Due to confidentiality reasons 21st Century Tiger is unable to publish online the full content of some of the reports we receive from our projects. This is to ensure the safety of the tigers and those involved in protecting the species. To keep our supporters and the public up to date with project activities 21st Century Tiger has summarised the significant outputs from our recent report received, Strengthening Protection for Tigers in Thailand.

Project Goals and Objectives:
The project has the overall goal of improving protection for tigers in Thailand.

Specific objectives include:

Objective 1: Institutionalize violation and wildlife data collection
- This is being implemented by a series of training activities to improve the professional skills of rangers to safely carry out their jobs and conduct law enforcement activities
- Improving opportunistic ranger-based data collection through formal training and Mentoring

Objective 2: Provide technical equipment to rangers
- Essential data collection equipment was donated to the park management for distribution to rangers for use during patrols (more to be donated as funds allow)

Objective 3: Conduct baseline wildlife assessments and MIST support during on-the-job training
- Every month survey's are conducted
- Staff trained in MIST and officials mentored until the park is independently able to conduct this function.
- Use baseline wildlife data to evaluate carnivore and ungulate population trends, to assess protection efforts as a way to monitor poaching and other forest crimes and adaptively develop practical patrol strategies which enhance prey protection measures (on-going)
- Develop improved catalogues and GIS/GPS documentation of carnivore populations their prey base and poaching in the DPKY Eastern Forest Complex (on-going)

A combination of the above activities and results obtained will be showcased in 2012 during a workshop to enhance understanding of tiger conservation.

Project Overview
FREELAND Foundation has been working in Thailand's Eastern Forest Complex for thirteen years (since 1999) implementing a park-based integrated conservation program entitled Surviving Together. During this time we have developed a close relationship with park management of each the five parks and surrounding communities. A new five year assistance plan aimed at increasing capacity in officials charged with conserving biodiversity across the complex is now into year three.
The set of activities supported under this grant were developed in conjunction with park management from each of the protected areas and so has had their full support during implementation. The activities supported by 21st Century Tiger engage aspects of law enforcement strategic planning and implementation. Further synergies exist between this work and FREELAND's major anti-trafficking program entitled 'ARREST' (Asia's Regional Response to Endangered Species Trafficking). The ARREST program is supported by USAID. The park protection component under ARREST fully complements work in the Dong Phayayen- Khao Yai Forest Complex. Further grants from USFWS support direct enforcement, park management as well as community outreach. Each of these specific activities are described in the following section.

MIST Analysis training and mentoring

During January 27th - 30th 2012, 11 Participants of the National Parks received training on the use of the Ecosolutions® MIST software.

This software captures and reports violations, wildlife sign and other important events in focal parks. Participants were taught how to sort, clean and input data to ensure subsequent tabular reports and graphic map outputs are accurate. During this course instructors taught participants how to set up a site-specific system utilizing GIS base maps of each protected area. Associated with the above activity was an awareness field trip to a Wildlife Sanctuary in western Thailand. Here participants observed the monthly park protection strategic planning meeting for February 2012. This included insight into how data is submitted from the field to the data manager and how its timely conversion for reports and graphic maps helps guide patrolling and other park protection activities.

The MIST software has been accepted by the Global Tiger Initiative as the standard way to record tiger and related poaching data across many of the tiger ranger states. In the upcoming months, data managers from parks will be mentored by FREELAND staff through data input, problem solving and report generation activities. This will continue until they fully understand the nuances of the software. From these activities, park management can interpret data for maximum benefit during strategic planning and conducting intelligence-led law enforcement activities.

Immediately following the course 4 computers, printers and UPS (uninterrupted power supply) were donated to National Park to be specifically use as MIST databases.

There are many parks and agencies involved in the conservation of wildlife in Thailand and it is important for these organizations to maintain communication in order to share experiences, suggestions and identify best practices. With the assistance of FREELAND, a 3-day study tour was arranged to bring representatives from protected areas in the Eastern Forest Complex to a UNESCO World Heritage Site and an area of significant conservation investment over the past 20 years as a part of Thailand's Western Forest Complex.

The visit was deliberately timed to coincide with the parks monthly enforcement meeting, where rangers presented a report on their activities from the previous month and patrol findings. Guests observed reports from 19 patrol team leaders, gaining an understanding of the park's patrolling methods, reporting procedures, and use of technical equipment. Representatives from the Eastern Forest Complex also learned of some of the pertinent threats facing the park and, through a strategic planning meeting for the next month's patrolling activities, how threats are going to be addressed.
Participants trained in using MIST software gained a practical understanding of how data is submitted from the field to the data manager and how its timely conversion for reports and graphic maps helps guide patrolling and other park protection activities.

The tour was both a productive and highly enjoyable experience for those involved. If isolated, conservation in protected areas can run the risk of becoming complacent with established methods of operation. By facilitating study tours and exchanges such as this, conservation of protected areas can be refreshed by new input and the development of new ideas, ultimately benefiting wildlife and wild places.

Training Validation (report due end April 2012)

During this project we are proposing to utilize validations for two types of training courses; the enforcement ranger team leader and Monitoring and data collection. During these 'validation' trips, FREELAND staff accompany the rangers on their patrols, identify gaps in their adoption of new techniques and tools, and provide follow-up mentoring. The validations generally taken at least three days and in 2012 we have the expertise of the Royal Thai Navy trainers that assisted during the Team Leader Training Course.

Tiger Survey and Cameratrap Capture Data

Comparing survey and tiger photo data over time reveals considerable differences and improvement

in capturing tiger photos. The most recent survey period (trips 32-39, March 2011-Jan 2012), compared with previous trips (24-31, March 2010-Feb 2011), saw a 31% increase in the average number of cameras deployed per month. However, most recent trips had at least a six-fold increase in the number of tiger photos and more than a four-fold increase in catch-per-unit-effort values. The improvement in tiger captures is unlikely to be caused by seasonal variation as both survey periods encompass the same annual period. Rather, geographical focus between survey periods likely is the primary contributing factor. In the former survey period, 9 different management zones in 3 parks were sampled; however, many of these areas were in or near areas of high human presence or disturbance (i.e. park borders). It was noted that tiger captures in these areas were low or nonexistent. Conversely, the latter survey period focused exclusively on two areas, particularly more geographically central areas.

It is well established in tiger ecology that tiger presence is strongly associated with the availability of prey (Karanth et al. 2004). In our surveys, we generally found a positive relationship between the capture of tigers and the presence of prey species. When tigers were captured, cameras often captured known prey species such as sambar, wild boar, gaur and occasional serow; however, high capture rates of prey species did not necessarily correlate with the capture of tigers. Simple scat analysis suggests that Sambar and Wild Bar are the major two prey species.

Recently, a tiger poacher was convicted and sentenced to serve 5 years in prison - the most severe punishment for wildlife poaching ever given in Thailand (source). This was due to photographic evidence of the poacher with a dead tiger that had been cross-referenced with a tiger documented by a Wildlife Conservation Society camera-trap. The two photos were proven to be of the same individual in Thailand's Huai Kha Khaeng National Park, implicating the poacher in violation of Thai law. Both research and effective organization of camera trap data played a significant role in this case.

Capacity building: PROTECT Monitoring and Data Analysis Training Course

Under the new ARREST program in collaboration with the ASEAN-Wildlife Enforcement Network (ASEAN-WEN) and the ASEAN Centre for Biodiversity (ACB), FREELAND has developed and implemented a series of training and awareness components for wildlife officials, police, customs and the judiciary. These activities are designed to fulfill training needs of several positions including enforcement ranger, ranger team leader, protected area enforcement Manager and wildlife ranger. Consequently, these courses are becoming the industry standard for forestry and wildlife protection agencies in Southeast Asia.

To help increase the competency in wildlife monitoring and reporting amongst park staff a Monitoring and Data Analysis training course was conducted by FREELAND from 14th to 24th of December 2011. During this particular course, 25 rangers were trained how to collect various types of data in a standardized way and to regularly relay this data back to the park management. To add sustainability, four senior rangers were coached in ways to instruct subjects from the course. Finally, all participants were given equipment such as wildlife guides, measuring calipers and compasses to keep and use during patrols. At the course closing ceremony of the course, digital cameras were donated to the park management to help with data collection.

PROTECT Enforcement Team Leader Training course

The Team Leader's training course provides advanced-level training for selectively detailed Enforcement Rangers who have successfully completed the PROTECT (**PR**otected - area **O**perational and **T**actical **E**nforcement **C**onservation **T**raining) Enforcement Ranger Course. These individuals are either designated or prospective Team Leaders overseeing patrols and the frontline protection of natural resources in tropical forests and protected areas. This course was conducted by FREELAND during the 7th – 21st December 2011 at the Royal Thai Navy Base, Sattahip, Eastern Thailand to provide comprehensive training Ranger Team Leaders being addressed by Royal Thai Navy Instructor during course for rangers currently assigned to National Parks, and (5) Royal Thai Navy (RTN) personnel. The combination of personnel helped significantly to cultivate an increased knowledge of respective missions conducted by both entities, fostered personal rapport, and created opportunities for mutual cooperation in overlapping mission skill sets.

Community outreach and education activities targeted at youth

The FREELAND's outreach team conducted awareness activities every month. Although not funded by this project the outreach activities directly benefit tigers and their conservation in the National

Parks. Where-ever possible park rangers are invited and participate in the educational awareness outreach, as these are always peaceful, something that cannot always be said if the rangers enter some of the villages from where they may have previously arrested poachers. For most of the outreach activities, both at schools and at the community meetings pre-post tests and assessments were conducted, these are designed to gauge the participant's comprehension of the educational materials and the conservation message the team imparts. These also help in editing and refining educational materials and approaches. A video showing some of the FREELAND school outreach activities can be accessed at http://www.youtube.com/watch?v=ofGDurHGkiY

Next steps

Workplan to date, showing successful implementations and revisions (for the remainder of this grant)

Activity	Project Activities by Month											
	O	N	D	J	F	M	A	M	J	J	A	S
Tiger population monitoring (on-the-job training in field data collection to better understand wildlife and violations)	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X
FREELAND employs a field-based staff member to develop all aspects of data collection	✓	✓	✓	✓	✓	✓						
MIST Analysis training (& mentoring)		✓	✓	✓	✓	✓	X	X	X	X	X	X
Validation of training activities								X	X			
Provide technical equipment to rangers			✓	✓	✓	✓	Further field equipment supplied					
Meeting on tiger conservation issues											X	
Community outreach and education activities targeted at youth (not funded directly by project)			✓	✓	✓	-	-	X	X	X	X	X

X= Proposed, ✓ = Conducted/achieved, ✓ on-going during that month, – no activity