

Country Logo



Global Tiger Initiative

National Consultations—the Road to the Tiger Summit

National Tiger Recovery Program Summary

Thailand

July, 2010

Template to describe a Summary of National Tiger Recovery Program (NTRP)
(NTRP will feed into the Global Tiger Recovery Program—GTRP)

Country Name:	THAILAND
Long Term Strategic Goals.	
<p>Thailand is one of the countries with a fast growing economy in Southeast Asia. The trade-off, however, is shown as an existing forest cover of 28% of the country area, which is among the lowest in the region. Fortunately, Thailand was quick enough to begin establishing wildlife and national park laws and a protected area system almost 50 years ago. The current protected area system covers about 18% of the country area, and the Thai government has already invested in establishment and running of 123 national parks and 58 wildlife sanctuaries. Besides protection of landscapes and their depending wildlife species, the government also undertakes various interventions including nature education, alternative livelihood, and wildlife crime suppression.</p> <p>Despite the significant efforts and investments as mentioned above, the recent rigorous monitoring systems have revealed that wild tigers are surviving in recoverable numbers only in protected landscapes with a strong history of protection, especially in areas with active park guards and good patrol systems. The on-going intensive population monitoring program has revealed that only one landscape, namely the Tenasserim-Western Forest Complex (Tenasserim-WEFCOM) can be counted as a “tiger source site”. More than 100 adult tigers have been photographed in this landscape over the last 5 years. Tenasserim-WEFCOM is about 25,000 km² on Thailand’s side, and represents a globally important, transboundary landscape with Myanmar for tigers. The core area is also a world heritage site. Another landscape that can qualify as a “potential source site” based on camera-trapping evidence is Dong Phrayayen–Khao Yai Forest Complex (DP-KY); also a world heritage site. About 8 adult tigers have been photographed from this 6,100 km² landscape. These two represent the landscapes with the greatest potential for tiger recovery in Thailand.</p> <p>The success of the 10-year plan of wild tiger recovery is very much dependent on: strengthening landscape-scale conservation interventions in these two landscapes; rigorous monitoring systems; transboundary conservation ties being strengthened to effectively control cross-border trade; and law and policy reforms to support the efforts to reach the vision and goals as stated below.</p> <p>VISION</p> <p>By 2022 tigers have recovered and thrive in the priority landscapes managed under high-standard interventions and monitoring systems and Thailand has become a strong supporter of international collaborations on tiger and wildlife conservation and protected area management in Southeast Asia.</p> <p>2 Year goal</p> <ul style="list-style-type: none">• High-standard monitoring interventions and monitoring systems are established and functioning in Tenasserim-WEFCOM and DP-KY landscapes.• Tiger occurrence status established at all additional potential tiger landscapes.• The system to monitor captive tigers strengthened and standardized, with clear penalties in place for violations. <p>5 Year goal</p> <ul style="list-style-type: none">• Effective management systems in place in the Tenasserim-WEFCOM and DP-KY landscapes.• Key tiger threats in the priority landscape show a clear decline.• Important tiger ecology (e.g., home-range variation) in the priority landscapes very well understood and used to guide management.• Tiger populations are stabilized or increasing in Tenasserim-WEFCOM and DP-KY and possibility for re-establishing in other areas explored. <p>12-year goal</p> <ul style="list-style-type: none">• To increase tiger populations of Thailand by increasing the populations in the Tenasserim – WEFCOM and DP-KY Forest Complex by 50%, and re-establish populations in other potential tiger landscapes such as Klong-sang- Khao Sok Forest Complex, Phu Khew- Nam Nao Forest Complex.	

Baseline Status.

In the Tenasserim-WFECOM, tiger population in the core area, Huai Kha Khaeng and Thung Yai (HKK-TY) world heritage site, has been stabilized at a density of 2-3 tigers/100 km². There have been about 100 tigers photographed since 2005. However, there is much more room for tigers to thrive and increased in this landscape if poaching is significantly controlled and habitat management promoted. If very well managed Tenasserim-WFECOM has potential to hold the largest single tiger population in the world.

In DP-KY Forest Complex, 8 tigers were recently photographed in the Tap Lan National Park. Although there has been no photographic evidence of tigers founded in Khao Yai National Park recently, there is good potential for tigers to recover in this landscape, including recolonizing Khao Yai NP because the habitat is still suitable. Effective poaching control and habitat management program are necessary to boost the population.

The future tiger distribution and population trend in other areas of Thailand is very much depending on the quality of sites and landscapes, level of protection, and management.

Wildlife crime units are mostly absent in most areas and have to be established or strengthened where they exist. The Wildlife crime units and the patrol systems in protected areas have to be linked.

Priority Actions

1. Strengthening and standardizing direct conservation actions and enforcement

NATIONAL HIGHLIGHT

This action on direct conservation and enforcement has proved to be the most critical for tiger conservation and recovery. As now known among conservation managers and scientists, tigers are a protection dependent species. Thailand has been a good example of strengthening conservation at a landscape scale; a smart patrol system has been operational in Huai Kha Khaeng Wildlife Sanctuary (HKK) in the Tenasserim-WFECOM landscape for more than 5 years. The smart patrol system can clearly document patrol efforts, threats, abundance of tigers and prey. It also helps to improve park ranger morale, which is important for tiger protection. The system needs to be maintained in HKK, but now expanded across the whole Tenasserim-WFECOM landscape, and introduced into the DP-KY landscape.

TRANSBOUNDARY HIGHLIGHT

Thailand is believed by many conservationists to be a transit point for the illegal transboundary wildlife trade. There are two bodies in Thailand dealing with this issue: CITES office and ASEAN WEN. Both need strengthening on performance and progress monitoring.

2. Building capacity based on a successful model

NATIONAL HIGHLIGHT

Capacity of park rangers is very important for tiger recovery. Thailand has learned from the long experience of its park ranger system that only efficient park rangers can protect tigers and other wildlife in protected areas. Military style training alone is not enough for protection. Instead, rangers have to be equipped with up-to-date technology. A MIST-based smart patrol program is firmly established and operational in HKK; thus HKK can become a training school for park rangers from other protected areas in Tenasserim-WFECOM and DP-KY Forest Complex.

TRANSBOUNDARY HIGHLIGHT

Thailand's strategic location makes it an ideal country in which to base a regional training program, and indeed, in the past 2-3 years HKK has become a place to train government staff from different countries in SE Asia and South Asia on MIST-based smart patrol system. Therefore, during the Asia Ministerial Conference on Tiger Conservation at Hua Hin in early 2010, the Thai Prime Minister announced that WFECOM can become a center to support regional capacity building for tiger conservation. Besides international support on smart patrol system, HKK has been used to train staff in the region on tiger and population estimate techniques, tiger ecology study, and tiger occupancy survey.

3. Strengthening monitoring, research, and information management

NATIONAL HIGHLIGHT

It has been realized among tiger conservation managers and scientists that the tiger population monitoring must be an integral part of actions to save tigers. It is very important in key tiger areas to have a population monitoring system in place to track tiger trends regularly or even annually. It is only then that we can tell with confidence that we are on the right track in our actions. Tiger and prey population monitoring using camera trapping, transect survey, and occupancy survey with up-to-date statistical sampling designs and analysis in the core area of Tenasserim-WEFCOM is among the high quality designs in the region. This system has to be maintained and expanded. It has to be standardized in the DP-KY landscape to follow the same system in WEFCOM for progress monitoring under the same standard.

Tiger ecology research using radio-telemetry has been going on for about 5 years in WEFCOM. This research work allows us to understand the home range and habitat use of tigers. It will help plan conservation action and monitor the change in pattern of habitat use due to improvement of prey and protection.

Information on protection and monitoring can be shared if we use the same system and standard. DNP has tried to establish the "Smart Patrol Monitoring Center" for MIST-based system information sharing and training.

INTERNATIONAL HIGHLIGHT

It is very important to develop a monitoring system to track efforts, movement, and results of wildlife trade and controls in CITES and ASEAN- WEN offices. Seizure cases only cannot guarantee effectiveness in performance. The investment on tracking system is very important to measure the success of internal trade in the future.

4. Promoting education, awareness, and public participation

NATIONAL HIGHLIGHT

Nature education and conservation awareness programs have been integral to the conservation movement in Thailand for decades. The government has nature education centers all over the country. Many non-profit organizations and universities are also equipped with such programs. However, most of them are not tiger focused. Tiger focused education and awareness campaigns have just happened in the villages around WEFCOM in the recent years. The tiger-focused campaigns can better link with management actions and monitoring systems going on inside protected areas. Therefore, the programs can be linked to threat reduction with more concrete ways than general messages.

DNP has established protected area committees in most protected areas in Thailand. It is the way to promote public participations in protected area management. However, unclear structure and objectives of participations exist and need development. The tiger recovery actions can create a clear structure and objectives of participations.

INTERNATIONAL HIGHLIGHT

DNP with support from international organizations has produced different campaign materials to stop international wildlife trafficking. This should be strengthened.

5. Strategic financing for tiger conservation

NATIONAL

In Thailand the most sustainable and secure funding source for tiger conservation is the government budget. The Thai government has the capacity to support more budget financing if tiger conservation receives national and international highlights. Ways to boost the interest and revenue for tiger conservation should be considered.

INTERNATIONAL

Although there are various international funding sources that have their focus on environment management only a few organizations that focus on tiger exist. The skill and assistance to prepare proposals and team work for large-scale international funding need to be considered.

Program Indicators (interim) to achieve country's Long Term Strategic Goals. Identify and describe measurable indicators that will demonstrate the progress by 2015.

1. MIST-based Smart patrol System established and run with efficiency in the priority landscapes with clear decline of threats.
2. Tiger and prey populations are stabilized and annually monitored with standardized camera trapping, occupancy and appropriate prey monitoring system.
3. Tiger ecology study reveals the important information for management and conservation campaigns.
4. The system for information sharing in place.

Program Indicators (final) to achieve country's Long Term Strategic Goals. Identify and describe measurable indicators that will demonstrate achieving the Long Term Strategic Goals by 2022.

1. All of the priority landscapes are equipped with MIST-based Smart Patrol System, and threats show clear declines across the landscapes.
2. Tiger populations in the priority landscapes have shown a 50% increase through rigorous camera trapping system.

Template to describe a NTRP Component linked to the Priority Actions

1. Mapping. Describe HOW this Component is linked to respective Long Term Strategic Goals and Priority Actions.

Long Term Strategic Goal:

Recover tiger populations in Tenasserim – Western Forest Complex (Tenasserim-WFECOM) and Dong Phrayayen Khao Yai (DP-KY) Forest Complex by 50%.

Priority Action(-s):

1. Priority Action I: Strengthen and standardize direct conservation action and enforcement:

- The most important action is to secure the site with MIST-based Smart Patrol System for Tenasserim-WFECOM landscape and then DP-KY Landscape.
- The establishment of wildlife crime units outside the priority landscapes will reduce demands of wild meat flowing into wild meat restaurants around the area.

Mapping with the goal: This will stop the bleeding on tigers and prey and create the environment for tiger recovery in the two landscapes.

2. Priority Action II: Building capacity based on successful model

- Using HKK and HKK model as the center to train officers and park rangers in the rest of the protected areas in the priority landscape to be able to operate under MIST-based smart patrol system are important to improve quality of protection and management of the whole priority landscapes.
- Establishing a regional tiger conservation and research center at HKK to support training of park rangers and managers for Southeast Asian countries.

Mapping with the goal: This will improve the quality and standardize the system for the priority landscapes and the key tiger sites in the regions to be able to compare the progress and results.

3. Priority Action III: Strengthening monitoring, research, and information management

- Using of up-to-date techniques to annually or regularly monitor trends of tigers and prey by camera trapping for tiger population monitoring, transect and distance sampling for prey, and occupancy survey for distribution abundance in the two landscapes.
- Extend the surveys to other potential tiger habitats in Thailand.
- Conducting tiger ecology study to understand the home-range and habitat use of tigers in the two landscapes.

Mapping with the goal: This will be important to decide on the impacts and progress of actions of tigers and prey in the two landscapes. It will help decide whether we are progressing toward the ultimate goal of 50% increase.

4. Priority Action IV: Promote education, awareness, and public participations

- Designing and run tiger focused education and awareness campaigns in communities around the two priority landscapes.
- Creating platforms or projects (e.g., ecotourism) for concrete public participations through protected area committee.

Mapping with the goal: This will allow more partnerships in tiger conservation in two priority landscapes and reduce pressures from exploitation activities and development projects.

5. Priority Action V: Strategic financing for tiger conservation

- Creating a long-term financial support within the government budget by giving tiger conservation and recovery a national priority and pride.
- Seeking collaborations and opportunities at the international level for large scale and long-term international funding sources.

Mapping with the goal: This will guarantee the maintenance and expansion of actions with quality for the whole landscape for the duration to reach the goal.

2. Description of Program Component. Briefly describe (i) Objectives, (ii) Activities, (iii) Expected Outcomes, (iv) duration and location of the Program Component.

1. Priority Action I: Strengthen and standardize direct conservation action and enforcement:

Objective 1.1: Promote conservation efforts at the scale of entire populations (e.g., forest complex and associated corridors).

Activity 1: Strengthen and standardize “MIST-based Smart patrol system” in protected areas of current tiger source and potential source sites including

- Tenasserim – Western Forest Complex
- Dong Phrayayen – Khao Yai Forest Complex.

Activity 2: Increase the number of competent park ranger teams patrolling in each protected area of priority landscapes up to the level that can effectively secure tigers and their prey.

Activity 3: Strengthen wildlife crime units and informant network around Tenasserim – WEFCOM and DP-KY Forest Complex to suppress local demands on wild meat and illegal wildlife and help apprehend wildlife criminals around protected areas.

Activity 4: Work with district attorneys and judges to ensure substantial punishment on wildlife crime against tigers and other large ungulates.

Activity 5: Overhaul the park ranger system to a higher living and working standard, and provide rewards and incentives to encourage patrolling (e.g., patrolling budgets) and other significant morale boosting programs such as performance-based promotions.

Activity 6: Apply landscape scaled ecological and development models for tiger conservation and engage stakeholders in development sectors (i.e., roads, oil and gas, mining, power) to minimize and mitigate impacts in sectoral activities on tiger habitats.

Expected outcome: The real landscape protection cost, actions, and activities to stop bleeding and to recover wild tigers are understood and adopted at the policy level.

Duration and locations: 10 years, Tenasserim-WEFCOM as tiger source site and DP-KY Forest Complex as potential source site.

Objective 1.2: Provide long-term support for tiger habitat restoration activities.

Activity 7: Promote use of controlled burns in potential and manageable parts of priority landscapes to maintain grass-based for ungulate recovery.

Activity 8: Prevent and suppress fires effectively in evergreen forest areas in priority landscapes to provide good covers and watersheds for tigers and wildlife.

Activity 9: Strengthen the reintroduction program of ungulate prey with the ex-situ succeeded species (i.e., sambars, eld’s deer, and hog deer) in suitable habitats.

Activity 10: Maintain natural and existing artificial water sources that benefits tigers and ungulates especially during the draught periods in priority landscapes.

Activity 11: Establish a system to control invasive species (e.g., *Lantana camara*, *Mimosa pudica*,) in the priority landscapes.

Activity 12: Identify priority for corridor and habitat restoration

Expected outcome: Habitat is suitable for other wildlife species and native biodiversity is restored.

Duration and locations: 10 years, Tenasserim-WEFCOM as tiger source site and DP-KY Forest Complex as potential source sites.

Objective 1.3: Ensure government policy of protecting tiger habitat from development threats, as committed through the Hua Hin declaration is followed.

Activity 13: Ensure that no major infrastructure development occurs in core tiger habitat.

Activity 14: Ensure that infrastructure development in corridors and buffer zones must conform with Smart Green Infrastructure designs to ensure minimal impacts to tiger habitats and maintain landscape connectivity.

Expected outcome: Tiger habitat in priority landscapes intact and connectivity maintained.

Duration and locations: 10 years, Tenasserim-WEFCOM and the DY-KY Forest Complex.

Objective 1.4: Encourage community participation and cooperation in protected area conservation activities.

Activity 15: Strengthen and build wildlife conservation networks around the priority landscape to strengthen tiger and wildlife conservation in the priority areas.

Activity 16: Provide protected area committees (PAC) and community committees (CC) with quality information (e.g. data from smart patrol system) on which to base threat reduction decisions and activities.

Expected outcome: Communities appreciate value of wildlife and help save them.

Duration and locations: 10 years, Tenasserim-WEFCOM as tiger source site and DP-KY Forest Complex as potential source site.

Objective 1.5: Support local communities in developing sustainable economies that reduce dependence on forest resources.

Activity 17: Link communities with agricultural science institutes and agencies to promote agro-forestry in bufferzone areas around priority landscapes to reduce Non Timber Forest Products(NTFPs) collection inside Protected Areas(PAs).

Activity 18: Develop a wildlife-based ecotourism with a concrete benefit sharing with communities in appropriate areas in and around PAs.

Expected outcome: Better livelihood and reducing poverty.

Duration and locations: 10 years, Tenasserim-WEFCOM as tiger source site and DP-KY Forest Complex as potential source site.

Objective 1.6: Facilitate international cooperation in tiger conservation efforts.

Activity 19: Strengthen enforcement capacity of Thailand's CITES programs with better interagency-collaboration and stronger protocols and impact monitoring system on wildlife trades.

Activity 20: Strengthen and sustain capacity of ASEAN-WEN.

Activity 21: Strengthen bi-lateral cooperation with Cambodia, Laos, Malaysia and Myanmar for transboundary enforcement and monitoring and research.

Expected outcome: Stronger international network to fight wildlife crime.

Duration and locations: 10 years, CITES border check points, air ports, sea ports.

Objective 1.7: Strengthen national laws, policies, and enforcement of tiger related crimes.

Activity 22: Increase penalties for wildlife related crimes by amending the Wildlife Conservation Act of B.E.2535.

Activity 23: Strengthen Thai-WEN information sharing capacity.

Activity 24: Strengthen investigative capacity and judiciary effectiveness on wildlife crime cases.

Activity 25: Strengthen communication campaigns on wild tiger conservation.

Activity 26: MoU with military, police, Ministry of Interior, Ministry of Education to be strengthened and implemented for better collaboration and training for enforcement.

Expected outcome: Wildlife crimes are given priority at the policy level.

Duration and locations: 10 years, National level.

Objective 1.8: Support national and international efforts to manage captive tigers responsibly.

Activity 27: Design and enforce the control programs for captive breeding of tigers in legal tiger zoos with a captive tiger database of individual tracking records.

Activity 28: Enforce illegal activities on captive tigers under convincing public campaigns on impacts on tiger conservation.

Activity 29: Public campaigns on the difference of wild & captive tiger conservation.

Expected outcome: Public at large become understood about the difference of wild tiger conservation and illegal captive tiger business that harms tiger conversation.

Duration and locations: 5 years, Places with illegal captive tigers, zoos, and amusement parks.

2. Priority Action II: Building capacity based on successful models.

Objective 2.1: Establish a Regional Tiger Conservation and Research Center at Huai Kha Khaeng Wildlife Sanctuary.

Activity 30: Designate staff and design an administrative structure to run the center with shared experiences and administrations

Activity 31: Ensure that the training center has sufficient facilities and equipment to facilitate high quality training in management, enforcement and research to serve both Thailand and the region

Activity 32: Establish technical and enforcement-related curricula that will prepare participants to meet protected area management standards.

Expected outcome: The skill of on tiger conservation and research is being shared in the region by using the facility in WEFCOM as one of the easy places to encounter tiger signs, tracks, and tiger prey in SE Asia.

Duration and locations: 10 years, Hua Kha Khaeng Wildlife Sanctuary.

Objective 2.2: Ensure national training capacity can deliver high quality tiger conservation training at all levels

Activity 33: Strengthen the local instructor capacity for conducting training courses for tiger research and conservation for Thai and international audience.

Activity 34: Establish a national standard as sufficient resources for tiger conservation training

Expected outcome: The quality of trainers and trainees are improved with a good standard.

Duration and locations: 10 years, Tenasserim-WEFCOM as tiger source site and DP-KY Forest Complex as potential source site.

3. Priority Action III: Monitoring, Research, and Information Management.

Objective 3.1: Monitor tiger and prey populations in priority landscapes.

Activity 35: Maintain and establish high standard annual population monitoring systems for tigers and their prey in tiger sources and potential source sites in the priority landscapes.

Activity 36: Establish landscape scale occupancy monitoring for tigers and prey throughout the two priority landscapes.

Activity 37: Implement a national-wide survey and reporting system on tigers and prey situation based on scientific methods.

Expected outcome: The success of tiger conservation activities can be strongly linked to the target which is tigers and their prey.

Duration and locations: 10 years, Tenasserim-WEFCOM as the tiger source site and DP-KY Forest Complex as the potential source site and other protected areas for a nation-wide survey.

Objective 3.2: Maintain long-term tiger and prey ecology research in priority landscapes.

Activity 38: Strengthen long-term tiger ecology study in priority landscapes, especially to determine maximum densities that can be supported in the landscapes to meet recovery targets.

Activity 39: Determine genetic structure of wild tigers at the population and of captive tigers.

Expected outcome: Managers and conservation scientists are better equipped with understanding about how tigers use the landscapes, monitor inbreeding depression, and track source of tigers and parts confiscated from the illegal trade.

Duration and locations: 10 years, Tenasserim-WFECOM as tiger source site and DP-KY Forest Complex as potential source site.

Objective 3.3: Ensure that relevant information for tiger conservation is well managed and available to inform strategy and planning.

Activity 40: Develop information structure that facilitates national compilation of tiger related data for improvement of tiger conservation.

Expected outcome: The government of Thailand has a high quality central database to cooperate with other organizations on tiger conservation.

Duration and locations: 10 years, Department of National Parks, Wildlife and Plant Conservation(DNP) headquarters in Bangkok.

4. Priority Action IV: Education, Awareness and Public Participation.

Objective 4.1: Convey tiger conservation-related messages to a diverse Thai public, and policy-makers, and politicians.

Activity 41: Public campaigns on wild tiger conservation in local schools and communities around priority landscapes using innovative tools and impact monitoring system.

Activity 42: Deliver the message of tiger conservation through mainstream media channels.

Activity 43: Produce quality publications that contain information on tigers and their roles in ecosystem to the public.

Expected outcome: Thai society gives a strong support for tiger and wildlife conservation and natural resource management.

Duration and locations: 10 years, National level.

Objective 4.2: Ensure that basic concepts of the tiger's ecological and cultural significance become part of Thailand's standard curriculum at several educational levels.

Activity 44: Work with Ministry of Education to include specific learning goals in both primary and secondary standard curriculums.

Expected outcome: The government of Thailand has a high quality central database to cooperate with other organizations on tiger conservation.

Duration and locations: 10 years, DNP headquarters in Bangkok.

Objective 4.3: Ensure that co-benefit of tiger landscape conservation are understood and appreciated.

Activity 45: Quantify ecosystem service values and use the information to communicate the broader values of tiger conservation landscape.

Expected outcome: More support on tiger conservation from other sectors of the society.

Duration and locations: 10 years, National level.

5. Priority Action V: Strategic financing for tiger conservation.

Objective 5.1: Identify the costs of effective tiger conservation, current expenditures, and efficiency of these expenditures.

Activity 46: Baseline study of protected area costs and efficiency of current expenditures.

Expected outcome: The real cost of wild tiger conservation understood and improvement of budget happens.

Duration and locations: 10 years, National level.

Objective 5.2: Make use of large scale funding opportunities such as GEF 5, REDD, other GAA programs, etc. to fund tiger conservation efforts.

Activity 47: Utilize GEF 5 programmatic funding opportunity to secure additional national funding for tiger landscape conservation support.

Activity 48: Develop full REDD++ funding strategy for the Dawna Tenasserim Landscape.

Expected outcome: Opportunity for funding is expanded.

Duration and locations: 10 years, Tenasserim-WEFCOM as the tiger source site and DP-KY Forest Complex as the potential source site.

Objective 5.3: Develop sustainable funding mechanisms.

Activity 49: Identify potential payment for ecosystem services mechanism and develop pilot projects to demonstrate their values.

Activity 50: Establish a Trust Fund for conservation activities in priority landscapes.

Activity 51: Enhance ecotourism opportunity in and around tiger landscapes and ensure that revenues flow more directly to tiger conservation efforts.

Expected outcome: Opportunity for funding is expanded and sustained.

Duration and locations: 10 years, Tenasserim-WEFCOM as the tiger source site and DP-KY Forest Complex as the potential source site.

3. Policy. Briefly describe what kind of policy or legislation is needed (amended or introduced) to achieve the Component's Objectives.

- Reform policy on promotion, salaries, and social security system for protected area staff and park rangers.
- Reform policy on career path for superintendents of protected areas (national parks and wildlife sanctuaries) for effectiveness and continuity of the work quality.
- Up list tigers to the reserved species under the WARPA (Wild Animal Reservation and Protection Act).
- Amend the WARPA to increase the penalties on wildlife crimes.
- Setup a subcommittee on tiger recovery and conservation under the National Wildlife Reservation and Protection Committee to monitor the progress of Thailand National Action Plan.
- Establish and run the Regional Tiger Conservation and Research Center at Huai Kha Khaeng Wildlife Sanctuary.

4. Capacity. Briefly describe what kind of capacity needs to be enhanced or created to achieve the Component's Objectives.

- **Smart Patrol System capacity:** Park rangers in the core areas of Tenasserim-WEFCOM have been operated under the Smart Patrol System for 5 years. The rest of other 17 protected areas in this landscape have to improve their system under the same standard. Park rangers in DY-KY Forest Complex have to be trained and adopt the same standard. With MIST-based smart patrol system performance and effectiveness of law enforcement can be monitored.
- **Research and monitoring capacity:** All tiger and prey ecology research and monitoring programs are being done extensively in the core areas of Tenasserim WEFCOM. The same rigor of tiger and prey population monitoring systems has to be established for the core areas of DY-KY Forest Complex. The monitoring has to be regularly done. At the landscape scale occupancy survey with the same rigorous sampling design has to be followed for both priority landscapes. Tiger ecology study (e.g., satellite telemetry) has to get started in other parts of Tenasserim-WEFCOM and DY-KY Forest Complex for better understanding of how tigers in the area use the landscape differing in habitat types, human disturbances, and prey density. Make tiger conservation goals and objectives an important component in EIAs. Investigate the impacts of toxic chemicals on tiger populations, including the use in retaliatory killing by poisoning and transmission of disease vectors.
- **Wildlife crime unit capacity & CITES check points:** DNP is virtually lack of wildlife crime units at the regional level. The units have to be established at the protected area regional offices covering two priority landscapes. The units will be in charge of wildlife crime happening outside protected areas. The capacity for the units needs strengthening. At the transboundary front, all the CITES checkpoints need to be strengthened for better job performance with system to

monitor the work progress and results. Use control delivery to control and apprehend smugglers.

- **Tiger conservation education capacity:** Capacity to conduct tiger focus education campaigns have to be established and strengthened within DNP and organizations involved. The campaigns need to combine the current status of tigers in the country, monitoring and research work, law enforcement, and other activities.
- **Administrative level capacity for tiger conservation & management:** New way of thinking is very necessary to successfully recover tigers in the wild. Administrative level needs to understand the real situation and interventions to manage the parks and recover tigers. The local and global struggles to save wild tigers have produced a lot of lessons learned, protocols, and logics. The most important lessons are, for example, tigers are protection dependent species, rigorous monitoring systems for tigers and prey are an integral part of management. Tigers can powerfully draw attentions from the public at large to participate in nature conservation. The administrative level capacity in DNP has to adopt the new way of thinking for the country to be successful in recovering wild tigers.

5. Stakeholders. Identify and briefly describe the roles of other critical actors, NGOs, organizations, or cooperating TRCs in achieving the Component's Objectives.

GOVERNMENT

- Ministry of Natural Resources and Environment (MoNRE): MoNRE is looking after the policy and administration of all departments in charge of natural resources in Thailand. The National Wildlife Reservation and Protection Committee is under the Ministry.
- Department of National Parks, Wildlife and Plant Conservation (DNP): DNP is the most important agency in charge all protected areas and wildlife conservation outside protected areas. DNP will be in charge of all actions mentioned here and coordinate with other agencies and organizations to the tiger recovery program.
- Royal Forest Department (RFD): RFD is charge of national forests outside protected areas including community forest . RFD will be in charge and coordinate with other agencies and organizations running the program in the buffer zone.
- The Royal Thai Police: RTP is in charge of all laws and enforcement in Thailand. The police is also focusing on enforcing wildlife trades outside protected areas. Under RTP , the border patrol police also helps DNP's and RFD's officers and park rangers on training.
- Thai Customs Department: The customs is in charge of all the check points at the airports, sea ports, and border areas around the country.
- Royal Thai Army: RTA helps train park rangers on physical training courses in some protected areas.
- Provincial governor offices: In each province the governor is also the key person to help on management and conservation work happening in their areas.

UNIVERSITY

Kasetsart University (KU): KU is the main university in Thailand that conducts tiger and wildlife conservation research projects and train undergrad and graduate students in wildlife conservation in Thailand.

Mahidol University (MU): MU is a key university in Thailand that produce conservation biologists into the system.

NGOs

- **WCS:** WCS has been running tiger conservation and monitoring projects in Thailand for many years. WCS has helped the Department of National Parks, Wildlife and Plant Conservation (DNP) establish the MIST-based smart patrol system, long-term tigers and prey population monitoring systems, tiger-focused awareness campaigns, in and around Tenasserim-WEFCOM landscape.
- **WWF:** WWF has been working on tiger monitoring project in Kui Buri National Park at the lower part of Tenasserim-WEFCOM landscape. Currently WWF is helping DNP to strengthen the smart patrol system and tigers and prey monitoring system in upper part of Tenasserim-WEFCOM landscape. WWF is also helping DNP to strengthen Thailand Wildlife Enforcement Network.

- Freeland: Freeland is focusing on ASEAN- WEN. It also helps Thai government on campaigns to reduce wildlife trade at the airport. At the landscape scale, Freeland is conducting tiger monitoring at Dong Phrayayen – Khao Yai Forest Complex and help train park rangers in the landscape.
- Seub Foundation: Seub is focusing its work on communities in and around WEFCOM to reduce the pressures from the communities on natural resources.
- Khao Yai Foundation: Khao Yai Foundation supports park rangers' equipment and campaigns on conservation of Dong Phrayayen – Khao Yai Forest Complex and other protected areas.

6. Performance Indicators. Identify key measurable indicators that will demonstrate progress towards achievement of the Component's Objectives.

1. Priority Action I: Strengthen and standardize direct conservation action and enforcement:

The performance indicators are:

- At site level: Patrol coverage, foot patrol distance, numbers of foot patrol days (drawn from MIST-patrol database).
- At site level: Trend of threats to tigers (drawn from MIST patrol database).
- At landscape level: Numbers of protected areas operating with MIST-based smart patrol system.
- At landscape level: Trend and numbers of wild meat restaurants checked and enforces by wildlife crime units.
- At landscape level: Forest cover and forest change.
- Numbers of crime/crime scene to arrest and prosecution.

2. Priority Action II: Building capacity based on successful model

The performance indicators are:

- Numbers of training courses (national and international) conducted at the Regional tiger research and conservation center in Huai Kha Khaeng Wildlife Sanctuary.
- Quality of training courses (After-training evaluation).
- Targeting the numbers of personnel on qualified trainers and trainees.

3. Priority Action III: Monitoring, Research, and Information Management

The performance indicators are:

- At site level: Design and running of tiger and prey population monitoring systems using camera trapping and transect survey techniques.
- At landscape level: Design and running of occupancy survey for tigers and prey.
- At landscape level: Tiger and prey ecology research.
- At national level: Numbers of protected areas surveyed for tigers and prey.
- At national level: Quantity, quality, use of data stored at the central database in Bangkok and in regional offices.

4. Priority Action IV: Education, Awareness and Public Participation

The performance indicators are:

- At site level: Numbers of schools, students, villages received tiger focused education and awareness campaigns.
- At site level: Numbers and results of public participation projects.
- At national level: Change in curriculums with tiger conservation added in.
- At national level: TV media regarding tiger conservation.

5. Priority Action V: Strategic financing for tiger conservation

The performance indicators are:

- Volume of government budget for tiger and wildlife conservation actions.
- Numbers of proposals submitted and funded.
- Volume and durations of financial supports on tiger project.

7. Indicative Costs in US\$ equivalent (approximate estimate): 5 years.

Activity	Total estimated Budget (mil US \$)	Govt contribution	Donor contribution
Maintain and establish "Smart Patrol System in 2 priority landscapes.	55.3	35.5	19.8
Establish and run wildlife crime units at the 5 regional offices.	2.5	0.45	2.05
Run tiger focused education campaigns in priority areas (mobile units).	3.0	0.5	2.5
Reintroduce key prey species (sambar, eld's deer, hog deer).	1.5	0.5	1.0
Wildlife-based ecotourism programs in HKK..	2.5	0.5	2.0
Train and equip officers at CITES check points.	1.0	0.5	0.5
Establish and run monitoring system for tigers and prey 2 priority landscapes.	6.5	2.5	4.0
Establish and run a regional tiger conservation and research center in HKK.	1.8	0.6	1.2
Strengthen system to control captive tigers.	1.0	0.35	0.65
Strengthen Management Information System (MIS) for wildlife conservation at the Wildlife Conservation Office.	5.0	2.0	3.0
TOTAL	80.1	43.4	36.7

8. Preferred Financing Mix. Identify and indicate the order of magnitude of the expected and/or desirable funding sources for the above listed activities (for 2011-2015 and beyond), including central and subnational government budget, intergovernmental organizations (UN etc.), multilateral development banks (WB, ADB, etc.), Global Environment Facility, bilateral aid agencies, private foundations, international NGOs, etc., as appropriate.

- Thai government (75% of All activities above)
- WCS (Smart patrol system, wildlife crime units, tiger focused education campaigns, tiger monitoring system, regional center)
- WWF (Smart patrol system, tiger focused campaigns, tiger monitoring systems, regional center)
- Freeland (Enforcement training on patrolling, Investigation training)
- US Fish & Wildlife Service (Smart patrol system, enforcement, tiger monitoring system)
- Save the tiger fund (Smart patrol system, tiger monitoring system)
- Liz Claborn – Art Ortenberg Foundation (Smart patrol system, Wildlife crime units)
- Panthera (Tiger monitoring)
- National Geographic Society (Tiger research and monitoring)

9. Short-Term Catalytic Support Needed (in 2010-2011)¹. Identify and indicate the amount of short-term catalytic funding needed from the GTI funding partners to support the Component in the table below. Such funding is typically expected to cover the following types of activities:

Catalytic activity (provide brief description)	Costs, US\$
Pilot projects (for example, implementing a MIST-type system in one or a few PAs).	80,000
Technical assistance to develop a full-size project proposal for funding from the larger donors (e.g. MDBs, GEF).	32,000
Training and capacity building, and building or strengthening local and national institutions.	250,000
Workshops for knowledge exchange and cooperation (for example, cross-boundary meeting to enhance cooperation in law enforcement).	250,000
Feasibility studies (for example, developing a particular community engagement strategy in one or a few locations).	65,000
TOTAL	677,000

¹ Short-term funds raised by the GTI partners will be used by TRCs for catalytic and initial work required to bring best practices to full-size projects. Such GTI support, in general, will be less than US\$500,000 in each case. Where medium- and full-size projects (costing more than US\$500,000 each) are already identified for possible submission to large funders, the GTI will facilitate lining up and leveraging the necessary cofinancing from other funders as appropriate.