-eq. [with the explanation given for this target that the Project will replicate in peat swamp forest areas degraded by fires -- 800 ha in Bor Lor NHA and 1,280 ha in Thale Noi NHA]. No narrative explanation was provided for the end of project figures[29].

134. The MTR did not find any focus on development, gender or other social impacts in the project's monitoring system and recommended that a gender analysis be undertaken to identify key activities for gender mainstreaming (MTR Recommendation #14, see **Annex 14**). Post MTR, no specific gender analysis was conducted, but gender was integrated and mainstreamed into the project interventions by RECOFTC, including gender-sensitive CF management plans and engagement of women's groups in livelihood activities. Gender mainstreaming was reported in the PIRs, providing gender disaggregated data for project events.

135. The MTR noted limitations to the SESP in the project document and recommended that a revised SESP be prepared including mitigation measures for identified risks (MTR

[29] It should be noted that for LULUCF projects, the definitions of "lifetime direct and indirect" apply. Lifetime length is defined to be 20 years, unless a different number of years is deemed appropriate. For emission or removal factors (tonnes of CO2eq per hectare per year), use IPCC defaults or country specific factors.

Recommendation #13). While this was agreed in the Management Response, the SESP was not subsequently revised. See section 4.2.6 also.

136. There was no formal Theory of Change in the project document, as this was not a GEF or UNDP requirement at this time. Arguably this could have helped provide more focus to implementation and improved understanding of the overall project logic. See **Fig. 2** for a retro-fitted approximation of a TOC for the project, developed by the TE team. Assumptions are discussed in section **4.1.2**.

137. The project intervention strategy was reviewed during the Inception Workshop and Mid Term Review. The most significant shift made at project inception stage was the removal of EPA targets from Outcome 1, in view of a shift in government policy which adversely affected the feasibility of the declaration of EPAs for the project area. This was changed to a mosaic of sustainable use and co-management regimes, which was not clearly defined in the Results Framework changes – for instance, the inclusion of the Sathingpra Peninsula as a downstream beneficiary area. It is notable that RECOFTC as RP only had 2 years to implement almost the whole project (from mid 2018 to mid 2020), which raised clear feasibility questions recognized by the MTR – recommending a 12 month extension period to allow intervention processes to run to conclusion. In the event, only a six-month extension period was approved (on the basis of further COVID-19 related delays), focusing on selected sustainability activities and completion of some outstanding results (See section **4.2.1** and **Annex 15**). While the exit strategy actions were relevant and productive, overall they were inadequate to secure the full sustainability of the project outcomes. The short duration of the extension period was a missed opportunity to provide more time to reach more sustainable outcomes, although coordination challenges among the partners were clearly a consideration.

138. The Project Board was constituted as planned, and met a total of eight times during the extended project period of 54 months, with good overall participation as shown in **Tables 2&3** above (see **4.2.2**). However, some PB members lacked sufficient support to participate effectively in discussions, noting that additional communication was necessary.

139. The terminal evaluation was eventually informed by a "project terminal report" as specified in the M&E plan[30], facilitating analysis of the issues at hand. Such a report should be a standard feature of all UNDP/GEF projects, budgeted as part of the M&E plan and **made available in advance of the TE starting.** In this case, the PIRs provided the main source of information on data collected for the specified indicators in the RF. The data collection / reporting was challenged by the identified weaknesses in certain indicators – and the technical difficulty in measuring others such as GHG emissions. Lack of timely, practical and agreed methodologies for water level management and carbon monitoring impacted effective monitoring of Component 2 in particular. Reporting against most indicators was therefore anecdotal rather than systematic and quantitative.

[30] Although this was only available on 17 February, too late for thorough review

**Overall assessment of M&E***

| Monitoring & Evaluation (M&E) | Rating |
|---|---|
| M&E design at entry | MU |
| M&E Plan Implementation | MS |
| Overall Quality of M&E | MU |

### 4.2.5 UNDP implementation/oversight (*) and Implementing Partner execution (*), overall project implementation/execution (*), coordination, and operational issues

**UNDP implementation/oversight***

140. The UNDP CO implemented this project through its Inclusive Green Growth and Sustainable Development Unit, whose Head was the project Task Manager, supported by staff who provided UNDP CO assurance for the project, financial administration services and facilitated the project team during the implementation process. UNDP was represented on the Project Board and played an active role during PB meetings. Quarterly meetings were held with ONEP to discuss project management issues and the CO coordinated with ONEP, RECOFTC and other parties on administrative matters.

141. UNDP CO provided significant guidance and support to project implementation at the request of ONEP, in line with the LoA for UNDP Support Services (project document Annex 16). The actual support services provided included: recruitment of project personnel (including the Responsible Party (RECOFTC)), procurement of goods and services, organizing and facilitation of meetings and workshops, organizing monitoring visits, conducting micro assessment and audit, etc. These services are covered in line 28 of the project document budget table. The shift in ONEP's role in the early stages of implementation resulted in significant demands on UNDP CO to support execution, which went well beyond UNDP's normal oversight role. This was a great burden on UNDP CO throughout implementation, which was difficult to avoid under the circumstances, also reflecting the high level of commitment of the CO staff towards making the project successful.

142. Overall oversight was relatively effective, mainly affected by coordination challenges and lack of clarity on roles between the main project parties: ONEP, RECOFTC, PSU and UNDP. This was picked up by the MTR, which emphasized the need for sharing a unified vision for the project amongst all parties and the need for much enhanced communications, which improved to an extent after the MTR. A related issue was the narrow approach of RECOFTC to its role as PMU as well as executor of various technical activities on the ground. As such RECOFTC did not embrace activities outside its own scope of execution, despite its role as PMU, weakening the cohesive and integrated nature of the project strategy (eg activities were mainly confirmed to NST province, and PSU-led outputs were not well integrated with other activities). This also extended to reporting. While UNDP was aware of this, the problem persisted.

143. As noted above, a HACT Micro Assessment Report and Spot Check Report were conducted on the RP (RECOFTC) by an independent auditing team in 2018. No full audits were conducted for the project. UNDP CO provided the following explanation of the procedures followed: regarding finance compliance, UNDP has never transferred project cash to ONEP. Based on the LoA signed on 13-19 September 2016, ONEP agreed that UNDP would provide support services to project implementation for the full amount of the project budget according to the LoA. Therefore, there was no requirement to conduct a capacity assessment for ONEP. Later in 2018, UNDP engaged RECOFTC as the RP, conducting the capacity assessment (HACT Micro Assessment) with them in early 2018, which yielded a risk rating of "low".

144. Following the finding of the Internal Control Audit report[31] on RECOFTC dated 18 Dec 2018 that "According to the UNDP's guideline for FACE form preparation, expenditures to be reported on FACE form should follow cash basis of the accounting principle. In the other word, expenditures are reported on FACE form upon actually payment" and its recommendation that "IP should ensure that expenditures reported on FACE form follow cash basis of the accounting principle before submitting to UNDP", UNDP decided to adopt a Cash Advance model to transfer the project budget to RECOFTC. UNDP organized a formal training for the RECOFTC finance and project implementation team. UNDP also provided regular guidance and self-spot checks on quarterly FACE submissions and requested corrective actions. However, the quality of expenditure reports from RECOFTC did not improve. Later in 2019, UNDP arranged for a formal Internal Control Audit (by external auditor firm) and the findings led to a change in the financial management model from Cash Advances to Deliverable-based payments in January 2020. In the case of deliverable-based payments, there was no requirement to do spot checks in 2020. The main oversight was the lack of any project audits, which should have been rectified during implementation with associated budget reallocation.

145. Overall, UNDP CO was responsive in its oversight and the quality and timeliness of UNDP's technical support to the project team was satisfactory. However, challenges similar to other GEF projects were reported, generally as result of poor alignment between government and UNDP administrative rules and procedures, and a lack of clarity around some UNDP procedures, which caused administrative inefficiencies and delays. UNDP's results-based approach to project M&E strengthened reporting and implementation – especially after the QPR format was changed. Reporting by both the CO and RTA in the PIR assessment sections was objective and clear, although their recommendations were not always addressed in subsequent implementation (see Section **4.2.4**). The project was subject to a series of significant risks, firstly arising from the huge delay in project start up, then the major shift in government position on EPAs, and then the COVID-19 pandemic in 2020. Overall, UNDP managed these risks appropriately and flagged critical risks in the PIRs, although in the TE's view, UNDP CO should have argued for a longer extension period in order to mitigate COVID-19 related delays to implementation in 2020 that compounded the earlier major delays and slow delivery rates in earlier years. The RTA played a strong technical support role throughout the project, provided clear guidance in the PIR assessments to support adaptive management, and was actively involved in addressing the above-mentioned risks. The RTA also participated

[31] An ICA is a policy requirement triggered by a threshold budget level which a partner has received from UNDP. It is $150,000 per year (previously $300,000 per UNDP's programme cycle).

in a monitoring mission before the MTR to provide insight into the major issues that required attention at that stage, and provided information and insights for this TE.

**Implementing Partner execution***

146. The project was designed as a NIM project under the expectation that ONEP would host the PMU and implement the project. However, following the initial period with the PMU hosted by ONEP (when the project adapted to the shift in government policy regarding EPAs), ONEP stepped back from their role in leading implementation – requesting a technical organization to perform both the PMU and a technical implementation role - but still on NIM basis). After a tender process, RECOFTC was engaged to provide this role (bringing significant experience and technical capacity to the project). The complexity of GEF implementation, and need to harmonise GEF project execution with very demanding government bureaucracy likely contributed to this change, together with an incomplete understanding of the full requirements of GEF project execution (UNDP and GEF policies and procedures, etc). This increased demands on UNDP CO to support execution, which went beyond UNDP's normal oversight role and GEF's normal boundaries for GEF Agency involvement in execution. ONEP still provided significant management inputs, with the Project Coordinator providing some 80% time input, and regular coordination with the RECOFTC PMU staff. The ownership and engagement of ONEP as IP was evident from the professional level staff support provided for the project, and the Director of the ONEP Biodiversity Management Division and the Director of Wetland sub-division provided an oversight role on the IP side, clearing the PMU workplan to proceed to the Project Board meetings. Both directors were heavily involved during the 6-month extension to ensure that the project met its objectives when ONEP played the part of PMU. Some delay in implementation arose from the discontinuity of the Deputy SG of ONEP as Project Director (there were three SGs from 2016-2020).

147. The MTR made the point that while ONEP's Division of Biodiversity Management was leading management of the project, the Climate Change Division is also very relevant and should have been involved. During the 6-month extension, staff of the Climate Change Division joined the Project Board meeting and provided input on carbon markets regarding the feasibility of sustainable financing for peat swamp management. Both directors (biodiversity management and wetlands) also engaged the National Technical Wetland Working Group, in their capacity as members of its secretariat. The WG reviewed and provided comment on the peat swamp inventory study and development of national strategy on peat swamps prepared by PSU. The final report has been cleared by the Deputy Secretary General of ONEP (Project Director) as a member of the secretariat.

148. ONEP chaired the PB meetings effectively, and these were generally held on schedule and with good participation from the 37 members. However, coordination between the key implementing partners remained weak throughout the project, and outreach and coordination with other national agencies was also weak, including engagement with the National Technical Wetland WG before the extension period. ONEP now needs to play a critical role in bringing key policy recommendations from the project to relevant stakeholders and government bodies for approval, as well as widely disseminating project results and materials so that they can achieve the intended impacts.

149. During the first half of the project there were major delays associated with the need for Cabinet approval of the project document, recruitment of the project manager, and subsequent recruitment of the RP. There was very little progress during these delays such that only 3% of delivery had been completed by MTR stage. After RECOFTC started as RP in April 2018, ONEP was more focused on results and timelines and maintained regular contact with the PMU staff at the RP. Implementation picked up subsequently, although it was subject to further delays and finally the impacts of COVID-19. Consequently, while significant efforts were made to meet the project targets in the remaining period, this was not feasible, although more timely and result-focused implementation and monitoring with close support from UNDP M&E were evident. According to the figures provided by UNDP CO, the substantial co-financing committed to the project was delivered during implementation (see section **4.2.3**).

**Overall project implementation/execution***

150. The project experienced substantial delays during its initial stages, with a major delay of more than 18 months from CEO Endorsement to project document signing in July 2016 while awaiting Cabinet approval of the project document, then a further four months to hire the Project Manager, and the Inception Workshop in July 2017 - one year after the project document was signed. The Project Manager departed at this time, after which the project management arrangement was changed at ONEP's request for a subcontracted Responsible Party to take on the PMU and a major part of the technical implementation. Thus, RECOFTC (The Center for People and Forests) came on board in April 2018 with a strong pool of experienced staff and an extensive academic network.

151. By mid-2018, delivery was minimal, at only 3% of work plan. Delivery picked up following RECOFT's engagement, but despite clear progress there were still some remaining challenges with implementation in 2018-19, including M&E weaknesses and insufficient coordination. Delivery for 2018 was at a low 38%, further compounding the delivery lag resulting from the disrupted inception. The MTR in mid-2019 was completed relatively early in an adaptive response to the inception delays. Both RTA and MTR commented on the need for gender analysis and strengthening of the SESP, with limited response. The project had improved implementation and delivery after the MTR, facilitated by strong oversight and significant execution support by the Thailand CO, for example in strengthening coordination and guiding activity towards results-based management. Despite improvements, the project still struggled with low delivery and delayed achievement of deliverables, with 2020 unexpectedly impacted by strict and prolonged COVID-19 social distancing restrictions that delayed implementation of some key activities, the project's sustainability strategy and caused procurement bottlenecks as the COVID-19 response was prioritized by UNDP. At the end of the original project period, the RP contract was concluded and the PMU function was taken up by ONEP, which requested additional executing support from UNDP to support remaining contracting during the extension period. RTA recommendations from PIRs were not fully addressed, therefore the UNDP CO was asked to include these in regular monitoring and reporting mechanisms with the PMU to allow better tracking and monitoring of responses.

152. Overall, much of the implementation did not go smoothly, as reflected in the successive PIR ratings for Implementation Progress (2018-U, 2019-MU, 2020 -MU), therefore

the TE has to reflect this accordingly – it was well below a satisfactory level overall, although in the end the project has been completed and it did achieve some significant results.

| UNDP Implementation/Oversight & Implementing Partner Execution | Rating |
|---|---|
| Quality of UNDP Implementation/Oversight | MS |
| Quality of Implementing Partner Execution | MS |
| Overall quality of Implementation/Oversight and Execution | MU |

### 4.2.6 Risk Management, including Social and Environmental Standards (Safeguards)

**Risk Management during Implementation:**

153. The risk analysis in the project document identified eight project risks, of which one was rated medium, while all others were rated low (see **4.1.2** above).

154. **PIR 2018** listed one critical risk - the changed government policy on EPA establishment within the Kuan Kreng landscape. Risk management measures included discussions with ONEP, RECOFTC and UNDP CO and RTA to agree upon potential project strategy adjustments to adapt to the new policy. These were captured in approved inception phase RF changes approved by the Board and RTA. A detailed UNDP monitoring mission, acted as an 'internal MTR' of sorts ahead of the independent MTR that took place in the first half of 2019. The revised approach on peat swamp landscape mosaic management was subsequently closely linked with policy work taking place under Outcome 3, to achieve a cohesive approach to peat swamp management and sustainable use in Thailand.

155. **The MTR** flagged a number of risks to sustainability, key among which were the following, with corresponding TE observations:

- Integration of project strategy and activities on KKL with the provincial strategy and work plan, and the work of the relevant line agencies >> this was pursued during subsequent implementation period and made significant progress; however, by the end of the project more remained to be done to internalize the KKL strategy actions within the relevant line agencies, to share relevant project deliverables, and to build related capacity in their application – consequently follow up is needed.
- The need for feasibility assessment of alternative livelihood activities >> this has been conducted as part of the livelihood development process overall.
- Ensure the sustainability of training and support for priority activities after project completion >> this refers to the institutionalization of training provision in related subjects (water management, fire control, sustainable resource use, community forestry, etc) – which at the time of project close is not clear, although the NSP refers to the need for training and capacity building. Strong networks were developed for fire control, so these may be self-sustaining in due course; water management will require further inputs and support for use of the MIKE SHE modelling application and its linkage to adaptive water management; follow up support is needed for local stakeholders on sustainable livelihoods and resource use.

- The major environmental risk of ongoing pressure on peat swamps from drainage and land use changes, including initiatives supported by other government agencies >> in the TE's view this remains a prevalent and significant risk to the remaining peat swamp areas. Proactive follow up support is needed to the KKL Task Force and local stakeholders to continue reduction of prevalent threats and to strengthen the regulatory framework for sustainable peat swamp management. The combination of climate change induced drought periods, conflicting water uses leading to peripheral drainage, and fires remain an existential threat to the KKL peat swamp.
- Climate change is likely to significantly affect peat swamp forests therefore an adaptive management model is needed that allows management approaches to be assessed and updated regularly (to be included in the NPS) >> the NPS refers to climate change as one of the key threats to peat swamps, but does not overtly stress the need for adaptive management approaches.

156. **PIR 2019** followed on from the MTR, with no critical risks identified. **PIR 2020** identified two critical risks – first, that project implementation in KKL was interrupted by flooding in September 2019. And secondly, implementation was affected by the COVID-19 pandemic (see next section). Risk management in 2019-20 was adequate and operational risks managed well due to the close oversight provided by UNDP Thailand.

**Safeguards Risks**

157. The SESP in Project Document Annex 11 rated the project as **Category 3a** – impacts and risks are limited in scale and can be handled through application of standard best practice, but require some minimal or targeted further review and assessment.

158. The MTR considered that some important social and environmental risks could have been addressed in more detail in the project document and that some risks may have become more significant since project commencement. In particular, there are significant risks from changing land use and drainage programmes for irrigation that may adversely affect peat swamp condition that were not mentioned. The MTR therefore recommended that the project prepare a revised SESP assessment including mitigation measures for identified risks. The Management Response to the MTR recommendations dated 16 August 2019 agreed to this recommendation and tasked RECOFTC/ONEP/UNDP to revisit the SESP and revise the mitigation plan by December 2019, and the PMU to revise the Risk Management Plan with support from UNDP and ONEP. The Project Manager monitored project risks and new critical risks were included in the annual PIRs as described below. UNDP registered identified risks and monitored them through ATLAS. However, the ATLAS risk register shows that only three risks were added during the course of implementation: one concerning delays to implementation in recruiting a new project manager as of August 2017; one concerning delay in starting implementation on the ground as of August 2017; and one concerning the impacts of the COVID-19 Pandemic as of February 2020. The risk register does not include the risks identified in the PIRs mentioned below.

159. **PIR 2018** identified no new or escalated safeguards risks since project development. **PIR 2019** noted that project attention to safeguards could be improved through a revision of the SESP, to include risks that were not captured at CEO Endorsement stage. These new and escalated risks were reported but the SESP revision remained to be completed. One new

environmental risk was identified (and repeated in 2020): The floodway construction of Nakhon Si Thammarat City Project led by the RID has key implications on water management in the KKL. In response, the project supported and provided project information to relevant agencies and made links to the development of the water management model and KKL Strategy.

160. **In PIR 2019,** one existing risk was escalated: ongoing land conflict may create different perceptions among stakeholders with whom the project is working. In response, the project supported a dialogue forum to help create mutual understanding with different stakeholders. However, during the TE, land rights and land conflict were repeatedly mentioned as ongoing issues by local stakeholders – therefore this does need attention in the related strategies, plans and follow up stakeholder engagement.

161. In **PIR 2020**, two new risks related to the long protocol process (in order to get approval by DNP) for land use zoning for co-management involving Thale Noi NHA and neighbouring communities under the new Wild Animal Reservation and Protection Act (2020), in response the project supported and provided information to particular communities; and the new Community Forestry Act 2019 led by RFD does not allow community forestry inside protected areas – therefore, the project provided support to three community forests to dialogue with relevant agencies and become legally formalized in accordance with the new Act.

162. Overall, the new or escalated safeguards risks documented in PIR 2020 were never finalized in an updated SESP as recommended in prior PIRs and MTR. The project was given a moderate risk rating in PIMS+ risk management dashboard due to the unsatisfactory MTR outcome rating. Enhanced oversight on safeguards should be ensured for future projects.

### 4.2.7 COVID19 Impacts

163. Infectious disease outbreaks were not identified as a risk in the project document – but became an issue when the COVID-19 pandemic unexpectedly occurred in January 2020, affecting Thailand during the final stages of the project implementation period and the following extension period. The associated government restrictions on travel and public activities for pandemic control from March until 30 June 2020 impacted fieldwork with communities and delayed the completion of a number of activities, as reported in PIR 2020. any face to face meeting in KKL was not allowed. These impacts included delays in all stakeholder consultation processes, review and endorsement of the KKL Strategy by the KKL Task Force was delayed from April until July as no face to face meetings could take place, and the analysis of GHGs using Gas Chromatography was delayed as the Emergency Decree closed all educational facilities in Thailand, disallowing the research team access to the laboratory room at Mahidol University as well as Kasetsart University to analyze data from the KKL.

164. The COVID-19 impacts also delayed implementation of the project's sustainability strategy. Executing support by the CO was delayed due to procurement bottlenecks as the COVID-19 response was prioritized by UNDP. No budget/activity changes in scope due to COVID-19 were required, just the rescheduling of proposed activities in accordance with the

work plan and sustainability strategy. No potential for the project to directly support COVID-19 recovery was identified, although the project support for livelihoods helped to support resilient local livelihoods.

165. Despite improvements since the MTR in mid-2019, the project still struggled with low delivery and delayed achievement of deliverables, then this was exacerbated in 2020, when implementation was unexpectedly impacted by the strict and prolonged COVID-19 social distancing restrictions in place in Thailand. Adaptive management had already been taken to correct for these delays, most notably through the submission and endorsement of a 6-month project extension to January 2021. The extension had been recommended by the MTR, and while one was originally not desired by the Project Board, COVID-19 impacts meant that this was ultimately required. UNDP and ONEP personnel managed the work of the Service Providers and consultants during the extension period (Aug 2020 - Jan 2021), allowing ONEP and UNDP to enhance impact of this project and implement the exit strategy, consisting of: i) Incentive measures for maximizing carbon sink in KKL, ii) youth empowerment on strategy and actions, and iii) finance mechanism on social impact investment options. The TE was delayed until January-March 2021 due to COVID-19 impacts and restrictions, and as explained in section **2.3** above, was conducted mostly through remote communication methods.

166. As the government of Thailand has managed the pandemic relatively well through prompt and effective social distancing measures, and with plans to vaccinate the entire population now starting to be rolled out, including plans to allow tourism backed by vaccination certificates to take place, it may be that recovery from the health and socio-economic impacts of COVID in Thailand will be smoother than in many other countries. This is likely to be positive for the sustainability of project outcomes in that government budgets for environmental affairs may be less likely to be diverted for other purposes.[32] In addition the UN Country Team in Thailand released the Socio-Economic Response to COVID-19 Report in August 2020, including a COVID-19 response plan supported by financing from the UN System. This funding offers opportunities for supporting post-project follow up actions commensurate with a green recovery from COVID-19, including sustainable development activities that benefit communities.

## 4.3 Project Results and Impacts

### 4.3.1 Progress towards objective and expected outcomes (*)

167. The results of the project have been evaluated against the results framework indicator targets, for details see **Annex 12**. In this section, the progress achieved towards the project objective, the three outcomes and related outputs (see **Annex 11**) are summarized and evaluated. See section **4.1.1** for revisions to indicators and comments on indicator quality.

**Progress towards Objective indicator - Rating – Moderately Unsatisfactory**

[32] Prime Minister Prayuth Chan-ocha on 11 January 2021 said that the larger government deficit in next year's budget would not affect the country's efforts to manage the spread and economic fallout of the coronavirus. "The 2022 budget deficit will not affect fiscal discipline and the country's drive to move forward from the crisis caused by the COVID pandemic".

***Indicator 1 – Extent of peat swamp area under effective management (IUCN Category IV, V) in KKL, under the framework of a National Strategy for Peat Swamps (NSP). Target: 154,363 ha.*** [The intention here was to reflect the management of an integrated mosaic of various appropriate land categorization and sustainable co-management regimes, with Songkhla Lake Basin remaining as a 'benefit area' from Kuan Kreng peat swamp conservation practices].

168. Significant work has been completed to put in place an effective management regime for the 74,363 ha covered by the KKL Strategy endorsed by the NST Provincial Governor, including 6 sub-strategies on specific issues. Development progress reported in PIR 2020 lists progress under some 13 subheadings across all three Outcomes that contribute towards this indicator in one way or another – summarized in **Annex 12**. It can be concluded that the Project has resulted in significant improvement of peat swamp management in the 74,363 ha under the KKL Strategy (48% of the original target area). However, this remains a work in progress at project closure despite intensive efforts and significant advances across a number of areas. Overall, despite strong efforts, the project was unable to recover from the change in government policy at the start of the project that set aside the intended strategy of establishing EPAs in the landscape, coupled with the major delays in implementation progress. In addition, there was no change in Ramsar Convention designation of the peat swamps in the landscape during the project period (see Recommendations B.4 and B.5).

169. The need for outreach to stakeholders across the remaining benefit area was pursued during the extension period through the exit strategy, aiming to apply incentive measures for maximizing carbon sink capacity in KKL beyond the KKL Strategy area, youth empowerment, and developing a finance mechanism for social impact investment. While these were all positive actions, the short time available (six months), ongoing COVID restrictions, and scale of intervention needed across the remaining area mean that these measures were insufficient to put in place a secure management regime for peat swamps across full KKL area. This will need to be achieved through follow up investments.

**TE Assessment: Target partially achieved.**

### Progress towards Outcome 1. Rating – Moderately Unsatisfactory

***Indicator 2: Peat swamp forests in KKL under protection. Target: Additional 16,347 ha.***

170. The target apparently refers to Kreng Sub-district and three community forests – Sai Kanoon, Kuan Ngoen and Suan Somdej in NST for peat swamp forest management under the KKL Strategy. The main results contributing towards this target were the KKL Strategy endorsed by Task Force on 1 July 2020 covering 74,363 ha including the originally targeted 16,347 ha. The project final report notes that there are six plans supporting participatory peat swamp management:

1. Peat swamp forest fire management and carbon balance plan
2. Integrated water management plan
3. Forest ecosystem restoration plan

4. Public awareness on peat swamps through youth and local people in the Kuan Kreng Landscape plan
5. Peat swamp based livelihood development focusing on sustainable production plan
6. Policy and law enforcement focusing on the integration of policies and legal implementation plan

171. The target is understood to mean a sustainable management regime under the umbrella of the KKL Strategy supported by specific interventions such as the land use zoning for Kreng Sub-district, further review of co-management options for land under the new Wild Animal Reservation and Protection Act 2020, completion of CF management plans, knowledge sharing on sustainable practices and networking on forest fire management. All of these actions contribute towards more sustainable management (if not full protection) of peat swamp in the targeted area. As for Indicator 1, this remains a work in progress, but with some ongoing post-project support it should be possible to retain and restore the ecological condition of the peat swamp in this area. Effective management of water levels will be key to preventing future fires and peat swamp degradation.

**TE Assessment: Target partially achieved**

***Indicator 3. Enhanced management effectiveness at existing PAs (NHAs) and Songkhla and Kuan Kreng peat swamp landscapes as measured by METT.***

| Protected Area | Baseline Score (2014) | Target Score | Mid-term Score (2019) | Completion Score (May 2020) |
|---|---|---|---|---|
| Thale Noi NHA | 64 | 75 | 69 | 69 |
| Bor Lor NHA | 42 | 70 | 57 | 70* |
| Kuan Kreng (proposed EPA)** | 12 | 20 | NA | NA |
| Songkhla (proposed EPA)** | 19 | 30 | NA | NA |

**The project final report gives this score as 61, and notes possible cause for not meeting the target was related to 2019 incidences of forest fires, impacting the management of Kuan Kreng Peat Swamp Forest.*

***Note: Given that Kuan Kreng and Songkhla areas are not under any kind of formal protection, they should be disregarded from the METT analysis – this tool is not intended for non-protected areas.*

*The METT Scorecards at project completion are given in **Annex 10** of this report.*

172. The results show that the final METT score for Thale Noi NHA did not increase over the MTR assessment, and only marginally overall from the baseline score. The final Bor Lor NHA METT score was on target according to the Tracking Tool, showing reasonable increments both pre- and post-MTR (but well short of the target according to the final report). Related to this, Indicator 4 shows increasing frequency of invasions (encroachment) and tree cutting for

both NHAs, which clearly shows that NHA management effectiveness is not sufficient – therefore it should not be considered satisfactory at this stage. The project final report also mentioned that a possible cause for not meeting the target was related to 2019 incidences of forest fires, impacting the management of Kuan Kreng Peat Swamp Forest.

173. The MTR also raised the question as to whether it was project activities that have led to METT score improvements. PIR 2019 commented that the PMU's approach was to demonstrate a community-based management practice through building the capacity of 10 schools, creating a community - local government officer's network of fire control, youth campaign, public relation in the project landscape – but these are not a good fit to address PA management effectiveness. PIR 2020 noted that a guideline on SMART patrolling and forest fire prevention in peat swamps was finalized and shared with Bor Lor and Thale Noi NHA offices, and they were involved in fire management training, although this was late in the process. TE feedback indicated that Thale Noi NHA was not satisfied with the level of support from the project in providing training, capacity development and in addressing external threats such as encroachment and drainage through an integrated approach in Phatthalung province.

**TE Assessment: Target partially achieved**

***Indicator 4. Incidence of violations of NHA regulations. Target: Bor Lor NHA: 0; Thale Noi: < 6***

174. The results reported in PIR 2020 were Bor Lor NHA: 8 invasions, 4 cutting trees (PIR 2019 status: 7 invasions, 2 cutting trees); and Thale Noi NHA: 33 invasions, 1 cutting trees, 1 wildlife hunting (PIR 2019 status: no information). The results show a trend of increasing violations for both sites, and especially for Thale Noi NHA. Such violations may reflect different issues, with the issue of boundary demarcation (and local acceptance) of the NHAs flagged in the final report: others may include lack of environmental awareness of surrounding communities, increasing economic pressures on surrounding community members, lack of engagement of NHAs with their neighbours, opportunistic behaviour in the face of weak enforcement practices, etc. However, the trend suggests that the project has not dealt effectively with such issues.

**TE Assessment: Target not achieved**

***Indicator 5. Incidence of fires. Target: Wildfires burning on average 408 ha per year KKL***

175. PIR 2019 indicated that the incidence of wildfires in the KKL had increased to date, burning on average 564 ha per year as of June 2018-19. PIR 2020: the burning area was documented at 2,394 ha as of June 2019-20. Large fires across KKL in August 2019 were reported in the national news[33]. The project final report notes possible causes being related to the severity of the dry season and high fuel load for fires.

176. While this indicator was on target at mid-term, the extent of wildfires post-MTR is a cause for concern. While unsatisfactory, the concerted efforts of the project need to be recognized in this regard including developing the network of 42 local forest fire management voluntary groups involved in fire monitoring, developing stronger community engagement, awareness campaigns have been run on forest fires, and engagement with forest fire control

[33] For example: https://www.bangkokpost.com/thailand/general/1727707/swamp-fire-bogs-down-firefighters

units to review lessons learned. It should also be noted that weather patterns have a strong influence on fire risk, with very dry periods elevating the risk significantly (eg during El Nino events). Ultimately, a combination of responses is required including awareness raising, fire fighting network development, introduction of no-burning policies and regulations for land clearing, and – critically – maintenance of high water tables in the peat swamps. The KKL Strategy and Task Force provide the mechanisms to implement such measures going forward.
**TE Assessment: Target not achieved**

***Indicator 6. Number of units trained for patrolling, managing water levels, fire protection, and enforcement of regulations. Target: 6 units in Thale Noi NHA, 2 in Bor Lor NHA, 3 in Kreng, Cha-uad and Baan Tul sub-districts.***

177. The project final report states that more than 11 units were trained for patrolling, managing water levels, fire protection, and enforcement of regulations. Units trained include:

- 6 units in Thale Noi NHA
- 2 units in Bor Lor NHA
- 1 Kreng TAO
- 1 Cha uad TAO
- 1 Ban Tul TAO
- 14 local schools

178. Reports in the PIRs do not correspond directly to 'units', but they do show that the project has conducted significant training activities throughout the implementation period, and this is a very positive feature of overall implementation. The MTR notes that while fire surveillance has been well addressed, little attention has been directed towards other capacity development needs (a capacity needs assessment was conducted identifying priority areas for focus, but was undocumented). The TE concurs with this finding: much good work has been done, but there are some gaps – notably on patrolling and enforcement for PA staff, which is apparently reflected in the status of Indicators 3, 4 and 5. Feedback from Thale Noi emphasized that the project support provided for capacity development was inadequate: what are needed most was sound technical knowledge and expertise though training and workshops for managing Thale Noi area as a Ramsar Site, as tools and knowledge are still lacking. ONEP should play the role of technical supporter and facilitator in providing training, coaching, and technical works on the ground (not only technical reports).
**TE Assessment: Target partially achieved**

***Indicator 7:*** *Area of peat swamp forests in KKL under participatory community forestry management plans or co-management. Target: 435 ha under improved peat swamp forest participatory management plans. Additional 1,500 ha established under co-management.*

179. This indicator was revised, with the explanation that RECOFTC will work with local communities and relevant government agencies to develop a community based conservation model in Baan Sai Kanoon to serve both conservation of 1500 ha of peat swamp and improve local livelihoods of those who manage the peat swamp. The 435 ha will build on existing forms of community forestry at the demonstration sites.

180. The project final report states: A total of 430 hectares (2,719 rai) of the Kuan Kreng Peat Swamp Forest in the three community forests: Ban Khuan Ngern Community Forest (562.5 rai), Princess Chulabhorn Garden Community Forest (1,500 rai) and Ban Sai Khanun Community Forest (625 rai), have been prepared to be managed as a community forest in accordance with the participatory management plans developed by each community. Three

community forestry groups are in the process to use these management plans and register under the new Community Forest Act of 2019.

181. As for Indicator 1, a wide range of interventions were undertaken to provide the basis for co-management. The community forest management plan areas are clear from the baseline information, and community forest management plans were developed for each of these areas. The specific area(s) for the additional 1,500 ha of peat swamp forests in KKL under co-management are not made clear in reporting – so these are assumed to be dispersed across the landscape, with the emphasis on the measures taken rather than specific areas targeted.

182. Overall, while the total area under co-management is hard to confirm, there is little doubt that good progress has been made on community engagement and building capacity for co-management arrangements for natural resource management. **It is important to note that the TE team was unable to visit the project area to view community forestry measures taken on the ground.**

**TE Assessment: Target achieved**

***Indicator 8: Ecosystem Health Index (EHI) monitoring system for monitoring peatland health is developed and in place for 2 NHAs in order to ensure good quality habitat for Yellow-headed Tortoise, Fishing Cat. Target: Applied at 2 NHAs.***

183. The EHI is an innovative approach to monitoring that has been piloted at a number of wetland sites under the UNDP/GEF-5 Mainstreams of Life Programme. **The EHI was applied at the two NHAs first in December 2019, and secondly in May 2020 (note this is only 6 months apart, therefore changes in ecological condition may be due to seasonal or other temporary factors).** The full results are given in **Annex 10** of this report. In brief, the EHI score for Thale Noi NHA increased from 0.76 to 0.78 while the Bor Noi NHA also increased from 0.71 to 0.75. The EHI indicators appear straightforward to apply, the form provides an ecosystem health status indication of the NHA similar to the METT scoring approach, and it includes recommendations for actions where an indicator is off track. Overall, this appears to be a practical tool to inform PA management at a relatively simple level. The relevance to Yellow-headed Tortoise and Fishing Cat is obscure however – overall peat swamp ecosystem condition would have been a more logical indicator target. However, it is not clear how the EHI will be integrated into the management systems for these 2 NHAs and potentially other PAs, or if this experiment will end with the project.

**TE Assessment: Target achieved**

### Progress towards Outcome 2. Rating – Moderately Unsatisfactory

***Indicator 9. Peat swamp area in KKL that is under effective water table management regime. Target: 4,600 ha.***

184. The Project final report states that 4,600 hectares (28,750 rai) of the Kuan Kreng peat swamp was maintained according to appropriate water management practices, which were developed according to the analysis of the MIKE SHE model by local authorities. PIR 2020 stated that the final draft of the integrated water management model with guidelines was completed and shared. This model will be integrated into the KKL Strategy and incorporated into the short, medium and long term plans for local authorities and KKL stakeholders. Additional reported information notes that as a short term plan to ensure stable water levels

in the peat swamp during the dry season, the pilot areas in Kuan Ngoen and Suan Somdej were recommended to install temporary weirs and small canals and to improve the floodgate system as well as drainage to the Na Nok reservoir, Karaket Sub-district. The temporary weirs in NHAs should be developed by the Department of National Parks, Wildlife and Plant Conservation (DNP); the Royal Forest Department should construct weirs in Reserved Forest areas; and the Royal Irrigation Department should properly manage water resources from upstream reservoirs to ensure that water levels are enough for fire prevention (20cm above soil).

185. These reports provided no quantitative data with which to assess whether the targeted area is indeed already under an effective water table management regime (i.e. being implemented), so it is not possible to rate completion of this indicator – although the water management regime has largely been developed. Feedback from stakeholders indicated that the water management modelling was too complex for the local context, that they had been insufficiently involved in the process, and that the tool may not be useful for practical water management purposes. There remains a need to mainstream the water management planning with relevant stakeholders to ensure they are all on board. Therefore, it can be concluded that the project has completed the water modelling, guidelines for the use of the model, and short term water management measures have been made, but this has not been fully put into practice as yet and it is not confirmed whether the main responsible agencies are fully supportive. The KKL Strategy and provincial committee provide the main framework for coordination of water management, while ONEP will provide national oversight. **It is important to note that the TE team was unable to visit the project area to confirm any changes in water management on the ground.**

**TE Assessment: Target not rated (but progress was made)**

***Indicator 10. Water levels at 4,600 ha of peat swamp forest (pilot sites where hydrotechnical measures are to be implemented). Target: Drainage will be stopped or significantly reduced and the water level will substantially increase for all project sites. At least for 25% of the area (1,150 ha) the water level will never drop more than 20 cm below surface.***

186. As a short term plan to ensure stable water levels in the peat swamp during the dry season, the pilot areas in Kuan Ngoen and Suan Somdej were recommended to install a temporary weir and small canals and to improve the floodgate system as well as drainage to the Na Nok reservoir, Karaket Sub-district. The relevant local agencies are still in the process of planning to pilot the water management strategy, before the detailed plans can be confirmed. The water management model has been shared with the RID. Real time hydro-meteorological data are continuously being recorded. These data include precipitation, wind velocity, temperature, solar radiation, and humidity relationships via the mobile application "Logger Link". This information will be used to validate the water management model.

187. There is a lack of quantitative data with which to assess achievement of the indicator target. In addition, the project reports indicate that the actual water management remains a

work in progress. So although useful progress has been made, this target has not been met. Completion and sharing of the water management model with the RID, along with real time hydro-meteorological data being continuously recorded are important steps for informed technical management of water levels. However, more information is needed about the actual steps taken on the ground and the results of those actions on water levels towards the specified target condition. Note that ONEP and other relevant government agencies will need to validate the methodologies used after the project period. **It is important to note that the TE team was unable to visit the project area to confirm any changes in water management on the ground.**

**TE Assessment: Target not rated (but progress was made)**

***Indicator 11. GHG emissions at 4,600 ha of peat swamp forest (pilot sites where hydrotechnical measures are to be implemented). Target: 1.959 Mt CO2-eq.***

188. Project final report: Due to Covid-19, data collection could not be completed as data collection team could not visit to the target area. Thus, there was not enough information to evaluate the results of this indicator.

189. The TE notes the lack of quantitative data with which to assess achievement of the indicator target. In the absence of such data, it appears likely that the target has not been met. The GEF CCM and SFM/REDD+ tracking tools end of project assessment in August 2020 give a value of 352,461 tCO2-eq. for Lifetime Direct GHG emissions avoided against a target of 705,000 tCO2-eq. at CEO Endorsement, which does not correspond to this – or any – RF indicator target. Given that changes in carbon emissions will be related to changes in hydrological conditions, this indicator in dependent upon Indicator 10 above. **It is important to note that the TE team was unable to visit the project area to confirm any changes in water management on the ground.**

190. The GHG emissions analysis results are unable to provide a specific estimate of compliance towards the indicator target. However, the estimated biomass, carbon sequestration and soil carbon content for undisturbed forest, disturbed forest and oil palm sites provide a useful basis for measurement of carbon emissions and sequestration post project. Note that ONEP and other relevant government agencies will need to validate the methodologies used after the project period.

**TE Assessment: Target not rated (but progress was made)**

***Indicator 12. Carbon sequestration through reforestation with native species (projected over 20 years). Target: 129,000 $tCO_2$-eq over a 20 year period.***

191. Lack of quantitative data on carbon sequestration for the targeted areas with which to assess achievement of the indicator target. While some 72 ha of land has been reforested, the carbon sequestration benefits have not been presented. With reference to the GEF CCM Tracking Tool completed in August 2020, a value of 9,520,000 tCO2-eq. is given against a target of 129,000 tCO2-eq. Clearly there is some error or lack of correspondence involved. UNDP commented in PIR 2020 that the carbon sequestration data from indicator 11 can used to estimate carbon sequestration benefits for the reforested areas over a 20 year period by

the Climate Change Office of the DNP, ONEP and TGO. Note that ONEP and other relevant government agencies will need to validate the methodologies used after the project period. **It is important to note that the TE team was unable to visit the project area to confirm the progress of reforestation efforts on the ground.**

**TE Assessment: Target not rated (but progress was made)**

### Progress towards Outcome 3. Rating – Moderately Satisfactory

***Indicator 13. Cross-sectoral WG for promoting a landscape approach to peatlands conservation and sustainable use. Target: WG formed by Year 1.***

192. Final Report: The Landscape Task Force, chaired by the Deputy Governor of Nakhon Si Thammarat, has been formed to work on an Integrated Landscape Management Strategy Plan in the Kuan Kreng area. Associated agencies from the government sector, NGOs, universities and community representatives formed members of the working group. In addition, three technical working groups were formed on Kuan Kreng Forest and Ecosystem Restoration; Forest Fire and Carbon Management; and Water Management in the Kuan Kreng peat swamp. The aim of these working groups is to facilitate a more efficient plan for the conservation and restoration of the Kuan Kreng Peat Swamp Forest.

193. While the target was only met in Year 3, the KKL Task Force has been established with a broad membership and clear leadership from NST provincial government and is functioning effectively. One constraint of this body is that it is largely focused on the NST portion of the landscape, therefore there is a need for outreach to engage relevant stakeholders in Songkhla and Phatthalung provinces. This was supported during the extension period by work led by TEI – but will need ongoing support. While the Task Force is functioning, this shortcoming is reflected in the "partially achieved" rating. Feedback from relevant stakeholders in these other provinces noted that the project would have been more useful if the project work had been extended to Thale Noi (in Phatthalung province), and a provincial level environmental plan developed based on sound knowledge and understanding on peat swamp ecosystem PSE which integrated all aspects to conserve Thale Noi. This is consistent with the original project design which aimed to establish a working group in both NST and Phatthalung chaired by the provincial environmental office to make use of project works for formulating a sound provincial environmental plan.

**TE Assessment: Target partially achieved**

***Indicator 14. Criteria and methodologies for assessment of peatlands' state, function and services that take into account full range of ecosystem services. Target: Criteria and methodology endorsed by Year 2 and include ecological criteria.***

194. The project developed and shared a set of criteria for Peat Swamps Status Assessment based on experiences from the KKL with ONEP which were applied for the national inventory of peat swamps. The criteria and methodology were endorsed including ecological criteria, although much later than Year 2.

**TE Assessment: Target achieved**

***Indicator 15. Inventory of all peatlands. Target: Current and comprehensive listing of peatlands status, functions, services (based on above criteria) by Year 3.***

195. The inventory is an important project result, identifying 27 key peat swamps across Thailand that should now receive increased national attention for conservation purposes. Delays in the completion of the inventory and related strategy (in late 2020) precluded further project support in communicating these significant outputs with key stakeholders and advocating for their uptake through national policy initiatives. However, these actions should be taken up by ONEP post-project.

**TE Assessment: Target achieved**

***Indicator 16. National Strategy for Peat Swamps. Target: New 20-year strategy that takes economic and ecological benefits into account in determining use of peatlands.***

196. The Executive Summary of Development of Peat Swamps Inventory towards a National Strategy for Peat Swamps Management in Thailand (in English) was released in January 2021.

197. The national Strategy for Peat Swamps is a key output of this project, providing the means for the conservation and sustainable use of peat swamp ecosystems across the country, scaling up the project impact strengthening the sustainability of its work at landscape level. During the extension period, an independent consultant provided expert review of the draft policy with a series of recommendations in their report (completed in February 2021, due to COVID-related delays). These recommendations have been incorporated in the TE recommendations for follow up by ONEP in order to finalize the strategy, obtain official approval (i.e. submit to the wetland sub-committee) and apply it in progressing the peat swamp ecosystem conservation agenda.

**TE Assessment: Target partially achieved**

### 4.3.2 Relevance (*)

198. The following considerations were taken into account in assessing the relevance of the project:

***Alignment with national priorities:***

199. The project responded to a clear conservation need: to address the inexorable loss and degradation of peat swamp ecosystems in Thailand, with associated loss of globally significant biodiversity and ecosystem services including carbon sequestration. In the baseline situation, continued drainage, encroachment and fires will continue to destroy and degrade peatlands, with massive release of GHGs due to peat oxidation and burning of the peat soils. The project design responded appropriately to the identified threats and barriers at different levels through its proposed alternative strategy towards three main Outcomes.

200. The project's objectives were highly consistent with the priorities of the Implementing Partner, ONEP. In particular, the project speaks to the Strategic Plan on Climate Change (SPCC

2008-2012); the Master Plan for Integrated Biodiversity Management B.E. 2558-2564 (2015-2021), specifically addressing National Biodiversity Targets 1 – 9 and 15; the National Forest Resources Protection Master Plan, and the Action Plan for Wetland Conservation (2009-2014).

***Alignment with GEF and UNDP strategic priorities:***

201. The project design was well aligned with the selected GEF-5 Focal Area Strategies BD-1, CCM-SO5 and SFM/REDD+ Outcome 1.2 and 2.1. (see section **3.4** above for details).

202. In addition, it directly contributed towards CBD Aichi Targets 5 (through reduced loss and degradation of peat swamp ecosystem habitats) and 15 (through sustaining peat swamp ecosystem contributions to climate change mitigation), and UN Sustainable Development Goals (SDGs) 8 Decent work and economic growth and 12 Responsible Consumption and Production (through sustainable livelihood practices), 13 (Climate action – through reducing LULUCF-related GHG emissions, securing peat swamp forest carbon sequestration and ecosystem-based adaptation), and 15 (Life on land – through strengthening conservation of both terrestrial and freshwater peat swamp biodiversity).

203. The project is aligned with the UNPAF Framework (2012-2016) for Thailand's Outcome on Effective Responses to Climate Change; the UNDP Strategic Plan on Inclusive Growth and Sustainable Development; and UNDP Thailand's Country Program (2012-2016), as described in sections 3.4 and 4.1.1 above.

***Stakeholder engagement:***

204. Stakeholder engagement during project implementation was strong in the targeted landscape, with extensive consultation with provincial and local government agencies and community participation and capacity development in a range of subjects including community forestry, sustainable livelihoods and environmental education. Provincial and local governance structures were strengthened for co-management purposes, and livelihood interventions were relevant to local needs.

***Relevance to and complementarity with other initiatives:***

205. The extent to which lessons learned from other relevant projects were considered in the project's design is described in section 4.1.3 above, while linkages with other related initiatives is described in section 4.1.5. Overall, these took into consideration the main relevant initiatives and provided scope for collaboration and alignment during implementation.

### 4.3.2 Effectiveness (*)

206. The table of project achievements against results framework indicator targets in **Annex 12** and the conclusions in section 4.3.1 on progress towards objectives provide significant information on the extent of progress against planned targets (although some

indicators were poorly defined / not SMART and progress was therefore difficult to measure). Therefore the results are summarized in **Table 8**. This reveals that the Objective-level indicator was partially achieved; for Outcome 1, 2 indicators were achieved, 3 partially and 2 not achieved; for Outcome 2, all 4 indicators were not rated due to monitoring failures; for Outcome 3, 3 were achieved and one partially achieved. In total, five indicators (31.25%) were considered fully achieved, five (31.25%) partially achieved, two not achieved (12.5%) and four not rated (25%). Thus overall, at least 62.5% of indicators showed full or partial progress towards the planned targets. This figure would have been higher if monitoring for the Outcome 2 indicators had been correctly performed and documented, as the related Outputs were partially or fully completed (**Annex 11**).

207. Overall, progress towards Outcome 1 is underpinned by completion of the KKL Strategy covering 74,363 ha (48% of the targeted area), supported by a significant area now covered by CF management plans and/or co-management arrangements, and improved capacity especially for fire and water management. However, engagement with Phatthalung and Songkhla stakeholders was inadequate during implementation, and in particular inadequate engagement of Thale Noi NHA – a core part of the KKL peat swamp. The threat indicators for PA violations and wildfire areas both showed increasing trends of impact in the latter years of the project, indicating that further progress on developing PA management capacity and encroachment / fire management is required. With strengthened governance and capacity, and ongoing additional support, it should be feasible to address these threats in future. **Progress towards Outcome 1 is rated Moderately Unsatisfactory.**

208. Outcome 2 was technically challenging, and in view of the delays experienced early in the project, this work ran out of time to achieve the full completion of water and carbon monitoring tools, their calibration over 24 months, their socialization amongst key user groups, and approval and adoption by relevant agencies. The lack of relevant measurable data for the RF indicators is symptomatic of this situation, as well as being an M&E oversight issue. Of greatest concern is that the key agencies in the landscape should be able to use these tools effectively, which had not been conclusively demonstrated by project close. Feedback during the TE indicated that further work is needed to achieve that. It should be noted that the TE team were unable to visit the field sites to verify changes on the ground – this was a significant constraint for confirmation of the final status of the relevant Results Framework indicators for Component 2, which were considered as "Not Rated" (see **Annex 12**). **Progress towards Outcome 2 is rated Moderately Unsatisfactory.**

209. Outcome 3 was successful in developing a landscape level task force, which has been working relatively effectively and may be sustainable. The peat swamp inventory took too long to complete (partially due to COVID-19 related delays), also delaying completion of the critical draft National Strategy on Peat Swamps. Both of these deliverables now need to be proactively reviewed by appropriate national level bodies, approved for use, and promoted among related stakeholders and initiatives. **Progress towards Outcome 3 is rated Moderately Satisfactory.**

210. In view of progress towards the Objective indicator as well as the contributing Outcomes, the **overall progress towards the project Objective is rated Moderately Unsatisfactory.**

211. In addition to the above programmed work under the three project components, an exit strategy was pursued during the project extension period (July 2020 – January 2021) that focused on three main activities (see **Annex 15** for details). In summary, the exit strategy activities in the 2020 approved AWP included: i) studying, assessing and developing incentive measures for enhancing the carbon sink in KKL, ii) promoting youth action (university level) for climate empowerment initiative in Nakhon Si Thammarat, Songkhla, and Phatthalung Province, and iii) studying and assessing options for financial mechanisms suitable for KKL and promoting the impact investment in KKL through the private sector. These activities were implemented and completed as planned, providing useful support towards the social and financial sustainability of the project's outcomes.

212. The project's contributions towards gender equality and women's empowerment are evaluated in section 4.3.8 and towards cross-cutting issues in **4.3.9** below.

213. Overall, while the project has made a valuable contribution towards the sustainable management of Thailand's peat swamps, proactive follow up is required, especially by ONEP, to consolidate the protection of the KKL peat swamp, and to achieve real impacts through the dissemination and application of these results at both national and subnational levels.

*Table 8. Summary of results framework target status at terminal evaluation*

*(see **Annex 12** for details)*

| Target Status | Target Achieved | | Target Partially Achieved | | Target Not Achieved | | Not Rated* | | Total |
|---|---|---|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % | No. | % | No. |
| **Objective** | | | 1 | 100 | | | | | 1 |
| **Outcome 1** | 2 | 28.6 | 3 | 42.8 | 2 | 28.6 | | | 7 |
| **Outcome 2** | | | | | | | 4 | 100 | 4 |
| **Outcome 3** | 3 | 75% | 1 | 25% | | | | | 4 |
| **Total** | **5** | **31.25** | **5** | **31.25** | **2** | **12.50** | **4** | **25.0** | **16** |

**Due to lack of data consistent with the indicator*

### 4.3.4 Efficiency (*)

214. Efficiency is a measure of how economically resources and inputs (funds, expertise, time, etc.) are converted to results. It is most commonly applied to the input-output link in the causal chain of an intervention. The TE team has considered the following subject areas:

**Resource allocation and cost effectiveness:**

*o Extent to which there was efficient and economical use of financial and human resources and strategic allocation of resources (funds, human resources, time, expertise, etc.) to achieve outcomes*

215. Due to a combination of factors described below under project management, the overall management of the project cannot be described as efficient due to significant delays in implementation and difficulties in disbursing GEF funds in a timely manner. No issues were

raised in project reports regarding the economical use of financial and human resources (i.e. such as unauthorized expenditures, overblown costs for specific items), however it should be noted that no full audit was conducted for the overall project operations. UNDP procurement procedures were followed throughout the project, ensuring that project consultants, subcontractors and equipment were purchased in a cost-effective and transparent manner.

216. The support by RECOFTC for community level capacity development and livelihoods was generally cost-effective and achieved a range of local impacts.

*o Provision of adequate resources for integrating gender equality and human rights in the project as an investment in short-term, medium-term and long-term benefits*

217. There was no gender action plan or budget included in the project document and no specific allocation of project resources for integrating gender equality and human rights in the project (beyond the overall M&E budget, which was inadequate). However, gender mainstreaming was well integrated into the approach of the RP, therefore while not specifically planned and budgeted for, this was included during the course of relevant activities and reported on in the PIRs. Similarly, there were no specific resources allocated to integrating human rights into the project approach, and the original SESP was noted to be inadequate by the MTR. There was also no overt prioritization of marginalized stakeholders in the project document, M&E framework and workplans, although some would have benefited from project support to the targeted communities in the KKL. It should be noted that UNDP and GEF expectations on gender equality, human rights and safeguards have advanced since the GEF-5 cycle.

**Project management and timeliness:**

*o Extent to which the project management structure as outlined in the project document was efficient in generating the expected results*

218. The project management structure described in the project document was changed at an early stage of the project, when the Implementing Partner passed over the PMU function and much of the technical implementation to RECOFTC as a subcontracted Responsible Party. This change took significant time to put in place, stalling implementation progress while the RP underwent selection and contracting. When combined with the initial loss of some 18 months awaiting Cabinet approval for project implementation to begin, the time lost in productive implementation work was huge, and the project never really regained the lost ground – although RECOFTC worked relatively efficiently once fully on board by mid-2018. The lesson learned is that the IP should fully understand and confirm its exact role in the project document before CEO Endorsement, thus avoiding such impacts during implementation.

219. PIR 2019 commented that the PMU was based in Bangkok, while the key influencers for the project achievements were based in Nakhon Si Thammarat. It would have been more efficient and cost-effective if relevant project personnel from the project team (PMU and others) were based in Nakhon Sri Thammarat (in terms of cost savings, stakeholder connectivity, planning, and organizing outputs). It was also noted that the travel costs of project personnel could have been reduced by focusing on the key processes towards the target indicators of each outcome, rather than taking a piecemeal approach to meetings etc.

220. Due to the fact that the project's implementation had been carried out through two main sub-contracts (RECOFTC for all outputs except 3.3 and 3.4, which were handled by PSU) and RECOFTC themselves also sub-contracted various experts to perform piecemeal activities, the work carried out under RECOFTC portfolio and between RECOFTC and PSU were not well linked. Moreover, with the shorter implementation timeframe available to RECOFTC, activities were conducted in a rush and some did not manage to achieve concrete results according to the RF indicators within the time available (e.g. reforestation, carbon sequestration).

*o Extent to which project funds and activities were delivered in a timely manner*

221. Both project activities and disbursement of GEF funds were subject to lengthy delays throughout much of the implementation period, as reported in the PIRs for successive years (see **section 4.2.3** above). Delays in implementation were reflected by very low annual rates of disbursement were reflected in the PIRs (see **Table 5** and **Figure 4**). In particular, **PIR 2018** noted that delivery was incredibly low, with only 4% of GEF grant disbursed and 3% of the work plan accomplished by 30 June 2018. **PIR 2019** noted that annual workplan (AWP) implementation had been impacted by delays with finalizing contracts and deliverables with responsible parties. Therefore, delivery for 2018 was at a low 38%, further compounding the delivery lag resulting from the disrupted inception. General ledger expenditures were $369,000 compared to approved annual budget of $1,038,702. For 2019, an ambitious delivery target of $1.7 million was set, of which only 28% had been delivered by mid-year. At this stage, **the MTR report** recommended that ONEP consider requesting a 12-month extension, in view of the fact that based on current delivery rates, the project would struggle to disburse the remaining 70% of funds by operational close in June 2020. Across 2019, the project disbursed around 70% of the very ambitious delivery target of $1.7 million – a commendable achievement based on prior year expenditures. By June 2020, around $500,000 had been disbursed, representing only one third of the 2020 AWP, leaving around $1 million to be delivered prior to the deferred operational close in January 2021, all of which was committed based on a detailed work plan for the six month extension period (see **Annex 15**).

222. Inefficiencies in annual workplan and contract management are illustrated in PIR 2019, which noted that the annual workplan was not well balanced in terms of focused budgeting for priority activities, with a likelihood of incomplete delivery. Contract management inefficiency included the disbursement rate from two service providers being behind schedule related to delays in contracted work. For the UNDP managed contract, there were delays from the ONEP side in reviewing the progress report of outputs 3.3 & 3.4 managed by PSU due to the time required for technical advisory meetings. Major delays occurred in financial administration between the PMU and its service providers (Kasetsart University) for Outcome 2 due to challenges in collaboration with new service providers, resulting in redundancy of activities implemented by the PMU and the service providers such as communication materials, website, media trip, etc.

223. Due to the above factors, the overall management of the project cannot be described as efficient, mainly due to the significant delays in implementation during the first half of the project, and subsequent continued delays in disbursing GEF funds in a timely manner,

although by the end of the extension period in January 2021 UNDP CO expected that some 95% of GEF funds would have been utilized. Overall, much of the implementation did not go smoothly, as reflected in the successive PIR ratings (2018-U, 2019-MU, 2020 -MU), therefore the TE has to reflect this accordingly – it was below a satisfactory level overall, although in the end the project has been completed and it did achieve some significant results.

*o Extent to which a project extension could have been avoided*

224. A 12 month project extension was initially recommended by the MTR, to allow time for key deliverables in Outcome 2 to be achieved, in view of time lost due to delays and the technically challenging nature of these Outputs (e.g. the GHG monitoring requires a 2 year calibration period after establishment of a water level monitoring programme). The decision was passed to the PB in September 2019, which agreed with the MTR and proposed an 18 month extension (subject to justification and budget planning). Due to the Covid-19 outbreak and Thailand's use of the Emergency Decree on Public Administration in Emergency Situations (enforced from 3 April 2020, with restricted inter-provincial travel since 3 May 2020), project activities were affected from March to July and delays were experienced in completing certain activities by the project's end date of July 2020, in particular the project exit strategy for sustainability of impact by UNDP, and finalization of the new 20-year strategy for Peat Swamp Management by Prince Songkhla University[34]. UNDP therefore requested approval from the PB to extend the project for 6 months, starting from August 2020 until January 2021, to enable the project to continue working on targeted activities to ensure the achievement of its project objective and respective outcomes as well as the sustainability of impact (see Section 4.2.1 for further details). In the TE's view the extension period was fully justified, and in fact if the full 12 months recommended by the MTR had been included, the final status and sustainability of the project's main outcomes would have been enhanced. The only way that the need for an extension could have been avoided was if the project had started full implementation on time a few months after CEO Endorsement was given on 24 December 2014.

*o Extent to which M&E systems ensured effective and efficient project management*

225. While the M&E system for this project followed standard UNDP/GEF requirements, there were significant weaknesses in its application that UNDP was not sufficiently responsive in addressing. These included: significant weaknesses in the results framework structure, indicators and targets (see 4.1.1 above); failure to address these weaknesses more comprehensively through adaptive management during implementation; CCM and SFM/REDD+ GEF Tracking Tools completed but with questionable accuracy and obscure relevance to RF indicators; follow up to PIR recommendations was not systematic or comprehensive. This said, the M&E systems did function as intended to a large degree and performance improved after the MTR, with more results-oriented progress reporting and closer UNDP oversight.

### 4.3.5 Overall Outcome (*)

226. The calculation of the overall project outcome rating has been based on the ratings for relevance, effectiveness and efficiency, of which relevance and effectiveness are critical.

[34] Summary report on the PB meeting of 8 June 2020

Overall project outcome is assessed using a six-point scale, described in **Annex 6**. The following constraints have been taken into account:

• The rating on relevance will determine whether the overall outcome rating will be in the unsatisfactory range (MU to HU = unsatisfactory range). If the relevance rating is in the unsatisfactory range then the overall outcome will be in the unsatisfactory range as well. However, where the relevance rating is in the satisfactory range (HS to MS), the overall outcome rating could, depending on its effectiveness and efficiency rating, be either in the satisfactory range or in the unsatisfactory range.
• The overall outcome achievement rating cannot be higher than the effectiveness rating.
• The overall outcome rating cannot be higher than the average score of effectiveness and efficiency criteria.
In instances where the scope of the project objectives and outcomes has been scaled down, the magnitude of and necessity for downscaling is taken into account and despite achievement of results as per the revised results framework, where appropriate, a lower outcome effectiveness rating may be given.

| Assessment of Outcomes | Rating |
|---|---|
| **Relevance** | **S** |
| **Effectiveness** | **MU** |
| **Efficiency** | **MU** |
| **Overall Project Outcome Rating** | **MU** |

### 4.3.6 Sustainability: financial (*), socio-economic (*), institutional framework and governance (*), environmental (*), and overall likelihood (*)

**Financial sustainability:**

227. At the national level, the inventory of peat swamps and draft national strategy on peat swamps are well aligned with ONEP's mandate, and assuming ONEP accepts and supports the final outputs delivered by PSU, ONEP has the budgetary resources to follow up on the necessary government review and approval processes through its normal programmes.

228. The KKL Strategy and KKL Task Force in NST are supported by the provincial governor's office and have a reasonable likelihood of being mainstreamed into provincial government planning and budgeting processes due to alignment with provincial environmental policy. As such, the outlook for budgetary support for implementation of the KKL Strategy is quite positive. Potentially, this could be supported through linkage with the BIOFIN Phase 2 project's *Government Budget Finance Solution: Enhancing effectiveness and biodiversity impact of local budgets in Thailand* (see Recommendations, section **5.2**).

229. The carbon monitoring methodology and hydrological modelling methodology both require follow up by ONEP to confirm their suitability for mainstreaming into government practices and adoption in KKL and other peat swamp areas. This should be feasible through ONEP's budget, and if officially adopted, that of the RID for water resource management.

230. The project's exit strategy during the extension period included a consultancy to review impact investment options for the private sector, to support KKL peat swamp management (see **Annex 15**). The results of this consultancy have been completed and need to be shared with relevant stakeholders as well as publicized amongst the business community in order to promote their uptake. This could be supported through linkage with the BIOFIN Phase 2 project's *Private Sector Finance Solution: Mobilizing the private sector and impact investment in support of biodiversity* (see Recommendations, section **5.2**).

231. In the short to medium-term, there remains a need to follow up on a number of aspects of the project strategy that require further inputs to achieve sustainable outcomes. Most importantly, these include: engagement of KKL stakeholders in Songkhla and Phatthalung provinces, further support towards ensuring the sustainability of livelihood practices in targeted communities (eg sustainable krajood production), engagement of stakeholders involved in livelihoods that have not been adequately targeted during the project (rice farming, buffalo grazing, fishing, etc), and mainstreaming project tools and methods into government agency working practices. UNDP engaged TEI to implement much of this work during the extension period to continue the work of RECOFTC on livelihoods (eg sustainable utilization of Krajood). TEI has secured further funding from Japanese government (through UNDP) to continue the livelihood work and momentum of local engagement. However, this will require a greater level of support and financing to continue the momentum of the project's objectives for the sustainable management of the peat swamps in KKL.

232. Further possibilities for external support include the UNDP/ONEP GCF project that includes NST and Songkhla, providing the opportunity to follow up on climate change adaptation measures in the KKL. Secondly, Thailand was selected as a target country by UNDP global to implement an *Innovation Accelerator Policy Lab*, which is also a Thai government initiative with the National Socio-economic Development Council as a donor. The aim is to test public policy innovations (not technologies). As such, the peat swamp ecosystem management issue could be one such public policy to test – linking climate change mitigation and biodiversity conservation, which remains a policy gap at present. This would be a good opportunity to show how the two thematic areas are mutually interdependent. A sustainable tourism test case is currently in progress. Thirdly, UNDP's Rapid Financing Facility offers another potential avenue for financial support, in response to COVID-19 impacts on the local economy and community livelihoods in KKL.

233. Overall, the financial sustainability of the project outcomes are moderately likely, given the government engagement and mainstreaming, efforts to generate private sector interest in investment during the extension period, and the opportunities that exist through the above-mentioned initiatives.

**Socio-political sustainability:**

234. Thailand has made remarkable progress in social and economic development, moving from a low-income to an upper-income country in less than a generation, with sustained strong growth and impressive poverty reduction. In environmental terms, the current government leadership is very rigorous on SDG contributions, including on biodiversity. Thailand is actively implementing the CBD, Ramsar Convention and UNFCCC amongst others.

As such, the project was strongly aligned with ONEP's policy mandate for biodiversity conservation and climate change mitigation, and as such its outcomes are unlikely to face major risks at this level. The uptake and long-term effectiveness of its outputs the inventory of peat swamps and draft national strategy on peat swamps will depend to a large degree on proactive follow up by ONEP to achieve their approval, adoption and application by relevant bodies (see recommendations, section **5.2**).

235. Coordination was close between ONEP and RECOFTC, and ONEP chaired PB meetings, but there were coordination challenges among implementing partners and linkage with other key national agencies (eg Water Resources Dept in MONRE, RID) appears to have been weak – affecting its impact.

236. Stakeholder ownership at provincial level was relatively strong in NST province, where the provincial governor's office led the KKL Task Force and KKL Strategy development. However, this was not the case for the parts of KKL in Songkhla and Phatthalung provinces, and in particular Thale Noi NHA was notably unengaged in project activities – a major weakness for such a key part of the KKL. As part of the project's exit strategy (see **Annex 15**), Songkhla and Phatthalung were included in project extension period work by TEI, who prepared incentive measures to maximize carbon sink capacity towards 3-provincial governance of the KKL (but still focused on NST). Feedback from key provincial level stakeholders noted that more needed to be done to mainstream the project into their operations, so this work needs to be continued post-project. In addition, to empower the young generation, youth actions for the climate empowerment initiative (KKL chapter) were conducted, targeting university students in Nakhon Si Thammarat, Songkhla and Phatthalung provinces. The target groups were equipped with an e-learning course on peat swamp valuation and storytelling through a media challenge. This activity was implemented by UNDP Youth Officers with support from Wisdom Vast Co.

237. At the community level, there has been significant engagement and support for co-management, community forestry and livelihood work in targeted communities. Some stakeholders complained that the livelihood aspect needs further work to enhance the balance between utilization and conservation, avoiding environmental degradation. "Knowledge management towards sustainable community-based tourism" was identified and recommended for application as a prototype mechanism for sustainable co-management and to support other mechanisms in KKL.

238. Gender has been quite effectively mainstreamed in community-co-management and livelihood activities by RECOFTC, with women engaged in krajood harvesting and product development, for example However, the project impacts were not transformative in terms of mainstreaming women's rights and gender equality. RECOFTC's activities promoted social inclusion, engaging a female krajood group, youth group for field exploration and training, school teachers for curriculum, and also created platforms for wider network among government, locals, and CSOs.

**Institutional framework and governance sustainability**

239. At the national level, the inventory of peat swamps and draft national strategy on peat swamps are important outputs of the project. Both will need significant follow up by ONEP in order to secure their official approval, acceptance by related agencies, and application through follow up conservation measures (see recommendations, section 5.2). The Water Resources Department within MONRE has started to commission works on peat swamp survey, feasibility study, concept design plan, etc. include KKL peat swamp – which is symptomatic of silo-based work operated by different government units, even within the same ministry. More effective outreach by ONEP should have strengthened synergies with related departments.

240. The KKL Task Force has been established by the NST Governor with three sub-task groups on peat swamp reforestation and carbon, water management, forest fire management and land use management were proposed in July 2019. The Task Force has coordinated participatory development of the KKL Strategy (consisting of 6 sub-strategies on specific themes), which was approved by the Task Force on 1 July 2020. This provides a sound foundation for the future management of the 74,363 ha of KKL that lies within NST province.

241. Management of KKL's peat swamps is also supported by Kreng Sub-district Land Use Map, which has provided zoning of land uses based on criteria agreed with relevant agencies. This is being applied by Thale Noi NHA to its management plan under the new Wild Animal Reservation and Protection Act. Community Forest management plans were completed for three areas and accepted by the TAOs, and are now being used to legally register these forests under the Community Forestry Act (2019). The project has also invested in developing co-management mechanisms that are being applied through ongoing work by TEI.

242. Local knowledge sharing has also been institutionalized through the establishment of three community-based peat swamp conservation learning centers (in Ban Tul, Kreng, and Cha Uad sub-districts) as information hubs for peat swamp conservation, forest fire management, local wisdom, co-management practices, livelihood development, and education for visitors. Also, the NST Education Office is integrating the project-supported peat swamp local school curriculum into their annual work plans for 2020-2021 and promoting this to primary and secondary schools around the KKL.

243. Public awareness was raised on carbon sinks at the local level through intensive communications work, also for national authorities, who now have a very high awareness of carbon sequestration benefits. Communications methods included video clips, use of local celebrities, young generation involvement during the extension period. Gaps include the private sector, more engagement of policymakers.

244. Overall, the capacity development under the project had greatest impact at the local level, through the work on co-management, community education and livelihoods. The capacity of government line agency staff involved in the KKL Task Force has been strengthened, but this will require follow up especially on water management to ensure continued engagement and ability to make use of sophisticated project tools. At the provincial level, there is an urgent need to disseminate the completed documents to all relevant agencies - they have not yet received them. The technical capacity of PA staff needs further

support to deal with encroachment issues and other external threats (eg drainage of wetlands).

245. A series of communication products such as videos, media trips leading to networking with media and media articles, online marketing of peat swamp products, and an online project knowledge management database to be hosted by ONEP have been developed.

**Environmental sustainability:**

246. The Project has resulted in the improvement of peat swamp management in the 74,363 ha under the KKL Strategy (48% of the target area, with downstream benefits to other parts). However, this remains a work in progress at project closure despite intensive efforts and significant advances in certain areas (see **Annexes 11 & 12**). Specifically, follow up work is required to fully emplace the water management modelling, planning and implementation (eg check dams on channels) within the responsible government agencies to ensure that water levels are maintained above the minimum needed to avoid ecological degradation, GHG emission and fire risk. Adaptive management is needed to update water management models in relation to climate change. Continued support for engagement of communities on sustainable peat swamp livelihood practices (eg krajood harvesting) and threat reduction (fires, encroachment, etc) within the context of the KKL Strategy is also needed.

247. While some livelihood issues were partially addressed by the project e.g. krajood and honey collection, others such as rice farming, water buffalo raising, fishing, palm oil plantation, etc. rely on water, so competition for water is strong and may conflict with conservation needs. However, these related activities were not brought into consultations. Moreover, for krajood, the focus was on strengthening value added, rather than sustainable harvesting practices and restoration of sedge swamp areas.

248. Secondly, the need for outreach to stakeholders across the remaining area was pursued during the extension period through the exit strategy - aiming to apply incentive measures for maximizing carbon sink capacity in KKL beyond the KKL Strategy area, youth empowerment, and developing a finance mechanism for social impact investment. While these were all positive actions, the short time available (six months), ongoing COVID restrictions, and scale of intervention needed across the remaining area mean that these measures are insufficient to put in place a secure management regime for peat swamps and to secure downstream benefits. This will need to be achieved through follow up investments.

249. Ongoing threats to the project's environmental sustainability include: climate change impacts (especially floods and droughts); forest fires linked to land clearing for agricultural development; peripheral drainage of the peat swamp due to agricultural drainage needs; illegal tree cutting PA encroachment; and infrastructure development (eg roads and canals) that fragments peat swamp habitats.

250. While a ML rating has been given for three categories, the environmental sustainability of KKL peat swamps faces significant challenges due to the continued prevalence

of threats impacting the area – these have not yet been effectively addressed, and climate change is likely to exacerbate periodic drought and high fire risk conditions.

**Sustainability ratings table:**

| Sustainability | Rating |
|---|---|
| **Financial resources** | **ML** |
| **Socio-political** | **ML** |
| **Institutional framework and governance** | **ML** |
| **Environmental** | **MU** |
| **Overall Likelihood of Sustainability**[35] | **MU** |

### 4.3.7 Country ownership

251. The project strategy was well aligned with the relevant national biodiversity, climate change mitigation and forest management policy and planning framework, including the *Strategic Plan on Climate Change (SPCC 2008-2012); Master Plan for Integrated Biodiversity Management B.E. 2558-2564 (2015-2021),* addressing National Biodiversity Targets 1 – 9 and 15; *National Forest Resources Protection Master Plan,* and *Action Plan for Wetland Conservation (2009-2014).* Also at provincial level, the KKL Task Force and Strategy were well aligned with the *Provincial Strategy on Sustainable Natural Resources and Environmental Management.*

252. The ownership and engagement of ONEP as implementing partner was evident from the professional level staff support provided for the project, and the Director of the ONEP Biodiversity Management Division and the Director of Wetland sub-division provided an oversight role on the IP side. Both directors were heavily involved during the 6-month extension to ensure that the project met its objectives, and encouraged ONEP's Climate Change Division to participate in the Project Board meeting during the last 6 months to provide comment on the carbon market regarding the feasibility on sustainable financing for peat swamp management. Both directors also engaged the National Technical Wetland Working Group, which reviewed and provided comment on the peat swamp inventory study and development of national strategy on peat swamps prepared by PSU. The final report has been cleared by the Deputy Secretary General of ONEP (Project Director) as a member of the secretariat of the working group.

253. As described in section 4.2.4, the Project Board was chaired by the ONEP Deputy Secretary General and included representatives of relevant government agencies and other partners – with 37 members in total. Meetings were generally on schedule and well attended, showing good interest from the host government. Similarly, the provincial level KKL Task Force led by the office of the Governor of NST province was quite effective and showed good buy-in from the province, with representatives included from Phatthalung and Songkhla provinces. Only the Technical Advisory Group did not function.

[35] All the risk dimensions of sustainability are critical. Therefore, the overall rating for sustainability cannot be higher than the lowest rated dimension. For example, if a project has an 'Unlikely' rating in any dimension, its overall rating for sustainability cannot be higher than 'Unlikely'.

254. Overall, the recipient government maintained its financial commitments to the project, evident through the cofinancing analysis in section **4.2.3** above.

### 4.3.8 Gender equality and women's empowerment

255. **At project design stage**, no gender analysis was conducted or gender action plan prepared (as the latter was not a requirement at the time) and there is no gender strategy or UNDP Gender Marker in the Project Document. The SESP **(**Project Document Annex 11) did not identify any gender-related risks or opportunities, and the results framework does not include any gender disaggregated or gender responsive indicators. The project document does provide limited background on the roles of women as the most frequent users of peat swamp products, especially the harvesting and processing of krajood (*Lepironia articulata*). It notes that each of the 11 villages in Kreng sub-district has a women's group for krajood processing and some have more than one group. In total, there are at least 20 groups in this sub-district, each with 30-50 members, that have been set up and supported by various government agencies and NGOs.

256. **Reporting on gender equality and women's empowerment** during implementation was initially inadequate (before the MTR), and the UNDP Quarterly Progress Report (QPR) template does not specify gender as a reporting requirement - this should be corrected. The PIR section on Gender was adequately completed for PIR 2019 and PIR 2020, while there was little to report for 2018. **The MTR** recommended a more systematic approach to gender mainstreaming during the remainder of the project, to be informed by a gender analysis to identify key activities. Also a revised SESP assessment was recommended, also with attention to gender issues. While these recommendations were agreed by the PB, they were not acted on as such (no clear reasons for this lack of action were provided to the TE) – although RECOFTC did continue its emphasis on gender equality and mainstreaming during implementation - at least one third of inputs and contributions at local level engagement were expected to come from female participation. Women representatives from local communities, enterprise groups, government agencies, and research teams played active roles in supporting the project and participating in project activities.

257. In terms of the **results areas where the project contributed to gender equality**:

a) *Contributing to closing gender gaps in access to and control over resources:* This did not appear to have been a focus for this project, in that there was no gender analysis that identified specific gaps to address, and no clear strategy that aimed to achieve specific changes. Incidental improvements to this subject area may have occurred through the project's contributions to the following categories.

b) *Improving the participation and decision-making of women in natural resource governance*: The project had a positive influence on this subject, specifically through the community forestry (CF) committees that recognized the role of women in the design and implementation of CF management plans. Gender-sensitive CF management plans should lead towards improved local livelihoods and also define gender roles and responsibilities. It was reported that female participants showed interest and ideas during workshops and dialogues as well to take on roles as local leaders/village headmen and members of CF committees. Such participation in these leadership positions demonstrates that women's roles are recognized and accepted within the local community. Other examples are the leading roles played by women members in handicraft enterprise development – at least four enterprise groups supported by the project are led by women, and two women

became management committee members of community based learning centers. PIR 2020 provided a gender disaggregated breakdown of participation in 12 project activities, in which women participated in all and outnumbered men in three.

c) *Targeting socio-economic benefits and services for women*: The project made significant contributions through the project's support towards sustainable livelihoods involving women, especially the harvesting and processing of krajood. However, it is difficult to quantify these benefits from project reports, either in terms of the number of women beneficiaries, or in the socio-economic gains achieved. This is a reflection of the absence of project indicators on these subjects, which was an oversight at design stage, and could also have been rectified during implementation.

258. **The PIRs for 2019 and 2020 set the Atlas Gender Marker Rating at *GEN1*** - *some contribution to gender equality*. This rating appears fair, as there were indeed some positive contributions as mentioned above – although the project design did very little to promote a more systematic and strategic approach towards gender empowerment and the empowerment of women.

259. Overall, the gender results achieved by the project are expected to help secure the project's **environmental and resilience outcomes**, in the project identified alternative livelihood activities such as ecotourism and non-timber forest production, in which women's roles are clearly specified and recognized within society. The project worked closely with the women groups and trained them on the necessary skills to perform these roles. Also the participation of women in CF Committees and in developing management plans for the 3 CFs supported by the project has contributed to environmental outcomes. For example, women helped identify appropriate zones for sustainable krajood harvesting as well as other peat swamp livelihood products. Women also played a major role in environmental awareness raising, with female teachers from 10 local schools involved in developing a local peat swamp integrated curriculum development and in promoting the curriculum to other schools in the KKL; women were strongly involved in the planning and operation of community based learning centres; as forest teachers to educate young people in peat swamp conservation; and the project worked with local media through communication development on women's participation for the "Unseen In Kuan Kreng" documentary film.

260. The co-management and sustainable use of the KKL peat swamp can be viewed as **climate adaptive** (ecosystem based adaptation) in that in a healthy condition, the peat swamp will contribute to carbon sequestration, absorb floodwaters like a sponge during monsoon rains, and release freshwater during dry seasons. It will also support NTFP and fisheries production. This will benefit the local communities in general, and sustainable use of its resources through community forestry, ecotourism, sustainable handicraft production, etc, - all of which involve women as key participants - are more resilient than its conversion for alternative land uses.

### 4.3.9 Cross-cutting Issues

**Social and environmental safeguards / rights-based approach**

261. The SESP in the project document was noted to be weak in certain areas by the MTR and subsequent PIRs. The main human rights issues flagged in the SESP mainly concerned the need for stakeholder consultations to support the proposed EPA designations in Output 1.1

(which did not happen), to obtain agreement for developing the Kreng Sub-district land use plan (Output 1.3), and to develop the landscape approach to peat swamp management in the NSP including increasing awareness and capacities for peat swamp management (Output 3.4). These conditions were generally well addressed through the project's highly participatory approach, although follow up remains necessary to ensure that the project deliverables are shared with all related stakeholders and that they are provided with the necessary support and capacity development to participate in their application. During implementation three related risks was flagged: 1) that ongoing land conflict may create different perceptions among stakeholders with whom the project is working. In response, the project supported a dialogue forum to help create mutual understanding with different stakeholders. However, during the TE, land rights and land conflict were repeatedly mentioned as ongoing issues by local stakeholders – therefore this does need attention in the related strategies, plans and follow up stakeholder engagement; 2) the long protocol process needed to get approval by DNP for land use zoning for co-management involving Thale Noi NHA and neighbouring communities under the new Wild Animal Reservation and Protection Act (2020), in response the project supported and provided information to the particular communities involved; and 3) the new Community Forestry Act 2019 led by RFD does not allow community forestry inside protected areas – therefore, the project provided support to three community forests to dialogue with relevant agencies and become legally formalized in accordance with the new Act.

262. Overall, the screening and oversight of environmental and social safeguards risks should have been more thorough – as it needs to be for future projects – but in general the project responded appropriately to the risks that were identified during the course of implementation, and its community level engagement including women, elders and youth was very effective.

**Climate change adaptation**

263. Climate change adaptation is considered as a cross-cutting issue in that climate change impacts such as increasing intensity of ENSA-induced droughts and floods, shifting rainfall patterns, increasing surface temperature and sea level rise all have potential to impact the project's outcomes[36]. The Risk Analysis section (Annex 9) of the Project Document lists one low-rated risk as: '*Restoration activities undertaken in pilot peatland sites are undermined by climate change such as more frequent drought, warmer hot seasons and cold seasons'*. Mitigation of this risk involved taking into account climate change inter-relationships with the peat swamp's state in related project activities, especially in designing restoration activities in the KKL and also at the policy level, where climate change impacts should be considered in the criteria for peat swamp identification, the inventory and national strategy on peat swamps.

264. Overall, the project has contributed towards the climate resilience of the peat swamp through measures that will assist in the rehabilitation of its ecological condition – namely, the establishment of a water management regime that supports natural functioning of the peat swamp – allowing it to absorb floodwaters in rainy periods, and to slowly release water in dry periods; secondly to restore forest cover through reforestation of damaged areas; thirdly to

[36] See IPCC 5th Assessment Report: https://www.c2es.org/content/ipcc-fifth-assessment-report/

support sustainable forest and wetland uses such as community forestry and ecotourism. While progress has been made in these areas, climate resilience can be expected to incrementally improve in due course as the management regime under the KKL Strategy progresses and matures, resulting in improved ecosystem condition and threat reduction. The surrounding communities have also benefited in terms of improved resilience through awareness raising efforts, engagement in natural resource co-management, support for sustainable livelihood practices. The project has also provided great capacity development assistance towards voluntary fire-fighting network management – a major threat to the peat swamp that is likely to intensify with global warming.

**Poverty-environmental nexus**

265. While the project had no specific poverty-alleviation goals or socio-economic indicators, its activities on sustainable livelihoods in particular aimed to provide benefits to the rural communities in the project area. These communities are largely dependent on rubber, oil palm, rice and other crops as well as some fishing, livestock grazing and collection of sedges (krajood) from the peat swamps. The strengthening of sustainable livelihoods and climate resilience based on sustainable management of peat swamp ecosystem resources (see above) will result in socio-economic benefits to surrounding communities that should contribute towards poverty alleviation. Many of these benefits are indirect, as the improved condition of the peat swamp combined with increased local capacity results in greater availability of NTFPs, fish resources, krajood, and ecotourism opportunities. However, direct benefits have also been provided through support for krajood production and marketing, increasing incomes for example for the Kreng Sub-district's Women's Basketry Group members. The Community Learning Centers in three sub-districts were established to support the organization of local activities, one aim of which is to promote community-based tourism around some 20 learning stations at each centre. So far, these remain pilot efforts, with the COVID pandemic currently constraining tourism visitation. Overall, as there were no socio-economic indicators, there are only anecdotal data to illustrate such contributions towards socio-economic development. There was no disaggregated reporting on marginalized stakeholder groups.

**Capacity development**

266. This project included a variety of capacity development aims, mainly focused on the conservation and sustainable use of the KKL peat swamp (Outcome 1) and implementing technologies to avoid peat swamp degradation and restore degraded areas (Outcome 2).

267. **Under Outcome 1,** this included building capacity across government agencies, NHAs and communities in the KKL for participatory management, co-management and sustainable use of the peat swamp ecosystem. Much of this was effective, and a strong basis for participatory management was developed, including community forest management plans for three areas. Project support included: a guideline on SMART patrolling for peat swamps for the Non-Hunting Areas (Bor Lor and Ta Lae Noi NHAs); A guideline on Integrated Forest Fire Management plan collectively developed by Bor Lor NHA, forest fire control officers, representatives of forest fire networks, and local authority through a series of workshops with 268 participants (M: 213 F: 55); network of 42 local forest fire management voluntary groups was discussed and started to implement plans for forest fire risk monitoring; support for forest

fire control units in Thale Noi and Kuan Kreng, Protected Area Regional Office PARO 5 including a series of Forest Fire campaigns to raise awareness with over 700 local residents (students and local communities in KKL); introduction of the monitoring methodology for the Ecosystem Health Index at both NHAs. Feedback from Thale Noi emphasized that the project support provided for capacity development was inadequate: what are needed most was sound technical knowledge and expertise though training and workshops for managing Thale Noi area as a Ramsar Site, as tools and knowledge are still lacking. Support from ONEP is needed to facilitate such training, coaching, and technical works on the ground (not only technical reports). The METT results indicate that while progress was made for both NHAs, this could have been stronger. Also the integration of the EHI as a monitoring tool for the NHAs and wider PA system under DNP was not clear from project reports.

268. Other contributions in Component 1 included support to **communities for sustainable livelihood development** (especially krajood processing and marketing); support to community forestry groups in development management plans; three community based learning centers (in Ban Tul, Kreng, and Cha Uad sub-districts) to function as information hubs for peat swamp conservation, forest fire management, local wisdom, co-management practices, livelihood development, and education for local and external visitors; and completion of an integrated curriculum on peat swamps for local schools that could support five key subjects based on the requirements of the Ministry of Education, to be integrated into the work plans of Nakhon Si Thammarat Education Office and promoted to primary and secondary schools around the KKL. These project activities were productive, although some local stakeholders expressed concerns that the krajood work was not ecologically sustainable and needed follow up to ensure over-harvesting did not continue to occur in some areas.

269. **Under Outcome 2**, capacity development was focused on water management, carbon monitoring and peat swamp restoration and reforestation measures. **On water management**, a technical working group on water management was formed by the KKL Task Force, consisting of relevant government agencies, and local representatives who have roles and mandates to play in water management system within the landscape, to develop a landscape water integrated management plan and submit to the Landscape Task Force for approval. Training in 2020 included 37 (M: 28 F: 9) participants from RID, Bor Lor and Thale Noi NHAs, and local authorities in Kuan Kreng, who shared lessons learned in water management and recommendations in participatory water management as well as the development of the MIKE SHE application. The KKL Integrated Water Management Model and associated guidelines were completed with support from government agencies covering 4600ha, however there remains a need to work with RID and other partners to strengthen understanding and support its implementation through water management measures. Feedback from stakeholders indicated that the water management modelling was too complex for the local context, that they had been insufficiently involved in the process, and that the tool may not be useful for practical water management purposes. Therefore, there remains a need to mainstream the water management planning with relevant stakeholders to ensure they are all on board. Overall, the KKL Strategy and KKL Task Force provide the main framework for coordination of water management, while ONEP will provide national oversight.

270. **Capacity development for carbon monitoring** included the completion of carbon monitoring guidelines for sharing with line agencies – but late - after the end of July 2020. A basic web-based application for carbon monitoring was also developed by the end of the

project, with the intention to be used by trained local people and relevant government officers in the landscape to track carbon sequestration. A user manual was prepared for local stakeholders by the end of July 2020. The carbon stock and emission figures need to be elaborated and shared with interested private sector actors for potential impact investment and carbon financing opportunities. ONEP need to facilitate and support policy advocacy for peat swamp conservation through the National Strategy as well as mobilize for public awareness nationwide. Overall, while a carbon monitoring methodology was developed by the project, it came too late due to various challenges, and significant capacity development is now needed to ensure that awareness can be raised on the carbon sequestration values of peat swamps, and how such values can contribute towards the management of the area.

271. Thirdly, on **peat swamp forest restoration**, community-based seedling production management guidelines were completed and used to inform reforestation efforts. Local knowledge was also an important aspect of understanding tree selection for reforestation. Community nurseries were established, but their financial sustainability was not adequately taken into account in terms of continuation beyond the end of the project (eg sourcing of seedlings from government bodies; opportunities for sale of products).

### 4.3.10 GEF Additionality

272. GEF additionality is defined as the additional outcome (both environmental and otherwise) that can be directly associated with the GEF-supported project. The text below follows UNDP (2020) guidance questions.

**Are the outcomes related to the incremental reasoning?**

273. The overall project outcomes are consistent with the original approved project design, the main difference in this case being that some indicators were changed in scope or nature. Most significantly, Outcome 1 focused on expanding protection of peat swamps and on establishing an integrated landscape approach towards management of protected and non-protected areas, plus strengthening management effectiveness of existing PAs. Ramsar Site designation of the landscape was proposed as an entry point for strengthening governance of the area as a whole, followed by management plan and zoning for different management regimes. The primary protected area mechanism proposed in the project document was the establishment of two large Environmental Protection Areas (EPAs), which was appropriate at the time of project preparation. However, following a change in Thai government policy, changes to the results framework for this outcome were made during the inception phase with the delivery of new EPAs removed and compensatory changes made to the objective level indicator to reflect the intention to have the target area of 154,363 ha covered under an integrated mosaic of appropriate land categories and sustainable co-management regimes, dependent on a feasibility study of community based conservation mechanisms. The Sathingphra Peninsula area totalling some 80,000 ha was mainly considered as a downstream benefit area rather than a focal area for intervention – although this was not made clear in the results framework. One further change in scope of this Outcome was the subsequent removal of Kanthulee peat swamp from community forestry demonstration, as it lies outside KKL. Other changes were less significant, and are documented in section **4.1.1**.

274. The tables below substantiate the incremental environmental benefits achieved by the project.

*o Are there quality quantitative and verifiable data demonstrating the incremental environmental benefits?*

275. The intended global environmental benefits of the GEF Alternative incremental reasoning described in the project document (pp29-30) are supported by verifiable data in a number of cases (**Table 9**).

*Table 9. Quantitative and verifiable data demonstrating project global environmental benefits*

| No. | Global Environmental Benefit[37] | Quantitative and verifiable data demonstrating GEBs |
|---|---|---|
| **Outcome 1: Protection status of peatlands in KKL** | | |
| 1 | Biodiversity: Improvements in Ecosystem Health Index at 2 NHAs | The EHI methodology was completed in late 2019 and two assessments of both NHAs were conducted in December 2019 and May 2020 (see Annex 10 for the detailed results). During a review it was found that the ecosystem health index in the Thale Noi Non-Hunting Area improved, with a score of 0.78 (up from an initial score of 0.76). This was due to an increase in the score related to habitat and living conditions. The Bor Noi Non-Hunting Area also improved, with a score of 0.75 (up from 0.71), due to an increased score related to the health of living conditions. Given the 6 month gap between assessments, not too much should be inferred from these scores as seasonal variations or short term changes could be responsible. However, the methodology would benefit from further piloting and evaluation, and if found to be useful, incorporated into the PA monitoring system. Reference should also be made to the EHI pilots conducted under the GEF-5 Main Streams of Life Program in China. |
| 2 | SFM: 435 ha under improved peat swamp forest participatory management plans. Additional 1,500 ha established under co-management. | A total of 430 hectares (2,719 rai) of the Kuan Kreng Peat Swamp Forest in the three community forests: Ban Khuan Ngern Community Forest (562.5 rai), Princess Chulabhorn Garden Community Forest (1,500 rai) and Ban Sai Khanun Community Forest (625 rai), have been prepared to be managed as community forest in accordance with the participatory management plans developed by each community.<br><br>The specific area(s) for the additional 1,500 ha of peat swamp forests in KKL under co-management are not made clear in reporting – so these are assumed to be dispersed across the landscape, with the emphasis on the measures taken rather than specific areas targeted.<br><br>The SFM/REDD+ tracking tool at end of project (August 2020) states that 1,902 ha was covered by forest management plans (without naming the areas involved) against a target of 3,467 ha (with the note that management is to be improved at all areas listed in the baseline situation (1,976 ha) and effective community forestry management to be established at an additional 1,500 ha of community forests). |

[37] Source: Project Document Table 7, adjusted according to relevant RF indicator changes.

| | | |
|---|---|---|
| | | Overall, while the differences in target figures are hard to resolve, there is little doubt that good progress has been made on community engagement and building capacity for co-management arrangements for natural resource management. |
| **Outcome 2: Condition of peatlands affected by drainage and fires in KKL** | | |
| 3 | Climate Change: GHG emissions at 4,600 ha of peat swamp forest (pilot sites where hydrotechnical measures are to be implemented) – reduced to 1.959 Mt CO2-eq; and Carbon sequestration through reforestation with native species (projected over 20 years) - 129,000 $tCO_2$-eq over a 20 year period | Due to Covid 19, data collection could not be completed as data collection team could not visit to the target area. Thus, there was not enough information to evaluate the results of these indicators.<br>The GEF CCM and SFM/REDD+ tracking tools end of project assessment in August 2020 give a value of 352,461 tCO2-eq. for Lifetime Direct GHG emissions avoided against a target of 705,000 tCO2-eq. at CEO Endorsement, which does not correspond to the RF indicator targets.<br>With reference to the GEF CCM Tracking Tool completed in August 2020, a value of 9,520,000 tCO2-eq. is given for carbon sequestration against a target of 129,000 tCO2-eq. This appears to be erroneous. |
| 4 | SFM: Enhanced institutional capacity to account for GHG emission reduction and increase in carbon stocks | By the end of the project, the carbon monitoring studies had been completed to a large degree, including some community engagement and capacity development activities. However, this had not reached a sustainable end point by project closure, and it will require follow up to make full use of the project contributions.<br><br>**GHG emissions analysis** through gas chromatography was completed and preliminary results of carbon stored in the biomass of the three study sites (four permanent plots each) were reported, as well as estimates for C**arbon sequestration** in undisturbed forest sites, disturbed forest sites and palm oil. These data will support ONEP in its LULUCF carbon monitoring and reporting.<br><br>A basic **web-based application for carbon monitoring** was developed. This application will be used by trained local people and relevant government officers in the landscape to track carbon sequestration. A **user manual** was prepared to share with local stakeholders at the end of July 2020. Mechanisms for **community based carbon monitoring** were developed while samples were established in 3 land categories i.e. undisturbed, disturb peat and palm oil area. |
| **Outcome 3: National policies governing land and resource use related to peatlands** | | |
| 5 | SFM/Biodiversity: SFM and biodiversity conservation principles integrated in NSP | The Draft national strategy was developed and is now undergoing official review. It has 7 sub-strategies for peat swamp management in Thailand:<br>Strategy 1: Prevention of direct and indirect loss of peat swamp areas<br>Strategy 2: Conservation and restoration of peat swamp areas<br>Strategy 3: Expansion of knowledge and awareness related to the value and importance of the peat swamp area by the general public<br>Strategy 4: Promotion of education and research on the status of peat swamp areas and peatland conservation, as well as on the sustainable use of peat swamp natural resources for added value<br>Strategy 5: Continuous monitoring and measurement of the status of swamp areas<br>Strategy 6: Increase the readiness of the associated organizations on peat swamps management and promote the participation of local stakeholders<br>Strategy 7: Total carbon management |

| | | |
|---|---|---|
| 6 | Climate Change: Good management practices in LULUCF integrated in NSP | The NSP does include consideration of LULUCF through Strategy 1 *Preventing the loss of peat swamp areas, both directly and indirectly,* which includes:<br>Measure 1. Improve swamp area management, requires peat swamp to be carbon storage of the country with the efficiency and strict conservation zones;<br>Measure 2. Improve organization responsible for swamps to provide agencies responsible for the peat swamp with the capability to manage the country's important carbon storage areas;<br>Measure 3. Solving the land use swamp problem by expediting the resolution of the issue of overlapping rights documents. Solve the problem of access to peat swamp area of the departments with actions to solve the problem of land encroachment and exploitation in swamp areas.<br><br>Also through Strategy 7 on *Total Carbon Management,* including:<br>Measure 1. Establish a carbon sequestration management system in peatland areas in order to carry out carbon credits, greenhouse gas emissions and climate change.<br>Measure 2. Providing support and compensation to communities related to the peat swamp areas to promote participation in carbon sequestration<br>Measure 3. Provide a monitoring and audit system on the efficiency of carbon storage and emission continuously. |
| 7 | Climate Change: Principle of restoration and enhancement of carbon stocks in peat swamps integrated in NSP and elevated to national agenda | This principle is also integrated in the NSP - see above, and also Strategy 2 on *Conservation and rehabilitation of peat swamp areas*.<br><br>As the NSP remains a draft at this stage, it needs to undergo various steps of review led by ONEP before official approval. It then needs to be integrated into relevant action plans for biodiversity, SFM and climate change, and used to inform the prioritization of conservation planning and intervention measures to conserve Thailand's remaining peat swamp ecosystems. |

- **Can the outcomes be attributed to the GEF contribution as originally anticipated**?

276. It is clear that the project has been responsible for preparing outputs that have contributed towards generating the above-mentioned global environmental benefits and socio-economic benefits. These include the progress towards more integrated and sustainable management of the KKL peat swamps, the national inventory on peat swamps (building on earlier materials), and the national strategy on peat swamps. There are very few other related initiatives that are contributing towards the same outcomes.

- **Are the outcomes sustainable?**

277. See section **4.3.6** on Sustainability.

*o If broader impact was anticipated, is there evidence at the completion stage that such a broadening is beginning to occur, or actions towards the broadening have been taken?*

278. The project sought to demonstration an integrated landscape management approach towards peat swamp ecosystems in the Kuan Kreng Landscape, and to use this to inform the management of other peat swamps across Thailand, as documented in the national inventory of peat swamps. The draft national strategy on peat swamps sought to provide the policy

mechanism for institutional and financial support for this transformative shift towards more sustainable management and conservation of Thailand's peat swamp ecosystems. These outcomes were more or less completed by project end, but all still require a period of maturation to be fully complete and ready to be applied. With follow up support, this may yet be possible.

### 4.3.11 Catalytic/Replication Effect

279. The above section describes the project's main approach towards achieving a transformative shift in the way peat swamps are managed across Thailand. In this respect, the project design was quite sound – only a longer (effective) project period was needed to reach the endpoint needed for replication to occur without additional support.

280. In addition, there are several project outputs that offer potential for scaling up or replicating the project's approaches. First is the development of the integrated strategy management of peat swamps in KKL led by a multi-sectoral government task force; while this focuses on NST province, there may yet be value in extending this approach to Phatthalung so that the Thale Noi area can be supported by a more integrated approach to governance and land use that addresses the drainage and land encroachment issues that currently impact the NHA. Lake Songkhla Basin would certainly also benefit from an integrated lake basin management committee to manage its diverse interests – there are some excellent examples from other countries where this approach has yielded very positive results (eg Lake Chilika in India).

281. Secondly, the support for developing community forest management groups, CF management plans and registration of the forests is a highly replicable approach that can provide significant benefits both to communities and the forest areas they depend on for livelihoods. This approach encourages local ownership and when given the correct support from extension agencies and NGOs (eg in fire control, forest rehabilitation), can result in positive outcomes for biodiversity, forest management and carbon sequestration.

282. Thirdly, the water level modelling work using MIKE SHE has potential for significant upscaling and application not only to peat swamp situations but to other types of wetland ecosystems (eg lake basins). This needs technical review by ONEP, RID, the national technical wetland committee and other relevant bodies, but it has the potential to provide a rational basis for water resource management that takes better account of environmental needs than is currently the case through sector-led water management plans that result in conflicts, environmental degradation and loss of ecosystem services and climate resilience.

283. The project supported development of 3 community-based learning centres as local hubs for disseminating local knowledge, awareness raising and as bases for sustainable livelihood development including ecotourism. These could be replicated for other areas if proven to be sustainable – which means that they are likely to need ongoing support from government or other bodies to sustain motivation and a program of action.

284. Regarding knowledge products and knowledge transfer, the project belatedly supported a consultancy input from Wisdom Vast (in 2021 – still in progress) to:
- compile all technical knowledge and communication products (electronic files) of the project from RECOFTC , Prince of Songkla University , Wisdom Vast Co.,Ltd. , Kasetsart University , Thailand Environment Institute and other related sources.
- design a database architecture (web-based applications) that will be compatible with the existing ONEP's database.
- produce a user-friendly training manual for the project database management, and
- organize a training on this project database management for ONEP personnel.

285. Project reports and information made available to the TE are listed in **Annex 3**.

### 4.3.12 Progress to Impact

286. This section evaluates progress towards the long-term impact outlined in the project's intervention logic and the extent to which long-term impact can be attributed to the project.

• *Environmental stress reduction*

287. The results framework included two stress-reduction indicators in Outcome 1: incidence of violations of NHA regulations and incidence of fires (see **Annex 12** for details). In both cases, these indicators showed trends of increasing environmental stresses. The significantly greater violations of NHA regulations (mainly encroachment and tree-cutting) may be symptomatic of unclear boundaries of land use and opportunistic oil palm planting by the private sector. However, the trend suggests that the project has not dealt effectively with such issues. The incidence of fires increased dramatically over the target of 408 ha/year, with the burnt area for the period June 2019-20 documented at 2,394 ha. This was largely on account of large fires across KKL in August 2019 that were reported in the national news, exacerbated by the severity of that dry season and deliberate and systematic illegal fire-setting by business interests. There were no other stress reduction indicators.

288. Ongoing threats to the project's environmental sustainability include: climate change impacts (especially floods and droughts); forest fires linked to land clearing for agricultural development; peripheral drainage of the peat swamp due to agricultural drainage needs; illegal tree cutting and PA encroachment; and infrastructure development (eg roads and canals) that fragment peat swamp habitats. Overall, these threats remain significant and will certainly require continued vigilance and management responses to contain them in order to protect the peat swamp forest.

289. Has the project made a difference? By putting in place the community engagement, awareness of peat swamp values, sustainable livelihood options, strategy and plans for sustainable management of the peat swamp, and the mechanism for integrated governance including water management – the project has largely established the basis for sustainable management going forwards, which is likely to exert increasingly effective responses to these environmental stresses. Careful attention is needed to resolving water management conflicts with surrounding land and water users (especially plantations), and secondly in clarifying,

demarcating and enforcing land use boundaries to reduce the opportunities for encroachment while ensuring social justice is upheld in land use planning.

• *Environmental status change*

290. There was one indicator for environmental quality – the Ecosystem Health Index (EHI) monitoring system for monitoring peatland health developed and in place for 2 NHAs. The EHI was applied at the two NHAs first in December 2019, and secondly in May 2020 (see **Annex 10**). A slight improvement in EHI score was recorded between these two assessments, but the interval of six months was too short to allow conclusions to be drawn regarding improvements or the reasons for the shift in scores (eg seasonal factors could influence this).

291. Indicators were included in Outcome 2 for monitoring of water levels and GHG emissions over 4,600 ha of peat swamp, intended to show changes in water regime (higher water tables) and reduction of carbon emissions as a result of hydrological interventions. However, while water modelling was completed and short term water management measures proposed, interventions had not yet taken place on the ground by project end therefore no visible results could be expected. There were no meaningful data to report for these indicators. In addition, there was an indicator for carbon sequestration through reforestation with native species (projected over 20 years). This was supposed to reflect reforestation efforts over some 72 ha of peat swamp land. In this case, there was a lack of quantitative data on carbon sequestration for the targeted areas with which to assess achievement of the indicator target.

292. Overall, as mentioned above, by putting in place the community engagement, awareness, sustainable livelihood options, strategy and plans for sustainable management of the peat swamp, and the mechanism for integrated governance including water management – the project has largely established the basis for sustainable management going forwards. The effective management of water levels is key to restoring the ecological condition of the peat swamp (noting that these fluctuate under natural peat swamp conditions, but the peat soil always remains saturated – or it will oxidize), significantly reducing the likelihood and extent of fires, and reducing opportunities for encroachment due to the wet conditions.

• *Contributions to changes in policy/legal/regulatory frameworks, including observed changes in capacities and governance architecture, including access to and use of information*

293. The project indicators for this subject include the objective indicator: Extent of peat swamp area under effective management (IUCN Category IV, V) in KKL, under the framework of a National Strategy for Peat Swamps (NSP); and under Outcome 1 – Area of peat swamp forests in KKL under protection; Enhanced management effectiveness at existing PAs (NHAs) and Songkhla and Kuan Kreng peat swamp landscapes as measured by METT; Area of peat swamp forests in KKL under participatory community forestry management plans or co-management. While no new protected areas or changes in legal status of peat swamp land was targeted after the proposed EPAs were set aside, the project did make significant progress towards a sustainable management / co-management regime for the KKL peat swamp forest through the KKL Strategy under the coordination of the KKL Task Force led by the Provincial Governor's Office of NST. Other advances included the completion of a land use plan and

zoning for Kreng sub-district, and completion of three community forest management plans covering 430 ha, to be registered under the new Community Forest Act of 2019. The project's feasibility study found 19 mechanisms for co-management and developed criteria for co-management, applied to KKL Peat Swamp Knowledge Management toward Community-based Tourism program. An integrated curriculum on peat swamps for primary and secondary schools was completed with field manual for application and is now being included in 2021-2022 workplans for NST Education Office. Three community-based learning centres completed, to act as local information hubs, while the project's knowledge products are being compiled into an online database hosted by ONEP for public access.

294. Finally, the national inventory of peat swamps and draft national strategy on peat swamps are significant outputs that have potential to provide the basis for the inclusion of peat swamp conservation in national biodiversity and climate change action plans, the designation of peat swamps as protected areas, Ramsar Sites and ASEAN Heritage Sites, and for consideration of their ecosystem service benefits in land use planning.

• *Contributions to changes in socio-economic status*

295. There were no project indicators or monitoring of changes in socio-economic status, therefore no data are available to support this analysis. Qualitatively, the communities in and around the KKL peat swamps total some 148,000 people[38], of which the project benefited a portion through a variety of livelihood-related interventions. Many of these benefits are indirect, as the improved condition of the peat swamp combined with increased local capacity results in greater availability of NTFPs, fish resources, krajood, and ecotourism opportunities. However, direct benefits have also been provided through support for krajood production and marketing, increasing incomes for example for the Kreng Sub-district's Women's Basketry Group members. The Community Learning Centers in three sub-districts were established to support the organization of local activities, one aim of which is to promote community-based tourism around some 20 learning stations at each centre. So far, these remain pilot efforts, with the COVID pandemic currently constraining tourism visitation.

296. The main barriers and risks that may prevent further progress towards long-term impact concern the sustainability of the completed measures, and the need for considerable follow up led by ONEP to ensure that the project outcomes are fully realized and applied to real-world peat swamp management and threat reduction (see 4.3.6 and 5.3 for details).

[38] Project Document p15

# 5 Main Findings and Conclusions, Recommendations and Lessons Learned

## 5.1 Main Findings and Conclusions

297. The terminal evaluation examined all aspects of the PSE Project – strategy and design; supervision and management arrangements for implementation; project finances; use of basic project management tools; and implementation progress and achievements over the 54 months from project document signing in July 2016 to project completion in January 2021. The evaluation has rated the quality of *Monitoring and Evaluation* at entry, during implementation and overall; and the quality of *Project Implementation/Oversight provided by UNDP*, *Project Execution by the Implementing Partner* and *Overall Implementation/Execution*. The main evaluation criteria for project Outcomes were the *Relevance*, necessity or importance of the Project in Thailand; the *Efficiency* with which the Project has been organised, supervised, financed, administered and activities delivered, considering the time and resources available; the *Effectiveness* of Project design, management and implementation, in contributing to achievement of the agreed objectives and expected or planned results; the *Results/Impacts* achieved by the Project; and the *Sustainability* of the achievements and impacts of the Project, after the Project has been concluded. In addition, the evaluation examined the project's contributions to *Gender and Women's Empowerment*, and *Cross-cutting Issues* of climate change adaptation, capacity development and the poverty-environment nexus. The ratings for each of the evaluation criteria are summarized in **Table 10** below, based on the detailed findings in **Section 4** above.

298. The project completed significant results that contribute towards an effective management regime for the 74,363 ha covered by the Kuan Kreng Landscape (KKL) Strategy endorsed by the Provincial Governor of Nakorn Si Thammarat, which includes six sub-strategies on specific issues. Diverse activities all three Outcomes have contributed towards this indicator in one way or another – summarized in **Annex 12**. It can be concluded that the Project has resulted in significant improvement of peat swamp management in the 74,363 ha under the KKL Strategy (some 48% of the original target area, with the remainder considered as downstream "benefit areas"). However, this remains a work in progress at project closure despite intensive efforts and significant advances across a number of areas including land use planning, community co-management, community forest management planning, capacity development for PA management, fire-control and water management, hydrological modelling and management planning, carbon monitoring and peat swamp restoration. Overall, despite strong efforts, the project was unable to recover from the change in government policy at the start of the project that set aside the intended strategy of establishing EPAs in the landscape, coupled with the major delays in implementation progress.

299. The need for outreach to stakeholders across the remaining benefit area was pursued during the extension period through the exit strategy, aiming to apply incentive measures for maximizing carbon sink capacity in KKL beyond the KKL Strategy area, youth empowerment,

and developing a finance mechanism for social impact investment. While these were all positive actions, the short time available (six months), ongoing COVID restrictions, and scale of intervention needed across the remaining area mean that these measures were insufficient to put in place a secure management regime for peat swamps across full KKL area. This will need to be achieved through follow up investments.

300. Overall, progress towards **Outcome 1** was underpinned by the completion of the KKL Strategy covering 74,363 ha (48% of the targeted area) under the coordination of the KKL Task Force, supported by a significant area now covered by community forest management plans and/or co-management arrangements, and improved capacity especially for fire and water management. The threat indicators for PA violations and wildfire areas both showed regression late in the project, indicating that further progress on developing effective governance and management capacity is required to address these still-prevalent threats in future. Overall progress towards Outcome 1 is rated **Moderately Unsatisfactory** in view of the fact that the final results for KKL peat swamp conservation management had not been consolidated and fully operationalized, therefore requiring post-project follow up.

301. **Outcome 2** was technically challenging, and the Output processes were not completed – they ran out of time to achieve the full completion of water and carbon monitoring tools, their socialization amongst key user groups, and their approval and adoption by relevant agencies. The lack of relevant measurable data for the RF indicators is symptomatic of this situation, as well as being an M&E issue. Of greatest concern is that the key agencies in the landscape should have the knowledge and capacity to be able to use these tools effectively. Feedback during the TE indicated that further work is needed to achieve that situation. Progress towards Outcome 2 is rated **Moderately Unsatisfactory** in that the relevant targets were not fully achieved by project completion, and that monitoring data were inadequate to fully assess progress.

302. **Outcome 3** was successful in developing the landscape level task force, which has been working relatively effectively and may be sustainable if it continues to receive political support. The peat swamp inventory and database covers some 27 sites across Thailand and is a useful and important project deliverable. However, this took too long to complete (partially due to COVID-19 related delays), also delaying completion of the critical draft National Strategy on Peat Swamps. Both of these deliverables now need to be proactively reviewed by appropriate national level bodies, approved for use, and promoted among related stakeholders and initiatives. Progress towards Outcome 3 is rated **Moderately Satisfactory.**

303. In view of the limited progress towards the Objective indicator as well as the contributing Outcomes, the overall progress towards the project Objective is rated **Moderately Unsatisfactory.** Overall, while the project has made a valuable contribution towards the sustainable management of Thailand's peat swamps, proactive follow up is required, especially by ONEP, to consolidate the protection of the KKL peat swamp, and to achieve real impacts through the dissemination and application of these results at both national and subnational levels.

304. The table of project achievements against results framework indicator targets in **Annex 12** and section **4.3.1** on progress towards objectives provide significant information on the extent of progress against planned targets (although some indicators were poorly defined / not SMART and progress was therefore difficult to measure). The results are summarized in **Table 8**. This shows that the Objective-level indicator was partially achieved; for Outcome 1, 2 indicators were achieved, 3 partially and 2 not achieved; for Outcome 2, all 4 indicators were not rated due to monitoring failures; for Outcome 3, 3 were achieved and one partially achieved. In total, five indicators (31.25%) were considered fully achieved, five (31.25%) partially achieved, two not achieved (12.5%) and four not rated (25%). Thus overall, at least 62.5% of indicators showed full or partial progress towards the planned targets. This figure would have been higher if monitoring for the Outcome 2 indicators had been correctly performed and documented, as the related Outputs were partially or fully completed (see **Annex 11**).

*Table 10. Evaluation Ratings table*

| Evaluation Criteria | Rating[39] | Comments |
|---|---|---|
| **Monitoring & Evaluation (M&E)** | | |
| M&E design at entry | **MU** | • Fairly standard UNDP/GEF approach, but specific weaknesses, esp. in Results Framework structure and indicators:<br>• Inadequate indicators at Objective level and no mention of GEF CCM and SFM/REDD+ Tracking Tools; No indicator for number of direct beneficiaries.<br>• Many indicators not SMART causing difficulty in interpretation and measurement. Disaggregation of indicators would have been helpful.<br>• Omission of mid-term targets.<br>• Measurement methodologies for the indicators were not fully described<br>• MTR recognized limitations of SESP and gender analysis<br>• The M&E budget was insufficient at 1.7% of GEF budget – too low for complex project; lack of budget allocated for annual project audits. |
| M&E Plan Implementation | **MS** | • The monitoring systems used by the project followed UNDP and GEF procedures.<br>• The project inception workshop was delayed but met UNDP requirements. QPRs were initially too activity-based and later improved with results-oriented format.<br>• The PIRs were fully completed for 2018, 2019 and 2020. The MTR was conducted on time and most recommendations agreed by the PB for follow up.<br>• 9 UNDP supervision missions were conducted to support project oversight.<br>• The Project Board was constituted as planned, and met 8 times, good participation.<br>• Gender mainstreaming and stakeholder engagement was reported in the PIRs, including gender disaggregated data and information on women's empowerment.<br>**Weaknesses in the implementation of M&E included:**<br>• Inadequate initial capacity for M&E<br>• Inherent design flaws in the RF persisted, impairing effective tracking of progress<br>• Recommendations in PIRs not always picked up by the PMU / PB<br>• GEF CCM and SFM/REDD+ Tracking Tools not well integrated into M&E processes<br>• Inadequate monitoring of RF indicators, especially for Component 2.<br>• Some PB members lacked sufficient support to participate effectively in discussions.<br>• One Spot Check performed on RECOFTC, but no full project audits were conducted |

[39] Outcomes, Effectiveness, Efficiency, M&E, Implementation/Oversight & Execution, Relevance are rated on a 6-point scale: 6=Highly Satisfactory (HS), 5=Satisfactory (S), 4=Moderately Satisfactory (MS), 3=Moderately Unsatisfactory (MU), 2=Unsatisfactory (U), 1=Highly Unsatisfactory (HU). Sustainability is rated on a 4-point scale: 4=Likely (L), 3=Moderately Likely (ML), 2=Moderately Unlikely (MU), 1=Unlikely (U)

| Evaluation Criteria | Rating[39] | Comments |
|---|---|---|
| Overall Quality of M&E | **MU** | • There were significant design flaws in the original M&E plan, especially in the design of the RF and inadequate budget allocation for M&E. These flaws were not adequately addressed and impacted M&E throughout the project period.<br>• The MTR noted that capacity for M&E was inadequate, recommending the addition of an M&E specialist to the UNDP team.<br>• After the MTR, overall M&E quality was improved, mainly on account of strong engagement by the UNDP CO in providing M&E support as well as oversight for project implementation.<br>• Lack of timely, practical and agreed methodologies for water level management and carbon monitoring impacted effective monitoring of Component 2.<br>• The lack of annual project audits remained a significant gap in the M&E system, despite effective financial administration by UNDP. |
| **Implementation & Execution** | | |
| Quality of UNDP Implementation/ Oversight | **MS** | • The UNDP CO provided project assurance, financial administration services and facilitated the project team during the implementation process.<br>• UNDP played an active role during PB meetings and coordinated with ONEP, RECOFTC and other parties on management and administrative matters.<br>• UNDP CO provided significant guidance and support to project implementation in line with the LoA for UNDP Support Services, including: recruitment of project staff, consultants, Responsible Party (RECOFTC), procurement of services and goods, organizing meetings, etc.<br>• The shift in ONEP's role in the early stages of implementation resulted in significant additional demands on UNDP CO to support execution, well beyond UNDP's normal oversight role; CO showed great commitment towards project success.<br>• Oversight was relatively effective, mainly affected by coordination challenges and lack of clarity on roles between project partners: ONEP, RECOFTC, PSU and UNDP.<br>• The MTR recommended sharing a unified vision for the project amongst all parties and much enhanced communications to improve project coordination.<br>• The narrow approach of RECOFTC in its role as PMU as well as executor of various technical activities weakened the integrated nature of the project strategy and reporting on activities. While UNDP was aware of this, the problem persisted.<br>• Financial administration was handled without major issues overall, although financial administration processes with RECOFTC as PMU required more support.<br>• The main oversight was the lack of annual audits, which should have been rectified during implementation. |
| Quality of Implementing Partner Execution | **MS** | • The project was designed as a NIM project with ONEP as IP being responsible for the PMU and overall execution of activities. However, following an initial period with the PMU hosted by ONEP, ONEP requested a technical organization to perform both the PMU and a technical implementation role - but still on NIM basis). RECOFTC was engaged to provide this role. The complexity of GEF implementation, and need to harmonise GEF project implementation with very demanding government bureaucracy likely contributed to this change. ONEP would have benefited from stronger orientation support before/during project start-up.<br>• As a consequence, ONEP made significant demands on UNDP CO to support execution, beyond UNDP's normal oversight role. ONEP still provided significant management inputs, including Project Coordinator inputs and regular communication with the RECOFTC PMU staff, and took on the PMU role during the extension period.<br>• ONEP's Division of Biodiversity Management managed the project, while the Climate Change Division could have been more involved during implementation.<br>• ONEP chaired the PB meetings, which were regular and well attended. |

| Evaluation Criteria | Rating[39] | Comments |
|---|---|---|
| | | • Coordination between the key implementing partners remained weak throughout the project, and was outreach and coordination with other national agencies, including engagement with the National Technical Wetland WG until it was involved in review of the inventory and NPS during the extension period.<br>• The Directors of ONEP's Biodiversity Management Division and Wetland Sub-division provided an oversight role on the IP side, clearing the PMU workplan to proceed to the PB meetings. Both Directors were heavily involved during the 6-month extension to ensure that the project met its objectives. Some delay in implementation arose from the discontinuity of the Deputy SG of ONEP as Project Director (there were three SGs from 2016-2020).<br>• ONEP has a critical role to play in bringing key policy recommendations from the project to relevant stakeholders and government bodies for approval, as well as widely disseminating project results and materials so that they can achieve the intended impacts. |
| Overall quality of Implementation / Execution | **MU** | • Major delay of 18+ months from CEO Endorsement to project document signing in July 2016 while awaiting Cabinet approval, then four months to hire Project Manager, then Inception Workshop only in July 2017 - one year after start-up.<br>• Project Manager departed July 2017, after which ONEP requested for a subcontracted Responsible Party to take on the PMU and most technical implementation. RECOFTC joined in April 2018 with a strong staff and network.<br>• By mid-2018, delivery was minimal, at only 3% of work plan. Delivery picked up following RECOFT's engagement, but remaining challenges in 2018-19 included M&E weaknesses and insufficient coordination. Delivery for 2018 was at a low 38%, further compounding the delivery lag resulting from the disrupted inception.<br>• The MTR in mid-2019 was completed relatively early in an adaptive response to the inception delays. Both MTR and RTA commented on the need for gender analysis and strengthening of the SESP, with limited response.<br>• Implementation improved after the MTR, facilitated by strong oversight and coordination support by the UNDP CO. Despite improvements, the project still struggled with low delivery and delayed achievement of deliverables, with 2020 unexpectedly impacted by COVID-19, delaying some key activities and the project's sustainability strategy and caused procurement bottlenecks.<br>• At the end of the original project period, the RP contract was concluded and the PMU function was taken up by ONEP, which requested additional executing support from UNDP to support remaining contracting during the extension period.<br>• Overall, RTA recommendations from PIRs were not fully addressed, therefore the UNDP CO was asked to include these in regular monitoring and reporting mechanisms with the PMU to allow better tracking and monitoring of responses.<br>• Much of implementation did not go smoothly, as reflected in successive PIR ratings (2018-U, 2019-MU, 2020 -MU) – it was below a satisfactory level overall, although in the end the project has been completed and it achieved some significant results. |
| **Assessment of Outcomes** | | |
| Relevance | **S** | • The project responded to a clear conservation need: to address the loss and degradation of peat swamp ecosystems in Thailand, with associated loss of globally significant biodiversity and ecosystem services including carbon sequestration.<br>• The project design responded appropriately to the identified threats and barriers at different levels through its alternative strategy towards three main Outcomes.<br>• The project design was well aligned with selected GEF-5 Focal Area Strategies BD-1, CCM-SO5 and SFM/REDD+ Outcome 1.2 & 2.1<br>• It contributed towards CBD Aichi Targets 5 (reduced habitat loss) and 15 (ecosystem contributions to climate change mitigation), and UN SDGs 8 (Decent work and economic growth), 13 (Climate action) and 15 (Life on land). |

| Evaluation Criteria | Rating[39] | Comments |
|---|---|---|
| | | • The project is aligned with the UNPAF Framework (2012-2016) for Thailand's Outcome on Effective Responses to Climate Change; the UNDP Strategic Plan on Inclusive Growth and Sustainable Development; and UNDP Thailand's Country Program (2012-2016).<br>• The project's objectives were also consistent with the priorities of the Implementing Partner, ONEP, notably the:<br>o Strategic Plan on Climate Change (SPCC 2008-2012);<br>o Master Plan for Integrated Biodiversity Management B.E. 2558-2564 (2015-2021), addressing National Biodiversity Targets 1 – 9 and 15.<br>o National Forest Resources Protection Master Plan<br>o Action Plan for Wetland Conservation (2009-2014).<br>• Stakeholder engagement was strong in the targeted landscape, with extensive consultation with provincial and local government agencies and community participation and capacity development in a range of subjects<br>• Provincial and local governance structures were strengthened for co-management purposes, and livelihood interventions were relevant to local needs. |
| Effectiveness | **MU** | **Outcome 1 progress against indicators (rated Moderately Unsatisfactory)**<br>• Completion of the KKL Strategy covering 74,363 ha (48% of the targeted area), with expected downstream benefits to adjacent areas in Phatthalung and Songkhla provinces<br>• Significant area now covered by 3 CF management plans and/or co-management<br>• Improved capacity especially for fire and water management.<br>• Threat indicators for PA violations and wildfire areas both showed trends of increasing impact<br>• Inadequate engagement of stakeholders in Phatthalung province and Songkhla province, including capacity development support for Thale Noi NHA<br>**Outcome 2 (rated Moderately Unsatisfactory)**<br>This Outcome was technically challenging, and ran out of time to achieve full completion of water and carbon monitoring tools, their socialization amongst key user groups, and approval and adoption by agencies.<br>• Lack of measurable data for the RF indicators is symptomatic of these challenges<br>• Willingness and capacity of relevant agencies to use these tools effectively is a key issue.<br>**Outcome 3 (rated Moderately Satisfactory)**<br>• Successful in developing a functional landscape level task force to implement the KKL strategy<br>• The peat swamp inventory took too long to complete (partially due to COVID-19 related delays), ONEP concerns on content versus agency expectations<br>• Also delayed completion of the critical draft National Strategy on Peat Swamps.<br>• Both of these deliverables were reviewed by a contracted expert - now need to be proactively reviewed by national bodies, approved for use, and promoted among related stakeholders and initiatives.<br>**Progress against Objective (rated Moderately Unsatisfactory)**<br>• Significant progress was achieved towards the Objective through the above three Outcomes. However, this was not enough to deliver all final results, achieve their acceptance with the related stakeholders, and ensure their application through mainstreaming into government planning and management processes within the time available. Consequently there are sustainability concerns about the final |

| Evaluation Criteria | Rating[39] | Comments |
|---|---|---|
| | | results, and follow up will be necessary to consolidate the protection of the KKL peat swamp, and to achieve real impacts through the dissemination and application of these results at both national and subnational levels. |
| Efficiency | **MU** | • Overall management of the project cannot be described as efficient, mainly due to the significant delays in implementation during the first half of the project, and subsequent continued delays in disbursing GEF funds in a timely manner, although by the end of the extension period in January 2021 UNDP CO expects that some 95% of GEF funds will have been utilized.<br>• These issues are summarized in Overall Quality of Implementation above - much of the implementation did not go smoothly, as reflected in the successive PIR ratings (2018-U, 2019-MU, 2020-MU).<br>• Weak coordination/linkage - due to implementation through two main sub-contracts (RECOFTC, and PSU for outputs 3.3 and 3.4); RECOFTC sub-contracted experts to perform various activities; and the activities carried out under RECOFTC's portfolio and between RECOFTC and PSU were not well linked.<br>• With the shorter implementation timeframe available to RECOFTC (2 years), activities were rushed and some did not achieve concrete results according to the RF indicators within the time available (e.g. reforestation, carbon sequestration).<br>• The support for community level capacity development and livelihoods was generally cost-effective and had local impact.<br>• There was no specific allocation of project resources for integrating gender equality and human rights in the project. |
| Overall Project Outcome Rating | **MU** | This rating is the average of those given for Effectiveness and Efficiency above (ref. UNDP July 2020 guidelines). |
| **Sustainability** | | |
| Financial resources | **ML** | • Mainstreaming of project activities with government policies, plans and budget: ONEP and provincial govt agencies (National Policy on Peat Swamps; KKL Strategy; water management; fire control; PA management, etc)<br>• Exit strategy consultancy to review impact investment options for the private sector, to support KKL peat swamp management. The results need to be shared with relevant stakeholders, business community.<br>• Follow up support >> UNDP channelled support for TEI engagement in KKL; GCF project opportunity; innovation accelerator policy lab potential to support. |
| Socio-political / economic | **ML** | • Project aligned with ONEP's policy mandate for BD & CCM, and unlikely to face major policy risks. The uptake and long-term effectiveness of the inventory and draft national strategy on peat swamps will depend to a large degree on proactive follow up by ONEP to achieve their approval and application by relevant bodies.<br>• Coordination weak with related national agencies; more work needed to mainstream project in provincial agencies; community and stakeholder engagement good. |
| Institutional framework and governance | **ML** | • National inventory of peat swamps and draft national strategy on peat swamps will need significant follow up by ONEP in order to secure their official approval<br>• KKL Task Force established by the NST Governor with three sub task groups. KKL Strategy approved 1 July 2020. Kreng District land use plan completed. Local CF management plans, learning centres, awareness efforts, school curriculum developed |
| Environmental | **MU** | • Improvement of peat swamp management in 74,363 ha under KKL Strategy (48% of target). However, this remains a work in progress despite efforts |

| Evaluation Criteria | Rating[39] | Comments |
|---|---|---|
| | | • Follow up work required to fully emplace the water management modelling, planning and implementation; carbon flux monitoring; strengthen the sustainability of livelihoods (krajood harvesting, grazing, farming); outreach to stakeholders in KKL areas outside NST province<br>• Ongoing threats to the project's environmental sustainability include climate change impacts (especially floods and droughts); forest fires linked to land clearing for agricultural development; peripheral drainage of the peat swamp due to agricultural drainage; illegal tree cutting; PA encroachment; and infrastructure development (eg roads, canals) that fragments peat swamp habitats.<br>• While a ML rating has been given for three categories, the environmental sustainability of KKL peat swamps faces significant challenges due to the continued prevalence of threats impacting the area – these have not yet been effectively addressed, and climate change is likely to exacerbate periodic drought and high fire risk conditions. |
| Overall Likelihood of Sustainability | **MU** | This rating is the lowest of those given above for Sustainability components (ref. UNDP July 2020 guidelines). |

305. In addition to the rated criteria in the table above, the following findings apply to gender and women's empowerment and relevant cross-cutting issues.

***Gender and women's empowerment: How did the project contribute to gender equality and women's empowerment?***

306. Overall, there were weaknesses in the project design (lack of a gender analysis and action plan, lack of clear gender-responsive indicators, no budget allocation for gender-responsive actions), while monitoring and evaluation, reporting, and implementation were generally gender-sensitive through RECOFTC's principles and practices. The PIRs for 2019 and 2020 set the Atlas Gender Marker Rating at GEN1 - some contribution to gender equality. This rating appears fair, as there were indeed positive contributions (see **4.3.8**) – although the project design did little to promote a systematic and strategic approach towards gender equality and the empowerment of women. The main results areas where the project contributed to gender equality were: *Improving the participation and decision-making of women in natural resource governance,* especially through the community forestry (CF) committees that recognized the role of women in the design and implementation of CF management plans; and *3) targeting socio-economic benefits and services for women*: where examples of positive outcomes benefitting women include increased environmental awareness amongst women and training of women in sustainable resource use.

***Cross-cutting Issues (1): Social and environmental safeguards / rights-based approach***

307. The SESP in the project document was noted to be weak in certain areas by the MTR and subsequent PIRs. During implementation three additional related risks were flagged, which were mitigated through appropriate stakeholder consultation processes. One risk - that ongoing land conflict may create different perceptions among stakeholders with whom the project is working, was repeatedly mentioned as an ongoing issue by local stakeholders – therefore this does need attention in the related strategies, plans and follow up stakeholder engagement. Overall, the screening and oversight of environmental and social safeguards risks should have been more thorough, although in general the project responded

appropriately to the risks that were identified during the course of implementation, and its community level engagement including women, elders and youth was effective.

***Cross-cutting Issues (2): climate change adaptation***

308. Overall, the project has contributed towards the climate resilience of the peat swamp through measures that will assist in the rehabilitation of its ecological condition – namely, the establishment of a water management regime that supports natural hydrological functioning of the peat swamp; secondly to restore forest cover through reforestation of damaged areas; and thirdly to support sustainable forest and wetland uses such as community forestry and ecotourism. While progress has been made in these areas, climate resilience can be expected to incrementally improve in due course as the management regime under the KKL Strategy matures, resulting in improved ecosystem condition and threat reduction. The surrounding communities have also benefited in terms of improved resilience through awareness raising efforts, engagement in natural resource co-management, support for sustainable livelihood practices. The project has also provided great capacity development assistance towards voluntary fire-fighting network management – a major threat to the peat swamp that is likely to intensify with global warming.

***Cross-cutting Issues (3): capacity development***

309. This project included a variety of capacity development aims, mainly focused on the conservation and sustainable use of the KKL peat swamp (Outcome 1) and implementing technologies to avoid peat swamp degradation and restore degraded areas (Outcome 2). These capacity development inputs are summarized in section **4.3.9** above. Overall, the project achieved significant improvements in capacity for peat swamp management at community and provincial government levels. Capacity development for the two NHAs was weaker than planned; also the capacity of provincial level government line agencies to implement the KKL Strategy actions still requires post-project follow up, including sharing of project results, and coaching and discussion on how to apply these results. The water modelling and climate monitoring methodologies require further expert review and agency endorsement in order to be available for practical use.

***Cross-cutting Issues (4): poverty-environment nexus***

310. While the project had no specific poverty-alleviation goals or socio-economic indicators, its activities on sustainable livelihoods in particular aimed to provide benefits to the rural communities in the project area. The strengthening of sustainable livelihoods and climate resilience based on sustainable management of peat swamp ecosystem resources (see above) will result in socio-economic benefits to surrounding communities that should contribute towards poverty alleviation. Many of these benefits are indirect, as the improved condition of the peat swamp combined with increased local capacity results in greater availability of NTFPs, fish resources, krajood, and ecotourism opportunities. However, direct benefits have also been provided through support for krajood production and marketing, increasing incomes for example for the Kreng Sub-district's Women's Basketry Group members. Overall, as there were no socio-economic indicators, there are only anecdotal data to illustrate such contributions towards socio-economic development. There was no disaggregated reporting on marginalized stakeholder groups.

## 5.2 Recommendations

311. As this project had reached its official (extended) completion date of 21 January 2021 during the TE period, owing to COVID19 related delays in implementing the terminal evaluation, the recommendations mainly concern follow-up actions that may assist in communicating project deliverables, reviewing their technical quality, achieving their official endorsement and promoting their application. Also to follow up and strengthen the sustainability of management of the whole KKL peat swamp.

| Rec # | TE Recommendation | Entity Responsible | Time-frame |
|---|---|---|---|
| **A** | **Category 1: Completing, applying and socializing project deliverables** | | |
| **A.1** | **Water management - Further apply the MIKE SHE Model for real testing of water management** so as to generate real "lessons learned" among related agencies and to provide practice for application in other peat swamp areas. RID should take the lead on this, but ONEP needs to propose it via a relevant policy body such as the Wetland Sub-Committee, then the Environment Committee (and if necessary cabinet) to endorse and order the RID under the Ministry of Agriculture to take action. | ONEP, RID | April-Dec 2021 |
| **A.2** | **Carbon monitoring – Support a critical technical review of the project-supported methodologies and results on carbon monitoring** in order to provide recommendations for their application in measuring and reporting on GHG emissions and carbon sequestration for peat swamps and other habitat types under the UNFCCC National Determined Contributions. The methodologies need to be workable for practical government monitoring and reporting procedures. | ONEP | April-Dec 2021 |
| **A.3** | **Strengthen the sustainability of livelihoods and expand the network to Thale Noi and Songkhla Lake areas**: Continued capacity development and networking support is needed to increase the environmental sustainability of livelihoods in KKL (krajood production, and also other livelihoods). In addition, stimulation of local involvement should be supported by TEI post-project through the new grant funding received via UNDP CO. TEI should also support expansion of the network to Thale Noi and Songkhla Lake areas through a consultative platform which links local people from the Kuan Kreng area upstream, with Thale Noi (midstream), and Songkhla lake (downstream) to learn from the project's work. Local people with different occupations apart from Krajood production should be invited to join. | UNDP CO/TEI | April-Dec 2021; longer if funding available |
| **A.4** | **Link ongoing peat swamp management activities in KKL area to the GCF readiness support project.** A UNDP/ONEP GCF project has been developed that includes NST and Songkhla, providing the opportunity to follow up on climate change adaptation measures in the KKL. | UNDP, ONEP | April-Dec 2021 / longer if GCF supports |
| **A.5** | **Test the integrated landscape approach linking climate change and biodiversity through the Innovation Accelerator Policy Lab.** The integrated landscape approach requires effective coordination mechanism, cross-functional management, joint plan, budget, and KPI. These are still quite challenging for the Thai government, therefore, UNDP can take this opportunity to propel the issue further through the UNDP policy lab which could help the government to explore ways and means to foster their integrated operation in particular areas such as | UNDP, ONEP | April-Dec 2021 / longer if funding available |

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| | KKL. Thailand was selected as a target country by UNDP global to implement an **Innovation Accelerator Policy Lab, which is** also a Thai government initiative with the National Socio-economic Development Council as a donor. The aim is to test public policy innovations (not technologies) – the PSE issue could be one such public policy to test – linking CCM and Biodiversity, which is a policy gap at present. This would be a good example to show how the two thematic areas are mutually interdependent. A sustainable tourism test case is currently in progress. | | |
| **A.6** | **Locate additional external funding to support the sustainability of project outcomes:** UNDP's Rapid Financing Facility offers another potential avenue for financial support, in response to COVID-19 impacts on the local economy and community livelihoods in KKL. Also the BIOFIN Phase II project supporting Thailand implement the Biodiversity Finance Plan through the prioritized solution: *Government Budget Finance Solution – Enhancing effectiveness and biodiversity impact of local budgets in Thailand* - for example, to apply the peat swamp landscape approach as a demonstration of the effectiveness of integrated provincial budget. | ONEP, UNDP | April – Dec 2021 |
| **A.7** | **Disseminate completed project deliverables and lessons learned to all relevant national and provincial government agencies and other stakeholders and hold further workshops to generate co-learning:** At the provincial level, there is an urgent need to disseminate the completed documents to all relevant agencies, as these have not yet been received. The communication gap among key national agencies should also be addressed by sharing project-related documents. Further engagement especially with national and provincial government agencies to finetune understanding as well as capacity building are needed in order to ensure that project results and tools are well understood and taken into consideration. Sharing of lessons learned (successes and challenges) is needed to strengthen peat swamp resource management based on the project experiences. | ONEP, UNDP | April-August 2021 |
| **A.8** | **Foster cooperation with the private sector on peat swamp management as businesses can benefit from peat swamp carbon restoration.** The impact investment study by the project has promoted this, which needs follow up by various stakeholders (including KKL Task Force and UNDP), not only ONEP, to bring the private sector on board. NGOs can also assist in advocating for this. The Biodiversity Finance Initiative (BIOFIN)[40] Phase II project aiming to support Thailand implement its Biodiversity Finance Plan at national and subnational levels provides opportunity for support, especially through its *Private Sector Finance Solution: Mobilizing the private sector and impact investment in support of biodiversity*. | ONEP, UNDP, others | April-Dec 2021, longer if funding available |
| **A.9** | **Support further work on indirect economic valuation of ecosystem services of Kuan Kreng Peat Swamp** - to be used for policy decision making as the indirect benefits are greater than direct one (e.g. flood control, carbon sink, etc.). The economic valuation work done during the extension period has provided useful information on this. It is generally difficult to capture the value of regulatory ecosystem services, therefore it recommended to link follow up to the UNEP/GEF project with ONEP on *Integration of Natural Capital Accounting in Public and Private Sector Policy and Decision-making for Sustainable* | ONEP | April-Dec 2021 / duration of UNEP / GEF NCA project |

[40] http://www.biodiversityfinance.net/thailand

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| | *Landscapes*[41] which includes development of policy and market incentives for key sectors and networking for mainstreaming of NCA. | | |
| **B** | **Category 2: Facilitating outcome sustainability – Policy actions** | | |
| **B.1** | **Complete the process for government review and endorsement of the National Strategy on Peat Swamps, according to the following steps:**<br>**d)** Circulate the draft national strategy on peat swamps to related government agencies to review in detail (as the previous COVID situation prevented PSU to hold seminars / workshops<br>**e)** Submit the revised national strategy on peat swamps to the Wetland Technical Committee for review<br>**f)** Forward the revised draft (considered by Wetland Technical Committee) to the Wetland Management Sub-Committee, then National Environment Committee, and finally Cabinet for endorsement. | ONEP; facilitation support from UNDP CO | April 2021 – April 2022 |
| **B.2** | **Integrate the National Strategy on Peat Swamps into relevant national action plans and seek endorsement from Cabinet:**<br>c) the National Action Plan on Sustainable Conservation and Utilization of Biodiversity<br>d) National Action Plan on Climate Change | ONEP; facilitation support from UNDP CO | August 2021- August 2022 |
| **B.3** | **Propose an amendment to the Cabinet Resolutions** on 1 August B.E. 2543 and 3 November B.E. 2552 as follows:<br>c) **Revise and prioritize the list of wetland areas** by adding the peat swamps listed in the PSU inventory of peat swamps<br>d) **Revise the list of critical wetland areas urgently requiring restoration and conservation**, based on the PSU and project's works specifying the peat swamp areas that are under threat | ONEP; facilitation support from UNDP CO | April -Dec 2021- |
| **B.4** | **Propose to the Cabinet to designate Kuan Kreng Peat Swamp and other peat swamps as Wetlands of International Importance under the Ramsar Convention.**<br>Project Output 1.1 proposed Ramsar Site designation of the Kuan Kreng peat swamp by Year 2 of the project. So this measure is needed to address this gap in project outcomes (it is not reflected in the results framework, strangely). The designation of other peat swamps is highly desirable in order to promote their conservation and sustainable use, and to raise their profile among local stakeholders. | ONEP; technical support for Ramsar Site datasheet, map and proposal are needed | April - 2021- April 2022 |
| **B.5** | **Expand Kuan Ki Sien Ramsar Site to cover Thale Noi NHA**<br>The expansion of this Ramsar Site to the whole of the NHA is logical to cover all wetland habitats and adjacent drylands within the KKL – so the whole area of the NHA within Phatthalung province is covered by one Ramsar Site, while a second new site (above) would cover the remainder of KKL in NST province. | ONEP; technical support for revised Ramsar Site datasheet, map and proposal are needed | April – Dec 2021 |
| **B.6** | **Propose to the Cabinet to designate To Daeng Peat Swamp as an ASEAN Heritage Site**<br>As the largest peat swamp in Thailand, and one of the best studied sites, this would be excellent recognition for To Daeng (aka Sirindhorn peat swamp) in Narathiwat Province (area: 120,000 rai or about 19,200 hectares) and everyone who has worked on it over the years. | ONEP; technical support for ASEAN Heritage Site | April – Dec 2021 |

[41] https://www.thegef.org/project/integration-natural-capital-accounting-public-and-private-sector-policy-and-decision-making

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| | | proposal is needed | |
| **C** | **Category 3: Strengthening M&E and adaptive management** | | |
| **C.1** | **Systematically address PIR recommendations through adaptive management procedures:** A consistent weakness throughout the project was that RTA recommendations included in PIR assessments were not fully followed up, indicating that the mechanism for achieving adaptive management was not effective. The lesson learned is that UNDP CO needs to systematically include PIR recommendations in regular monitoring and reporting mechanisms with project PMUs to allow better tracking and monitoring of responses. | UNDP CO | April 2021 onwards |
| **C.2** | **Quarterly Progress Report (QPR) templates should be standardized as part of a global UNDP/GEF reporting system, and specify gender and safeguard reporting requirements:** The QPR template for this project was very activity-based initially, so this was improved after MTR to be more output-oriented and better aligned with annual PIR assessments. The format used for QPRs is presumably based on a UNDP template which is HACT-compliant, but is determined by the individual UNDP Country Offices, independent of the UNDP Vertical Fund Directorate, and as such it is variable between countries. The issue is that the information in the QPRs does not feed seamlessly into the PIR reporting and assessment, and that RTAs do not have direct access to the QPRs to provide more detailed basis for their assessment reviews, limiting the usefulness of the PIRs as an M&E mechanism. The lesson learned is that QPR formats should be better aligned – and ideally globally standardized – to provide a more integrated and efficient reporting system on GEF projects for UNDP. Secondly, the QPR template needs to explicitly require reporting on gender mainstreaming and social and environmental safeguards in support of the PIRs and more consistent application of UNDP standards across the Country Office network. | UNDP HQ | April 2021 onwards |
| **C.3** | **Strengthen engagement of Project Board members and other key staff of national agencies in GEF projects through special briefing sessions, round table discussions, field visits to project sites and involvement in technical Working Groups:** At the national level, apart from reporting progress to the PB members, direct engagement with key departments such as the Department of National Parks, Royal Irrigation Department, and Water Resources Department was not observed. It would have been more effective if key management levels of those departments were involved at national level so they could direct the provincial and local offices to support the works done in the project landscape area. It was insufficient to rely on PB members who participated in the PB meetings to communicate this project to their own respective departments, because they had no opportunity to fully understand the issues involved. | UNDP CO | April 2021 onwards |
| **D** | **Category 4: Resolving outstanding audit and safeguard issues** | | |
| **D.1** | **Conduct a full project audit of GEF-funded activities from December 2018 to project close in 2021** using remaining uncommitted GEF funds. During the project period, no full project audit was conducted, only a HACT assessment of RECOFTC as RP in April 2018 and a spot check for the period May-November 2018 on RECOFTC's activities. | UNDP CO | April-May 2021 |
| **D.2** | **Include an updated SESP in the project closure report and ensure enhanced oversight on safeguards for future projects**: As | UNDP CO | April 2021 |

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| | recommended by the MTR and noted in subsequent PIR assessments, there were weaknesses in the original SESP that required review and attention. Consequently, the project has a moderate risk rating in the PIMS+ risk management dashboard due to the unsatisfactory MTR outcome rating. New or escalated safeguards risks were documented in the PIRs, but never finalized in an updated SESP. While it is too late to apply such changes to implementation, the reviewed and updated SESP should be included in the project's closure report, to assist the IP with ongoing monitoring and management of any safeguard-related risks to sustainability. Enhanced oversight on safeguards should be ensured for future projects. | | |
| **E** | **Category 5: Host country governance of GEF project implementation** | | |
| **E.1** | **Develop and agree on a streamlined mechanism for host country governmental approval of GEF projects.** The necessity for Cabinet approval of the project document for the current project was responsible for a major delay of more than 18 months, from which project implementation never really recovered. To avoid similar impacts on other GEF projects, it is advisable to negotiate a more efficient mechanism. For example, in certain other countries, the UNDP Country Programme Action Plan is signed by government and used as the framework for UNDP/GEF project approval, allowing the implementing partner agency to sign the project document rather than requiring Cabinet approval. | GEF OFP, Ministry of Foreign Affairs, UNDP (and possibly other GEF IAs such as UNEP) | April – June 2021 |
| **E.2** | **Provide capacity development support to GEF project IPs to ensure stronger understanding of UNDP/GEF project policies and execution requirements.** The requirements of GEF project execution are constantly evolving, and involve attention to M&E, gender mainstreaming, social and environmental safeguards, risk management, stakeholder engagement and other matters. The GEF and UNDP policies and procedures for execution are often not consistent with national government, thus placing the IP in the awkward position of having to meet the needs of two systems simultaneously that do not fully align. Orientation support for relevant IP staff before and during GEF projects would help to resolve such issues and improve project execution performance. | UNDP CO | April 2021 onwards |

## 5.3 Lessons Learned

**Improving project design**

- This project (in common with other projects) had biodiversity and climate change mainstreaming goals without providing sufficient dedicated support needed to achieve it. Mainstreaming takes significant effort, and is only likely to be effective if specific mechanisms are created or used to institutionalize inter-sectoral collaboration in the government system. Therefore, mainstreaming projects need to include dedicated staff roles to take this forward. In the case of this project, the building of understanding of sustainable peat swamp management and the capacity to implement this in related sectors at both national and provincial levels was inadequate and should have been supported by dedicated project staff inputs (beyond the much good work that was done).
- A number of Results Framework indicators in the project document did not meet SMART standards and were genuinely difficult to understand, measure and report on effectively. This, together with the lack of a theory of change for the GEF-supported alternative strategy, impacted shared

understanding of the overall project approach to the environmental problem, and especially how the different outputs and outcomes were related and needed coordination and integration. The lesson is that clear design of the Results Framework (often thought of as just an M&E requirement) and effective communication of the theory of change have far-reaching consequences and require careful attention to avoid problems during project implementation.

- The GEF Tracking Tool assessments provide valuable information on progress towards GEF Focal Area targets, as well as on the key actions needed to advance these targets. The fact that the Climate Change Mitigation and Sustainable Forest Management / REDD+ Tracking Tools were not even referred to in the Results Framework was a major oversight and led to lack of clarity in reporting on carbon emissions and reforestation efforts. The lesson learned is that all GEF projects need to integrate the GEF Tracking Tools into the RF indicators, preferably at objective level, in order to retain a clear focus on priorities.

**Strengthening implementation**

- Major delays at project outset, such as the 18+ months required to secure Cabinet approval for signing of the project document followed by further delays in establishing the project management arrangements in this case, have major knock-on effects on the overall implementation and success of the project. These include: reduction in the overall period available for productive work; the need for significant revision of project targets, workplan and budget to recover from such delays; more intensive and accelerated execution to achieve delivery targets; reduced internalization of project outputs by stakeholders due to shorter period of engagement; reduced sustainability of outcomes due to later completion of outputs and shorter stakeholder engagement processes.
- The project management structure described in the project document was changed at an early stage of the project, when the Implementing Partner passed over the PMU function and much of the technical implementation to RECOFTC as a subcontracted Responsible Party. This change took significant time to put in place, stalling implementation progress while the RP underwent selection and contracting. When combined with the initial loss of some 18 months awaiting Cabinet approval for project implementation to begin, the time lost in productive implementation work was huge, and the project never really regained the lost ground – although RECOFTC worked relatively efficiently once fully on board by mid-2018. The lesson learned is that support should be provided to the IP to ensure full understanding and confirmation of its exact role in the project document before CEO Endorsement, thus avoiding such impacts during implementation.
- It is essential to effectively communicate the project "vision" – the change it intends to bring about and the key strategies that the project will embrace to achieve this vision (Theory of Change), among the key project partners, the Project Board, and other stakeholders. This common understanding strengthens commitment and engagement, facilitates outreach to related projects and development partners, and ultimately will strengthen the sustainability of the overall project outcomes. This lack of unified vision and understanding was a weakness for much of the current project, impairing coordination and the overall effectiveness of the project strategy.
- At the national level, apart from reporting progress to the PB members, direct engagement with key departments such as the Department of National Parks, Royal Irrigation Department, and Water Resources Department was not observed. It would have been more effective if key management levels of those departments were involved so they could directly order the provincial and local offices to support the works done in the project landscape area. It was insufficient to rely on PB members who participated in the PB meetings to communicate this project to their own respective departments, because they had no opportunity to fully understand the issues involved. The outcome was that the PB representatives, despite reporting back to their respective department management were unable to convince the institutions on the merit of this project and to take the necessary action.

- As several stakeholders have expressed, the landscape approach needs integrated and coordinated efforts by all parties involved. If the groundwork done in the project landscape cannot be scaled up to provincial, national, and policy levels, the landscape approach to peat swamp conservation is not likely to become successfully established.
- Weaknesses were identified in the systematic approaches required for gender equality and women's empowerment and ensuring that social and environmental safeguards were integrated in project M&E. To advance these issues, UNDP should invest in the training of IP/PMU staff on UNDP standards for risk management, social and environmental safeguards and gender mainstreaming during the project inception period, and ensure adequate GEF budget provision in the ProDoc. This should be included in the standard guidance for UNDP project documents.

**Project Reporting**

- As a general point, it should be noted that analysis of documents is of increased importance for conducting an evidence-based evaluation when it is limited to remote interviews without any field mission (i.e. as a COVID-19 induced limitation). Consequently, it is suggested that UNDP instigate more systematic and intensive outcome-oriented reporting by the project team in the final year of implementation to support effective terminal evaluation (i.e. timely preparation of a Project Completion Report based on a set UNDP template including Results Framework and Output deliverables status tables; and more informative Outcome-oriented quarterly reports also based on a set UNDP template).

# 6 Annexes

## Annex 1: TE ToR (excluding ToR annexes)

**See separate file**

## Annex 2: List of consultations conducted by the terminal evaluation team

### Project Design Team

| Agency | Name of officials | Date | Time | Channel of Communication |
|---|---|---|---|---|
| **Freelance – Previous Director of Biodiversity Management Division, Office of Natural Resource and Environmental Policy and Planning** | Ms. Nirawan Pipitsombat, Technical Consultant (previous ONEP director) | Wednesday 13th January 2021 | 9.00-10.00 am | Telephone Call |

### Implementing Partner

| Agency | Name of officials | Date | Time | Channel of Communication |
|---|---|---|---|---|
| **Office of Natural Resource and Environmental Policy and Planning** | Ms. Jittinan Ruengverayudh, Director of Biodiversity Management Division<br><br>Sukanya Wisal, Senior Environment Officer<br><br>Ms. Tatiya Ouitrakarn, Senior Environment Officer, key focal point for PS project | Wednesday 6th January 2021 | 10.00-12.00 pm | Face to Face |

## GEF Implementing Agency

| Agency | Name of officials | Date | Time | Channel of Communication |
|---|---|---|---|---|
| **UNDP Thailand Country Office** | Mr. Saengroj Srisawaskraisorn, Programme Specialist<br><br>Ms. Napaporn Yuberk, Programme Analyst<br><br>Ms. Lisa Farroway, Regional Technical Adviser | Tuesday 12th Jan 2021<br><br>Wednesday 13th Jan 2021 | 16.00-17.30 pm<br><br>16.00 – 17.00 pm | Online – Zoom<br><br>Online - Zoom |

## GEF OFP

| Agency | Name of officials | Date | Time | Channel of Communication |
|---|---|---|---|---|
| **International Affairs Division, Permanent Secretary Office, Ministry of Natural Resources and Environment Office** | Ms. Wacharee Chuaysri, Senior Environment Officer | Monday 11th January 2021 | 9.30-10.15 am | Telephone Call |

## Project Management Unit

| Agency | Name of officials | Date | Time | Channel of Communication |
|---|---|---|---|---|
| **RECOFTC** | Mr. Ronnakorn Teerakanon, Projrect Director | Tuesday 12th January 2021 | 10.00-13.00 pm | Online -Zoom |
| **Freelance** | Mr. Wethit Phumphuang, Field Coordinator | Wednesday 20th January 2021 | 14.30-15.00 pm | Telephone Call |
| **Freelance** | Ms. Pantip Pordee, local staff based at NST | Thursday 21st January 2021 | 17.00-18.00 pm | Long Distance Telephone Call |

## Project Board Members

| Agency | Name of officials | Date | Time | Channel of Communication |
|---|---|---|---|---|
| **Department of Marine and** | Ms. Kanjanaporn Wuttivorawong, Director for | Thursday 14th January 2021 | 9.00-10.00 am | Telephone Call |

| Agency | Name of officials | Date | Time | Channel of Communication |
|---|---|---|---|---|
| **Coastal Resources (DCMR)** | biodiversity and wetland group | | | |
| **Natural Resources and Environmental Provincial Office based at Pattalung Province as a representative of Pattalung Governor** | Ms. Sanee Tiptabeankarn, Senior Environmental Officer | Thursday 14th January 2021 | 11.00-12.00 pm | Long Distance Telephone Call |
| **Regional Water Resource Office 8 based at NST as a representative from Water Resource Department** | Mr. Sophon Susadeeamphai, Director for Water Resource Management | Friday 15th January 2021 | 14.00-15.00 pm | Long Distance Telephone Call |
| **Natural Resources and Environment Provincial Office base at Songkhla province as a representative of Songkhla governor** | Mr. Arkom Yuttana, Director of the Provincial Office | Friday 22nd January 2021 | 11.00-12.00 pm | Long Distance Telephone Call |

## Consultants (most are not the same as those interviewed during the MTR)

| Agency | Name of officials | Date | Time | Channel of Communication |
|---|---|---|---|---|
| **Thailand Environment Institute** | Ms. Benjamas Chotthong, Project Director<br><br>Ms. Puangpaka Kaokratoke, Project Manager | Saturday 16th January 2021 | 10.00-12.00 pm | Online - Zoom |
| | Mr. Arun Sukjitdee, Project Field Coordinator based at NST | Friday 22nd January 2021 | 16.00-17.00 pm | Online - Zoom |
| **Wisdom Vast** | Ms. Thansiri Samran, Manager and Team Members | Tuesday 12th January | 14.00-15.00 pm | Online - Zoom |

| Agency | Name of officials | Date | Time | Channel of Communication |
|---|---|---|---|---|
| **Kasetsart University** | Ms. Penporn Janekarnkij, Economist | Wednesday 13th January 2021 | 16.00-17.00 pm | Telephone Call |
| **Prince Songkhla University** | Mr. Nopparat Bamroongrugsa, Project Leader | Wednesday 13th January 2021 | 11.00-12.00 pm | Long Distance Telephone Call |

## Regional/Provincial Government Agencies

| Agency | Name of officials | Date | Time | Channel of Communication |
|---|---|---|---|---|
| **Regional Forest Office 12 based at NST** | Mr. Marayad Tubtieng, Senior Forest Official | Monday 18th January 2021 | 14.00-14.30 pm | Long Distance Telephone Call |
| **Regional Irrigation Office 15 based at NST** | Mr. Chanet Sornlila, Senior Water Management Engineer | Monday 18th January 2021 | 15.00-15.30 pm | Long Distance Telephone Call |
| **Provincial Agricultural Land Reform Office based at NST** | Mr. Suriya Tongkaewchan, Senior Agricultural Officer | Tuesday 19th January 2021 | 9.30-10.00 am | Long Distance Telephone Call |
| **Natural Resources and Environment Provincial Office base at Songkhla province as a representative of Songkhla governor** | Mr. Arkom Yuttana, Director of the Provincial Office | Friday 22nd January 2021 | 11.00-12.00 pm | Long Distance Telephone Call |
| **Provincial Education Office based in NST** | Mr. Suban Krohkaew, Education Supervisor | Wednesday 20th January 2021 | 13.30-14.00 pm | Long Distance Telephone Call |
| **Talay Noi NHA Office, based at Pattalung** | Mr. Suchut Muen-Noo, Chief of the Office | Monday 18th January 2021 | 16.00-16.30 pm | Long Distance Telephone Call |
| **Bor Lor NHA Office, based at NST** | Mr. Songwut Yiamwech, Chief of the Office | Tuesday 19th January 2021 | 10.30-11.00 am | Long Distance Telephone Call |
| **Regional Protected Area Office 5** | Mr. Watchrapong Lapatmonpong, Chief of Forest Fire Control and Operation | Tuesday 19th January 2021 | 11.30-12.00 pm | Long Distance Telephone Call |

| Agency | Name of officials | Date | Time | Channel of Communication |
|---|---|---|---|---|
| **Talay Noi fire Control and Operation Office based at NST** | Mr. Yuttana Sujakul, Previous Chief of the Office | Tuesday 19th January 2021 | 13.30-14.00 pm | Long Distance Telephone Call |
| **Bor Lor fire Control and Operation Office based at NST** | Mr. Atiwat boonyalit, Chief of the Office | Tuesday 19th January 2021 | 14.30-15.00 pm | Long Distance Telephone Call |

## Local Government Agencies

| Agency | Name of officials | Date | Time | Channel of Communication |
|---|---|---|---|---|
| **Chauad Sub-district Organization, Chauad District** | Mr. Phunyalit Khaelwkaew, Chairman of the Organization | Tuesday 19th January 2021 | 15.00-15.30 pm | Long Distance Telephone Call |
| **Bantoon Sub-district Organization, Chauad District** | Mr. Phithak Kangchan, Chairman of the Organization | Tuesday 19th January 2021 | 16.00-16.30 pm | Long Distance Telephone Call |
| **Kreng Sub-district Organization, Chauad District** | Mr. Sawai Thangdam, Chairman of the Organization | Thursday 21st January 2021 | 9.30-10.00 am | Long Distance Telephone Call |
| **Village no 11., Kreng Sub-district Organization, Chauad District** | Mr. Sanan Khongkaew, Head of Village | Thursday 21st January 2021 | 10.30-11.00 am | Long Distance Telephone Call |

## Local communities

| Agency | Name of officials | Date | Time | Channel of Communication |
|---|---|---|---|---|
| **Local village, Kreng sub-district, Chauad District** | Ms. Supap Khongkaew, Leader of Female Group (Krajood Producing) | Saturday 23rd January 2021 | 10.00-10.30 am | Long Distance Telephone Call |
| **Local village, Chauad sub-district, Chauad District** | Mr. Joy Head of Village, Local Nursery Owner | Saturday 23rd January 2021 | 11.00-11.30 am | Long Distance Telephone Call |
| **Local village, Kreng sub-** | Mr. Thanawat Thongsuk , | Saturday 23rd January 2021 | 12.00-12.30 pm | Long Distance Telephone Call |

| Agency | Name of officials | Date | Time | Channel of Communication |
|---|---|---|---|---|
| **district, Chauad District** | Leader of local Youth Group | | | |
| **Local village, Bantoon sub-district, Chauad District** | Mr. Somchai Ponsawat, Local Leader for Fire Patrol Network | Saturday 23rd January 2021 | 14.00-14.30 pm | Long Distance Telephone Call |
| **Local village, Kreng sub-district, Chauad District** | Mr. Som-ake Inchuay, Local Nursery Owner | Saturday 23rd January 2021 | 13.00-13.30 pm | Long Distance Telephone Call |

## NGOs

| Agency | Name of officials | Date | Time | Channel of Communication |
|---|---|---|---|---|
| **Kon Ruk Tin Association Karakad sub-district, Chien Yai District, NST** | Ms. Chainarong Khongkuea, Local NGO/Activist | Monday 25th January 2021 | 16.00-17.00 am | Long Distance Telephone Call |

## Annex 3: List of documents reviewed

**Status – Green = received; yellow = outstanding; grey = provisional listing; red = not available*

| Title of Document | Date | Language | Source |
|---|---|---|---|
| **Contacts and Project Sites** | | | |
| Full list and contact details for project staff, key project stakeholders, including Project Board and Technical Advisory Committee members, RTA, Project Team members, other partners and stakeholders to be consulted nationally and for each site | | EN | UNDP CO |
| List of related projects/initiatives contributing to project objectives approved/started after GEF project approval (i.e. any leveraged or "catalytic" results) | | EN | UNDP CO |
| **Project Preparation** | | | |
| GEF Project Identification Form (PIF) | | EN | GEF Website |
| GEF STAP Screening Report on PIF | | EN | GEF Website |
| GEF Secretariat Review comments on PIF | | EN | GEF Website |
| UNDP PPG Initiation Plan | 26 Sep 2013 | EN | UNDP PIMS+ |
| GEF CEO Endorsement Request | 24 Dec 2014 | EN | UNDP PIMS+ |
| Signed UNDP-GEF Project Document with all annexes | 24 Apr 2015 | EN | UNDP CO |
| UNDP Delegation of Authority for Implementation | 27 May 2015 | EN | UNDP CO |
| LoA for UNDP Support Services | 19 Sep 2016 | EN | UNDP CO |
| UNDP Social and Environmental Screening Procedure | Prodoc Annex 11 | EN | UNDP CO |
| **Project Inception** | | | |
| Project Inception Workshop Report | Undated draft | EN | UNDP CO |
| | | | |
| **Project Evaluations** | | | |
| Mid Term Review report | June 2019 | EN | UNDP CO |
| Project Management Response to MTR | 16 August 2019 | EN | UNDP CO |
| **GEF Tracking Tools** (note – baselines in Prodoc) | | | |
| METTs Baseline | Prodoc Annex 15 | EN | UNDP CO |
| METT Mid-term | Feb 2019 (NHAs) and Sept 2019 (EPAs) | EN | UNDP CO |
| METT Project Completion | May-June 2020 | EN | UNDP CO |
| CCM Tracking Tool | CEO ER (Nov 2014); Midterm (Feb 2019); Completion (Aug 2020) | EN | RECOFTC Google Drive |
| SFM-REDD Tracking Tool | CEO ER (Nov 2014), Midterm (Mar 2019), Completion (Undated) | | RECOFTC Google Drive |
| EHI (not GEF) for Thale Noi and Bor Lor NHAs | Dec 2019, May 2020 | EN | RECOFTC Google Drive |
| **Project Extension and Completion** | | | |
| Project Extension Proposal and related docs | June 2020 | EN | UNDP CO |
| Project Results Report | Final Draft February 2021 | EN | UNDP CO |
| **Annual & Sub-Annual Project Plans, Reports and Budgets** | | | |
| Annual Work Plans (AWP) | 2021 (30/12/2020) | EN | UNDP CO |
| Multi-Annual Workplan and budget | 2018-2020 (8/5/18), 2019-2020 (22/5/19) | EN | UNDP CO |
| Quarterly Progress Reports | Q2&3 2018, Q1 2019-Q2 2020 (missing Q4 2018, Q3 & Q4 2020) | | UNDP CO |
| GEF Project Implementation Reports (PIR) | 2018, 2019, 2020 | EN | UNDP CO |
| UNDP Atlas Risks log, lessons learned | | EN | UNDP CO |
| Financial and FACE Reports for RECOFTC, PSU and Wisdom Vast contracts | | EN/ TH | UNDP CO |
| RECOFTC Micro-Assessment | | EN | UNDP CO |
| Asset lists | To July 2019 | EN | UNDP CO |
| List of contracts and procurement items over ~US$5,000 (i.e. organizations or companies | Contracting info provided | EN | UNDP CO |

| Title of Document | Date | Language | Source |
|---|---|---|---|
| contracted for project outputs, etc., except in cases of confidential information) | | | |
| Responsible Party Agreement for RECOFTC | | EN | UNDP CO |
| AWP Budgets | July 2016-Dec 2020 | EN | UNDP CO |
| GEF & UNDP Financial Expenditure Reports | CDRs June 2016-Dec2020 | EN | UNDP CO |
| Summary of co-financing received at 30 Dec 2020 and certification letters | No details of type of cofinancing | EN | UNDP CO |
| Annual Audit Reports | | EN | UNDP CO |
| Field Visit Reports (BTOR) | 10 BTORs | EN | UNDP CO |
| **Project Steering Committee and Advisory Committee Meeting Reports** | | | |
| Project Board Meeting minutes | 19/9/19, 13/2/20, 8/6/20, 11/11/20 | EN | UNDP CO |
| Project Board Meeting minutes | 7 PB reports (2 for 2017, 1 2018, 2 2019, 2 2020) | TH | UNDP CO |
| **Project Communications and Awareness Materials (electronic copies)** | | | |
| Samples of printed, electronic, website materials | | TH | RECOFTC / Wisdom Vast |
| Data on relevant project website activity – e.g. number of unique visitors per month, number of page views, etc. over relevant time period, if available | Wisdom Vast | TH | Wisdom Vast |
| **Project Technical Reports (electronic copies of assessments, plans, guidelines, etc)** | | | |
| Stakeholder Engagement Plan | Draft Nov 2018 | EN | UNDP CO |
| National inventory of peat swamps and national strategy on peat swamps | Executive Summary in English | EN | UNDP CO |
| Report on Peat Swamp Inventory and Database in Thailand: Kuan Kreng Peat Swamp. Second revised report. | Undated, estimated around January 2020. | TH | UNDP CO |
| Inception Report on Knowledge Management for project database | Dec 2020 | EN | UNDP CO |
| Records of Stakeholder Consultations | | | UNDP CO |
| All technical project reports from RECOFTC at link: https://drive.google.com/drive/folders/1fc7uaI4qjeISwafGmFCpA5bokVSthQoZ | Most documents in Thai | TH | UNDP CO / RECOFTC |
| Other project deliverables that provide documentary evidence of achievement towards project outcomes | Most in Thai – eg newsletters, presentations, reports, meeting minutes | TH | UNDP CO / RECOFTC |
| **Other Relevant Documents (not produced by the Project)** | | | |
| Biodiversity Finance Plan 2020 | | | https://www.th.undp.org/content/thailand/en/home/library/environment_energy/the-biodiversity-finance-plan.html |
| BioFin Synthesis Report for Thailand | | | https://www.th.undp.org/content/thailand/en/home/library/environment_energy/biofin-synthesis-report-for-thailand.html |
| 6th National Report to CBD | | | https://www.th.undp.org/con |

| Title of Document | Date | Language | Source |
|---|---|---|---|
| | | | tent/thailand/en/home/library/environment_energy/Progres-on-biodiversity-management-in-Thailand.html |
| UNDP Thailand Annual Report 2019 | | | https://www.th.undp.org/content/thailand/en/home/library/other-publications/undp-annual-report-2019.html |
| **Publications and Scientific Papers** | | | |
| | | | |
| | | | |
| **UNDP and GEF Programme Documents (for reference only)** | | | |
| UNDP Partnership Assistance Framework (UNPAF) Thailand | 2017-2021 | EN | http://www.un.or.th/wp-content/uploads/2018/05/ENG-UNPAF-2017-2021.pdf |
| UNDP Country Programme Document for Thailand | 2017-2021 | EN | https://open.undp.org/profile/THA/recipient profile |
| UNDP Strategic Plan | 2018-2021 | EN | UNDP website |
| GEF 5 programming document | | EN | https://www.thegef.org/sites/default/files/council-meeting-documents/GEF_R5_31_CRP1_4.pdf |

## Annex 4: Evaluation Question Matrix

| Evaluation Questions | Indicators | Sources | Methodology |
|---|---|---|---|
| ***Evaluation Criteria: Relevance***<br>***How does the project relate to the main objectives of the GEF focal areas, and to the environment and development priorities at local, regional and national levels?*** | | | |
| • How does the project support the objectives of the CBD Programme of Work on Protected Areas?<br>• How does the project contribute towards the objectives of the UNFCCC and Ramsar Convention? | • Linkages between project objective and elements of the CBD, such as key articles and programs of work (especially PoWPA SFM-REDD+ and climate change mitigation)<br>• Linkages to UNFCCC and Ramsar Convention strategic plans<br>• METTs for targeted PAs<br>• Carbon sequestration from LULUCF | • National Reports to CBD, UNFCCC and Ramsar Convention<br>• Project documents | • Document analyses<br>• Interviews with UNDP and project partners<br>• Desk review<br>• CBD website |
| • How does the project support the GEF biodiversity, climate change mitigation and Sustainable Forest Management focal areas and strategic priorities? | • Level of coherence between project objective and GEF strategic priorities (including alignment of relevant focal area indicators) | • GEF-5 strategic priority documents for period when project was approved<br>• Current GEF strategic priority documents | • Document analyses<br>• Desk review |
| • How does the project support the biodiversity conservation, climate change mitigation, sustainable forest management and sustainable development objectives of the country? | • National policy priorities and strategies, as stated in official documents<br>• Approved policy and legislation related to management plans, budgets, etc.<br>• Level of financing for the PA system | • NBSAP<br>• National PA laws, policies and plans<br>• National Action Plan for Wetland Conservation<br>• Strategic Plan on Climate Change<br>• National development plans<br>• Project documents | • Document analyses<br>• Interviews with UNDP and project partners<br>• Desk review |

| Evaluation Questions | Indicators | Sources | Methodology |
|---|---|---|---|
| What was the level of stakeholder participation in project design?<br>• What was the level of stakeholder participation in project design?<br>• How does the project support the needs of relevant stakeholders?<br>• Has the implementation of the project been inclusive of all relevant stakeholders? | • Level of involvement of local and national stakeholders in project origination and development (number of meetings held, project development processes incorporating stakeholder input, etc.)<br>• Collaboration opportunity<br>• Collaborative management approaches<br>• Increased resources and investment | • Project staff<br>• Local and national stakeholders<br>• Project documents | • Document analyses<br>• Field visit interviews<br>• Desk review |
| Is the project internally coherent in its design?<br>• Are there logical linkages between expected results of the project (results framework) and the project design (in terms of project components, choice of partners, structure, delivery mechanism, scope, budget, use of resources etc)?<br>• Is the GEF budget sufficient to achieve the intended outcomes?<br>• Is the length of the project sufficient to achieve project outcomes? | • Level of coherence between project expected results and project design internal logic<br>• Level of coherence between project outputs, activities and GEF budget allocations<br>• Level of coherence between project design and project implementation approach | • Project documents<br>• Key project stakeholders | • Document analyses<br>• Key interviews |
| How is the project relevant with respect to other donor-supported activities?<br>• Does the GEF funding support activities and objectives not addressed by other donors?<br>• How do GEF-funds help to fill gaps (or give additional stimulus) that are not covered by other donors?<br>• Is there coordination and complementarity between donors? | • Degree to which program was coherent and complementary to other donor programming nationally and regionally | • Documents from other donor supported activities<br>• Other donor representatives<br>• Project document | • Document analyses<br>• Key interviews |
| • Does the project provide relevant lessons and experiences for other similar projects in future? | • Lessons learned | • Data collected throughout evaluation | • Document analyses |

| Evaluation Questions | Indicators | Sources | Methodology |
|---|---|---|---|
| • Was project support provided in an efficient way?<br>• Was adaptive management used or needed to ensure efficient resource use?<br>• Did the project results framework and work plans have any changes made to them use as management tools during implementation?<br>• How was results-based management used during project implementation?<br>• Were the accounting and financial systems in place adequate for project management and producing accurate and timely financial information?<br>• Were progress reports produced accurately, timely and responded to reporting requirements including adaptive management changes?<br>• Was project implementation as cost effective as originally proposed (planned vs. actual)?<br>• Did the leveraging of funds (cofinancing) happen as planned?<br>• Were financial resources utilized efficiently? Could financial resources have been used more efficiently?<br>• Was procurement carried out in a manner that made efficient use of project resources? | • Availability and quality of financial and progress reports financial and progress reports<br>• Timeliness and adequacy of reporting provided<br>• Level of discrepancy between planned and utilized financial expenditures<br>• Planned vs. actual funds leveraged<br>• Cost in view of results achieved compared to costs of similar projects from other organizations<br>• Adequacy of project choices in view of existing context, infrastructure and cost<br>• Quality of results-based management reporting (progress reporting, monitoring and evaluation)<br>• Occurrence of change in project design/ implementation approach (i.e. restructuring) when needed to improve project efficiency<br>• Cost associated with delivery mechanism and management alternatives | • Project documents and evaluations<br>• UNDP<br>• Project staff | • Document analysis<br>• Interviews with project staff |
| ***Evaluation Criteria: Efficiency***<br>***- Was the project implemented efficiently, in line with international and national norms and standards?*** | | | |
| How efficient were partnership arrangements for the project?<br>• To what extent were partnerships / linkages between organizations encouraged and supported?<br>• Which partnerships/linkages were facilitated? Which ones can be considered sustainable?<br>• What was the level of efficiency of cooperation and collaboration arrangements?<br>• Which methods were successful or not and in which way? | • Specific activities conducted to support the development of cooperative arrangements between partners,<br>• Examples of supported partnerships<br>• Evidence that particular partnerships/linkages will be sustained<br>• Types/quality of partnership cooperation methods utilized | • Project documents and evaluations<br>• Project partners and relevant stakeholders | • Document analysis<br>• Interviews |

| Evaluation Questions | Indicators | Sources | Methodology |
|---|---|---|---|
| Did the project efficiently utilize local capacity in implementation?<br>• Was an appropriate balance struck between utilization of international expertise and local capacity?<br>• Did the project take into account local capacity in design and implementation of the project?<br>• Was there effective collaboration between institutions responsible for implementing the project? | • Proportion of expertise utilized from international experts compared to national experts<br>• Number/quality of analyses done to assess local capacity potential and absorptive capacity | • Project documents and evaluations<br>• UNDP<br>• Beneficiaries | • Document analysis<br>• Interviews |
| What lessons can be drawn regarding efficiency for other similar projects in the future?<br>• What lessons can be learnt from the project regarding efficiency?<br>• How could the project have more efficiently carried out implementation (in terms of management structures and procedures, partnerships arrangements etc)?<br>• What changes could have been made (if any) to the project in order to improve its efficiency? | • Lessons learned | • Data collected throughout evaluation | • Data analysis |
| ***Evaluation Criteria: Effectiveness:***<br>***To what extent have the expected outcomes and objectives of the project been achieved?*** | | | |
| Has the project been effective in achieving the expected outcomes and objectives?<br>• National policy, legal and institutional frameworks for effective management of peat swamp ecosystems have been strengthened<br>• Institutional and staff capacities are in place to effectively manage and govern peat swamp ecosystems<br>• Sustainable resource management and collaboration approaches successfully demonstrated at demonstration sites lead to improved peat swamp ecosystem conservation outcomes | • See indicators in project document results framework and logframe | • Project documents<br>• Project team and relevant stakeholders<br>• Data reported in project annual and quarterly reports | • Documents analysis<br>• Interviews with project team<br>• Interviews with relevant stakeholders |

| Evaluation Questions | Indicators | Sources | Methodology |
|---|---|---|---|
| How is risk and risk mitigation being managed?<br>• How well are risks, assumptions and impact drivers being managed?<br>• What was the quality of risk mitigation strategies developed? Were these sufficient?<br>• Are there clear strategies for risk mitigation related with long-term sustainability of the project? | • Completeness of risk identification and assumptions during project planning and design<br>• Quality of existing information systems in place to identify emerging risks and other issues<br>• Quality of risk mitigations strategies developed and followed | • Project documents<br>• UNDP, project team, and relevant stakeholders | • Document analysis<br>• Interviews |
| What lessons can be drawn regarding effectiveness for other similar projects in the future?<br>• What lessons have been learned from the project regarding achievement of outcomes? | • Lessons learned | • Data collected throughout evaluation | • Data analysis |
| ***Evaluation Criteria: Results/Impacts***<br>***Are there indications that the project has contributed to, or enabled progress toward, reduced environmental stress and/or improved ecological status?*** | | | |
| • Are the anticipated outcomes likely to be achieved?<br>• Are the outcomes likely to contribute to the achievement of the project objective? | • Existence of logical linkages between project outcomes and impacts | • Project documents<br>• Project staff<br>• Project stakeholders | • Field visit interviews<br>• Desk review |
| • Are impact level results likely to be achieved? Are these likely to be at a scale sufficient to be considered Global Environmental Benefits? | • Environmental indicators<br>• Level of progress through the project's Theory of Change | • Project documents<br>• Project staff<br>• Project stakeholders | • Field visit interviews<br>• Desk review |
| ***Evaluation Criteria: Sustainability***<br>***To what extent are there financial, institutional, social-economic, and/or environmental risks to sustaining long-term project results?*** | | | |
| • To what extent are project results likely to be dependent on continued financial support?<br>• What is the likelihood that any required financial resources will be available to sustain the project results once the GEF assistance ends? | • Financial requirements for maintenance of project benefits<br>• Level of expected financial resources available to support maintenance of project benefits<br>• Potential for additional financial resources to support maintenance of project benefits | • Project documents<br>• Project staff<br>• Project stakeholders | • Field visit interviews<br>• Desk review |

| Evaluation Questions | Indicators | Sources | Methodology |
|---|---|---|---|
| • Do relevant stakeholders have or are likely to achieve an adequate level of "ownership" of results, to have the interest in ensuring that project benefits are maintained? | • Level of initiative and engagement of relevant stakeholders in project activities and results | • Project documents<br>• Project staff<br>• Project stakeholders | • Field visit interviews<br>• Desk review |
| • Do relevant stakeholders have the necessary technical capacity to ensure that project benefits are maintained? | • Level of technical capacity of relevant stakeholders relative to level required to sustain project benefits | • Project documents<br>• Project staff<br>• Project stakeholders | • Field visit interviews<br>• Desk review |
| • To what extent are the project results dependent on socio-political factors? | • Existence of socio-political risks to project benefits | • Project documents<br>• Project staff<br>• Project stakeholders | • Field visit interviews<br>• Desk review |
| • To what extent are the project results dependent on issues relating to institutional frameworks and governance? | • Existence of institutional and governance risks to project benefits | • Project documents<br>• Project staff<br>• Project stakeholders | • Field visit interviews<br>• Desk review |
| • Are there any environmental risks that can undermine the future flow of project impacts and Global Environmental Benefits? | • Existence of environmental risks to project benefits | • Project documents<br>• Project staff<br>• Project stakeholders | • Field visit interviews<br>• Desk review |
| • What risks are posed by the COVID-19 pandemic that may affect the sustainability of project results? | • Existence of COVID-19 related risks to project benefits | • Project documents<br>• Project staff<br>• Project stakeholders | • Field visit interviews<br>• Desk review |
| ***Evaluation Criteria: Gender and women's empowerment:***<br>***How did the project contribute to gender equality and women's empowerment?*** | | | |
| • How did the project contribute to gender equality and women's empowerment? | • Level of progress of gender action plan and gender indicators in results framework | • Project documents<br>• Project staff<br>• Project stakeholders | • Desk review, interviews, field visits |
| • In what ways did the project's gender results advance or contribute to the project's biodiversity outcomes? | • Existence of logical linkages between gender results and project outcomes and impacts | • Project documents<br>• Project staff<br>• Project stakeholders | • Desk review, interviews, field visits |
| ***Evaluation Criteria: Cross-cutting Issues***<br>***How did the project contribute to climate change adaptation[42]?*** | | | |

[42] Note – Climate change mitigation is a key result area for this project, therefore it is not considered as a cross-cutting issue

| Evaluation Questions | Indicators | Sources | Methodology |
|---|---|---|---|
| • What assessments of climate change vulnerability were used to inform project plans and activities? | • Reference to published climate change vulnerability assessments in project plans and documents | • Project documents<br>• Project staff<br>• Project stakeholders | • Desk review, interviews, field visits |
| • In what ways was climate change adaptation integrated into project plans, activities and deliverables? | • Alignment of project strategy towards achieving climate change adaptation goals in project plans. | • Project documents<br>• Project staff<br>• Project stakeholders | • Desk review, interviews, field visits |
| • In what ways was climate change adaptation used to inform the design and implementation of NRM and livelihood activities involving local communities | • Inclusion of climate-smart livelihood practices, climate-resilient development practices for local communities | • Project documents<br>• Project staff<br>• Project stakeholders | • Desk review, interviews, field visits |

## Annex 5: Questionnaire used for project stakeholders

See separate file

## Annex 6: TE Rating scales

| ***Ratings for Outcomes, Effectiveness, Efficiency, M&E, I&E Execution*** | ***Sustainability ratings:*** | ***Relevance ratings*** |
|---|---|---|
| 6: Highly Satisfactory (HS): no shortcomings<br>5: Satisfactory (S): minor shortcomings<br>4: Moderately Satisfactory (MS): moderate shortcomings<br>3. Moderately Unsatisfactory (MU): significant shortcomings<br>2. Unsatisfactory (U): major problems<br>1. Highly Unsatisfactory (HU): severe problems | 4. Likely (L): negligible risks to sustainability<br>3. Moderately Likely (ML): moderate risks<br>2. Moderately Unlikely (MU): significant risks<br>1. Unlikely (U): severe risks | 2. Relevant (R)<br><br>1. Not relevant (NR)<br><br>***Impact Ratings:***<br>3. Significant (S)<br>2. Minimal (M)<br>1. Negligible (N) |
| *Additional ratings where relevant:*<br>Not Applicable (N/A)<br>Unable to Assess (U/A | | |

## Annex 7: UNEG Code of Conduct and Evaluation Consultant Agreement Form

Independence entails the ability to evaluate without undue influence or pressure by any party (including the hiring unit) and providing evaluators with free access to information on the evaluation subject. Independence provides legitimacy to and ensures an objective perspective on evaluations. An independent evaluation reduces the potential for conflicts of interest which might arise with self-reported ratings by those involved in the management of the project being evaluated. Independence is one of ten general principles for evaluations (together with internationally agreed principles, goals and targets: utility, credibility, impartiality, ethics, transparency, human rights and gender equality, national evaluation capacities, and professionalism).

**Evaluators/Consultants:**

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study imitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.
8. Must ensure that independence of judgement is maintained, and that evaluation findings and recommendations are independently presented.
9. Must confirm that they have not been involved in designing, executing or advising on the project being evaluated and did not carry out the project's Mid-Term Review.

**Evaluation Consultant Agreement Form**

Agreement to abide by the Code of Conduct for Evaluation in the UN System:

Name of Evaluator: Richard Crawford Prentice

Name of Consultancy Organization (where relevant): N/A

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at Histon, Cambridge, UK on 17 March 2021

Signature:

## Annex 8: Signed TE Report Clearance form

*(to be completed by CO and UNDP GEF Technical Adviser based in the region and included in the final document)*

Evaluation Report Reviewed and Cleared by

UNDP Country Office

Name: _____

Signature: _____ Date: _____

UNDP GEF RTA

Name: _____

Signature: _____ Date: _____

## Annex 9: TE Audit Trail

The Audit Trail table describes how the received comments on the draft TE report have been addressed the final TE report. This audit trail is a mandatory annex of the final TE report.

In line with UNDP guidance, the Audit Trail is annexed as a separate document.

## Annex 10: Relevant terminal Tracking Tools (separate files)

The following terminal GEF Tracking Tools at project completion were made available to the TE:

- METT Assessment Report for Thale Noi NHA
- METT Assessment Report for Bor Lor NHA
- CCM Tracking Tool
- SFM/REDD+ Tracking Tool

The Ecosystem Health Index scorecard results are also included in this annex.

## Annex 11: Progress against Outputs (separate file)

Table summarizing status of output delivery at project completion.

## Annex 12: Project achievements against Results Framework targets (separate file)

Table summarizing status of Results Framework indicators at project completion against targets.

## Annex 13: Photographs of activities from project sites (separate file)

Photographs taken by local stakeholders during the period of the TE to illustrate the status of project activities and results at project completion (in the absence of a TE field mission). There are four folders: learning center, carbon monitoring, climate station, and nursery.

See: https://drive.google.com/open?id=1c6i0mojfS_cEWokZiBfIpdYGvHgpjdta

## Annex 14: Summary of project response to Mid Term Review recommendations

The following table draws on the Project Management Response to the Mid-term Review dated 16 August 2019, cleared by the UNDP RTA and the Project Board meeting on 19 September 2019. The status of implementation in response to each indicator is based on review of the subsequent PIRs, QPRs and feedback from stakeholders during the TE.

| No. | Recommendation | Responsibility | Project Management Response & Follow Up |
|---|---|---|---|
| 1 | Ensure that UNDP, ONEP and RECOFTC have a shared understanding of the approaches being used to achieve the project's outcomes and targets | RECOFTC, ONEP, UNDP | Agreed. Communications and coordination improved to an extent after MTR with monthly coordination meetings, revised QPR template for more results-oriented reporting. |
| 2 | Establish a delivery mechanism for implementation of the recommendations from the hydrological modelling, with | RECOFTC | Partially agreed – as the work was in progress. The water modelling reportedly completed its work for calibration and verification with |

| No. | Recommendation | Responsibility | Project Management Response & Follow Up |
|---|---|---|---|
| | engagement of relevant line agencies as a matter of very high priority | | existing RID operations. This was then pilot tested at 4 sites with community involvement. |
| 3 | Establish the greenhouse gas monitoring program as a matter of very high priority and ensure that the baseline and end-of-project measurements are compatible | RECOFTC | Partially agreed. Intensive efforts were made after the MTR to develop the GHG monitoring programme, but experienced delays and challenges in obtaining equipment, and damage to installed equipment. In addition, the water monitoring and management work required to be in place in order to effect changes in GHG emissions and carbon sequestration was not fully achieved by project end. |
| 4 | Revise the end-of-project target for carbon sequestration through reforestation with native species | UNDP CO through PB and RTA | Agreed. RF Indicator 12 was changed to reflect the 20 year period (in line with the GEF CCM tracking tool). |
| 5 | Adopt a new indicator for the reforestation component to require the "development of guidelines for objective-based planning and implementation of peat swamp restoration and reforestation" | UNDP CO through PB and RTA | Agreed. While the suggested guidelines were not included as a new indicator, they were followed up on by RECOFTC and 80 ha targeted to be reforested / restored based on the guidelines. This is reflected in RF Indicator 12 (see Annex 12) |
| 6 | Ensure that the Working Group on Strategic Planning for the Kuan Kreng Landscape that is being established has the necessary knowledge, capacity and support to build peat swamp management and conservation priorities into their regular planning and budgeting | RECOFTC | Agreed. The KKL Task Force was established and met first on 12 June 2019, and thematic sub task groups established subsequently. This was followed up through various training and knowledge sharing activities. However, results on water management and carbon monitoring methodologies came too late for thorough integration and not all results have been shared as needed. |
| 7 | Develop mechanisms for local people to protect the carbon sink that is contained in peat swamps | RECOFTC | Agreed. Awareness of peat swamp carbon values was raised through meetings with communities; research to build the knowledge base on carbon sequestration, monitoring and offsetting was conducted, although some challenges with participatory community use of monitoring equipment were experienced. |
| 8 | Include national and landscape-level perspectives in both the national peat swamp inventory and the National Strategy for Peat Swamps | PSU, RECOFTC | Agreed. This was addressed through the criteria for the inventory, which integrated Ramsar and landscape-level criteria. Coordination between ONEP, RECOFTC and PSU resolved the matter in 2019. |
| 9 | Blend local knowledge and academic knowledge where possible and appropriate, and provide local people with the skills to continuously learn and adapt their management approaches | RECOFTC | Partially agreed. The response noted that the project had in fact documented local knowledge on peat swamps and integrated this with scientific knowledge through Outputs 1.1,1.3,1.4,1.5,2.1,2.2,2.3 and 3.2. Overall, the has been significant consultation and engagement of local stakeholders in project implementation and their knowledge has been taken into account to a large degree. |
| 10 | Prepare a communication strategy that covers all aspects of the project, that analyzes communication objectives and stakeholders, and that clearly identifies roles, responsibilities and approval protocols | Wisdom Vast, RECOFTC, ONEP and UNDP | Agreed. A communication workshop was held on 24 May 2019 and communication plan was developed and implemented after the MTR. |
| 11 | Ensure that changes to the results framework are made to reflect changes in implementation approach and are | UNDP, ONEP, RECOFTC | Disagreed. The response noted that there was miscommunication with the MTR team as the PB had approved changes to the RF indicators |

| No. | Recommendation | Responsibility | Project Management Response & Follow Up |
|---|---|---|---|
| | endorsed according to required protocols, and that the current version is readily available to all implementing parties | | and ONEP had submitted them to UNDP for incorporation. The RTA approved the changes as per the PB approvals. |
| 12 | Request a **12-month** extension to the project, to allow time for key deliverables in Outcome 2 to be achieved | RECOFTC, ONEP, UNDP | Agreed. In due course, this was reconsidered and eventually a 6 month extension was granted in order to compensate for COVID-19 related delays in 2020 and to proceed with exit strategy priority actions (see Annex 15) |
| 13 | Prepare a revised Social and Environmental Screening Procedure (SESP) assessment for the project, which includes mitigation measures for identified risks | RECOFTC, UNDP CO, ONEP | Agreed. While SESP risks were updated in the PIR risk management section for subsequent PIRs, the overall SESP was not revised. |
| 14 | Undertake a gender analysis to identify key activities for gender mainstreaming | RECOFTC, UNDP CO, ONEP | Agreed. While gender mainstreaming actions were proactively undertaken by RECOFTC, these remained uninformed by a gender analysis or gender action plan. Consequently, they were not especially strategic or transformative in their impact. |
| 15 | Engage a person with expertise in monitoring and evaluation to assist with project monitoring to ensure high-quality and timely implementation | RECOFTC, UNDP CO, ONEP | Agreed. An M&E specialist was included in the UNDP CO project team. |

## Annex 15: Detailed Justifications for the request for an extension of project implementation

Document prepared by the project that was submitted in support of the project extension proposal, providing details of the proposed activities during the extension period and associated budget.