

UNDP-GEF Midterm Review - Strengthening Capacity and Incentives for Wildlife Conservation in the Western Forest Complex

UNDP PIMS 5436 & GEF project ID4677

Final Report

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Executive Summary

Project Information Table

Project Title	Strengthening Capacity and Incentives for Wildlife Conservation in Western Forest Complex. UNDP- PIMS 5436, GEF ID:4677	
MTR time frame and date of MTR report	May – September 2018 Draft Report –18 September 2018 Final Report – 14 December 2018	
Region and countries included in the project	Thailand	
GEF Operational Focal Area/Strategic Program	Biodiversity, Climate Change and Multi-Focal Area BD1: Improve Sustainability of Protected Area System CCM-5: Promote Conservation and Enhancement of Carbon Stocks through Sustainable Management of Land Use, Land Use Change and Forestry SFM/REDD-2	
Financing at endorsement	GEF	7,339,450
	UNDP	500,000
	<i>Government (DNP)</i>	22,864,427
	<i>Wildlife Conservation Society (WCS)</i>	500,000
	<i>Seub Nakasathien Foundation (SNF)</i>	370,000
	<i>Total co-financing</i>	24,364,427
	TOTAL PROJECT COST	31,573,877
Executing Agency	UNDP	
Implementing Partner	Department of National Parks, Wildlife and Plant Conservation (DNP), Ministry of Natural Resources and Environment (MNRE)	
Other project partners	Wildlife Conservation Society (WCS) Seub Nakasathien Foundation (SNF)	
MTR members	Camille Bann and Walaitat Worakul	

Project Description

“Strengthening capacity and incentives for wildlife conservation in the Western Forest Complex” (*PIMS 5436*) is a five-year project implemented by the Department of National Parks, Wildlife and Plant Conservation (DNP) of the Ministry of Natural Resources and Environment (MONRE) - Government of Thailand, supported by UNDP.

The project has a total budget of US\$ 31,573,877 comprised of US\$7,339,450 of GEF support and US\$24,234,427 in co-financing from the Thai Government, Wildlife Conservation Society (WCS), Seub Nakasathien Foundation (SNF), and UNDP. The Project Document was signed in July 2015 and the project has a planned end date in June 2020.

Situated at the core of the Western Forest Complex (WEFCOM), the Huai Kha Khaeng-Thung Yai Naresuan World Heritage Site (HKK-TY WHS) consists of three contiguous Wildlife Sanctuaries: the Huai Kha Khang (HKK); the Thung Yai Naresuan East (TYE); and the Thung Yai Naresuan West (TYW). Totalling an area of 6,427 km², the largely intact forest habitats of the HKK-TY WHS provide a refuge for approximately half of Thailand’s tiger population. HKK-TY WHS as Thailand’s most important tiger source site is a critical tiger conservation landscape.

The project **objective** is to *improve management effectiveness and sustainable financing for Huai Kha Khaeng-Thung Yai Naresuan (HKK-TYN) World Heritage Site and incentivize local community stewardship*. This will be realized through three components.

The **first component** of the project is directed towards strengthening and scaling up existing best-practice management activities, and developing and testing innovative approaches to enforcement and compliance in the HKK-TYN WHS. It will strive to reduce the direct threats to tigers and prey, improve effectiveness of wildlife sanctuary management, and enhance the use of data and information to support decision-making.

The **second component** of the project is focused on linking sustainable livelihood development in the enclave and buffer zone villages with specific conservation outcomes, and improving economic links between the buffer zone and enclave villages and the Wildlife Sanctuaries. It will seek to achieve these linkages by promoting incentives (through technical support and grant funding) for community-based sustainable forest management, environmentally-friendly agricultural practices, nature-based tourism and education and improved wildlife and habitat protection.

The **third component** of the project is directed towards raising the awareness of communities living in and around the WHS of the need to conserve, and the importance of protecting, the forest landscape and associated wildlife. It will assist in strengthening the representation of the buffer and enclave communities in each of the Wildlife Sanctuary's Protected Area Committees (PACs). With improved community-based representation on the PAC, the project will assist in building the capacity (information, knowledge, skills) of the community representatives to assure a constructive and meaningful contribution to the co-management of the WHS.

Project Progress Summary

Table A presents the MTR Ratings & Achievement Summary Table for the Tiger project. Based on the project activities in terms of developing the overall management at the site, improving its financial security and building capacity there are indications that the project objective will be met.

In terms of progress towards results the project is rated as **Moderately Satisfactory (MS)** across all three outcomes. It should be noted that a number of activities have been assessed as 'not on track' because there is no project monitoring data available against which they can be assessed, or because the indicators are no longer relevant due to the change in project focus. This highlights the need to improve monitoring of the project and ensure that the Project Results Framework is revised to clearly reflect project activities and aspirations as they are understood to be at the mid term. Under outcome 1 progress has been made, for example, in the hiring of 58 additional rangers and the purchase of 400 camera traps and equipment for forensic analysis under outcome 1. The innovative work on developing eco-tourism opportunities is progressing well under outcome 2 and has the support of the provincial governor. Under outcome 3, to help develop the DNP's capacity in community engagement nine community liaison staff have been hired by the project and are being trained. This has resulted in the integration of community work plans into the regular work plans of the Wildlife Sanctuaries. There have also been two youth camps that have started the process of developing youth ambassadors in TYW.

Under outcome 1, there have been delays in implementation due to the difficulties approving the National Implementation (NIM) procedures compounded by the new Procurement Act - as a result the construction of two Ranger stations is postponed to 2019. The training of trainers has also been delayed due to the long process to finalize a Responsible Party Agreement with WCS. Under outcome 2 there is some uncertainty over the design of the community grants in the buffer zone

needing urgent clarification, especially given that this work is behind schedule. With the necessary move away from the development of a REDD+ mechanism, the economics work was redesigned and has not yet started (economic valuation and the identification of sustainable financing options) but will be key to ensuring the on-going financial support for the site.

In terms of project implementation and adaptive management the project is rated as **Moderately Satisfactory (MS)**. Areas requiring improvement include financial management for example in terms of tracking co-funding, the monitoring of indicators and communications between project partners. The tracking tools need to be of a better standard if they are to serve as monitoring tools and indicators for the project. Tracking tools were not completed to the required standard for the MTR, and indicators are not fully monitored. The project has demonstrated strong adaptive management throughout, for example by addressing the operational bottlenecks through UNDP providing more direct support and the DNP putting in place a co-manager to action initiatives through the Government system.

In terms of sustainability the project is rated as **Moderately Likely (ML)**. The biggest risk to project sustainability is considered to be financial. The project has built momentum through the additional project funding, however this momentum could stall if a sustainable level of funding is not forthcoming post the project. The project is exploring several channels to increase the sustainable funding for the site, however government commitment is seen as the lynch pin and rests on the Government's immediate action to secure this prior to project completion to ensure continuation and upscaling of the current conservation efforts. A good exit strategy needs to be developed and implemented.

Table A: MTR Ratings & Achievement Summary Table

Measure	MTR Rating	Achievement Description
Project Strategy	N/A ¹	
Progress Towards Results	Objective: To improve the management effectiveness of, and sustainable financing for, Huai Kha Khaeng-Thung Yai Naresuan (HKK-TYN) World Heritage Site and incentivize local community stewardship Achievement Rating: Moderately Satisfactory (MS)	The project objective is measured by 3 indicators related to tracking tools which have not been methodically updated for the MTR, so cannot be reliably used to measure progress. However based on the project activities in terms of developing management at the site, improving its financial security and building capacity there are indications that the project objective will be met.
	Outcome 1: Strengthening on-ground conservation actions and wildlife protection Achievement Rating: Moderately Satisfactory (MS)	The project has hired 58 additional rangers and purchased 400 camera traps, equipment for forensic analysis and solar power systems. There have been delays in implementation due to the difficulties approving the NIM procedures compounded by the new Procurement Act (as a result the construction of 2 Ranger stations is postponed to 2019). The training of trainers has been delayed due to the long process to finalize a Responsible Party Agreement with WCM. Achievement of outcome 1 depends on the completion of the Habitat Management and Improvement Plans, the success of the Network Centric Operation System and renovation and use of the Regional Training Centre.
	Outcome 2: Incentives and sustainable financing for wildlife conservation and forest protection Achievement Rating: Moderately Satisfactory (MS)	A clear plan of support for the enclave villages has been developed and is progressing to grant disbursement. The work on developing eco-tourism opportunities is on track and has the support of the provincial governor. There is some uncertainty over the design of the grants in the buffer zone needing urgent clarification as this work is behind schedule and grant disbursement is therefore at risk of being delayed. Due to the necessary move away from the development of a REDD+ mechanism, the economics work was

		redesigned and has not yet started (economic valuation and the identification of sustainable financing options) but will be key to ensuring the on-going financial support for the site.
	Outcome 3: Improved local education, awareness and participation Achievement Rating: Moderately Satisfactory (MS)	9 outreach officers have been hired, in TYE joint patrols between communities and officials have taken place, and there have been 2 youth camps to start the process of developing youth ambassadors. However, the effectiveness of the materials on Tiger and Wildlife Conservation to schools and the mobile education units is uncertain.
Project Implementation & Adaptive Management	Moderately Satisfactory (MS)	The project has experienced significant delays due to the difficulties approving procedures related to NIM, but is now operating more efficiently. Monitoring and evaluation needs to be tightened up, in particular the tracking tools, financial management including co-financing needs to be improved and internal communication mechanisms between project partners introduced to maximize project synergies and knowledge sharing.
Sustainability	Moderately Likely (ML)	Additional government funding to sustain the work is not certain at this stage and will need to be planned for. There is likely to be continuity of some activities from the expected on-going involvement of project partners such as SNF and WCM at the site. There is also the potential of identifying new innovative sources of funding at the site working with BIOFIN.

Notes: 1/ Project strategy is not rated under the MTR

Conclusions

HKK-TY WHS is home to the largest population of Indochinese tigers in Thailand and conservation of the WHS' ecosystems and wildlife is of national, regional and global importance. The project has enabled the DNP to upscale its existing work in this critical tiger conservation landscape as well as introduce a number of innovative approaches, which if successful could be transformational in the management of the HKK-TY WHS and provide valuable lessons for their adoption by other wildlife sanctuaries and protected areas in Thailand and in the region. On the whole the project has been well designed and clearly reflects the conservation and protection needs of the study site. However, a number of revisions to the results framework are recommended.

Innovations being supported through the project include the Network Centric Operations system, the development of a regional training centre, the development of management and business plans and sustainable finance options for the WHS, and DNP's work with the communities.

The project has developed strong partnerships with NGOs who have a long history working at the site. It also demonstrates a strong commitment to working with communities. The project is supporting the development of wildlife-based eco-tourism and other innovative approaches as a means of enhancing the income of communities in the buffer zone with the objective of alleviating the human-wildlife conflict. The work with communities reflects an holistic approach to wildlife conservation, being supported by the DNP, which can be a model for other protected areas.

However, the project has been challenged by complex administrative processes within the Department of National Parks, Wildlife and Plant Conservation (DNP) and UNDP, leading to a prolonged inception phase, delays in disbursement and sub-optimal delivery. The operating procedures within DNP took 6 months to be approved. As of June 30 2018 cumulative disbursement (delivery) was at 35%.

Assessment of project progress needs to take into consideration that the project did not officially start until the end of July 2016, with the inception meeting held in November 2016, hence the

project has been active for a 2 year period, not two and a half years. The delay in project start up coupled with the low disbursement rate at mid term suggests that a project extension will be necessary to enable the project activities to be delivered to the required standard and level of impact.

The MTR Recommendations are summarized in Table B

Table B: Recommendations Table

Category	Specific recommendation	Responsible party
Results Framework & Monitoring tools	1/ Revise indicators: Indicator 2: Financial scorecard - include assessment of WHS, using MTR as baseline Indicator 4: Review in light of proposed approach for buffer zone grants Indicator 5: Approval required for proposed changes to baseline and EOP Indicator 7: Approval required for proposed changes to EOP / or delete Indicator 10: Approval required for proposed changes to EOP Indicator 19 & 20 – to be removed and replaced with a new indicator reflecting economics work on valuation of the WHS and sustainable financing Consider how the effectiveness of indicators under component 3 may be captured.	PMU, Project Board
	2/ Improve quality of tracking tools METTs, financial scorecard and carrying capacity scorecards are being used to measure the project's objective and need to be comprehensively completed with clear explanations / justifications for any change from the baseline position elaborated.	PM / UNDP
	3/ More support is needed on M&E in general. It is recommended that a (national) M&E expert / advisor with expertise in completing GEF scorecards is hired and that the tracking tools are further quality assured by the PM and RTA. The M&E expert would be responsible for ensuring other indicators are also being measured accurately. This could be a shared consultancy with other GEF projects underway in Thailand. Training could also be considered to ensure that a broader audience (e.g. Chiefs of the Wildlife Sanctuary) have a good enough understanding of the tools to contribute with confidence to the METTs and other tracking tools.	PMU
Grant funding to support livelihood development in the Buffer Zone	4/ Alternative livelihood project proposals to be fully formulated by RECOFTC (<i>Urgent action</i>).	RECOFTC
	5/ PM to formalize amendments to this activity – i.e. approach and responsibilities post October 2018 for developing, approving, administering the grants to the buffer zone communities and engaging with the communities. It is recommended that a Community Liaison officer is hired to ensure that the communities are fully engaged, and a grants committee formed to review and approve the grant funding with RECOFTC administering the grants awarded.	PM
Financial management / sustainability	6/ Project Managers are to ensure up to date financial records are presented in the project progress reports, including co-financing information.	PM and Co-PM
	7/ PMU / Project Board / BIOFIN to work towards ensuring budget continuity by: (i) maintaining a dialogue with concerned government agencies on future budget allocations to implementing agencies; and, (ii) exploring potential alternative and parallel financing sources such as the Wildlife number plate schemes and eco-tourism initiatives.	PMU/Project Board / BIOFIN
	8/ DNP DG to set up a Project Sustainability Taskforce to develop an exit plan, to ensure that there is not a dip in financial flow to the WHS at the end of the project. This needs to be set up as soon as possible given the 18 month lead time for increasing / integrating new budget lines into the Government system.	DG
DNP work with communities (developing & ensuring sustainability)	9/ Recommendations to promote community support into the skill base and work plans of the DNP include: (i) Creation of a focal point for communities within DNP Wildlife Protection Division (ii) The introduction of KPI's for DNP's work with communities to better incentivize and acknowledge work in this area (iii) The inclusion of training on community participation into DNP's	DG

Category	Specific recommendation	Responsible party
	regular training programme (iv) Reference to good practices by other projects/agencies should be used to strengthen the work with communities (e.g. best practice on PAC management documented by CATSPA project, community-based social enterprises by Biodiversity-based Economics Development Office (BEDO), grant distribution and management by GEF/SGP).	
Communication & Knowledge sharing	10/ Establish a Community Technical Group (RECOFTC, SNL, Rabbit in the Moon, BIOFIN, KU and DNP) to improve communications and knowledge sharing between organizations working on community aspects, explore synergies and work towards solving common challenges.	<i>PM, Co-PM</i>
	11/ Documentation of lessons learnt and dissemination of best practice. Each project output should include the documentation of lessons learnt from implementation of activities under the output, and a collation of the tools and templates (and any other materials) developed during implementation. This knowledge database should be made accessible to different stakeholder groups to support better future decision-making processes in protected areas.	<i>PM</i>
	12/ Promote co-ordination with other Tiger countries. a/ The project should initiate a process to promote collaborate with GEF and other Tiger projects in the region. A regional meeting could be held in Bangkok or at the Regional Training Centre to explore opportunities to share experiences and innovation in patrolling, monitoring and community engagement. b/ The project should engage with the Global Wildlife Program to understand lessons learnt in other countries, e.g. on the human-wildlife conflicts	<i>PM</i>
Project Management	13/ A no-cost extension (6 months – 1 year) is recommended. Given the delays in project start up and that the Inception workshop was held on the 8 November 2016 if the project terminates in July 2020 the project timeframe will be closer to 4 years, rather than 5 and is likely to compromise the quality of the deliverables. It is also doubtful that the project could disburse the remaining funds by July 2020. An early agreement would be beneficial so that work plans and budgets can be adjusted accordingly	<i>Project Board</i>
	14/ Regular updates to be maintained between the PM and Co-PM. In particular the Co-PM should appraise the PM at key stages of progress on activities funded by project, not just on their completion	<i>Co -PM</i>
	15/ A manual / guidelines to be developed that sets out how GEF and government requirements can be efficiently aligned, especially related to procurement and the recruitment of staff.	<i>Co-PM</i>

1 Introduction

1.1 Purpose of MTR and objectives

“Strengthening capacity and incentives for wildlife conservation in the Western Forest Complex” (*PIMS 5436*) is a five-year project implemented by the Department of National Parks, Wildlife and Plant Conservation (DNP) of the Ministry of Natural Resources and Environment (MONRE) - Government of Thailand, supported by UNDP.

The project has a total budget of US\$ 31,573,877 comprised of US\$7,339,450 of GEF support and US\$24,234,427 in co-financing from the Thai Government, Wildlife Conservation Society (WCS), Seub Nakasathien Foundation (SNF), and UNDP. The Project Document was signed in July 2015 and the project has a planned end date in June 2020.

The objective of the Mid Term Review (MTR) is to assess:

- progress towards the achievement of the project objectives and outcomes, as specified in the Project Document; and,
- early signs of project success or failure with the goal of identifying the necessary changes to be made in order to set the project on-track to achieve its intended results.

The MTR also reviews the project’s strategy and the risks to its sustainability.

In line with the United National Development Programme - Global Environment Facility (UNDP-GEF) Guidance on MTRs, this MTR was initiated before the submission of the second Project Implementation Report (PIR).

1.2 Scope and Methodology

The MTR was undertaken over the period June –October 2018 by a team of evaluators consisting of an independent international consultant and an independent national consultant. The consultants were contracted for 25 days each.

The MTR assess project progress against the following four main categories: (i) project strategy; (ii) progress towards results; (iii) project implementation and adaptive management; and, (iv) sustainability. It is based on a review of key information and extensive stakeholder consultation.

Annex 2 presents the Mid Term Review Evaluation matrix, which sets out the evaluation questions, indicators, sources and methodology. Specific issues highlighted in the Inception Report for discussion during the mission included:

- How have constraints to implementation been addressed and what key challenges remain (e.g. in terms of disbursements, implementation, work-panning)?
- What progress is being made on sustainable finance mechanisms and how will activities at the project site be financed after the project is ended?
- What monitoring data has been / is being collected to support the project’s results indicators?
- What links have been developed with Thailand GEF-6 project in the Global Wildlife Program (GWP)?
- To what extent is the project succeeding in being a show case for new initiatives by DNP (e.g. The Network Centric Operation System for real-time decision making and the development alternative community livelihoods), and how are lessons being captured and disseminated?

Documents reviewed include:

- The project preparation documents (i.e. Project Identification Form (PIF), UNDP Environmental & Social Screening results and the Project Document).
- Project reports including Project Inception Report, Project Implementation Report 2017 (PIRs), Quarterly progress reports and work plans, Strategies and technical reports produced by the project and partners, Audit reports, METTs, Financial Sustainability Scorecard, Oversight mission reports, monitoring reports prepared by the project and Minutes of the Project Board Meetings.

Annex 8 provides a list of documents reviewed.

The MTR followed a collaborative and participatory approach engaging with the Project Team, government counterparts, the UNDP Country Office, the UNDP-GEF Regional Technical Adviser and other key stakeholders.

A mission was undertaken from the 13th to 24th August 2018 during which time face to face interviews were held with key stakeholders. The agenda for the mission is presented in Annex 6. The mission included a field visit to Huai Kha Kaeng (HKK) Wildlife Sanctuary and surrounding areas. Due to the large area of the project site, time limitations and the difficulty of accessing TYW during the rainy season, it was not possible to visit Thung Yai Naresuan East (TYE) or Thung Yai Naresuan West (TYW) Wildlife Sanctuaries. However, the superintendents of TYE and TYW joined the interviews in HKK. A separate briefing was provided to DNP and UNDP on the last day of the mission to present, and invite comment on, the preliminary findings and recommendations of the MTR. The DNP briefing was not attended by representatives from Central Government, although representatives from all three Wildlife Sanctuaries attended the briefing held in Bangkok.

1.3 Structure of MTR Report

The rest of this report is structured as follows: Section 2 provides background information on the project site and the problems and threats that the project is designed to address and outlines the the project's objective, components and management arrangements; Section 3 presents the core findings of the MTR organized under sub-sections on – project strategy, progress towards results, project implementation and adaptive management and sustainability; Section 4 concludes and presents recommendations.

2 Project Description and Background Context

Development context

Situated at the core of the Western Forest Complex (WEFCOM), the Huai Kha Khaeng-Thung Yai Naresuan World Heritage Site (HKK-TY WHS) consists of three contiguous Wildlife Sanctuaries: the Huai Kha Khang (HKK); the Thung Yai Naresuan East (TYE); and the Thung Yai Naresuan West (TYW)¹. Totalling an area of 6,427 km², the largely intact forest habitats of the HKK-TY WHS provide a refuge for approximately half of Thailand's tiger population. According to the Project Document it is estimated that 65 to 70 tigers remain in HKK WS and around 40 in TYE and TYW. The WHS could potentially support a tiger population of approximately 500 tigers if there was a sufficient prey base and tiger poaching was eliminated. HKK-TY WHS as Thailand's most important tiger source site is a critical tiger conservation landscape².

There are no villages within the HKK WS, but there are 14 formally recognized enclave villages within the TYW (7 villages) and TYE (7 villages). Residents of these villages have acquired the right to live within the wildlife sanctuaries as their villages were established around 200 years ago, well before the time the sanctuaries were gazetted. There are indications that the human population in the 14 enclave villages is increasing, particularly in TYW, due in part to in-migration from Myanmar.

There are further villages, together with mixed forest-agriculture, in a 5 km buffer around the HKK-TY WHS with a particular concentration to the east of HKK where there are an estimated 29 villages. These villagers depend on forest resources, which many have historical use rights to access. In the buffer zone of HKK villagers have access to Community Forests.

The most significant threats to tiger survival in and around the HKK-TY WHS include: i) habitat degradation and fragmentation; ii) poaching of the prey that tiger depend on; and, iii) poaching of the tigers themselves. These threats are further exacerbated by limited capacity and insufficient resources to effectively plan and administer the wildlife sanctuaries, and limited working relationships with enclave and buffer communities.

Thailand lies at the heart of the tiger range and is known as a key tiger range country (TRC). The Royal Thai Government (GoT) has been an active stakeholder in tiger conservation and has participated in the Global Tiger Initiative (GTI) from its inception. Thailand's National Tiger Recovery Program (NTRP) reflects the goals of the Global Tiger Recovery Program (GTRP) at the national level. The Thailand-Tiger Action Plan 2010 – 2020 (TTAP), aims to increase the tiger population in Thailand by 50 percent by 2020, through five "Priority Actions": i) strengthening direct conservation action and enforcement; ii) building capacity based on successful models; iii) strengthening monitoring, research, and information management; iv) promoting education,

¹ The HKK WS was established in 1974, and the TYE and TYW WS's were established in 1972. The three sanctuaries, collectively known as the Huai Kha Khang – Thung Yai World Heritage Site (HKK-TY WHS), were inscribed as a UNESCO World Heritage Site in 1991.

² "Source sites" can serve as source or donor sites for tigers which can then be used to establish new populations of tigers in their original range – either by passive range expansion or through translocation. In Thailand three source sites have been identified - the HKK-TY WHS in the WEFCOM; Dong Phrayayen-Khao Yai Forest Complex near the Cambodian border; and, the Kaeng Krachan Forest Complex to the south of the Western Forest Complex along the Tenasserim Range adjacent to the Myanmar border.

awareness, and public participation; and, v) seeking strategic ways to finance tiger conservation.

Problems that the project seeks to address: threats and barriers targeted

The long-term solution sought by the Government of Thailand (GoT) for the HKK-TY WHS is characterized by: (i) legally secure and effectively demarcated Wildlife Sanctuaries that are configured to ensure that populations of forest habitats and forest species can persist in the wild; (ii) a mandated and fully accountable management institution that is responsible for the efficient and cost-effective management of these Wildlife Sanctuaries; (iii) individual Wildlife Sanctuaries that are sufficiently staffed, adequately resourced and sustainably funded to achieve their defined management objectives; and, (iv) villages located in and around the Wildlife Sanctuaries in which communities are able to live in harmony with, and can sustainably utilize, the natural resources of the area. The main barriers to achieving the long term solution are outlined below.

Inadequate operational capacity and resources to effectively manage the wildlife sanctuaries. While ranger patrols using the Spatial Monitoring and Reporting Tool (SMART) to collect and report on patrol data was established in the WHS with the support of Wildlife Conservation Society (WCS) prior to the project, the coverage and intensity of these patrols is constrained by the availability of suitably trained ranger staff and equipment. The existing patrolling capability is also unevenly distributed across the WHS, with more ranger staff concentrated in the HKK and fewer deployed in TYE and TYW. There are limited funds to sustain initial investments, or to train and equip any new ranger staff. Other areas requiring strengthening identified in the Project Document are: greater coverage of monitoring efforts across the WHS, building on the work of the Khao Nang Ram Wildlife Research Station in HKK; the development and maintenance of a comprehensive tiger genetic database in order to improve the success of prosecutions relating to illegal trade cases; and, enhanced fire management.

Limited progress in linking livelihood development activities in the enclave and buffer villages with improved conservation outcomes in the HKK-TY WHS. The management focus of the HKK-TY WHS has historically been oriented towards enforcement, monitoring and research with limited efforts placed on supporting the social and economic development of local communities. Furthermore, the Wild Animal Reservation and Protection Act does not give the management staff of the WSs the authority to implement sustainable development programmes beyond the boundaries of the sanctuary. It is thus difficult for the WS management teams to adequately budget for, and allocate sufficient staff to, supporting sustainable development initiatives in the enclave and buffer zone villages. At project design the situation was characterized as: few incentives in place for communities to adopt more biodiversity-friendly natural resource use practices; a low level of awareness among community members about the need to protect forest resources, and the means to do this; weakly managed cooperative governance mechanisms between villages and forest management authorities (both in the DNP and RFD (Royal Forestry Department)); and, limited political will (at the village, district, provincial and national level) to effectively rehabilitate and protect the forest resources in the National Reserve Forests (NFRs).

Low awareness levels of the importance of, and the need to conserve the forest habitats and associated wildlife in and around the HKK-TY WHS. The Education and Promotion sections of the three Wildlife Sanctuaries are generally limited in number, budgets and technical skills. Prior to the project, the WSs did not have any capacity to support livelihood development in the buffer and enclave villages. Each of the three sanctuaries has a Protected Area Committee (PAC) comprising representatives from the wildlife sanctuary, local communities, local government agencies, and other stakeholders. The representation of local community interests on the PACs is however weak and the PAC have little to no decision-making authority. There is

an urgent need for a more sustained, strategically focused and well coordinated outreach and awareness-raising programme to be implemented in the buffer zones of the WHS, and enclave villages.

Project Description and Strategy

The project is designed to reduce threats to tiger survival in and around the Huai Kha Khaeng-Thung Yai Naresuan World Heritage Site (HKK-TYN WHS).

The project **objective** is to *improve management effectiveness and sustainable financing for Huai Kha Khaeng-Thung Yai Naresuan (HKK-TYN) World Heritage Site and incentivize local community stewardship*. This will be realized through three components.

The **first component** of the project is directed towards strengthening and scaling up existing best-practice management activities, and developing and testing innovative approaches to enforcement and compliance, in the HKK-TYN WHS. It will strive to reduce the direct threats to tigers and prey, improve effectiveness of wildlife sanctuary management, and enhance the use of data and information to support decision-making.

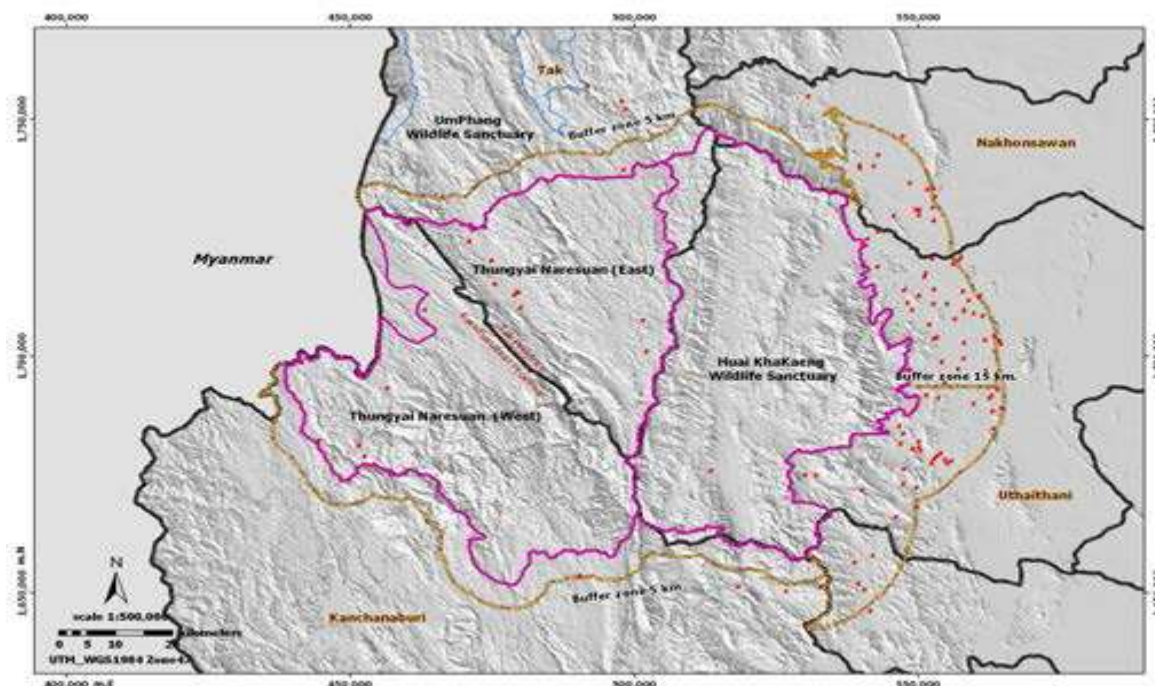
The **second component** of the project is focused on linking sustainable livelihood development in the enclave and buffer zone villages with specific conservation outcomes, and improving economic links between the buffer zone and enclave villages and the Wildlife Sanctuaries. It will seek to achieve these linkages by promoting incentives (through technical support and grant funding) for community-based sustainable forest management, environmentally-friendly agricultural practices, nature-based tourism and education and improved wildlife and habitat protection.

The **third component** of the project is directed towards raising the awareness of communities living in and around the WHS of the need to conserve, and the importance of protecting, the forest landscape and associated wildlife. It will assist in strengthening the representation of the buffer and enclave communities in each of the Wildlife Sanctuary's Protected Area Committees (PACs). With improved community-based representation on the PAC, the project will assist in building the capacity (information, knowledge, skills) of the community representatives to assure a constructive and meaningful contribution to the co-management of the WHS.

The project site has two components, a 'core' and a 'buffer' area (Figure 1).

- The 'core' comprises the three contiguous Wildlife Sanctuaries that make up the HKK-TYN WHS, including the 14 enclave villages in TYE and TYW.
- The 'buffer' is a strip of land surrounding and immediately adjacent to the core of the site, which has three distinct sections: (i) To the east of the HKK WS is a stratified buffer. The inner portion is a 2 km wide band of national reserve forest (the forested buffer zone) immediately adjacent to the eastern boundary of HKK WS. Outside of this is an additional band of approximately 10 km in width that is referred to as the 'social buffer zone'. This outer band contains an estimated 29 villages (who are the focus of project interventions); (ii) To the north (as part of the Umphang Wildlife Sanctuary) is a 5km wide buffer in which there are no villages; (iii) To the south is a 5 km wide buffer that includes one village.

Figure 1: Project Area showing the Buffer Zones and Enclave and Buffer Zone Villages in and adjacent the Huai Kha Khaeng – Thung Yai Naresuan World Heritage Site



Source: Project Document

Project Implementation Arrangements

An overview of the Project Management Structure is presented in Figure 2.

The UNDP **Country Office** monitors the implementation of the project, reviews progress in the realization of the project outputs, and ensures the proper use of UNDP/GEF funds. Working in close cooperation with DNP, the UNDP Country Office (CO) provides support services to the project - including procurement, contracting of service providers, human resources management and financial services - in accordance with the relevant UNDP Rules and Procedures and Results-Based Management (RBM) guidelines.

The project is nationally implemented (NIM) by the **Wildlife Conservation Office (WCO) under the Department of National Parks, Wildlife and Plant Conservation (DNP)**, within the Ministry of Natural Resources and Environment (MONRE), in line with the UNDP Country Programme Document (2012-2016) and the RTG - United Nations Partnerships Framework (UNPAF, 2012-2016).

UNDP provides some of the support services to facilitate implementation through a Letter of Agreement between DNP and UNDP. DNP is accountable to UNDP for the disbursement of funds and the achievement of the project objective and outcomes, according to the approved work plan.

The DNP-WCO, as the Implementing Partner (IP) is responsible for: (i) coordinating activities to ensure the delivery of agreed outcomes; (ii) certifying expenditures in line with approved budgets and work-plans; (iii) facilitating, monitoring and reporting on the procurement of inputs and

delivery of outputs; (iv) coordinating interventions financed by GEF/UNDP with other parallel interventions; (v) approval of tender documents for sub-contracted inputs; and, (vi) reporting to UNDP on project delivery and impact. It is also directly responsible for creating the enabling conditions for the implementation of all project activities. The DNP-WCO has designate a senior staff member as a **Project Director (PD)** who is responsible for the provision of strategic oversight and guidance to project implementation. The DNP-WCO delegates technical implementation of the relevant project activities to the Wildlife Sanctuary management teams

Figure 2: Overview of TIGER project's management structure

Note: Green boxes relate to policy level management; yellow to project management and blue to field operations.

facilitating actions through the Government system. As discussed in Section 3.3.1, this post was not envisaged at project design. The Co-manager liaises with DNP's administrative units to implement activities financed by the project that are channeled through the DNP system, but which will be financed by the Government after the project ends (e.g. the contracts of 58 rangers, outreach officers and wildlife research assistants).

A **Field Coordinator** was hired at the beginning of the project by DNP, as envisaged in the Project Document, however, DNP rules reportedly restrained frequent travel and field missions. The position was therefore adapted to a part-time **Senior Coordinator** position hired by UNDP, who in addition to the coordination of project activities leads advocacy work with the provincial and local government administration on the project's community initiatives under Component 2. The senior coordinator was contracted in March 2018 for 2 years.

A **Project Board (PB)** serves as the executive decision making body for the project. It is chaired by the Director General of DNP and includes representatives of concerned divisions/offices within DNP, external departments, CSOs, academic institutions, and the private sector. Its role is to: provide overall guidance and policy direction to the implementation of the project; advice on appropriate strategies for project sustainability; play a key role in project monitoring and evaluation by quality assuring the project processes and products; arbitrate on any conflicts within the project; and, approve the appointment and responsibilities of the Project Manager and any delegation of its Project Assurance responsibilities.

Key Project partners and their roles are as follows:

- **The Wildlife Conservation Society (WCS)** is supporting training covering SMART Patrol training, capacity strengthening via Training of Trainer, and curriculum design for the Regional Training Center on Wildlife Conservation located within the World Heritage Site. WCS is also providing co-financing.
- **Seub Nakasatien Foundation (SNF)** is working with the enclave communities on community livelihoods improvement initiatives. SNF is also providing co-financing.
- **Regional Community Forest Training Center (RECOFTC)** is working with the communities in the buffer zone of the WHS to identify livelihood opportunities that support management of the site;
- **Rabbit in the Moon Foundation** is working in TYW on awareness raising initiatives such as youth camps and development of an indigenous knowledge platform to promote the value of the World Heritage Sites. They are stimulating the interdependence between protected area officials and indigenous inhabitants as 'One Community'.
- **Huai Kha Kaeng Foundation** is working with the project to support the development of a local government structure for the WHS as well as to identify alternative livelihood opportunities for the relocated households in the buffer zone.
- **Kasetsart University (KU)**. A multi-disciplinary team from KU with expertise in forestry, economics, tourism management and architecture are developing the wildlife-based eco-tourism opportunities within the buffer zone of HKK. A separate team from the KU's Engineering Department is developing the Network Centric Operation System
- **BIOFIN** are working with the project on the development of sustainable financing options to support the WHS.

3 Findings

3.1 Project Strategy

3.1.1 Project design

The project is of **high strategic relevance**. It is considered to be a flagship project for the Government, it has largest budget within the country's GEF portfolio and is focused on a site of extremely high conservation value. The project site supports the largest population of Indochinese tigers in Thailand, and their conservation at the site is critical for the sub-species survival in Thailand and regionally. The project site is also well known nationally due the death of a previous superintendent³ and the on-going court case regarding the killing of a black panther in TYW in 2017.

The project is broadly well designed having been developed by the 'champions' working at the site and hence based on their existing work and knowledge of the area and its needs. The project design adopted a participatory process engaging experts from government, NGOs and the communities. The design approach aims to both enhance existing wildlife conservation activities within DNP (e.g. SMART patrols) as well as to develop new initiatives/innovations (e.g. the Network Centric Operations system, the development of a regional training centre, the development of management and business plans and sustainable finance options, and working with communities). The three project components / outcomes (which in essence aim to protect, incentivize and educate) are clearly defined and complementary to each other. Furthermore, in the spirit of the Sustainable Development Goals (SDGs), the project design is centered on an integrated approach, seeking to holistically address environmental, economic and social issues.

The project aligns with and supports existing Government policies and plans. For example: (i) Thailand's National Tiger Recovery Program (NTRP), which reflects the goals of the Global Tiger Recovery Program (GTRP) and the 'National Tiger Action Plan' 2010-2022 which sets a target to increase the tiger population by 50% by 2020 (discussed above); (ii) the Environmental Master Plan; and, (iii) the National Reform Plan (2017).

3.1.2 Results Framework / Logframe:

The MTR undertook a review of the project's results framework, which consists of 24 indicators. There is a view that the results framework is overly cumbersome and liable to become a Monitoring and Evaluation (M&E) burden, and hence could benefit from some rationalization (PIR, 2017). A review of the indicators and the proposed revisions are summarized in Table 1. Of note:

- Minor amendments to the results framework were made during the inception phase, and approved by the Project Board and Regional Technical Advisor (RTA) (i.e. Indicators - 8, 9, 10, 11, 18). These amendments are noted in Table 1 and Annex 4.
- Indicators 13, 15, 20, 22, 23 have already been achieved.
- Indicators 19 and 20 are considered to be no longer relevant and can be removed.
 - Indicators 19 relates to the development of a REDD+ mechanism as proposed in the Project Document. However, pending the development of a national reference level, Monitoring, Reporting and Verification (MRV) system, and identification of service providers and buyers for REDD+ it is not possible at this time to develop a sub-national

³ Mr. Seub Nakhasathien, a former superintendent of HKK, died in 1990. The cause of his death was associated with his high commitment to wildlife protection and the extreme work pressure he faced at the time. In order to pursue his conservation aspirations the Seub Nakhasathien Foundation (SNF) was set up and has overtime become one of the leading wildlife conservation organizations in Thailand.

project. Therefore, in the first year of the project the focus changed from the development of a REDD+ mechanism to exploring voluntary carbon payments. However, that was also subsequently dropped due to complications. The Thailand Green House Gas Management Organization advised that the WHS which belongs to the government is not a suitable site for REDD+ due to the condition of additionality not being met. Focusing efforts on privately owned land in the buffer zone, outside of the Protected Area, was also considered but this would require working with small areas of scattered community forest making it complicated to calculate their carbon value and monitor them as a bundle. The work has subsequently been redefined again and is now focused on undertaking a valuation of the WHS and the development of sustainable financing mechanisms in collaboration with BIOFIN. It is therefore recommended to create a new indicator to reflect this revised activity.

- Without the development of REDD+ mechanism, indicators 19 and 20 could be verified by the SFM tracking tool and based on the verification of the carbon emissions avoided as a result of the community forest projects in HKK buffer zone area and the community livelihoods improvement with indigenous groups in the enclave villages in TYE and TYW. However, this is difficult to measure and furthermore community forestry is no longer the focus of the livelihood activities to be supported through the project as it does not sufficiently address the human-wildlife conflicts in the buffer zone considered to be the primary threat to wildlife conservation.
- Indicator 2: Baseline and End-of-Project Target are yet to be agreed. Given that the Financial Scorecard is no longer to be a requirement of future GEF projects there is an argument for not undertaking a new assessment at this stage. However, if an experienced consultant could be found to undertake the assessment it could provide useful management insights and highlight the progress made by the project through its sustainable financing and economic valuation work due to start in earnest in September 2018. Given that the WHS's economic and financing work is still at its inception phase, setting a baseline at the midterm is defensible.
- Some indicators require amendment to better reflect conditions.
 - Indicator 4: This indicator should be reviewed following a re-scoping of the work in the buffer zone communities.
 - Indicator 5: Khao Nang Ram Research Center (KNR) has proposed a revision to the baseline and EOP target based on an improved methodology and data (see Table 1).
 - Indicator 7 is currently ambiguous and may either be amended or removed.
 - Indicator 10: A revision is proposed given the difficulties of documenting the DNA of wild tigers.
- Core areas of work are not currently being measured.
 - There is no indicator for Rabbit in the Moon's initiatives on Youth Camps and indigenous Knowledge.
 - An indicator also needs to be added on Business plan / sustainable finance / valuation work, replacing indicators 19 and 20. For example, 'Development of (one) innovative sustainable financing mechanism approved by Government'.
- A common understanding needs to be developed on some of the indicators:
 - Indicator 14: There was a suggestion that this indicator could be considered as already met if it is taken to be based on the Community Forestry Agreements. Given that the baseline is set at zero in the results framework, the Conservation Agreements are taken to be new and additional and linked to the project work with communities, That is, they should reflect the efforts under the project to support communities develop alternative livelihoods that reduce threats by encroachment and wildlife killing.
- Quantity indicators do not capture effectiveness /quality
 - There are a number of indicators under outcome 3, which are measured quantitatively

- and have met their EOP but their effectiveness (impact) has not been measured (e.g. Indicators 22 and 24).
- The project includes gender targets, namely that 60% of grant recipients across the three sites are to be women.

Table 1: Review of project indicators

Indicator	Baseline Level	End- of-project Target	Issues / proposed amendment
1/ METT Scores of HKK, TYE and TYW Wildlife Sanctuaries	HKK: 67% TYE: 75% TYW: 60%	HKK: 71% TYE: 77% TYW: 68%	No changes proposed.
2/ Financial sustainability scorecard for the WHS	<i>TBD</i>	<i>TBD</i>	Baseline and End-of-Project Target are yet to be agreed. There is a proposal to complete a financial scorecard for the WHS. This would require the mid term score serving as the baseline.
3/ Capacity development indicator score for DNP (Wildlife Conservation Office)	Systemic: 67% Institutional: 64% Individual: 61%	Systemic: 69% Institutional: 65% Individual: 68%	No changes proposed.
4/ Number of villages (of the 43 targeted enclave and buffer zone villages) directly benefiting from community-based livelihood activities that contribute to reducing the extent and intensity of threats to the HKK-TY WHS	0 [Not set or not applicable]	>28	The EOP target of communities (29) could potentially be achieved but there are some concerns over the scope of the community work in the buffer zone, which is currently focused on 6 pilot villages This indicator should be reviewed following a re-scoping of activity 2.1.3 including clarification on how grants will be allocated Links with / duplicates Indicators 14 & 17 This indicator includes the enclave and buffer zone villages – 14 enclave, would leave 15 in buffer zone
5/Number of tigers/100 km ² in the three wildlife sanctuaries	HKK: 2.3 TYE: 0.7 TYW: 1.3	HKK: 2.7 TYE: 0.9 TYW: 1.5	The Khao Nang Ram Research Center has proposed the following changes to the baseline and EOP targets: Proposed baseline targets: HKK: 1.9 (2014); TYE: 0.2 (2014); TYW: 0.5 (2013) Proposed EOP targets: HKK: 2.1; TYE: 0.4; TYW: 0.7 The current indicators are based on data for 2011-2012 and were calculated using the Conventional Capture-Recapture method. The proposed values are based on a new method - the Spatial Explicit Capture-Recapture method, which is widely accepted. Data is provided for the years 2013-2014 which are closer to the project's start date.
6/Aggregate occupancy index (number/km ²) of select tiger prey species (sambar; gaur; banteng) and elephant in the three wildlife sanctuaries	HKK: 6.5 TYE: 9 TYW: 13	HKK: 8 TYE: 11 TYW: 17	No changes proposed.
7/ Number of poacher encounters per annum reported by ranger patrol staff from HKK, TYE and TYW [<i>in the core area</i>]	HKK: 84 TYE: 72 TYW: 96	HKK: 76 TYE: 65 TYW: 86	Indicator is ambiguous as it is feasible / likely that the number of poacher encounters will increase in the immediate term as a result of the additional patrol coverage and frequency, but then decrease overtime. It was suggested to leave the EOP as it is but to apply it only to the core area the WHS. This indicator could also be deleted given its links with Indicator 8.

Indicator	Baseline Level	End- of-project Target	Issues / proposed amendment
8/ Areal coverage (as a % of total WHS area) of the ranger patrols in the WHS	60%	>75%	Links to 7. 7 could be deleted. [Target amended during inception phase - it was >90%]
9/Area-based habitat management plan taking climate projection into consideration	No plan	Plan operational at one site as model for replication	[Indicator revised during inception phase. It was "Number of wildfire incidences per annum in the WHS"]
10/Number of tigers (captive and wild) with a documented DNA record	Captive: 0 Wild: 0	Captive: 1,250 Wild: 200	Target for wild tigers was revised down during the inception phase. However, it is now recommended to remove the target for wild tiger DNA completely and add this to the captive tiger target, which would thus become 1,450. It is not possible to document DNA of wild tigers with any accuracy (e.g. based on droppings) and there are only estimated to be 60 tigers in the WHS.
11/ Coverage (as a % of total area) of the wildlife monitoring program in the wildlife sanctuaries	HKK: 60% TYE: 30% TYW: 30%	HKK: >70% TYE: >50% TYW: >50%	Targets for TYE and TYW revised during inception phase; targets were both >40% originally
12/Number of staff of HKK, TYE and TYW who receive (a) refresher training and (b) train-the-trainer training,	a) Refresher: 0 b) Train-the-trainer: 0	a) Refresher: 470 b) Train-the-trainer: 40	No changes proposed
13/ Percentage of temporary ranger staff across the three wildlife sanctuaries who have adequate death and disability insurance cover	36%	100%	Achieved but cannot be attributed to project activities. Ranger insurance is being covered by a Foundation established after the black panther killing in TYW, which has an office at DNP. It is being funded through public donations. Other local foundations have also been established to provide insurance to the rangers. However, additional insurance / welfare cover may still be needed, for which the project could play a role. Indicator to be removed or amended if project decides to provide additional support
14/ Number of villages with signed Conservation Agreements	0	>28	These are understood to be new / additional agreements linked to the new livelihood initiative to be supported through the project. It is not clear how many villages will benefit from activity 2.1.3 .
15/Area registered as community forest in the HKK buffer zone	1,029 ha	1,338 ha	Achieved. The current registered community forest in the buffer zone is 2,933 ha. However, it is not clear that this is attributable to the project. A Community Forest Network existed before the project and additional areas have been certified by the Royal Forest Department since project inception. The project is now placing less emphasis on community forestry as it is felt this is unable in itself to address the increasing human-wildlife conflicts.
16/ Number of people (of which percentage are female) living in the enclave villages of TYE and TYW who are direct recipients of project grant funding support	0 (0)	175 (60% female)	Clarification that 60% of beneficiaries should be women

Indicator	Baseline Level	End- of-project Target	Issues / proposed amendment
17/ Direct project beneficiaries living in buffer villages (of which percentage are female) who are direct recipients of project grant funding support	0 (0)	300 (60 % female)	Clarification that 60% of beneficiaries should be women Links to Indicator 14 and 5
18 / World Heritage Site strategic plan of which eco-tourism, sustainable financing are integrated into provincial development plan, with community participation in planning and financial management.	Provincial or DNP Strategic plan for financial management: No Provincial tourism plan: No	WHS strategic plan that covers: Sustainable financing & Tourism and integrated into provincial development plan	Indicator revised during inception phase; it was 'Financial, Tourism and Integrated Fire Management plans for the WHS are in place'
19/Avoided forest and forest degradation (ha and tonnes of CO2 eq.) in the WHS, enclave villages and HKK buffer areas	0 ha 0 tonnes of CO2 eq.	985 ha 249,969 tonnes of CO2 eq.	Remove as the project is no longer developing a REDD+ mechanism
20/ Annual deforestation rate (%) in the WHS, enclave villages and HKK buffer areas	0.76% per annum	0.62% per annum	Remove as the project is no longer developing a REDD+ mechanism, or focusing as much on community forestry. While some livelihood initiatives under the project could support this, measurement will be difficult
21/ Number of WS community liaison and outreach staff working in targeted enclave and buffer zone villages	> 21	29	Achieved
22/ Number of schools using WHS-based education and information materials	0	20	Achieved Effectiveness of initiatives is uncertain
23/ Number of informational and educational road shows presented per annum using the mobile environmental education units	0	144/annum	Indicator could be broadened to capture work of Rabbit in the Moon on youth training and indigenous knowledge
24/ Number of Protected Area Committees (PACs) with full representation and involvement of enclave and buffer zone villages	0	3	Achieved but the impact of the community representatives is low and project is also exploring developing a parallel local body. Could be better captured through 'number of agenda items focused on community livelihood issues'

3.2 Progress Towards Results

3.2.1 Progress Towards Outcomes Analysis

Annex 3 provides a summary table of project achievements to date at the activity level based on a review of the Project Document, quarterly progress reports and the PIR 2017 and discussions with stakeholders. An overview of achievements and key challenges for each of the project's three outcomes is provided below.

Progress towards Outcome 1: Strengthening on-ground conservation actions and wildlife protection.

MTR progress towards Outcome 1 rating: Moderately Satisfactory

- **The SMART (Spatial Monitoring and Reporting Tool)**⁴ was introduced to DNP about 10 years ago through the WEFCON Management project (DANCED) and has gradually been adopted into DNP systems. The project has hired an additional 58 rangers in order to increase the coverage of the SMART. Each month rangers report the total distance of the patrol, number of routes, evidence of threats and poachers, and wildlife traces. The project has also supplied 8 additional check points, equipment (e.g. 88 additional GPS) and vehicles.
- **Habitat improvement and management plans for the three Wildlife Sanctuaries.** The management plans will focus on fire management, habitat improvement and adaptation to climate change. The government prohibits burning in the dry season, but this poses problems for Wildlife Sanctuaries where some controlled burning is beneficial for wildlife as the regrowth grassland is then more nutritious and attractive to animals (tiger prey). The management plans will make recommendations on fire management. It is not clear how climate change issues are being reflected in the MPs and attention needs to be paid to this as the plans are developed.
 - Habitat improvements are being scoped in HKK. An abundance of tiger prey is evident along the HKK border and management is needed to keep them within the area and away from crops in the buffer zone. Habitat improvement and management within HKK is to be assessed together with the conceptual design and management of wildlife-based tourism in the HKK buffer zone (activity 2.2).
 - For TYE, a consultant has been engaged to develop the habitat improvement plan, which will be completed in 2018.
 - TYW has recently identified a consultant to work on the management plan and the work will commence after the rainy season.
- **Wildlife forensic analysis.** Key equipment for the DNA laboratory has been purchased by the project. DNP initiated a collaboration with BIOTECH to help analyze the DNA samples from captive tigers, to ensure that the analysis was performed before the samples expired. Building the DNA database of wild tigers is problematic as results based on tiger droppings are not considered to be very reliable. The forensic unit has developed a DNA database of captive tigers. If the DNA of poached tigers does not match the DNA in the captive tiger database, it is assumed that it is of a wild tiger.

⁴ The SMART (Spatial Monitoring and Reporting Tool) was developed by leading conservation organisations. It is a combination of software, training materials and patrolling standards to help conservation managers monitor animals, identify threats such as poaching or disease and make patrols more effective. (<https://www.zsl.org/conservation/conservation-initiatives/conservation-technology/implementing-the-smart-approach>, accessed 31 August, 2018)

- **Khao Nang Ram Wildlife Research Station (KNRWRS)** is mandated to monitor tiger populations and conduct studies on tiger ecology and behavior. Prior to the project the station was under-equipped and under-staffed and monitoring data was not updated on an annual basis and did not have a high level of accuracy. The project has purchased and installed **400 camera traps** in TYE and TYW, established a Wildlife Research Substation in TYE and TYW and supported 8 additional staff (2 scientists, 6 technical support staff) to collect and analyze monitoring data. This has enabled the research center to expand its coverage and monitor all three Wildlife Sanctuaries annually, increasing the confidence in the results. The information can be used to improve planning, budgeting and implementation of wildlife conservation programmes in the WHS. Monitoring of tiger prey will start in TYE in Quarter 3 of 2018 following the demarcation of the survey boundary and in TYW by Quarter 4 of 2018.
- **Network Centric Operation System.** A team of consultants from Kasetsart University are working on developing a short-wave system to transmit real time information from rangers working in the deep forest to HKK HQ and DNP central office in Bangkok. There are many potential benefits of such a system including: quicker responses from the regional offices to support rangers and address infringements; improved poacher morale and protection; better planning allowing counter-measures to be focused on hot-spot areas; and, better engagement of decision makers and more timely decisions based on real time information (rather than having to wait for monthly written reports). The first phase of the work, to be completed by the end of 2018, is to determine 'proof of concept'. Stealth cameras were installed in HKK and real time reporting is possible around the forest fringes where there is a mobile phone signal. This has enabled 5 arrests and the confiscation of 7 guns. A solution to extending the coverage to the non-grid / non-WIFI signal areas (i.e. the deep forest) is currently at the laboratory testing phase. The developers are reasonably confident that a viable system can be designed, but some fundamental issues need to be addressed to ensure the data is useful (i.e. the speed and quality of visual data transmitted). A **War room** has been renovated at the DNP for data management and is due to be formally opened in October 2018. It will initially be used to access SMART data and if the testing of the real time monitoring system is successful will also provide a real-time link with rangers. It will have 5 monitors and 3 staff.
- **Training** under project component 1 is being provided by the WCS. To date WCS has trained around 600 patrol rangers on SMART Patrolling. This refresher training for rangers, which was original planned to be funded by the project, has been mainstreamed into DNP's regular budget allocation and was co-funded by WCM, which has allowed the project to reallocate budget to the renovation of the Regional Training Center. When the Regional Training Center is complete, WCS will undertake the training of trainers course planned under the project. According to the WCS work plan, there will be 2 regional training courses in 2018 and in 2020. The training of trainer is schedule in 2019.
- **Regional Training Center in Huai Kha Kaeng Wildlife Sanctuary.** The Tiger Project and WCS are providing USD100,000 each to renovate an old school building in the HKK wildlife sanctuary as a Regional Training Center on wildlife conservation. The building is expected to be ready by November 2018. Regional training courses on SMART Patrolling, Wildlife Monitoring, and relevant wildlife conservation issues for the tiger range countries in the region are proposed.
- **Challenges.**
 - Procurement of staff and equipment was delayed for several months due to the new Procurement Act. The 58 rangers supported by the project reportedly did not receive a salary for 5 months. The Ranger Stations are still to be built and are now scheduled for completion in 2019.
 - The Responsible party agreement with WCS took a long time to finalize, as a result

- the WCS and DNP co-funded the SMART training and the Training of Trainers was postponed.
- The work in TYW is delayed due to access issues during the rainy season.

Progress towards Outcome 2: Incentives and sustainable financing for wildlife conservation and forest protection

MTR progress towards Outcome 2 rating: Moderately Satisfactory

Building community collaboration in the management of the WHS is a key aspiration of the project. A key challenge is the identification of viable wildlife compatible livelihoods in the HHK buffer zone villages, where there is increasing pressure from mono cropping (which is spreading to the edge of the wildlife sanctuary), intensive use of agrochemicals (pesticides and fertilizers) and livestock grazing. In recent years wildlife has increased in the buffer zone intensifying human-wildlife conflicts. Recently the provincial governor announced the relocation of mono-cropping farmers with temporary farming permits out of areas encroaching on Banteng habitat. The government wants to reclaim the land back as a protected area, and has offered compensation of 1:1 land rights with basic infrastructure, but this has not been accepted by all villagers. Eco-tourism is being explored as a potential source of income for buffer zone communities, with the objective of turning wildlife into an asset rather than the enemy of the communities. It is crucial to ensure that eco-tourism initiatives are designed in a way that are strongly supportive of the WHS and offer communities a fair share of the benefits. In TYE and TYW, communities located within WHS have limited livelihood alternatives as they are not allowed to use the area for extractive activities apart from farming.

Output 2.1. Community livelihood assistance

- **Sueb Nakha Sathien Foundation (SNF)** are supporting livelihood development in the 14 enclave communities within TYE and TYW. They are working with 100 households. They have hired 4 community outreach staff, 2 of which are based in the WHS fulltime. The other two are based in Bangkok but regularly travel to the area - one of them is responsible for DNP strengthening and the other for livelihoods development for both TYE and TYW. SNF does not work directly with communities but coaches/assists DNP staff involved in community engagement. To date, scoping exercises with 14 enclave communities in TYE/TYW have been completed on: (1) the joint surveillance by officers and communities of the protected areas; (2) capacity development on joint management; and, (3) nature-friendly production (e.g. coffee and weaving). The strategy is to enhance existing community initiatives in weaving, coffee (in TYW) and herbs by, for example, improving the products, supporting marketing and setting up Community Enterprises. A total budget of US\$120,000 is to be allocated as small grants. The grant allocation criteria are determined, and funds are to be distributed by the start of 2019. 10% of profit from the grant supported activities will be allocated to WHS protection activities. SNF will provide technical support for proposal screening and project monitoring and evaluation. Gender balance is being encouraged at the project design stage. The woven craft group in particular is expected to build the capacity of women.
- **RECOFTC, HKK buffer zone.** RECOFTC's work has focused on 6 pilot communities in the buffer zone. They have been working with / training 5 Community Liaison officers hired by the project in 23 additional communities. Activities completed include: a survey of basic information such as community land-use and opportunities for innovative in 29 buffer zone communities; a series of workshops among project-hired community teams and RECOFTC to conduct SWOT analysis, problem tree analysis, and development of an objective tree. Consequently, 6 broad areas of activity have been identified to be presented to the communities: (i) Community Forestry Management; (ii) Rehabilitation of biodiversity; (iii)

Engagement of people in wildlife management; (iv) Promotion of wildlife friendly agriculture; (v) Community Enterprise; and, (vi) Environmental study and public participation. Only (i), (iv) and (v) appear to be *directly* linked to livelihoods, which is the intended objective of the support, while Community Forestry (i) is unable to address the main threat to the WHS. There have been several delays in deliverables and the PM has requested RECOFTC to provide the completed project documents by October 2018 (due April 2018), which should also specify a more structured grouping of project proposals taking all 29 communities into consideration and looking across the landscape as a whole. There have been concerns over RECOFTC's limited field presence. It is critical that activities are community-driven and significantly more engagement with communities is needed. Furthermore, since project design the project has moved away from the development of REDD+ results payment and community forestry which is RECOFTC's area of expertise. While the conditions are not suitable for progressing with REDD+ at the site (as discussed in Section 3.1.2), community forestry originally aimed at avoiding deforestation and increasing the forest area is not in itself able to address the priority threat – the human-wildlife conflict. Therefore, it is important that livelihood support extends beyond community forest development to activities targeted at solving the human-wildlife conflicts such as the adoption of wildlife friendly farming practices and ecotourism. To best support this re-orientation it is proposed that from November 2018 RECOFTC's role will be to act as 'grant maker', i.e. they will be responsible for releasing money to the communities, based on the recommendations of a grant committee, which is to be established⁵, and a community facilitator will be hired to manage the work on the ground working closely with the communities to develop viable income generating initiatives. There is a total of US\$240,000 to be allocated as grants. The size of individual grants will depend on the type of projects to be funded. Every attempt should be made to disburse the funds by the start of January 2019 to allow sufficient time to implement the projects and consolidate the lessons learnt. The project also needs to be realistic as to what can be achieved in the remaining time and the number of communities that it will be feasible to work with.

- Both SNF and RECOFTC's work has been challenged by the high DNP staff turnover, which means that staff have to be constantly retrained. Greater incentives and recognition is thought necessary to provide better incentives for DNP staff to engage in community related work. For example community work could be included as a KPI. As DNP is placing increasing emphasis on community engagement as a tool for sustainable PA management, it was also suggested that a focal point / division be established at DNP to coordinate and provide support to PAs on community outreach and alternative livelihood development. It could initially start as an internal/informal unit within relevant divisions (e.g. Wildlife Protection, National Parks Management) and be equipped with skills in community development/capacity building. This focal unit could also coordinate support for other related agencies at the national and local level in community livelihood development activities.
- The project is working with the **HKK Foundation** to help establish Chor 1 village, which consists of the villagers who agreed to be relocated. The village can serve as a model for other sites and the focus is to develop organic farming and potentially eco-tourism as part of the wildlife based tourism plan developed under Output 2.2. In collaboration with the UNDP Biodiversity Finance project (BIOFIN) the project is also seeking the support of good-will investors to top up the compensation package provided by the government.

Output 2.2. Wildlife-based Tourism Development

- **Kasetsart University** has completed a feasibility study for the development of wildlife-based ecotourism in HKK buffer zone. The study includes a site potential analysis, a local community

⁵ It is intended to invite the GEF-Small Grants Program (SGP) committee members to support the committee and help screen and monitor projects.

survey, a visitor analysis and a wildlife-based eco-tourism scenario. The study identifies 4 potential zones for development: Zone 1 covers the area between Tab Salao reservoir and HKK wildlife sanctuary, which provides habitat for Banteng; Zone 2 is the HKK Wildlife Breeding Center, where there is the potential to develop the landscape as a soft release area for bred wildlife. The area behind the center could also be developed for wildlife viewing⁶; Zone 3 is currently used by communities as mono crop fields, but could be used for nature-based and culture-based tourism; Zone 4 is currently managed by the Forestry Industry Organization as a forest park and could be developed to promote nature-based tourism (e.g. nature trails, bicycle trails, boat trips along the reservoir). Kasetsart University has submitted a proposal for phase 2 to develop a Wildlife Habitat Management Plan and Wildlife-based Eco-tourism Management Plan. A 'participatory action research' approach will be adopted whereby stakeholders will be engaged throughout the process, thereby building the capacity to implement the plan in the longer-term. Zone 2 has been selected as the initial pilot area for wildlife-based tourism building on the Wildlife Breeding Center's ongoing activities and facilities. The Centre is already open to visitors but could be further developed as a learning Centre. It is also exploring ways to potentially involve communities in animal breeding activities. Issues that will need to be addressed in the management plan are: (i) the tourism carrying capacity of area; (ii) How the expertise of communities in eco-tourism will be developed – this is likely to need a lot of support from Government; (iii) the commercial viability of the ventures, seed funding opportunities and the proposed benefit sharing arrangements; and, (iv) How infrastructure development will be financed – will support be provided by the Provincial Government and how can the private sector be engaged. The eco-tourism feasibility study was submitted to the Provincial Governor of Uthai Thani who has reportedly adopted the concept of Wildlife-based ecotourism as the model of buffer zone management. Funding from the provincial development budget has been discussed as an option, and will be further discussed following detailed design.

- **The WHS strategic plan** will integrated various areas of work including the Habitat Management Plans for the 3 Wildlife Sanctuaries, the wildlife-based ecotourism plan, the demonstration on impact investment for wildlife habitat restoration and human resettlement and the project's work on innovative sustainable financing. The strategic plan will be lead by BIOFIN's economist. The viability of the **WHS Strategic Plan** depends largely on a feasible business plan and sustainable financing strategy. In the buffer zone, wildlife-based ecotourism and alternative livelihoods are being explored. In TYE and TYW the business plan will focus on the management of high value habitats for rare species. It is hoped that the economic valuation of the area (see below) will help to identify how to generate financial flows to the area. The ultimate goal is that the WHS strategic plan will be mainstreamed into provincial and/ or DNP budgeting

Output 2.3 Wildlife Premium for Sustainable Financing Mechanism (*output title needs updating*)

- The Government recognizes the importance of communicating the value of WHS. While the area is closely associated with its tigers it also supports ecosystem services such as water provision and regulation, carbon sequestration, plant genetic materials, food security and medicinal plants, and opportunities for community-based tourism. These ecosystem services are of economic value locally, nationally and internationally. Most of these benefits are not monetized so tiger landscapes are undervalued. The undervaluing of tiger landscapes contributes to the inaction and under investment that leads to degradation, fragmentation, and loss of natural habitats, depletion of prey animals, and poaching to supply a large illegal global trade in their body parts, and have pushed wild tigers and their landscapes to the brink of extinction (Project Document).

⁶ This includes the Banteng habitat from which communities are being relocated (PIR, 2018).

- The project is collaborating with BIOFIN / Dr Orapan Na Bangchang to undertake an economic valuation of the WHS to promote awareness of the importance of the site and hence support its conservation. The study will also inform the appropriate setting of penalties and fines for poaching and other infringements, which are currently considered to be set at very low levels and hence neither compensate for the loss of wildlife or other ecosystem services nor act as a deterrent to poachers. A Choice Experiment approach is proposed, which is a stated preference survey technique commonly employed to estimate the value of non-marketed goods and services.
- Potential **sustainable financing mechanisms** are also being explored with BIOFIN, which can be used to supplement Government – Central / Provincial budget allocations. The most promising is a **Wildlife Conservation License Plate**. Under this scheme, car owners would pay an annual fee of around 500 Baht for a car license plate with a tiger picture. The scheme has a precedent in the Lucky Number plate scheme already in place in Thailand and can build on similar schemes focused on wildlife in Canada and Malaysia. While a detailed business case is yet to be prepared, if 1% of car owners participated paying 500 Bhat a year, the scheme could raise an estimated 46 million Bhat a year. Development and implementation of the schemes requires working with 3 ministries – the Ministry of Land Transport (MOT), Ministry of Finance (MOF) and the National Economic and Social Development Board (NESDB). Issues to be resolved included – design of the scheme, how funds will be collected and governed and how to build ownership at DNP. Such a scheme may have high resonance with the population at the moment given the black panther case. A professional communications expert will need to be hired to promote the scheme. **Impact investors** are a longer term aspiration but could support community-based social enterprises based on sustainable farming practices, the marketing of conservation-oriented products and eco-tourism in the project communities, if profitable.
- A Cost Benefit Analysis of Buffer zone initiatives is also planned, building on the information collected by RECOFTC.
- The timeframe for the economics work is September 2018 – September 2019

Progress towards Outcome 3: Improved local education, awareness and participation

MTR progress towards Outcome 3 rating: Moderately Satisfactory

Output 3.1. Community Education and Outreach

- DNP recognizes the need to work more closely with communities and assist them in finding alternative livelihoods, but its staff have limited skills to do this. To help address this 9 community liaison staff have been hired by the project under the Chiefs of the 3 wildlife Sanctuaries. This has resulted in the integration of community work plans into the regular work plans of the Wildlife Sanctuaries. The project partners are working alongside the community liaison officers to build their expertise in community engagement. In HKK buffer zone they are working with communities to develop proposals that may receive grants under the project, in TYW they are working with youth leaders to develop an educational platform on wildlife conservation and in TYE the work includes joint-patrolling and working with the enclave communities on household food production to substitute traditional wildlife hunting.
- **Rabbit in the Moon Foundation** are working in the seven TYW villages⁷ training youth and developing knowledge on biodiversity protection based on the integration of local knowledge and culture with scientific knowledge. They are working with 5 youth representatives per community and 5 DNP staff assigned by TYW superintendent. They are contracted for 3 years, and started work in February 2018. The workplan is: Year 1 - developing an

⁷ These indigenous Karen communities have lived in the area for over 200 years.

understanding about the WHS and its importance among communities; Year 2 - design thinking on how the WHS could be looked after by the enclave communities; Year 3 - Implementing the ideas/projects. While there is no budget allocated from the Tiger project to implement activities, they plan to explore the mobilization of funds from the private sector.

- To date, 2 youth camps have been conducted for 35 youth representatives from TYW's 7 enclave villages with the full engagement of DNP staff assigned to work with communities. The Rabbit in the Moon team have visited the 7 communities twice to develop a rapport with and understanding of the community. The experiences from the youth camps are shared in the webpage: One Community Project.
- A study documenting indigenous knowledge and identifying how it can be adjusted/blended with modern scientific knowledge in wildlife conservation is being undertaken by a field team and will be supported by specialists.

Output 3.2. Participatory Management

- **Environmental Education Mobile Vehicles.** A total of 3 mobile vehicles have been provided by project for HKK, TYW, TYE. There is some concern that the TYE and TYW vehicles have not been / are not located near the site and are therefore not effectively serving to educate communities on the WHS. There is the potential to collaborate with Rabbit in the Moon to support innovation in environmental education.
- More than 20 pilot schools in HKK have adopted Tiger and Wildlife Conservation in the curriculum.
- **PACs.** The project is seeking to strengthen the PAC's capacity in the co-management of PAs with a more active role for local communities. The inclusion of community issues in the PAC meetings has been achieved to a limited extent. For example, in TYW community representatives were informed about the case of black panther killing and consulted on regulations/control on entry to the Wildlife Sanctuary. In TYE, the method of land use survey used by TYE officials was raised which is not considered to be compatible with communities' way of living. The PACs perform an advisory rather than decision making role and the project is considering the establishment of a parallel local foundation which would work hand in hand with the government in protection and wildlife conservation. Such a parallel body would require good governance and might be based on PAC members as a starting point.
- The project is working with the Nature Education Center of HKK to pilot a platform focusing on wildlife and wildlife conservation. The concept is to make the public realize the importance of the genetic store of biodiversity within the WHS. The wildlife education platform will be a Show Room to inspire public compassion in wildlife conservation and wildlife-friendly initiatives. A similar concept is planned for TYW with 3 youth camps a year to create youth ambassadors who speak for home-based wildlife conservation.
- The '**Guest Room**' is a new concept which was *not* in the project design. The project (PM and senior coordinator) is developing the concept of 'HKK WHS Guest/Living Room' at three different sites in HKK to serve as platforms for nature-and culture-based study. Community liaison officers currently hired by the project could manage the living rooms and thus the 'Guest Rooms' may be a way to secure financial support and a career path for the project staff after the project ends. Funding is required to develop these rooms. The proposed sites are: (i) **Lan Sak - Wildlife Tourism Office**, with a focus on human wildlife conflict resolution, wildlife friendly community products, nature education via nature trails and Uthai Thani Buffer Zone Management Model; (ii) **Saiber Water Fall - Nature Education**, which could serve as a learning Center on plant species, a Youth camp and nature museum; and (iii) **Huai Mae Dee - Visiting Center** for birdwatching, community craft and products and homestays.

Table 2 presents a summary version of the Progress Towards Results Matrix. The full Matrix is provided in Annex 4. It should be noted that a number of activities are coded as 'not on track' because there is no project monitoring data available against which they can be assessed, or because the indicators are no longer relevant due to the change in project focus.

Table 2: Progress Towards Results Matrix (Achievement of outcomes against End-of-Project Targets)

Project Strategy	Indicator ¹	Midterm Level ² & Assessment	Justification for Rating
Objective: To improve the management effectiveness of, and sustainable financing for, Huai Kha Khaeng-Thung Yai Naresuan (HKK-TYN) World Heritage Site and incentivize local community stewardship	MODERATELY SATISFACTORY		
	1/METT Scores of HKK, TYE and TYW Wildlife Sanctuaries		DNP has established the Foundation for Rangers located at DNP HQ.
	2/Financial sustainability scorecard for the WHS		While there are concerns over the information provided in the scorecard, the agreed work plan with BIOFIN suggests that this target is on track, although dependent on the success in establishing new mechanisms and raising sustainable revenue for the WHS
	3/Capacity development indicator score for DNP (Wildlife Conservation Office)		While the capacity scorecard was not provided for the MTR based on activities undertaken to date achievement of this indicator is considered to be on track. 9 DNP Community Liaison officers have been hired and are being trained by the project's partners. 600 rangers have received SMART refresher training. The capacity development of park rangers and wildlife conservationists is the main focus of the regional training center at HKK, due for completion by October 2018.
	4/Number of villages (of the 43 targeted enclave and buffer zone villages) directly benefiting from community-based livelihood activities		Notwithstanding the fact that work in the 14 enclave communities is on track, community work is delayed in the buffer zone and the approach requires clarification. To date the work has been focused on 6 communities not the targeted 29. The focus of the grant funding has been shifted from community forestry to include activities targeted at addressing the human-wildlife conflicts in areas used for mono-cropping
Outcome 1: Strengthening on-ground conservation actions and wildlife protection	MODERATELY SATISFACTORY		
	5/Number of tigers / 100 km ² in the three wildlife sanctuaries		KNR has proposed to change the baseline, which was already revised at the Inception phase, as discussed in Table 1. Coded as red as actual monitoring data was not available and baseline and target are still uncertain.
	6/Aggregate occupancy index (number/km ²) of select tiger prey species (sambar; gaur; banteng) and elephant in the three wildlife sanctuaries		Coded as red as official figures are not available. The Transec Line demarcation is to be completed by the end of 2018, then monitoring will start within the grid. However, an increase in Tiger prey is reportedly evident based on statistics of the Kasetsart University study, which show an out flux of prey to the border of the protected area.
	7/Number of poacher encounters per annum reported by ranger patrol staff from HKK, TYE and TYW		Coded as red as no official data provided at Mid term also the Indicator is ambiguous and requires clarification.
	8/ Areal coverage (as a % of total WHS area) of the ranger patrols in the WHS		Based on SMART monthly meetings, ranger patrol coverage is now at 70% of the WHS area, compared to the baseline coverage of 60%
	9/Area-based habitat management plan taking climate projection into consideration		Habitat management plans are under development, and while there have been delays should be completed this year. Attention needs to be paid to the quality of the plans.
	10/Number of tigers (captive and wild) with a documented DNA record		To date 1,250 samples from captive tigers have been collected. Revision of indicator proposed due to difficulties documenting wild tiger DNA.
	11/ Coverage (as a % of total area) of the wildlife monitoring program in the wildlife sanctuaries		Current coverage is - HKK - 70%, TYE - 50%, TYW - 50%. The 2 new wildlife research sub-stations in TYE and TYW provide additional facilities.
	12/Number of staff of HKK, TYE and TYW who receive (a)		Refresher training was financed through DNP and WCM co-financing, for around 600 patrol officers.

Project Strategy	Indicator ¹	Midterm Level ² & Assessment	Justification for Rating
	refresher training and (b) train-the-trainer training		Training of trainers will start when the regional training station has been rehabilitated in November 2018
	13/Percentage of temporary ranger staff across the three wildlife sanctuaries who have adequate death and disability insurance cover		DNP has established the Foundation for Rangers, to provide job security, welfare and insurance for rangers throughout the country. Funding is based on donations from the general public
Outcome 2: Incentives and sustainable financing for wildlife conservation and forest protection	MODERATELY SATISFACTORY		
	14/Number of villages with signed Conservation Agreements		<i>Additional</i> conservation agreements reflecting the initiatives supported through project to reduce threats to wildlife have yet to be identified.
	15/Area registered as community forest in the HKK buffer zone		Achieved. The registered community forestry in the buffer zone is 2,933 ha
	16/ Number of people (of which percentage are female) living in the enclave villages of TYE and TYW who are direct recipients of project grant funding support		On track. Grant allocation scheduled for January 2019
	17/ Direct project beneficiaries living in buffer villages (of which percentage are female) who are direct recipients of project grant funding support		Delayed and refinement of project concepts required. Grant allocation scheduled for January 2019
	18/ World Heritage Site strategic plan of which eco-tourism, sustainable financing are integrated into provincial development plan, with community participation in planning and financial management.		The Governor of Uthai Thani has adopted the concept of Wildlife - based ecotourism. It is hoped that wildlife tourism will be integrated into provincial development budgeting in 2019 fiscal year
	19/Avoided forest and forest degradation (ha and tonnes of CO2 eq.) in the WHS, enclave villages and HKK buffer areas		No longer relevant as it is not feasible to proceed with REDD+ development as proposed
	20/ Annual deforestation rate (%) in the WHS, enclave villages and HKK buffer areas		The deforestation rate could be based on community forest projects in HKK buffer zone area and proven result of community livelihoods improvement with indigenous groups in the enclave villages in TYE and TYW, but this is likely to be difficult to measure
Outcome 3: Improved local education, awareness and participation	MODERATELY SATISFACTORY		
	21 Number of WS community liaison and outreach staff working in targeted enclave and buffer zone villages		Achieved taking into account 9 Community Liaison staff funded by project, and SNF, RECOFTC and Rabbit in the Moon staff working in the WHS
	22/ Number of schools using WHS-based education and information materials		Around 100 schools have received Tiger and Wildlife Conservation curriculum, however the adoption rate is not clear
	23/ Number of informational and educational road shows presented per annum using the mobile environmental education units		No data provided on the usage of mobile units to date, although other project initiatives are increasing education and awareness, such as the youth camps
	24/ Number of Protected Area Committees (PACs) with full representation and involvement of enclave and buffer zone villages		Achieved but effectiveness is uncertain, and the project is exploring the establishment of a parallel local foundation

Notes: 1/ From the Logframe and scorecard; 2/ color coded;

Green= Achieved	Yellow= On target to be achieved	Red= Not on target to be achieved
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3/ six point progress towards results rating scale: HS, S, MS, MU, U, HU; 4/ There are no Mid term targets

3.2.2 Remaining barriers to achieving the project objectives

There is uncertainty around the exact specification of the community initiatives in the buffer zone, and the extent to which they will be able to increase incomes for the local communities.

The tourism initiative will be the prototype, and the first of its kind in the country, aimed at developing a win-win solution for both wildlife conservation and communities. This ambitious goal is challenging. Wildlife-based ecotourism initiative involves many different agencies in the buffer zone whose jurisdictions overlap, namely, Department of National Parks, Wildlife and Plant conservation, Royal Forest Department, Agricultural Land Reform, Irrigation Department, and Local Government Administration. The recruitment of a **senior coordinator** has proven timely and has helped coordinate all agencies involved.

3.3 Project Implementation and Adaptive Management

3.3.1 Management Arrangements

While project management is now considered to be running well, the project suffered a one year delay largely due to the difficulties in aligning the GEF system with Government / DNP systems. These difficulties were reported in detail in the project's Inception Report and PIR 2017.

The main constraint at project start up was the difficulty mainstreaming the project into the Government's rules and procedures due to: (i) the lack of **Standard Operational Procedures** for the implementation of projects which fall under the External Budget category; (ii) the **lack of performance indicators** linked to the time and effort government staff put into project activities; (iii) **Weak justification of Co-financing**. Complementary annual budgets and job description of the assigned staff as co-workers are unclear. Without this it is impossible for the current and future fiscal year to have the available co-financing budget. For example, there was no prior allocation of budget for the operation (e.g. staff cost, travel, and per-diem) of DNA sampling and analysis, to compliment the Tiger project's provision of hardware and facilities. Funding was also unavailable for staff participation in the meetings, field visits, and project monitoring (Inception Report 2016).

Under the National Implementation Modality (NIM) the project budget is largely transferred from UNDP to the Government. Since the project is categorized as "extra budget" existing procedures could not be applied, and the project needed to develop a regulative reference covering annual work plan approval, procurement, disbursement and auditing. It took almost 6 months to mainstream the National Implementation Modality (NIM) into the government budgeting, disbursement and auditing system. Project guidelines were developed and endorsed by the Comptroller Department, Ministry of Finance in July 2016, (which could potentially be developed to serve as standard guidelines for the operation of NIM projects). The start of the project and disbursements of the 2016 budget was subsequently delayed until the third quarter.

Furthermore, the additional manpower financed through the project i.e. rangers, wildlife research assistants, monitoring data assistants, outreach coordinators, field coordinator, and project administrative team, required the approval of the Ministry of Finance. This proved to be time consuming. It reportedly took 5 months for the additional rangers to be paid.

Implementation constraints continued throughout the second year of the project (PIR, 2017). Gaps in communication, on going implementation delays and lack of adherence to the SOP were reported. In order to address these project implementation issues, UNDP offered to provide further support and 13 activities were passed from DNP to UNDP based an official letter of request

from the Government.⁸ This resulted in having to adhere to the requirements of both the government and UNDP system, e.g. in terms of procurement, and complex UNDP procurement processes have in some cases compounded project delays (PIR, 2017).

The project has a strong Project Manager who has developed good relationships with the DNP at central and field level. All WHS chiefs confirmed that support from the PMU is sufficient. There is a high commitment by WHS field staff and project partners.

A **Co-Manager** was appointed in the second year of the project responsible for facilitating the implementation process through the government line of command / channels. He was assigned by the Director General of DNP to address issues in Project Management and work flow as a liaison officer who has certain authority to activate actions at operation levels. The Co-manager also serves as an aide to the Project Director, speeding up decisions (Inception Report 2016). The appointment of a Co-manager has greatly facilitated the operational effectiveness of the project – speeding up processes within the government system and allowing DNP to have more involvement in project implementation and monitoring. The previous GEF project CATSPA included such a role but this was not taken up by the Tiger project until its second year when the need was recognized. This approach has since been adopted on a GEF 6 project⁹. The project manager and co-manager work together to ensure timely project interventions and problem solving.

A **Senior Field Coordinator**, who is a former executive official of Wildlife Protection Bureau within DNP, was appointed in 2018. He is playing a key advocacy role in relation to the project's work on Wildlife-based Ecotourism, bringing it to the attention of the governor's office. As a result the work has been adopted as part of the provincial development strategy in buffer zone management and there is the potential of budget support from the provincial development administration.

Project Board. The DNP Director General chairs the Project Board and the Director of Wildlife Conservation Office (WCO), who is the Project Director, serves as the Board Secretariat. As is typical in Thailand, the Board is large (28 members). It is comprised of agencies within DNP, agencies under the Ministry of Natural Resources and Environment, and responsible agencies of national planning and budgeting i.e. NESDB and Budget Bureau. Partner agencies (NGOs and civic groups) are also the Board members. The chiefs of HKK, TYW, TYE and KNR are members of the Project Board. This is important as they are the key actors in the project and are able to best verify issues at the project site (where most of the interventions are targeted), propose measures to tackle problems, and best reflect the effectiveness and efficiency of project interventions.

The Project Board acts as a supervisory body meeting twice a year and has so far met five times. The fourth Project Board Meeting on March 6, 2017, was chaired for the first time by the DNP DG. The DG is reportedly actively supervising the project given that it is designed to showcase many new DNP initiatives i.e. The Network Centric Operation System for real-time decision making, the insurance and welfare for rangers, success in increasing the number of Indochinese tigers in Thailand, and wildlife compatible community livelihoods. The agenda at this meeting

⁸ These activities fall under five categories: (i) Recruitment of and/or remuneration to project staff; (ii) Hiring of local consultants; (iii) Procurement of goods and services; (iv) Organization of meetings and workshops; and, (v) Direct payments to vendors.

⁹ Combating Illegal Wildlife Trade, focusing on Ivory, Rhino Horn, Tiger and Pangolin in Thailand Illegal wildlife trade project, PIMS 5619, GEF 9527.

was reportedly rushed due to the limited time, with a number of issues requiring better clarification (Q1, 2018 QR).

The Project Board has been supported by a sub-committee for each project outcomes to discuss and agree upon technical matters and facilitate inter-agency coordination and cooperation in the planning and implementation of project activities. The sub-committee for Component 1 met once in 2017. Due to the low activity, the fact that three separate sub-committees do not capture the interconnection between outcomes and that the committees have the same membership as the Project Board a rationalization was proposed. The merger of the three committees into one sub-committee was approved by the Project Board in March 2017, but is not been formalized.

The Project Director indicated a preference for restructuring the project management set up (as presented in Figure 1) to include a project component related to Project Management and Procurement, with allocated budget to hire professional staff to carry out financial/procurement tasks to speed up the management/administrative support to the project. However, it is not possible to add new project components following GEF CEO Endorsement or to include components that are based on project management rather than outcomes. Given the fact that the project management is now running relatively smoothly, further changes to the management structure are not recommended at this stage of the project when a strong focus is required on the technical implementation of the remaining activities.

UNDP took over project from the World Bank who led the design of the project and in general, there has been high staff turn over at the UNDP Country Office (CO) and as a result the institutional memory on the project only stretches back a couple of years. The CO Programme officers (Programme Analyst and Programme Specialist) were recruited in February and July 2018, respectively and are therefore still relatively new. Reportedly management support (including project assurance exercises) has largely been provided by a peer group of project managers, rather than the CO management team, and technical support, review and guidance on the Tracking Tools has been limited. This issue has been raised in programme unit meetings with a request to better clarify the role of the CO programme staff vis a vis the project staff. Delays are also evident, for example, the review comments on the draft MTR report took nearly three months.

The Regional Technical Advisor (RTA) has been in position for 2 years, and so was not involved in the project design. The RTA has well supported and guided the PIR process, with a focus on results, but reportedly has limited time to engage in other aspects of the project.

In general, the PIRs have offered a very candid account of the project's status and challenges. The latest PRI was consistent with the findings of the MTR. A Social and Environmental Screening Procedure (SESP) was completed at the Project Preparation Grant (PPG) stage, when the risks were assessed as low. The management of environmental and social risks are reviewed in the PIRs. Human wildlife conflicts in the Banteng Habitat are now recorded as a possible risk, if this issue is not well managed (PIR, 2018).

The project management has been adaptive throughout and continues to hone the project activities and management process to best suit circumstances. Although it is hoped that the project at the mid term stage now has a clear way forward and largely functioning management structure. Examples of adaptive management include:

- Some original activities in the Project document have been replaced with new activities which are more relevant to the situation (e.g. change from REDD+ to wildlife valuation and working with BIOFIN on sustainable financing);

- A shift from community forestry to a broader portfolio of livelihood initiatives in order to better address the growing wildlife-human conflicts in the buffer zone;
- Engaging a co-manager from DNP to help address the implementation delays faced by the project; and,
- The recruitment of a procurement advisor who was former government procurement chief to help define the SOP of the new Procurement Act.

3.3.2 Work Planning

The project document was signed in July 2015. Project Board members were appointed in December 2015, followed by the official approval of the Project Management Office within DNP in February 2016. **July 29, 2016** marked the official commencement of the project on the World Tiger Day. The project inception workshop was held in November 2016 (almost 18 months after ProDoc signature) approving the project indicators, monitoring mechanism and tracking tools, including some adjustment of project activities from the original project document. The delays in the inception phase have had a cascading effect on project milestones. The MTR, scheduled to take place in the first half of 2018, was postponed until the second half of 2018.

The extensive delays to project start up and implementation due to formalizing the NIM process within Government are discussed above. In addition, the project has faced delays in implementation due to:

- The new **Procurement Act** (issued late 2017) delayed the procurement / construction of new ranger stations and check points and the purchase of equipment.
- For UNDP supported services, there is a high turnover of UNDP procurement staff which has affected the responsiveness to the government request.
- Changes in the specification of procurement requests has also prolonged the delivery of services as several amendments of the procurement contract have been necessary (e.g. with regards to the renovation of DNP War Room and the regional training center). (Progress Report, Q1, 2018)
- WCS Responsible Party Agreement took a long time to set up and was a difficult process for all parties. This is the first Responsible Party Agreement in Thailand, which allows funds to go directly to another party, without going via Government. The selection process is required to be competitive, unless justified otherwise in the Project Document, which was not the case for WCS under this project.

The project's work plans are of good quality with a high level of detail. This in part reflects the complex DNP procedures for work planning and budgeting. The challenge for work plan implementation lies in efficiently working through these processes so that funds can be disbursed. The draft annual work plan go through several rounds of consultation with the Project Board, chiefs of the three Wildlife Sanctuaries and wildlife monitoring stations, relevant units within the Wildlife Conservation Office, including partner agencies working in the World Heritage Sites. The Annual Work plans are approved by the Project Board.

3.3.3 Finance and co-finance

An update on expenditure (e.g. through the Combined Delivery report), although requested, was not provided to the MTR. Table 3 presents the project budget plan from Project Document.

Table 3: Project Budget Plan 2016-2020

Project Budget 2016-2020						
Total Project Budget	2016	2017 <i>(estimated)</i>	2018 <i>(estimated)</i>	2019 <i>(estimated)</i>	2020 <i>(estimated)</i>	Total
Outcome 1 Strengthened on-ground conservation actions and wildlife protection	2,162,861	791,539	717,000	566,000	407,000	4,644,400
Outcome 2 Incentives and sustainable financing for wildlife Conservation and forest production	408,330	272,543	272,543	272,543	272,543	1,498,502
Outcome 3 Participatory Management, Awareness and Environment Education	211,760	158,824	158,822	158,822	158,822	847,050
Management	57,600	57,600	57,600	57,600	57,600	288,000
Total	2,840,551	1,280,504	1,205,965	1,054,965	895,965	7,277,952

Source: Project Document

The first year budget is proportionately higher than subsequent years as it was to cover the purchase of infrastructure and equipment needed to expand WHS protection and wildlife monitoring coverage through the SMART Patrol System, i.e. building of new check points, new ranger stations and additional wildlife research units, purchasing of patrol vehicles, camera traps and communication devices. It also included the additional manpower - patrol rangers.

Due to delays in setting up the project management system, the first budget request was submitted to DNP in August 2016. Delivery against the 2016 approved work plan was a moderate 69% – however, this can be considered an achievement given the disbursement challenges that the PMU has faced. However, as a consequence many activities were delivered in a rush, compromising strategic thinking and ensuring that activities were effective and well-connected.

At mid-year 2017 delivery was at a relatively low 23% against work plan, although this was expected to improve once WCS was engaged as a Responsible Party. According to the draft PIR, 2018, expenditure at midterm is around 35%.

Standard procedures are in place to manage finances. Detailed Annual Work Plans are used to allocate budgets. The Funding Authorization and Certification of Expenditure (FACE) form is used to manage the NIM Advance to the Government. UNDP-support services are managed by the CO Programme Associate on Resources Management through ATLAS. A HACT (Harmonized Approach to Cash Transfer) assessment was conducted in May 2017, with the project being assessed as 'Low Risk.'

Co-financing. According to the Project Document the following co-financing has been committed: GoT – US\$22,864,427, WCS – US\$500,000, SNF – US\$370,000 and UNDP – US\$500,000. Co-financing is not being routinely monitored by the project and information was only provided by WCM regarding the level of co-financing provided to date.

It is therefore impossible to verify Government financial contributions to the project and how much additional in-kind support is being provided by the Government to match the GEF grant funding. It is unclear how meaningful the US\$22,864,427 in government co-financing is given that the project is seen by many as additional to the work they already have to do, and that there is no

distinct / formal allocation of Government personnel time to the project (as discussed above). No one from the Central level was available to attend the MTR briefing in Bangkok, due to other work commitments.

It was estimated that the Co-manager spends 20-25% of his time on the project, while people in the field spend 100% of their time on the project and that the Government has provided equipment for research and study department.

WCS' co-financing contributions have supported, for example, the SMART training of rangers and the renovation of the Regional Training Center on Wildlife Conservation. Further funding will be raised to buy air-conditioners for the building. Table 4 presents the actual co-financing for Years 1-3 of the project and predicted co-financing for Year 4. It is evident that WCS' co-financing has already far exceeded its commitment made at the project design phase of US\$500,000 demonstrating their strong commitment to the project.

Table 4: WCS co-financing to Tiger project.

Year 1	Year 2	Year 3	Year 4	Total contributions (US\$)	Total contributions (THB)
385,000	310,000	270,000	[250,000] <i>estimated</i>	1,215,000	44,015,598

3.3.4 Project-level Monitoring and Evaluation Systems

Regular quarterly reports and PIRs have been prepared by the project and generally reflect the progress made and elaborate on the difficulties facing the project. The Inception Report serves as the monitoring report for 2016. The first quarterly progress report was not in the standard format (dated 30 April) and overall the quarterly reports are in three different formats. The progress reports have not always been fully completed (e.g. financial data missing) and it is sometime difficult to identify progress at activity level, except for the two latest reports, but they have improved as the project has progressed

There are concerns over the quality and accuracy of the tracking tools. A number of tracking tools were provided for the MTR, however they generally were only superficially completed with no explanation provided for any changes in results. For example: (i) the Management Effectiveness Tracking Tools (METT) does not seem realistic e.g. an increase from 75% to 97% in TYE and the results are not substantiated (Indicator 1); (ii) the Financial Scorecard for the MTR appears incomplete (Indicator 2). There was a suggestion to complete a financial scorecard for the WHS. This would require the mid term score serving as the baseline. The Financial scorecard for the CATSPA¹⁰ (including WEFCON) was provided to the MTR but the analysis is nationwide not WEFCON specific.; and, (iii) an update of the capacity scorecard was not provided for the MTR (Indicator 3).

The project manager visits the sites at least once a month, and detailed back to office reports (BTOR) are prepared following these visits. In addition, the chiefs of the Wildlife Sanctuaries regularly come to DNP to follow up on logistics, procurement and financial clearance. The

¹⁰ Catalyzing the Sustainability of Thailand's Protected Area System (CATSPA) project was designed to overcome barriers to effective management and sustained financing of Thailand's protected area system. It was implemented by DNP from 2012-2016. The pilot sites included the Western Forest Complex, in which HKK-TYN WHS is located.

establishment of Project Field Office in HKK is also beneficial for project monitoring and the Senior Coordinator is the focal point for reporting progress on site, informing issues of concern and mitigating the escalation of risks.

The Monitoring and Evaluation Budget and Work Plan was partially costed at project design (p.54 of Project Document). Measurement of Means of Verification for Project Progress on output and implementation were to be determined as part of the Annual Work Plan. The budget for the Mid term and Final Evaluation is sufficient, however the project should ensure that enough budget is allocated towards the implementation of the tracking tools and other means of measuring project results in the second half of the project. Site visits by the PM are budgeted under project activities rather than M&E.

3.3.5 Stakeholder Engagement

The project has developed strong partnerships to deliver the project as outlined in Section 2. Partnerships with stakeholders are being built through the emphasis on community work and awareness raising in components 2 and 3 of the project in both the enclave and buffer zone villages. For example, youth leaders are being supported by Rabbit in the Moon to become ambassadors for the WHS and SNF are supporting the Woven Craft Group, a group supporting Karen women in TYE.

In HKK, concerned government agencies, e.g. Community Development, Agriculture, Environment at provincial and district level as well as Local Administration Organizations in HKK will be invited to participate in the 'action research' to develop and demonstrate wildlife-based eco-tourism

Participation and country-driven processes. The national Government are committed to the objectives of the project which closely reflect Government policies. They are involved in project decisions on an on-going basis through the project Co-Manager and through the bi-annual project Board Meeting

Building public awareness is the focus of outcome 3 of the project and is therefore closely associated with the achievement of the project's objectives. The effectiveness of some of the awareness raising initiatives is uncertain and greater emphasis on building awareness and support for the project – locally, nationally and internationally, should be considered in the second half of the project. The project plans to expand collaboration with the private sector, business communities and social media to broaden the awareness of the conservation effort and secure additional funding.

3.3.6 Reporting

As discussed above, regular quarterly reports and PIRs have been prepared by the project and generally reflect the progress made and elaborate on the difficulties facing the project. While there have been no poorly-rated PIRs, the project design and management approach has been adapted to better meet challenges and fit the situation on the ground throughout the project (also discussed above). The justification for the adaptive changes have been transparently reported in the annual and quarterly monitoring reports and agreed by the Project Board. The lessons on the implementation of NIM executed projects needs to be clearly documented to facilitate the efficient implementation of future projects, given the costly delays the Tiger project faced and the fact that these challenges had previously be experienced by the CATSPA project.

The PIRs are shared with the Project Board., which is composed of the key stakeholders, with the PIRs being translated into Thai ahead of the board meetings. It was suggested that the CO programme officers would benefit with training on reporting.

3.3.7 Communications:

Internal project communications

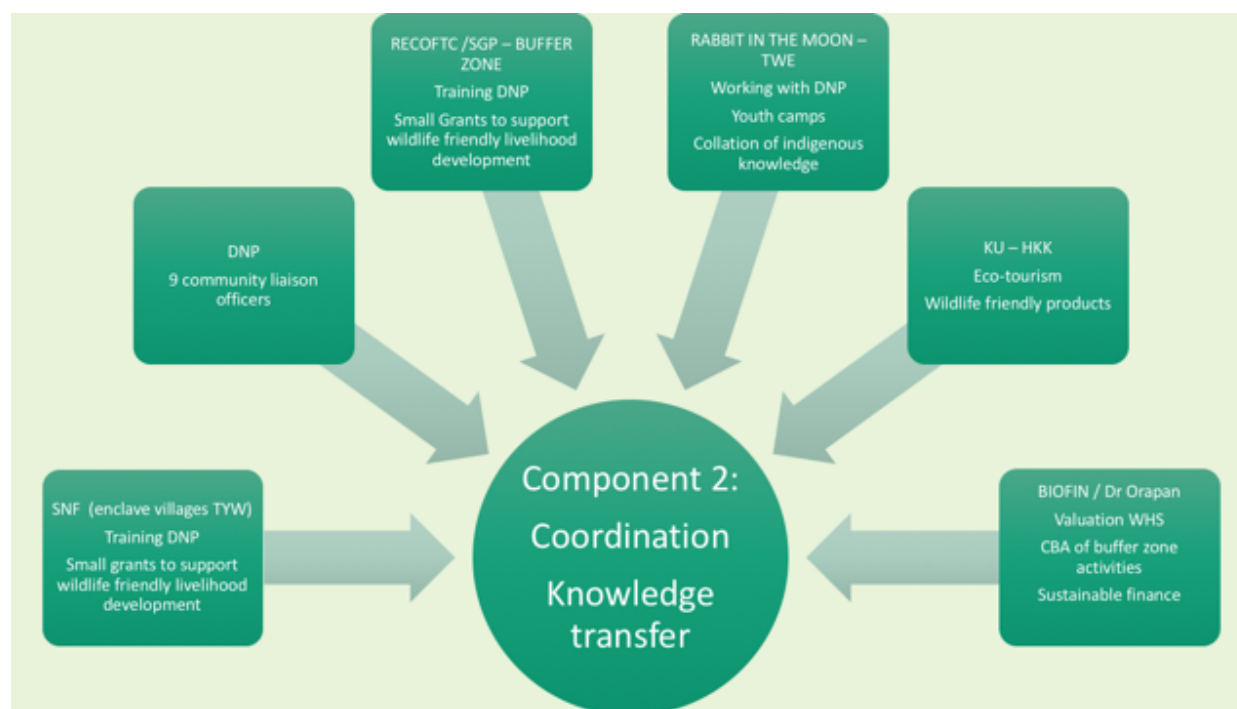
The PM and Co-PM discuss management issues through informal meetings and calls and the Project Director can be easily accessed for relevant advice/support. The Deputy DG of DNP often chairs the Board meeting on behalf of the DG and the PM closely coordinates with him on important issues. However, more regular updates from the DNP on all activities funded by project (e.g. the renovation of the War Room) are required to enable the work to be monitored and assessed as it progresses rather than when it is completed, so that changes and improvements can be made if necessary.

Given that the bulk of the work is happening in the field it is important that there is good communication between the PMU in Bangkok and the HKK, TYE and TYW offices. For HKK and TYE this is possible through calls and emails. Communications with TYW is more challenging as the area has no WIFI or radio connection and therefore their staff have to travel outside of the WHS to call Bangkok. The PM also visits the study site once a month.

Board meetings are held every 6 months. However, sometimes relevant parties are not available and the meetings are difficult to arrange as they require the preparation of official invite letters.

A commonly held view is that the project would benefit from more interaction between the project partners, specifically those working on the activities focused on the communities in components 2 and 3. Currently partners do not have a clear idea of what others are doing or how activities are interconnected and contribute to the overall objective of specific components and the project overall. There is a substantial overlap between the work of SNF, RECOFTC, Rabbit in the Moon, KU and BIOFIN and regular communications between these organizations would ensure that their work is compatible and that they can benefit from the broad range of information being collected and lessons learnt. Examples of synergies include: (i) Both RECOFTC and SNF are providing small grants to support community livelihoods; (ii) DNP's community engagement offices are benefiting from training from SNF, Rabbit in the Moon and RECOFTC; In TYW, Rabbit in the Moon and SNF are working with the same communities (7 enclave villages); and, (iv) The planned cost benefit analysis of the proposed buffer zone activities will build on the information collected by RECOFTC. It is recommended that a technical group be established where partners engaged in components 2 and 3 can meet to share and plan their work. An overview of project partners involved in components 2 and 3 and their key activities is presented in Figure 3.

Figure 3: Key partners engaged in Components 2 and 3 and their key activities



External Communications

Increased public awareness is one of the objectives of project under component 3. The project is reaching out to a wider audience through the road shows / exhibition and mobile environment education materials. A web page on HKK and the World Heritage Site was established in July 2018 and Rabbit in the Moon and SNF both have webpages to communicate their work to the public. An exhibition of Rabbit in the Moon's study of indigenous knowledge is planned. While some of the end of project targets for Component 3 have been met, there is some uncertainty over the effectiveness of the awareness creation mechanisms being used (e.g. in relation to the integration of information on sustainable agricultural practices and forest and wildlife conservation into school curriculum, and the mobile education units).

There is scope to communicate the work of the project regionally, specifically linking with the Global Tiger Initiative / GEF Tiger projects. Currently there is no formal or informal coordination with GEF Tiger projects, which are being undertaken in parallel. There is therefore a missed opportunity to exchange knowledge (innovations) and lessons learnt between the projects in a timely manner. Thailand has a strong focus on forensics within the Global tiger program, both through this project and the forthcoming GEF 6 project, which other countries can benefit from. Thailand are also leaders in the region on wildlife protection and monitoring. The development of the Regional Tiger Research Centre and Thailand's role of chair of ASEAN in 2019, present an opportunity to promote regional collaboration and learning on tiger conservation in the second half of the project.

3.4 Sustainability

A detailed risk assessment is provided in the Project Document covering the following areas – environmental, institutional and financial. Operational risk was not included in the Project Document, but is picked up in the PIR, 2017 as well as being tracked in detailed through the

quarterly progress reports. PIR, 2018, raises concerns over the potential grievances of communities related to the Government's decision to relocate communities in the WHS, and the need for then provision of extra oversight on safeguards and the SESP.

3. 4. 1 Financial risks to sustainability

While the Government assured the MTR that all the project activities would continue after the project, there is still uncertainty among many as to whether **additional** Government budget will be made available and if it will be possible to provide this additional funding in time to allow a seamless transition at project completion given the lead time to approve new budget lines. Significant ongoing investment will be required post the project to maintain, for example, the Network Centric Operation System, the Regional Training Centre for wildlife conservation, the employment of additional staff currently being financed through the project and to develop eco-tourism initiatives.

Project sustainability will ultimately depend on ownership of the project by the GoT and its commitment to continue to fund the project initiatives. The project funding has enabled DNP to upscale, and initiate at a faster rate, a number of activities covered by its existing/regular budget lines as well as to introduce some key innovations which are not. It is *not* clear if there will be sufficient Government budget after the project to continue the project funded activities and upscale the work.

All three WHS stressed that additional training is required to increase staff capacity / skills, e.g. in SMART patrolling, and community liaison. It is also critical to provide better incentives to retain good staff, given the high staff turnover and the difficulties of the job. An additional 40 staff are also needed at TYW and TYE. In terms of sustaining the project's innovations additional budget is required to (for example) maintain the Network Centric System, continue with the employment of nine Community Liaison Officers, and maintain the existing camera traps and provide additional cameras for HKK.

While there is increasing demand for DNP to work with communities, they do not have enough staff and expertise to do so. Most DNP staff are foresters or law enforcement practitioners. Furthermore, community education and outreach is a continual process which requires constant dialogues and follow-ups and hence funding.

Maintenance of project funded equipment and staff (rangers, researchers, and outreach teams) after the project finishes will need strong justification and early planning. DNP will need to propose additional budget lines to support new interventions through government budgeting procedures which usually takes about 18 months. The required budget therefore needs to be approved ahead of project completion.

On a positive note, it is hoped that wildlife tourism will be integrated into Ulthai Thani's provincial development budgeting in the 2019 fiscal year.

While additional Government financing is needed, the project is also exploring with BIOFIN innovative financial solutions, such as the introduction of a wildlife license plates fee, discussed above.

WCS and SNF will continue working in HKK on separate projects with funding from other sources, which at some level will contribute to the sustainability of the project's initiatives. For example, SNF may set up a group of resource persons to support community-based social enterprises

beyond the project period. This group may include the current field staff hired by the project as a way to provide them with job security and a career path. WCS plan to stay involved in the operation of the Regional Training Center in order to secure on-going capacity building services after the project period.

3. 4. 2 Socio-economic risks to sustainability:

Ownership of the project at the site level is extremely high among both DNP staff and project partners. It is also critical however that the project is championed by senior management at central level, as they are responsible for ensuring adequate financial support for the area.

The Deputy DG of DNP participated in a study trip supported by the project to a world class training center on wildlife conservation in USA in Q1/2018 and is expected to be a project champion and to push for Government budgetary support beyond the project lifetime as well as to support implementation of the DNP training plan.

The integration of enclave and buffer zone communities in protected area management and planning through community development working groups and regular meetings, as well as providing benefits through livelihood development activities such as ecotourism, is intended to leverage support for, and engagement in, sustainability of the wildlife sanctuaries. However, it is not yet clear how successful the proposed income generating initiatives will be and if they will generate sufficient revenue to secure the support of the communities.

3. 4. 3 Institutional Framework and Governance risks to sustainability

Institutional and governance risks to sustainability are considered to be low. Wildlife protection is one of the 10 priority areas in the national natural resources and environment reform plan which is developed under the framework of Thailand's 20-Year Visionary Plan. It is Government policy to increase protected areas to cover 25% of the country. However, this could result in the understaffing of PA offices/wildlife sanctuaries if staff numbers do not also increase.

The project is reflected in DNP's Operational Plan and the HKK management plan, once finalized, is expected to become part of the provincial development strategy.

3. 4. 4 Environmental risks to sustainability

Environmental risks are relatively low. The impact of climate change regarding habitat fragmentation and degradation of forests were rated as minimal for the project period and may be further mitigated following the project if the management plans for the three sites incorporate climate change mitigation and adaptation measures. Further, the WHS is situated within the larger Western Forest Complex which is made up of a number of protected areas.

4 Conclusions & Recommendations

4.1 Conclusions

HKK-TY WHS is home to the largest population of Indochinese tigers in Thailand and is Thailand's most important tiger source site. Conservation of the WHS' ecosystems and wildlife is of national, regional and global importance. The project has enabled the DNP to upscale its existing work in this critical tiger conservation landscape as well as introduce a number of innovative approaches, which if successful could be transformational in the management of the HKK-TY WHS and provide valuable lessons for their adoption by other wildlife sanctuaries and protected areas in Thailand

and in the region. On the whole the project has been well designed and clearly reflects the conservation and protection needs of the study site. However a number of revisions to the results framework are recommended.

Innovations being supported through the project include the Network Centric Operations system, the development of a regional training centre, the development of management and business plans and sustainable finance options for the WHS, and DNP's work with the communities.

The project has developed strong partnerships with NGOs who have a long history working at the site. It also demonstrates a strong commitment to working with communities. The project is supporting the development of wildlife-based eco-tourism and other innovative approaches as a means of enhancing the income of communities in the buffer zone with the objective of alleviating the human-wildlife conflict. The work with communities reflects an holistic approach to wildlife conservation, being supported by the DNP, which can be a model for other protected areas.

However, the project has been challenged by complex administrative processes within the Department of National Parks, Wildlife and Plant Conservation (DNP) and UNDP, leading to a prolonged inception phase, delays in disbursement and sub-optimal delivery. The operating procedures within DNP took 6 months to be approved. As of June 30 2018 cumulative disbursement (delivery) was at 35%.

Assessment of project progress needs to take into consideration that the project did not officially start until the end of July 2016, with the inception meeting held in November 2016, hence the project has been active for a 2 year period, not two and a half years. The delay in project start up coupled with the low disbursement rate at mid term suggests that a project extension will be necessary to enable the project activities to be delivered to the required standard and level of impact.

Table 5 presents the MTR Ratings & Achievement Summary Table for the Tiger project. It is difficult to rate progress towards the project objectives as 3 out of 4 indicators for this relate to tracking tools which have not been methodically updated for the MTR, so cannot be reliably used to measure progress. However, project progress towards its objectives has been rated Moderately Satisfactory based on an assessment of project activities to date which will influence these indicators and the work planned by the project (e.g. the economics work has not yet started but if successful would have a positive impact on the financial scorecard at the end of the project). Based on the project activities in terms of developing the overall management at the site, improving its financial security and building capacity there are indications that the project objective will be met.

In terms of progress towards results the project is rated as **Moderately Satisfactory (MS)** across all three outcomes. It should be noted that a number of activities have been assessed as 'not on track' because there is no project monitoring data available against which they can be assessed, or because the indicators are no longer relevant due to the change in project focus. This highlights the need to improve monitoring of the project and ensure that the Project Results Framework is revised to clearly reflect project activities and aspirations as they are understood to be at the mid term. Under outcome 1, progress has been made for example in the hiring of 58 additional rangers and the purchase of 400 camera traps and equipment for forensic analysis under outcome 1. The innovative work on developing eco-tourism opportunities is progressing well under outcome 2 and has the support of the provincial governor. While under outcome 3, to help develop the DNP's capacity in community engagement nine community liaison staff have been hired by project and are being trained. This has resulted in the integration of community work

plans into the regular work plans of the wildlife sanctuaries. There have also been two youth camps to start the process of developing youth ambassadors in TYW.

Under outcome 1, there have been delays in implementation due to the difficulties approving the NIM procedures compounded by the new Procurement Act - as a result the construction of two Ranger stations is postponed to 2019, and the training of trainers has been delayed due the long process to finalize a Responsible Party Agreement with WCS. Under outcome 2 there is some uncertainty over the design of the community grants in the buffer zone needing urgent clarification, especially given that this work is behind schedule. With the necessary move away from the development of a REDD+ mechanism, the economics work was redesigned and has not yet started (economic valuation and the identification of sustainable financing options) but will be key to ensuring the on-going financial support for the site.

In terms of project implementation and adaptive management the project is rated as **Moderately Satisfactory (MS)**. Areas requiring improvement include financial management for example in terms of tracking co-funding, the monitoring of indicators, and communications between project partners. The tracking tools need to be of a better standard if they are to serve as monitoring tools and indicators for the project. Tracking tools are often not done in time for PIRs, and indicators are not fully monitored. The project has demonstrated strong adaptive management throughout, for example by addressing the operational bottlenecks through UNDP providing more direct support and the DNP putting in place a co-manager to action initiatives through the Government system.

In terms of sustainability the project is rated as Moderately Likely (ML). The biggest risk to project sustainability is considered to be financial. The project has built momentum through the additional project funding, however this momentum could stall if a sustainable level of funding is not forthcoming post the project. The large investments initiated by the project including the establishment of the Regional Training Center for Wildlife Conservation, the Network Centric Operation System and the Wildlife-based Eco-tourism initiatives will all need on-going funding. The project is exploring several channels to increase the sustainable funding for the site, however government commitment is seen as the lynch pin and rests on the Government's immediate action to secure this prior to project completion to ensure continuation and upscaling of the current conservation efforts. A good exit strategy needs to be developed and implemented. Questions to be answered include - how much financing is required, how much additional money can the Government commit and what will be the funding gap required from other sources if this is inadequate?

Table 5. MTR Ratings & Achievement Summary Table for the Tiger project

Measure	MTR Rating	Achievement Description
Project Strategy	N/A ¹	
Progress Towards Results	<p>Objective: To improve the management effectiveness of, and sustainable financing for, Huai Kha Khaeng-Thung Yai Naresuan (HKK-TYN) World Heritage Site and incentivize local community stewardship</p> <p>Achievement Rating: Moderately Satisfactory (MS)</p>	The project objective is measured by 3 indicators related to tracking tools which have not been methodically updated for the MTR, so cannot be reliably used to measure progress. However based on the project activities in terms of developing management at the site, improving its financial security and building capacity there are indications that the project objective will be met.
	<p>Outcome 1: Strengthening on-ground conservation actions and wildlife protection</p> <p>Achievement Rating: Moderately Satisfactory (MS)</p>	The project has hired 58 additional rangers and purchased 400 camera traps, equipment for forensic analysis and solar power systems. There have been delays in implementation due to the difficulties approving the NIM procedures compounded by the new Procurement Act (as a result the construction of 2 Ranger stations is postponed to 2019). The training of trainers has been delayed due to the long process to finalize a Responsible Party Agreement with WCM. Achievement of outcome 1 depends on the completion of the Habitat Management and Improvement Plans, the success of the Network Centric Operation System and renovation and use of the Regional Training Centre.
	<p>Outcome 2: Incentives and sustainable financing for wildlife conservation and forest protection</p> <p>Achievement Rating: Moderately Satisfactory (MS)</p>	A clear plan of support for the enclave villages has been developed and is progressing to grant disbursement. The work on developing eco-tourism opportunities is on track and has the support of the provincial governor. There is some uncertainty over the design of the grants in the buffer zone needing urgent clarification as this work is behind schedule and grant disbursement is therefore at risk of being delayed. Due to the necessary move away from the development of a REDD+ mechanism, the economics work was redesigned and has not yet started (economic valuation and the identification of sustainable financing options) but will be key to ensuring the on-going financial support for the site.
	<p>Outcome 3: Improved local education, awareness and participation</p> <p>Achievement Rating: Moderately Satisfactory (MS)</p>	9 outreach officers have been hired, in TYE joint patrols between communities and officials have taken place, and there have been 2 youth camps to start the process of developing youth ambassadors. However, the effectiveness of the materials on Tiger and Wildlife Conservation to schools and the mobile education units is uncertain.
Project Implementation & Adaptive Management	Moderately Satisfactory (MS)	The project has experienced significant delays due to the difficulties approving procedures related to NIM, but is now operating more efficiently. Monitoring and evaluation needs to be tightened up, in particular the tracking tools, financial management including co-financing needs to be improved and internal communication mechanisms between project partners introduced to maximize project synergies and knowledge sharing.
Sustainability	Moderately Likely (ML)	Additional government funding to sustain the work is not certain at this stage and will need to be planned for. There is likely to be continuity of some activities from the expected on-going involvement of project partners such as SNF and WCM at the site. There is also the potential of identifying new innovative sources of funding at the site working with BIOFIN.

Notes: 1/ Project strategy is not rated under the MTR

4.2 Recommendations

Based on the MTR analysis and conclusions, the MTR recommendations are presented in Table 6. The recommendations are organized under the following areas: (i) improvements in M&E; (ii) actions to ensure that the community work in the buffer zone is placed back on track; (iii) actions to enhance financial management and ensure post project financial sustainability; (iv) recommendations on how to strengthen the capacity of DNP to work with communities in and around PAs; (v) recommendations to improve communications and knowledge sharing, both internally within the project and externally; and, (vi) project management, including the recommendation for a 6 month to 1 year project extension.

Table 6: Recommendations Table

Category	Specific recommendation	Responsible party
M&E Results Framework & Monitoring tools	1/ Revise indicators: Indicator 2: Financial scorecard - include assessment of WHS, using MTR as baseline Indicator 4: Review in light of proposed approach for buffer zone grants Indicator 5: Approval required for proposed changes to baseline and EOP Indicator 7: Approval required for proposed changes to EOP / or delete Indicator 10: Approval required for proposed changes to EOP Indicator 19 & 20 – to be removed and replaced with a new indicator reflecting economics work on valuation of the WHS and sustainable financing Consider how the effectiveness of indicators under component 3 may be captured See Table 1 for justification.	PMU, Project Board
	2/ Improve quality of tracking tools METTs, financial scorecard and carrying capacity scorecards are being used to measure the project's objective and need to be comprehensively completed with clear explanations / justifications for any change from the baseline position elaborated.	PM / UNDP
	3/ More support is needed on M&E in general. It is recommended that a (national) M&E expert / advisor with expertise in completing GEF scorecards is hired and that the tracking tools are further quality assured by the PM and RTA. The M&E expert would be responsible for ensuring other indicators are also being measured accurately. This could be a shared consultancy with other GEF projects underway in Thailand. Training could also be considered to ensure that a broader audience (e.g. Chiefs of the Wildlife Sanctuary) have a good enough understanding of the tools to contribute with confidence to the METTs and other tracking tools.	PMU
Grant funding to support livelihood development in the Buffer Zone	4/ Alternative livelihood project proposals to be fully formulated by RECOFTC (<i>Urgent action</i>)	RECOFTC
	5/ PM to formalize amendments to this activity – i.e. approach and responsibilities post October 2018 for developing, approving, administering the grants to the buffer zone communities and engaging with the communities. It is recommended that a Community Liaison officer is hired to ensure that the communities are fully engaged, and a grants committee formed to review and approve the grant funding with RECOFTC administering the grants awarded.	PM
Financial management / sustainability	6/ Project Managers are to ensure up to financial records are presented in the project progress reports, including co-financing information.	PM and Co-PM
	7/ PMU / Project Board / BIOFIN to work towards ensuring budget continuity by: (i) maintaining a dialogue with concerned government agencies on future budget allocations to implementing agencies; and, (ii) exploring potential alternative and parallel financing sources such as the Wildlife number plate schemes and eco-tourism initiatives	PMU/Project Board / BIOFIN
	8/ DNP DG to set up a Project Sustainability Taskforce to develop an exit plan, to ensure that there is not a dip in financial flow to the WHS at the end of the project. This needs to be set up as soon as possible given the 18 month lead time for increasing / integrating new budget lines into the Government system.	DG
DNP work with communities	9/ Recommendations to promote community support into the skill base and work plans of the DNP include: (v) Creation of a focal point for communities within DNP Wildlife Protection Division	DG

Category	Specific recommendation	Responsible party
(developing & ensuring sustainability)	<p>(vi) The introduction of KPI's for DNP's work with communities to better incentivize and acknowledge work in this area</p> <p>(vii) The inclusion of training on community participation into DNP's regular training programme</p> <p>(viii) Reference to good practices by other projects/agencies should be used to strengthen the work with communities (e.g. best practice on PAC management documented by CATSPA project, community-based social enterprises by Biodiversity-based Economics Development Office (BEDO), grant distribution and management by GEF/SGP).</p>	
Communication & Knowledge sharing	10/ Establish a Community Technical Group (RECOFTC, SNL, Rabbit in the Moon, BIOFIN, KU and DNP) to improve communications and knowledge sharing between organizations working on community aspects, explore synergies and work towards solving common challenges	<i>PM, Co-PM</i>
	11/ Documentation of lessons learnt and dissemination of best practice. Each project output should include the documentation of lessons learnt from implementation of activities under the output, and a collation of the tools and templates (and any other materials) developed during implementation. This knowledge database should be made accessible to different stakeholder groups to support better future decision-making processes in protected areas.	<i>PM</i>
	12/ Promote co-ordination with other Tiger countries. a/ The project should initiate a process to promote collaborate with other [GEF] Tiger projects in the region. A regional meeting could be held in Bangkok or at the Regional Training Centre to explore opportunities to share experiences and innovation in patrolling, monitoring and community engagement. b/ The project should engage with the Global Wildlife Program to understand lessons learnt in other countries, e.g. on the human-wildlife conflicts	<i>PM</i>
Project Management	13/ A no-cost extension (6 months – 1 year) is recommended. Given the delays in project start up and that the Inception workshop was held on the 8 November 2016 if the project terminates in July 2020 the project timeframe will be closer to 4 years, rather than 5 and is likely to compromise the quality of the deliverables. It is also doubtful that the project could disburse the remaining funds by July 2020. An early agreement would be beneficial so that work plans and budgets can be adjusted accordingly	<i>Project Board</i>
	14/ Regular updates to be maintained between the PM and Co_PM. In particular the Co-PM should appraise the PM at key stages of progress on activities funded by project, not just on their completion	<i>Co -PM</i>
	15/ A manual / guidelines to be developed that sets out how GEF and government requirements can be efficiently aligned, especially in procurement, recruitment of staff.	<i>Co-PM</i>

5 Annexes

- 5.1 MTR ToR
- 5.2 MTR evaluation matrix
- 5.3 Summary table of Project achievements
- 5.4 Progress Towards results matrix
- 5.5 Ratings Scales
- 5.6 MTR mission itinerary
- 5.7 List of persons interviewed
- 5.8 List of documents reviewed
- 5.9 Signed UNEG Code of Conduct form
- 5.10 Signed MTR final report clearance form