WILDCATS CONSERVATION ALLIANCE

Section I. Project Information
Project Title: Project Title: **"Khao Laem: Tiger Conservation Project, Phase 6"**
Grantee Organisation: Freeland Foundation
Location of project: Khao Laem National Park, Western Thailand Map in appendix (15.059301 N, 98.608739 E) Park HQ at UTM 47P 456814 1661080 (WGS84)

Size of project area (if appropriate): 1,497km^2	*No of tigers in project area, giving evidence & source:* Approximately 13-15 distinct tigers during entire project period – thirteen of which have been identified via project image database. Three tigers in Khao Laem were further identified as individuals from adjoining protected areas using the national tiger database. Khao Laem is part of a contiguous 18,000km^2 transboundary landscape in western Thailand, comprising of 18 PA's called the Western Forest Complex (WEFCOM) which allows free movement of tigers throughout this landscape. Tiger population figures quoted are via (unpublished) camera trap data from the protected area covering the previous 7 years.

Partners:

The Department of National Parks, Wildlife and Plant Conservation (DNP) is the major partner, serving as custodians responsible for managing Khao Laem National Park (KLNP). Since the initiation of tiger monitoring activities in 2016, the presence of tigers in KLNP has been confirmed, along with their coexistence within a diverse carnivore intraguild that includes critically *endangered* Indochinese leopards and *vulnerable* clouded leopards. Due to this, the project has brought numerous benefits to KLNP and its tiger population, including increased resources, technical support, capacity development for officials, enhanced threat monitoring, mitigation of human-tiger conflict, and community engagement.

The DNP's Wildlife Conservation Division Tiger Research Centre, located at Khao Nam Ram in Huai Kha Kheng Wildlife Sanctuary, is frequently consulted concerning Khao Laem's tiger images. These images are cross-referenced with a national tiger database, providing critical insights into tiger dispersal across the Western Forest Complex (WEFCOM).

Freeland, as a member of the IUCN Thailand National Committee, regularly participates in meetings that align conservation efforts between member organizations, including the DNP, which chairs the committee.

Other key partnerships include FFI Myanmar and Wildlife Asia (Australia), both of which operate conservation projects in neighbouring Myanmar. Freeland, in collaboration with FFI and WWF, helped establish the Dawna Tenasserim Landscape Tiger Alliance (DTTA), which is now convened by IUCN. This alliance aims to enhance transboundary cooperation to better understand tiger dispersal across the Myanmar-Thailand border.

Freeland also collaborates with Panthera Inc to share carnivore data contributing to a national database of wild leopards and clouded leopards. This initiative seeks to identify areas in need of stronger conservation measures and develop plans for conserving and possibly reintroducing these species in areas where they are locally extinct, or scarce.

Recently, Freeland was approached by Thailand's Mae Jo University to explore the integration of practical wildlife monitoring into their undergraduate biology courses. This collaboration is set to be explored further in 2025.

Additionally, Freeland maintains communications with WildCRU at Oxford University, which provides advice on data cataloguing and analysis. Eric Ash, a key figure in this partnership, has led several important papers on tiger conservation in Thailand. In late 2024, Freeland will further collaborate with WildCRU on GIS software training for key Thai agencies. This training will focus on modelling potential threats from linear infrastructure development, which could impact large carnivores. This is especially relevant for Khao Laem, which faces the risk of further habitat fragmentation due to road upgrades.

Project Contact Name: (main contact via email) Tim Redford, Surviving Together Programme Director
Email: tim@freeland.org
Reporting period: February to July 2024 for most project information including capacity development and tiger survey information and January to June 2024 (6 months) for SMART data

Section II. Project Results

Long Term Impact:

The long-term impact sought by this project is 'to secure the Thai tiger population through implementing sound conservation practices', with the aim of doubling its number in accordance with the Thai Tiger national strategy.

During this 2024 phase of the project, critical information on tigers, prey, and threats within Khao Laem National Park (KLNP) was consistently generated and promptly shared with park management. Tiger-specific data was forwarded to the research station at Huai Kha Kheng Wildlife Sanctuary, contributing to both local insights and the national tiger information database. This ongoing exchange created a deeper understanding of the tiger population at KLNP and their current status. However, the surveys also revealed that the resident tigers face persistent and frequent threats, validated by fluctuations in the tiger population, including disappearances of resident individuals, and new recruits.

Disturbingly, at least two resident tigers, a male and a female (M2 & F3), which have been monitored continuously for several years were not recorded and other tigers have taken over their territories. From our work in DPKY in Eastern Thailand, we recorded some individual tigers continuously for over 12 years. Therefore, this turnover of at least four individual tigers since the start of the Khao Laem project suggests the presence of underlying threats that require further investigation and resolution.

Poaching and other human-caused disturbances remain prevalent in the area. These threats were particularly underscored in early 2022 in adjoining Thong Pha Phum National Park when tiger-specific poaching occurred. The long-term monitoring (LTM) in Khao Laem plays a critical role in quantifying the scale of poaching, both directly through images of poachers and indirectly by highlighting the very low abundance of prey species, especially sambar and more recently wild boar. This is especially apparent along forest edges and the western part of Khao Laem, near forest communities bordering Thong Pha Phum National Park. From this perspective, the monitoring is valuable to help guide adaptive management.

SMART patrol data, combined with this additional survey information, helps focus anti-poaching efforts in high-risk areas where intervention was most needed. Response measures this year included rapid-response training for rangers using GSM cameras to record poacher incursions, monitoring poacher tracks using both GSM and hidden trail cameras to track poacher routes and gauge the intensity of illegal activity.

If the ecological disturbances and poaching can be effectively curbed, there remains a strong possibility for the natural recovery of the Khao Laem tiger population. However, to be effective, significantly more resources and focused efforts are needed to reduce the many threats facing these tigers. Only by addressing these challenges can an environment conducive to tiger and prey recovery be created, bringing the goal of doubling tiger numbers closer to reality.

Management is improving at the site and the general level of professionalism among officials is certainly fostering a better situation for tiger conservation.

Conservation Outcome:

The aim is to obtain a precise understanding of the tiger and prey populations within Khao Laem National Park and its function facilitating tiger dispersal and recovery across WEFCOM. To achieve this, we have been implementing scientifically accepted techniques to survey tigers and prey, although no national standards have been designed or adopted in Thailand yet. Without this project's activities it is highly unlikely that any tiger-focussed conservation measures would be occurring at Khao Laem.

In the first half of this year, we reduced the previous two survey approaches (LTM and SECR) to just one, specifically long-term monitoring. The reasons are twofold, firstly due to the immense resources required for SECR surveys and secondly, we feel the three spatially explicit surveys during 2020-22 generated sufficient data for us to act upon. We are planning to conduct more SECR surveys if sufficient funding can be sourced. Accumulating LTM data in addition to existing SECR data clearly identifies where the areas of greatest tiger and prey presence (and threats) exist. This helps focus anti-poaching deterrent measures to key areas and outreach to known poaching communities.

Through previous data cataloguing and analysis, we were able to determine both tiger relative abundance indexes (RAI) and abundances for all wildlife (including prey) recorded during the surveys. By sharing tiger images with the Khao Nam Ram research station in Huai Kha Kheng WS the tigers previously been recorded in other parts of WEFCOM were identified (M4 (HKT276), M5 (HKT299) and M6 (KST003M) [1]. The Long-Term Monitoring (LTM) surveys have yielded invaluable insights into the dynamics of the tiger population. Through this endeavour, we were able to discern (previous) instances of breeding and track fluctuations among the resident tiger population. These findings reveal the complexity and uncertainty of the current situation, emphasizing its vulnerability to even minor environmental changes.

We have increased capacity among Khao Laem officials through on-the-job training in wildlife survey data collection and processes. Some officers are now fully capable of conducting all aspects of camera trap surveys, from planning and site selection to setting up cameras, recording, and retrieving data. While we have introduced data management practices, we have not yet fully covered data cataloguing or analysis due to the limited availability of staff due to their existing workload managing the SMART database.

Raw survey data is immediately shared with the park, the DNP regional management office in Kanchanaburi province's Ban Pong Protected Area Regional Office (PARO3) and the tiger research station at Khao Nam Ram. Data analysis is managed off-site and later given back to the park. Detailed project reports from Khao Laem were personally handed to the Department of National Park, Wildlife and Plant Conservation's Director-General.

There is now increased awareness at both park and regional management levels about the threats facing tigers and their prey at Khao Laem. Continued wildlife monitoring is recognized as a crucial component of park management, ensuring an up-to-date understanding of tiger and prey status.

Over consecutive years survey information validated the persistence of tigers with surveys even documenting a slight increase in one important prey species (sambar). However, over the last year some prey species have declined (wild boar and muntjak) both likely associated with the emergence of African Swine Fever (ASF). As the wild boar population decreased due to this viral pandemic other small prey species (both species of muntjak) similarly declined. Wild boar is the main prey of tigers due to the dearth of sambar and young boar provide ideal prey for leopards. We surmise that leopards increased predation of muntjak following the decline of wild boar. There are few records (at Khao Laem) of tigers preying on the gaur, although this must certainly be occurring. The gaur population of Khao Laem has never been particularly high and this year it too has seen a slight decline.

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[1] Suffix designations; HKT – Huai Kha Kheng Wildlife Sanctuary, KST – Khuean Srinagarindra National Park

There is little that can be done about the decline in Wild Boar and other prey species except increase protection for the remaining animals to allow natural population recoveries. To guarantee success in park protection, officials need to improve the rate of poacher interdictions. As previously reported a policy from the management agency encourages total patrol coverage for protected areas which takes rangers away from problematic areas and leaves opportunities for poaching. Therefore, other methods must be introduced to counter such threats and to increase the deterrent value of patrolling.

There must also be recognition that illegal cattle grazing and various forms of ecological disturbance need to be addressed. To balance increased enforcement, it is crucial to implement community outreach efforts simultaneously. A dedicated outreach team is needed at Khao Laem to build relationships within poaching communities, which are now well documented. As noted in previous reports, some of these communities are particularly aggressive and involved in various criminal activities beyond wildlife poaching. Outreach efforts in these areas are conducted alongside law enforcement agencies, especially the Border Patrol Police (BPP), who are respected in these remote communities due to their rural development support, such as providing medical facilities and schools. From outreach conducted in 2023 and 2024 there is some traction being made with some hostile communities who are now being more receptive to following park regulations and exploring legal vocations.

Through regular visits and active engagements of local communities, we aim to establish enduring relationships with community members, many of whom are ethnic Karen. This ongoing interaction will facilitate the introduction of measures designed to incentivize positive behaviours, including provision of socio-economic livelihood support as a means of rewarding and promoting their sustainable practices.

The main outcome from work conducted to date at Khao Laem is a better understanding of the tigers, threats and other issues that appear to constrain a tiger population recovery there. To resolve the major issues increased resources are required, as effective patrols will only occur when conducted by well-trained, well-equipped and well-managed rangers.

Summary of activities and achievements:

Tiger monitoring continued utilising long term ecological monitoring (LTM) surveys over 60-day cycles (Survey KL39). In the east three tigers were recorded (F2 (KLT002F), M6 (KST003M) and a new male provisionally catalogued as M7. These tigers were recorded in [REDACTED]. Totally, there were 27 tiger independent captures (IC) from 66 total tiger image captures (TC).

During January 2024 to June 2024 (inclusive), 9 patrol teams conducted 179 patrols over a period of 834 days. The total distance patrolled was 13,563 kilometres. Patrols covered an area of 1,012.57 Km^2, representing approximately 67.64% of Khao Laem National Park's total area of 1,497Km2.

Wildlife data was reported from 100 different locations, 30 violations were recorded with just 4 cases interdicted with arrests and referred to the police for prosecution.

The project executed three training initiatives, 1) Survey equipment use, survey data collection and SMART data collection mentoring (each survey) total 34 rangers, 2) SMART software mentoring (four times) 3 officials, 3) GSM camera refresher on-job-training (OJT) and rapid response anti-poaching operations for 6 rangers. These sessions benefited more than 43 rangers.

We conducted four educational outreach visits to schools around Khao Laem reaching 290 (144M/146F) students. In conjunction with park officials, we met an undocumented number of cattle owners to discuss ways to reduce and remove all domestic stock from within the park.

Details of activities and results:

The primary outcome we are aiming for is to improve management practices at Khao Laem, especially threat mitigation to facilitate the recovery of tigers across southern WEFCOM.

Based on the indicators and verification processes outlined in the project logframe, we see satisfactory progress in activities and predicted outputs. This year, we expanded the long-term monitoring area, including sectors of eastern Khao Laem which have not been surveyed for two years. We successfully monitored changes within the tiger population; however, no breeding was recorded this year. Data sharing with the Department of National Parks (DNP) and partners did increase the catalogue of identified tigers which was announced in the media. Additional work is needed to institutionalize data cataloguing and subsequent analysis essential for updating tiger and prey abundance figures. Khao Laem's data is now well integrated with that of the DNP and a bilateral consortium to identify and protect optimal tiger conservation sites.

Objective 1. Improving understanding of tigers, prey and threats in KLNP
Results January to August 2024

Cameras were deployed during the continuing long-term monitoring (LTM) across Khao Laem. Thirty cameras surveyed thirteen 3 x 3 km^2 grids covering 117km^2 over 3,045 survey nights.

In the central sector of eastern Khao Laem 26 camera traps were deployed in eleven grids and in western Khao Laem just two grids were surveyed. The cameras were operating continuously while in the field, so although the number of surveys declined, the amount of camera trap nights did not as the cameras operated continuously.

In the east three tigers were recorded across three routes. There were 27 tiger independent captures (IC) from 66 total tiger image captures (TC).

The tigers were identified as F2 (KLT002F) first recorded in Khao Laem National Park in 2017 and M6 (KST003M) first seen in February 2023. During survey KL40, an unidentified tiger was recorded. Its stripe pattern does not match any of the previously identified individuals, and remains provisionally catalogued as M7, as the images are not clear enough to catalogue a positive identification.

During 2023 a total of six tigers were recorded, whereas in the first half of 2024 only three tigers were recorded. Worryingly, M4 (HKT276M) who was recorded with a pronounced limp over the last year was not seen. His fate remains unknown, he may have been displaced by the younger M6, or his injuries may have become life threatening if they prevented hunting.

Interestingly, after eight years of continuous surveys, a Malayan Tapir was finally recorded for the first time in Khao Laem. It is assumed it migrated from Southern Thung Yai (West) Wildlife Sanctuary or Lam Klong Ngu National Park, as both are contiguous with Khao Laem. This is significant as Malayan tapirs, like tigers, are endangered and under sever threat due to poaching and habitat loss.

Information from the surveys is shared immediately with park management and highlights presented during each monthly SMART patrol review and planning meetings. We continue to encourage wildlife survey information to be integrated into the parks SMART reporting system, as it clearly identifies which wildlife-rich areas require additional patrolling.

Conclusion of survey coverage

East LTM surveys covered eleven grids; C29 ,C30 ,C31, D44, D45, E58, E59, E61, F73, F76, & G93

West LTM surveys covered just two grids with the following identifications; K149 & L161

(Combined total 13 grids = 117km^2)

Cataloguing images identified 30 mammal species.

Totally there were 1,677 distinct detections with more than 5,639 images.

Tiger prey was recorded on 357 different occasions with more than 1,870 images.

Felines (six species) were detected on 98 distinct occasions with more than 347 images.

Objective 2. Capacity development for officials

This objective has four activities

2.1 On-job-training in data collection

This informal, untested on-the-job training continued with each survey conducted. Each team was led by a project staff member who assisted in spotting and identifying items that required reporting. The names and contact details of each participating ranger are maintained.

The 2024 target is 60 rangers to be trained. Over the 5 survey trails implemented in the first half of 2024 Four had six rangers per team, one had ten rangers. **Total mentored in data collection: 34**.

2.2 On-job-training (mentoring) managing data (SMART and survey)

The target for this component is just two SMART rangers to be mentored in SMART use. **Three officials were mentored**. Four rangers received additional training at a regional office and the plans to introduce SMART mobile/connect will see a substantial increase in officials who will receive training in the second half of 2024.

2.3 Enforcement ranger training.

This activity is planned for November 2024.

2.4 Use of GSM cameras training

Limited mentoring of GSM camera use was conducted in 2024. This was due to a lack of equipment, which has now been rectified by the purchase of new cameras. Training occurred just once for **six rangers** and was coupled with rapid response training aimed at immediate follow-up when poacher images are received from the GSM cameras.

Objective 3. Reducing threats through Outreach

This objective has three activities (and one additional complementary educational awareness activity)

3.1 Community awareness visits to known 'poaching hotpot' villages

The predicted half way point community outreach target was met by implementing activities to four 4 villages. A target number of participants was not included as it is impossible to predict how many people may voluntarily show up to participate. The optimum time to conduct such activities is in the evening after villagers have finished work.

Educational awareness to schools

Target: 8 schools visited & 1,000 students reached. Four schools were visited in Western Khao Laem in March 2024. During which 290 (144M/146F) students were reached. There are plans to conduct more educational outreach in September and November 2024.

3.2 Establishing new partnerships to collaborate on community outreach.

Target: 2 groups. We have been working towards increasing our educational outreach activities with the Border Patrol Police (BPP) as this agency operates many schools within the communities of indigenous communities around Khao Laem. Our visits to their schools have been popular and we can state a relationship with the BPP has been made. Partnering with a government agency is not exactly what we envisaged, but there is a lack of civil society organisations working in the area.

We have made contact with a new group based in Kanchanaburi town who are currently registering their organisation. We hope towards the end of 2024 we may start discussions about how we may

collaborate. Our ideal partner would be a group led by local Karen people (as the majority ethnic group in the area), but to date we have not found such a group.

3.3 Reducing domestic stock grazing in Khao Laem

No large-scale interventions have been made this year yet on this challenge. At the park level, officials have been meeting with local farmers to request them to remove their cattle from within the park, and we joined one such mission in May 2024. At least one cattle investor has complied and moved out approximately 600 cattle from western Khao Laem, which is a good start.

Our constant highlighting of this cattle problem has led to a greater understanding within the DNP about how serious an issue it has become, not just for Khao Laem but for many protected areas in Thailand. The evidence this project produced demonstrated how cattle and cattle grazers have a direct impact on forest ecology and how grazers also poach while watching their cattle.

In early 2024 we were able to collaborate with IUCN who are submitting a tiger conservation project proposal to the World Bank GEF8 programme. A major component of this project will be engaging communities around tiger reserves to remove threats inhibiting tiger recovery. Interventions will encourage farmers to reduce their cattle and those with permission to have cattle must keep them within agreed community areas. It is hoped that combination of stricter law enforcement and civil society pressure and assistance may eliminate this problem, allowing tigers and prey to return to areas previously disturbed by cattle.

Although we have a fund for meetings, we do not yet have any resources for implementing any mitigation plans that the community may suggest. We are hoping the GEF8 project may provide funding for us to initiate removal of cattle from western Khao Laem (towards mid 2025)

Obstacles to success:

Severe Weather Events
The only challenge this first part of the 2024-5 project has been the weather. Initially very dry and hot led to numerous fires fires, although these reduced from 2023-4 figures by 40% (according to park-based data). Later, as the rains started the rivers went into spate and crossing some into remote areas was impossible. These issues with extreme weather are likely associated with climate change as nothing similar to this has been previously recorded while this project has been operating.

Security and safety for field staff.
Although the security situation in Myanmar has worsened with the civil war. fighting has not yet spilled over into Thailand and has not affected project staff or rangers. There have been instances of poaching conducted by military from the Karen and Burmese military in adjoining Thong Pha Phum National Park and an increase in economic migrants travelling through the western forests to destinations adjoining Bangkok for work. Although these have undoubtedly caused ecological disturbance in the western forests, these have not disrupted the project.

Changes in Management
At the time of writing, this is not an issue and the current park superintendent remains incumbent, which given his support for the project, bodes well for plans to expand SMART later in 2024.

National political change
A new Minister has just been appointed in the Ministry of Natural Resources and Environment (MONRE). Generally, as a new Minister is appointed, they shuffle all senior officials, such as Director-Generals, Directors and even park Superintendents. As the new Minister has only just been appointed, no changes have yet occurred. They are likely to occur, however, and may affect this project in some way.

Monitoring and Evaluation: (*Describe the methods used to monitor and evaluate the progress of the project*)

The project work plan and logframe are invaluable tools. The project team leader has a Thai translation of these which guides implementation and provides clear indicators essential for project evaluation (see appendix). By establishing targets and deadlines as outlined in the work plan, we can internally monitor our progress. Regular meetings with park management and the regional protected area management office facilitate discussions to review whether predicted targets have been met, and if the project is providing the direction and outcomes envisaged.

The primary tool for monitoring patrols and associated data is currently SMART. We actively participate in every park-based SMART meeting, ensuring a good flow of information regarding wildlife status and recorded threats. We have imminent plans to introduce EarthRanger to Khao Laem and the ER management team at AI2 https://allenai.org/ has been very supportive in that direction.

Data analysis from surveys has established baseline figures for tigers and prey, providing insight into the threat landscape. Threats at Khao Laem stem from both natural and anthropogenic factors, including fires, poaching, illegal and unmanaged collection of non-timber forest products (NTFP), free-roaming cattle (and related cross-over diseases), feral animals (such as dogs), tourism, and habitat loss. Now these are better understood, responses are being introduced and, in some instances are improving the situation e.g., forest fires.

We meet quarterly with the park superintendent to discuss the project and refine plans for upcoming activities. There remain some complexities regarding actions to punish errant poaching communities. Now we are aware of these. we will seek ways to bring these matters into open fora enabling resolution.

Communication within Thailand is facilitated by various smartphone applications, allowing for regular calls between management and field staff to ensure output targets are met.

Internally, Freeland holds weekly management meetings where team leaders present significant upcoming events in each project, tracked using the Trello application. Additionally, we have a second weekly meeting focused on project reporting. Every Monday, Freeland conducts a Zoom call for all Thai staff to discuss their weekly plans with management and colleagues.

We also regularly share images and plans related to the project through several Line groups (similar to WhatsApp).

Shared learning:

All information from this project is shared with the site custodians, the DNP. Thereby contributing to the enhanced understanding of tiger ecology across the WEFCOM landscape.

During the first half of the year, we contributed leopard and clouded leopard data to Panthera who are being sponsored by WWF Thailand to create the first national assessment of these two species.

We contributed survey data to be integrated into a peer review paper about the distribution and abundance of prey species across the Dawna Tenasserim Landscape.

Project staff participated in a national review of tiger data (with DNP and all agencies implementing tiger projects) which positively identified all known adult wild tigers (220 individuals and 20 under two years old) and this information was used during Global Tiger Day events in Thailand.

Khao Laem ungulate information was shared with a Thai student. To date though, nothing formal has been published.

In 2023, data from Khao Laem was integrated into a PhD chapter by consultant biologist Jonathan Moore PhD

Media:

There were no international or Thai media articles mentioning the project this year.

Have you provided at least 2 blogs?

No. We have not prepared any project specific blogs, although we have provided information and images to WildCats

Have you provided at least 10 high quality images with details of the relevant credit? Y/N?

Yes

Next steps

- Expand tiger surveys to cover the 2024 predicted number of grids
- Increase outreach (Aug, Sept & November) to reach the predicted villager and student targets
- Meet with villagers to identify ways to reduce the impact of cattle on Khao Laem's ecology
- Source funding to support vocational training for poachers willing to reform (pledges from Pilok Kee poacher village already agreed)
- Conduct NCAP GSM camera refresher training and rapid response unit training
- Implement Enforcement ranger training for new hires
- Provide field equipment for patrol rangers (as funds allow)
- Request permission from DNP to introduce use of SMART connect and EarthRanger at Khao Laem
- Purchase rugged phones and inReach communicators to support the use of SMART and ER
- Renovate office area to use ER in SMART office

Section III. Appendix (Please populate this section with details from section II)	
Did you carry out camera trapping as part of this project? Yes	

If yes: **Total camera trap nights/days:** A total of 3,045 survey nights were completed using 30 cameras.	Total area surveyed: Total area surveyed 117km^2
Numbers of tiger/leopard/prey recorded 3 tigers (2:1) *(undefined #Leopard as insufficient resources to analyse images)*	**Please include data on other species recorded** See appendix with breakdown of all carnivores and prey species

Are numbers of tigers/leopards/prey increasing or decreasing in your project area?

We have an anecdotal understanding that tiger populations in Eastern Khao Laem may be declining, as several resident individuals, including females, have recently disappeared and been replaced by other tigers. This trend is concerning, suggesting potential issues such as poaching, an insufficient prey base to support breeding, or other unidentified factors. It is atypical for female tigers to abandon established territories in this manner.

The outbreak of main prey species Wild Boar (Sus scrofa) has severely depleted this species and led to a reduction in available prey for all carnivores. The amount of sambar records has increased, but remain at very low abundances.

Did you carry out other surveys? Only long-term monitoring (LTM) in 2024

Please give details n/a

Did you carry out patrolling as part of this project? Y/N	
If yes: Through a cost share we are able to support SMART patrolling at Khao Laem Total distance patrolled: See table in appendix	Total area patrolled: During the period January 2024 to June 2024 (inclusive), 9 patrol teams conducted 179 patrols over a period of 834 days. The total distance patrolled was 13,563 kilometres. Patrols covered an area of 1,012.57 Km^2, representing approximately 67.64% of Khao Laem National Park's total area of 1,497Km^2.
Do you use Patrol Monitoring software such as SMART? Yes, SMART is in use – to be upgraded to SMART connect in late 2024	
If yes: Total distance patrolled using patrol monitoring software? As above	How do you collect data? Handheld devices/paper/other? Please give details? Handheld GPS and paper reporting
Please provide comparison data on from your patrolling over time	
Was the data you collected analysed by a SMART specialist?	No, only by park-based officials and by Freeland staff

The table and charts in the comparison data section:

No.	Forest Protection Unit (7-man teams)	Patrol (# times) 2018	2019	2020	2021	2022	2023	2024 (half)	Patrol (# Days) 2018	2019	2020	2021	2022	2023	2024 (half)	Distance # (kms.) Combined 2018	2019	2020	2021	2022	2023	2024 (half)
1	HQ Team 1	24	105	55	44	62	31	19	72	336	169	168	149	91	106	1,273.92	2,872	1,198	2,314	1,133	870	2,017
2	Potana Team 2	21	99	56	59	75	42	18	57	294	160	162	169	84	100	578.74	1,843	1,545	1,900	1,901	593	1,034
3	Kroeng Kaweir Team 3	18	86	47	50	35	47	18	58	317	163	158	174	93	100	694.14	2,043	1,527	1,529	1,515	1,295	1,903
4	Huai Kaying Team 4	19	105	50	41	21	28	20	66	326	170	169	176	84	0	1,365.90	4,196	3,903	3,573	1,862	1,618	1,249
5	Pha Pheung Team 5	16	72	42	43	31	26	17	60	298	162	170	179	84	103	952.38	3,606	2,693	2,614	1,670	1,572	1,736
6	Ong Phra Team 6	18	95	42	36	21	21	24	62	300	171	167	176	85	109	828.67	3,225	1,774	2,186	2,290	943	1,712
7	Nong Kum Team 7	14	87	51	45	38	43	22	60	322	162	164	174	90	108	808.21	4,011	1,527	2,551	701	1,347	1,543
8	Lijia Team 8	24	105	60	46	62	40	20	68	328	168	168	145	96	107	876.35	3,182	2,335	2,410	1,358	838	1,320
9	Bo Ong Team 9	n/a	n/a	52	50	24	26	21	n/a	n/a	169	168	176	84	101	n/a	n/a	1,545	2,134	1,404	1,232	1,049
	Total	154	754	455	414	369	304	179	503	2,521	872	1,494	1,518	791	834	7,378.32	24,978	18,047	21,211	13,834	10,308	13,563

| | Please provide data on violations recorded/arrests/successful prosecutions | Currently we do not have any information about successful prosecutions. We will follow-up with park management. Also see tables in appendix |

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Year	Encroachment			Logging			Poaching		
	Cases	Offenders (interdicted)	Area (Rai)*	Cases	Offenders (interdicted)	M³	Cases	Offenders (interdicted)	Kg.
2018	1	5	215-1-60	7	10	4.83	25	2	13.8
2019	3		51-0-00	56	1	2.82	215		
2020	8	6	214-3-75	44	1	2.01	65	1	6.6
2021	6		13	26	1	0.12	83		
2022	1	1	0-3-00	2	1	0.85	5		
2023	6	5	12-01-2000	4	2		4	2	
2024	1			2	1		2	3	1

Does your project work with local communities? Yes, but currently in a limited manner due to resource constraints

| If yes: (please be as specific as possible and include gender split) Who? Villagers in both west and east Khao Laem | What did you do? Was it successful? School visits and discussions with communities about how to remove cattle. Appeared successful, but no formal questionnaires used. | How many people did you reach? Community visits did not record stakeholders reached as it was unofficial in nature |

How do you measure the success of this activity? N/A

Did you carry out educational activities with adults or children? Yes

| If yes: (please be as specific as possible and | What did you do? Educational outreach for students. Focussed on developing an | How many people reached? |

include gender and numbers) Who? Students	understanding about Khao Laem, regulations, resource use, ecology and species conservation Pre/post tests demonstrated an immediate increase in understanding of conservation issues among recipients	In the first six months of 2024, four schools were visited in Western Khao Laem. During which, 290 (144M/146F) students were reached

Have you seen behaviour change from these activities? (Please give details of your results and of how this is measured).

As activities recently occurred no follow up has been implemented. We would like to return to these schools in very remote locations if resources allow (costs about GBP600/trip for fuel for 4WD trucks and boats). There are plans to return in August, September and November 2024

Did you carry out training activities for any staff/community member on the project? No

If yes: (please be as specific as possible and include gender split) Who? N/A	What did you do? Was it effective? N/A	How many staff trained? How many others trained? N/A

How do you measure the effectiveness of this training? N/A

Did you carry out conflict mitigation activities with community members? Not in 2024

If yes: n/a	n/a	n/a

Have you seen behaviour change from these activities? (Please give details of your results and how this is measured)

Anecdotally a general improvement in relations with the park has been recorded in communities in western Khao Laem. Possibly due to the involvement of the Border Patrol Police.

Were any scientific papers/articles published because of your project? No public documents in 2024

If so, please give details or provide copies. N/A

Images from outreach at Khao Laem 2024 (first half)