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Global Tiger Recovery Program

2010–2022



Governments of the Tiger Range Countries

People's Republic of Bangladesh

Kingdom of Bhutan

Kingdom of Cambodia

People's Republic of China

Republic of India

Republic of Indonesia

Lao People's Democratic Republic

Malaysia

Union of Myanmar

Nepal

Russian Federation

Kingdom of Thailand

Socialist Republic of Vietnam

and Partner Organizations of the Global Tiger Initiative



March 2011

The Global Tiger Recovery Program (GTRP) was endorsed in the St. Petersburg Declaration on Tiger Conservation at the International Tiger Forum ('Tiger Summit'), held in St. Petersburg, Russia, on November 21–24, 2010.

The GTRP is the result of a collaboration among the 13 Tiger Range Countries and the partners of the Global Tiger Initiative.

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In the St. Petersburg Declaration on Tiger Conservation endorsed at the International Tiger Forum, Tiger Range Countries adopted the Global Tiger Recovery Program (GTRP). The official text of the Declaration is included here as a preface to the GTRP that follows.

The St. Petersburg Declaration on Tiger Conservation

(Saint Petersburg, Russia, November 23, 2010)

We, the Heads of the Governments of the People's Republic of Bangladesh, the Kingdom of Bhutan, the Kingdom of Cambodia, the People's Republic of China, the Republic of India, the Republic of Indonesia, the Lao People's Democratic Republic, Malaysia, the Republic of the Union of Myanmar, Nepal, the Russian Federation, the Kingdom of Thailand, and the Socialist Republic of Vietnam, being custodians of the last remaining tigers in the wild, having gathered at an unprecedented International Tiger Forum in St. Petersburg, Russian Federation, from 21–24 November 2010, with the common goal of tiger conservation;

Recognize that Asia's most iconic animal faces imminent extinction in the wild. In the past century, tiger numbers have plummeted from 100,000 to below 3,500, and continue to fall. Tiger numbers and habitat have declined by 40 percent in the last decade alone, lost largely to habitat loss, poaching, the illegal wildlife trade, and human-tiger conflict. Three subspecies have already disappeared, and none of the other six is secure;

Acknowledge that the tiger is one of the important indicators of healthy ecosystems and a failure to reverse these trends will result in not only the loss of tigers but also a loss of biological diversity throughout the entire Asiatic region, together with the tangible and intangible benefits provided by these magnificent predators and the ecosystems they inhabit;

Note that whilst the conservation of the tiger is primarily a national responsibility and that increased cooperation and coordination of efforts

among the tiger range countries is essential, the reversal of this crisis is additionally dependent upon financial and technical support from the international community, bearing in mind that most Tiger Range Countries are developing countries. The crisis facing the tiger has yet to receive the international attention it deserves and saving this species is a common responsibility;

Understand the role of international agreements on the conservation of biological diversity and protection of rare and endangered species, including the tiger, such as the Convention on Biological Diversity, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and the Convention on the Conservation of Migratory Species of Wild Animals;

Acknowledge the work to date of the International Tiger Forum and encourage its revitalization and more active role;

Recall and endorse The Manifesto on Combating Wildlife Crime in Asia, adopted in Pattaya, Thailand, in April 2009; the Recommendations of the Global Tiger Workshop in Kathmandu, Nepal, October 2009; the Hua Hin Declaration on Tiger Conservation at the First Asian Ministerial Conference on Tiger Conservation (1st AMC) in Hua Hin, Thailand, January 2010; and the Work Plan of the Pre Tiger Summit in Bali, Indonesia, July 2010;

Welcome the adoption of National Tiger Recovery Priorities (NTRPs) and the Global Tiger Recovery Program (GTRP); and

Acknowledge and appreciate the presence and support of other governments, international organizations, non-governmental organizations, and other supporters of tigers.

Because it is our obligation to future generations, and because we must act now, we hereby declare the following:

Strive to double the number of wild tigers across their range by 2022 by

1. Doing everything possible to effectively manage, preserve, protect, and enhance habitats, including:
 - a. Mainstreaming biodiversity conservation in planning and development processes in tiger habitat;
 - b. Making critical tiger breeding habitats inviolate areas within the larger tiger conservation landscapes where no economic or commercial infrastructure development or other adverse activities are permitted; and maintaining the landscapes and creating corridors around and between them where all permitted development activities are tiger- and biodiversity-compatible;
 - c. Improving protection by using systematic patrolling to safeguard tigers, their prey, and habitats; and
 - d. Working collaboratively on transboundary issues, such as the uninhibited movement of tigers and the management of tiger conservation landscapes.
2. Working collaboratively to eradicate poaching, smuggling, and illegal trade of tigers, their parts, and derivatives through:
 - a. Strengthened national legislation, institutions, and law enforcement to combat crime directed against tigers;
 - b. Strengthened regional law enforcement activities through bilateral and multilateral arrangements such as Association of South East Asian Nations Wildlife Enforcement Network (ASEAN-WEN), South Asia Wildlife Enforcement Network (SAWEN), and the Protocol between the Government of the People's Republic of China and the Government of the Russian Federation on Tiger Protection;
 - c. Strengthened international collaboration, coordination, and communication;
 - d. Specialized expertise, where relevant, from international organizations including the CITES Secretariat, INTERPOL, the UN Office on Drugs and Crime, the World Bank, and the World Customs Organization (recognizing that some of these agencies may, themselves, require additional resources); and
 - e. Long-term national and global programs to create awareness of the value of wild tigers and their ecosystems and thus eliminate the illicit demand for tigers and their parts.
3. Engaging with indigenous and local communities to gain their participation in biodiversity conservation, minimize negative impacts on tigers, their prey, and habitats, and reduce the incidence of human-tiger conflict by providing sustainable and alternative livelihood options through financial support, technical guidance, and other measures.
4. Increasing the effectiveness of tiger and habitat management, basing it on:
 - a. The application of modern and innovative science, standards, and technologies;
 - b. Regular monitoring of tigers, their prey, and habitat;
 - c. Adaptive management practices; and
 - d. Building capacity of institutions involved in science and training and creating a platform for interactive knowledge exchange at all levels.
5. Exploring and mobilizing domestic funding, including new financing mechanisms based on forest carbon financing including REDD+, payment for ecosystem services (PES), eco-tourism, and private sector, donor, and non-governmental organization partnerships.
6. Appealing for the commitment of international financial institutions, such as World Bank, Global Environment Facility, Asian Development Bank, bilateral and other donors and foundations, CITES Secretariat, non-governmental organizations, and other conservation partners to provide or mobilize financial and technical support to tiger conservation.
7. Looking forward to the establishment of a multi-donor trust fund or other flexible arrangements to support tiger conservation.
8. Requesting financial institutions and other partners, including the Global Tiger Initiative, to assist in identifying and establishing a mechanism to coordinate and monitor the use of the multi-donor trust fund allocated for tiger conservation and the implementation of the GTRP, including its Global Support Programs for capacity building and knowledge sharing, combating wildlife crime, demand reduction, and the GTRP progress report. In the interim, we request the Global Tiger Initiative to fulfill this role.

9. Agreeing to convene high-level meetings on a regular basis to review the progress of NTRPs and the GTRP and to help ensure continued high levels of political commitment to tiger recovery.
10. Building tiger conservation awareness by celebrating Global Tiger Day annually on 29 July.
11. Welcome and sincerely appreciate the pledges made during the Tiger Summit; we also appreciate the continued support of the Global Environment Facility, Save the Tiger

Fund, Smithsonian Institution, U.S. Fish and Wildlife Service, Wildlife Conservation Society, WWF, and other partners in the Global Tiger Initiative, and welcome the participation of new ones.

By the adoption of this, the St. Petersburg Declaration, the Tiger Range Countries of the world call upon the international community to join us in turning the tide and setting the tiger on the road to recovery.



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The Global Tiger Recovery Program (GTRP) is built on the foundation of all 13 National Tiger Recovery Priorities (NTRPs), Global Support Programs (GSPs), and Key Studies. The NTRPs and GSPs are collated in the GTRP Annex. The GTRP and the GTRP Annex are on the CD-ROM included with this document. The CD-ROM also includes the unofficial transcript of the high-level segment of the International Tiger Forum ('Tiger Summit') held in St. Petersburg, Russia, on November 23, 2010.



Acronyms

ASEAN-WEN	Association of Southeast Asian Nations Wildlife Enforcement Network
CBD	Convention on Biological Diversity
CEO	Chief Executive Officer
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMS	Convention on Migratory Species
FCPF	Forest Carbon Partnership Facility
FFI	Fauna and Flora International
GEF	Global Environment Facility
GSP	Global Support Program
GTF	Global Tiger Forum
GTI	Global Tiger Initiative
GTRP	Global Tiger Recovery Program
IDA	International Development Association
IFAW	International Fund for Animal Welfare
INTERPOL	ICPO – International Criminal Police Association
IUCN	International Union for the Conservation of Nature and Natural Resources
MIST	Management Information System
MoF	Ministry of Forestry
MoU	Memorandum of Understanding
M-STRIVE	Monitoring System for Tigers – Intensive Protection and Ecological Status
NGO	Non-governmental Organization
NTCA	National Tiger Conservation Authority
NTRP	National Tiger Recovery Priorities
PA	Protected Area
PES	Payment for Ecosystem Services
REDD	Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
SAARC	South Asian Association for Regional Cooperation
SAWEN	South Asia Wildlife Enforcement Network
STF	Save the Tiger Fund
TAL	Terai Arc Landscape
TCL	Tiger Conservation Landscape
TRC	Tiger Range Country
UNODC	United Nations Office on Drugs and Crime
US	United States
WBI	World Bank Institute
WCO	World Customs Organization
WCS	Wildlife Conservation Society
WEN	Wildlife Enforcement Network
WWF	World Wildlife Fund
ZSL	Zoological Society of London



Executive Summary

Wild tigers are under threat of extinction across their entire range. Wild tigers (*Panthera tigris*) have for centuries occupied a very special place in the nature and culture of Asia. These magnificent big cats sit at the top of the ecological pyramid in vast Asian forest landscapes. The presence of viable populations of wild tigers is an indicator of the integrity, sustainability, and health of larger ecosystems. However, wild tigers are on the brink of extinction, with only about 3,200 to 3,500 surviving today, scattered among 13 Asian Tiger Range Countries (TRCs): Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Lao PDR, Malaysia, Myanmar, Nepal, Russian Federation, Thailand, and Vietnam.

Diverse, rich, but undervalued tiger ecosystems are degrading and disappearing. Tiger landscapes support tigers, their prey, and a vast amount of biodiversity. They also contribute to human well-being, locally and globally, through the provision of many ecosystem services such as water harvesting, carbon sequestration, plant genetic materials, food security and medicinal plants, and opportunities for community-based tourism. Most of these benefits are not currently monetized so tiger landscapes are significantly undervalued in national and global agendas. As a result, degradation, fragmentation, and loss of natural habitats, depletion of prey animals, and poaching to supply a large illegal global trade in their body parts, have pushed wild tigers and their landscapes to the brink of extinction. These threats are exacerbated by limited capacity for conservation action and, in most TRCs, by insufficient resources.

The Global Tiger Recovery Program (GTRP) seeks to empower TRCs to address the entire spectrum of threats, domestic as well as those that are transboundary in nature, and work toward increased financial sustainability through

the integration of conservation objectives into development. To solve the tiger crisis, which represents the larger Asian biodiversity crisis, the TRCs, international organizations, and civil society have come together on a collaborative platform within the framework of the Global Tiger Initiative (GTI). After a two-year process of sharing knowledge and best practices and developing a common vision, the GTRP was developed, with the shared goal of doubling the number of wild tigers globally by 2022 through actions to: (i) effectively manage, preserve, protect, and enhance tiger habitats; (ii) eradicate poaching, smuggling, and illegal trade of tigers, their parts, and derivatives; (iii) cooperate in transboundary landscape management and in combating illegal trade; (iv) engage with indigenous and local communities; (v) increase the effectiveness of tiger and habitat management; and (vi) restore tigers to their former range.

The foundation of the GTRP is 13 individual National Tiger Recovery Priorities (NTRPs) that outline the urgent priority activities each TRC will take to contribute to the global goal. These NTRPs are buttressed with other actions that TRCs need to do in concert with others, such as arresting transboundary illegal trade, knowledge sharing, and establishing robust systems for monitoring populations, habitats, and overall progress. Additional actions to eliminate illicit demand for tiger parts and their derivatives and to undertake habitat valuation in order to promote payment for ecosystem services schemes are also included in the GTRP portfolio of 80 activities.

The GTRP calls for incremental financing of about US\$350 million over the first five years of the program, over and above the domestic financing to be provided by individual TRCs,

based on their ability. TRCs have identified policy and institutional reforms to enhance the effectiveness of these proposed expenditures. TRCs have built considerable early momentum in implementing policy and institutional actions.

Financial support for GTRP implementation is to be through a flexible financing mechanism that enables all potential funders—official bilateral programs, multilateral development banks, and the GEF, international NGOs, as well as private and corporate entities—to support the GTRP portfolio, which is to be kept current.

Program management and coordination arrangements are built on the establishment and strengthening, as needed, of robust national implementation mechanisms, supported by TRC-wide and global processes to ensure mutual accountability and transparency through vigorous monitoring and reporting of progress. The existing Global Tiger Forum (GTF) is to be strengthened to play its mandated intergovernmental role and, until longer-term coordination arrangements are agreed upon, the TRCs asked the GTI Secretariat to support the implementa-

tion phase. Suitable collaborative platforms for those providing support to TRCs, through financing, capacity building, or arresting illegal trade, are to be created.

Expected results include stabilized tiger populations in most critical habitats by year five and overall doubling by 2022; critical tiger habitats becoming inviolate and protected areas professionally managed; significant reduction in poaching and illegal trade and trafficking along with decreased illicit demand for tiger body parts and derivatives; consistent monitoring in place; and economic valuation of all tiger landscapes completed as a basis for sustainable financing.

The GTRP is the last best hope for tigers. Wild tigers are at a tipping point and action, or inaction, in the coming decade will decide their fate. Action will lead to the tiger's recovery; inaction or mere maintenance of the status quo will lead to its extinction. The GTRP represents the last best hope for the survival of the world's most magnificent species and the conservation of the valuable landscapes in which it lives.

1

Background

A. International Importance of Tigers

Wild tigers (*Panthera tigris*) have for centuries occupied a very special place in the nature and culture of Asia. These magnificent big cats sit at the top of the ecological pyramid in vast Asian forest landscapes and depend for their survival on the existence of large, biologically rich, and undisturbed forest habitats. The presence of viable populations of wild tigers is a ‘stamp of quality’ certifying the integrity, sustainability, and health of larger ecosystems known as high-value Tiger Conservation Landscapes (TCLs). However, recent and growing pressures of economic development, including degradation and fragmentation of natural habitats, depletion of prey animals, and unabated poaching, have pushed wild tigers and their landscapes to the brink of extinction.

TCLs support tigers, their prey, and a vast amount of biodiversity. They also contribute to human well being, locally and globally. TCLs provide:

- **Cultural Services.** Tigers are highly significant symbols in Asian cultures, figuring prominently in the spiritual beliefs and cultural history of many different Asian peoples. The tiger is the national animal of many Tiger Range Countries (TRCs) and in global markets the tiger brand stands for strength and majesty.
- **Carbon Storage and Sequestration.** It is estimated that, on average, forests in TCLs have nearly 3.5 times the amount of carbon than forest areas outside TCLs. With 17 percent of global CO₂ emissions coming from deforestation, protecting 1.2 million km² of forest—the total area of TCLs—will help mitigate climate change.

- **Poverty Alleviation.** Rural areas around protected areas in TCLs contain pockets of deep poverty, with poverty levels often exceeding three times national averages. Poor people are highly dependent on forest ecosystem services including provisioning of water, food, medicine, fuel, and fiber; it is estimated that 80 percent of the income of the rural poor in Southeast Asia is derived from the local biodiversity.
- **Watershed Protection.** TCLs form significant parts of nine globally important watersheds, with a total catchment area of 5.8 million km². These watersheds supply water to as many as 830 million people and form the basis of rural livelihoods. In Bhutan, Myanmar, and Nepal, hydropower provides 74 to 100 percent of the national electricity, and a large part of the catchment area for this hydropower lies in TCLs.
- **Natural Hazard Regulation.** Tiger habitats, mostly forests, ameliorate the effects of natural hazards such as floods, landslides, droughts, fires, and storms; for example, there is clear evidence that the impacts of the 2007 cyclone Sidr and the 2009 cyclone Aila were mitigated by the mangrove islands of the Sundarbans TCL in Bangladesh.
- **Food Security and Agricultural Services.** Tiger landscapes support agriculture by supplying fresh surface and ground water, protecting soil from erosion, and regulating local weather; they also enhance food security by providing a source of wild genetic material for plant breeders.
- **Medicinal Services.** Tiger landscapes are repositories of herbal plant richness. Where harvest is permitted, they contribute to a global trade in medicinal and aromatic plants

that is estimated at more than US\$60 billion per year.

- **Tourism.** The charismatic megafauna living in TCLs are highly attractive to tourists, creating economic opportunities for local people in the ecotourism industry; ecotourism is the fastest growing and most profitable segment of the tourism industry.

The looming possibility of the tiger's extinction in the wild signals a real threat to Asian biodiversity and to the vital services provided by tiger landscapes. Because tigers are apex predators at the top of the food chain in many Asian ecosystems, they are essential to the effective functioning of other parts of these ecosystems. Tigers are an indicator species reflecting the health of the landscapes they inhabit. Tigers also serve as an umbrella species—protecting tigers and their landscapes also protects a host of other endangered species and their habitats. Most of mainland Asia's areas of highest endemism for vertebrates and richest ecoregions for vascular plants fall within the tiger range. More than 10 percent of Birdlife International's 231 Important Bird Areas in Asia and more than 10 percent of their area intersect with TCLs. Also under some part of the tiger's umbrella are six Ramsar Wetlands of International Importance in six TCLs; eight natural World Heritage sites in 11 TCLs; and seven UNESCO Biosphere Reserves in six TCLs. Tiger landscapes contain some of the last natural forest remaining in Asia. When tigers are lost from a protected area, there is an immediate demand to convert the area to serve short-term economic purposes. The case of Sariska Tiger Reserve in India has clearly demonstrated this phenomenon. Studies show that forests lacking tigers suffer from high levels of degradation and are more likely to be affected sooner by poorly planned infrastructure.

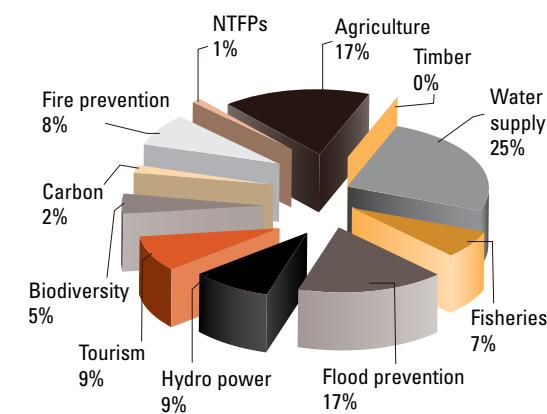
The multiple benefits of TCLs are not currently monetized. Political will to support policy and program interventions is thus essential to ensure their continued future availability. Quantitative understanding of the economic value of the services provided by tiger ecosystems is limited. One study found that the estimated net present value of the services provided by the Leuser

Ecosystem (Figure 1.1), which covers 2.5 million hectares in northern Sumatra (Indonesia), ranges from US\$7–\$9.5 billion, equivalent to about US\$500 per hectare per year. In comparison, national budgets for protecting tiger reserves are meager. In TRCs, conservation expenditures range from US\$0.07 per hectare in Lao PDR to US\$1 per hectare in Indonesia and US\$2–3 per hectare in India. In the absence of comprehensive evaluations of the benefits of functioning tiger ecosystems, the public goods and services they produce are neither accounted for nor managed effectively. This trend, if not reversed, will result in the loss of these services, with direct impact on local livelihoods and economic growth. Among global CEOs surveyed in 2009, 27 percent were already concerned about the effects of biodiversity loss on their business growth prospects.

B. Tiger Population and Status

Asia's most iconic animal faces imminent extinction in the wild. Tiger numbers have plummeted from about 100,000 a century ago to about 3,200 to 3,500 today, and they continue to fall. Tiger numbers and habitat declined by 40

Figure 1.1 Contribution of various ecosystem services to the net present value of the Leuser Ecosystem.



percent in the decade from 1996 to 2006, due to degradation, fragmentation, and loss of habitat; poaching of tigers and their prey; the illegal wildlife trade; and human-tiger conflict. These remaining tigers occupy fragmented forest and grassland habitats that cover a mere seven percent of their former extent in Asia (Figure 1.2). Three subspecies have already disappeared, and the other six are insecure. The Malayan subspecies is very new to science and separate strategies may be needed to conserve it. The tiger is Endangered on the IUCN Red List of Threatened Species, and may move to Critically Endangered soon given the severity of its decline in range over the past several decades. A failure to reverse these trends will result in not only the loss of wild tigers but also a loss of biological diversity throughout the tiger's Asian range, together with the tangible and intangible benefits provided by these magnificent predators and the ecosystems they inhabit.

At present, suitable habitat for wild tigers covers about 1.2 million km² in 13 TRCs in Asia: Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Lao PDR, Malaysia, Myanmar, Nepal, Russian Federation, Thailand, and Vietnam. Mostly forest, this habitat has been categorized as 76 TCLs (Figure 1.2).

C. Threats and Needs

Habitat degradation, fragmentation, and loss are primary threats to the survival of wild tigers. Habitat degradation, fragmentation, and loss have been driven by clearing forests and grasslands for agriculture to support growing human populations; by commercial logging, both legal and illegal; by conversion of forests and grasslands to commodity plantations; and, most recently, by rapid infrastructure development to support Asia's burgeoning economic growth, a threat that will grow still larger in the years ahead.

Protecting the remaining critical tiger habitats from which tigers can expand is essential. Also essential is maintaining or rebuilding the natural ecological and genetic exchanges that occur between populations across larger TCLs, many

of which straddle international boundaries. In some TRCs, translocation programs may be necessary to restore tigers to landscapes from which they have been extirpated.

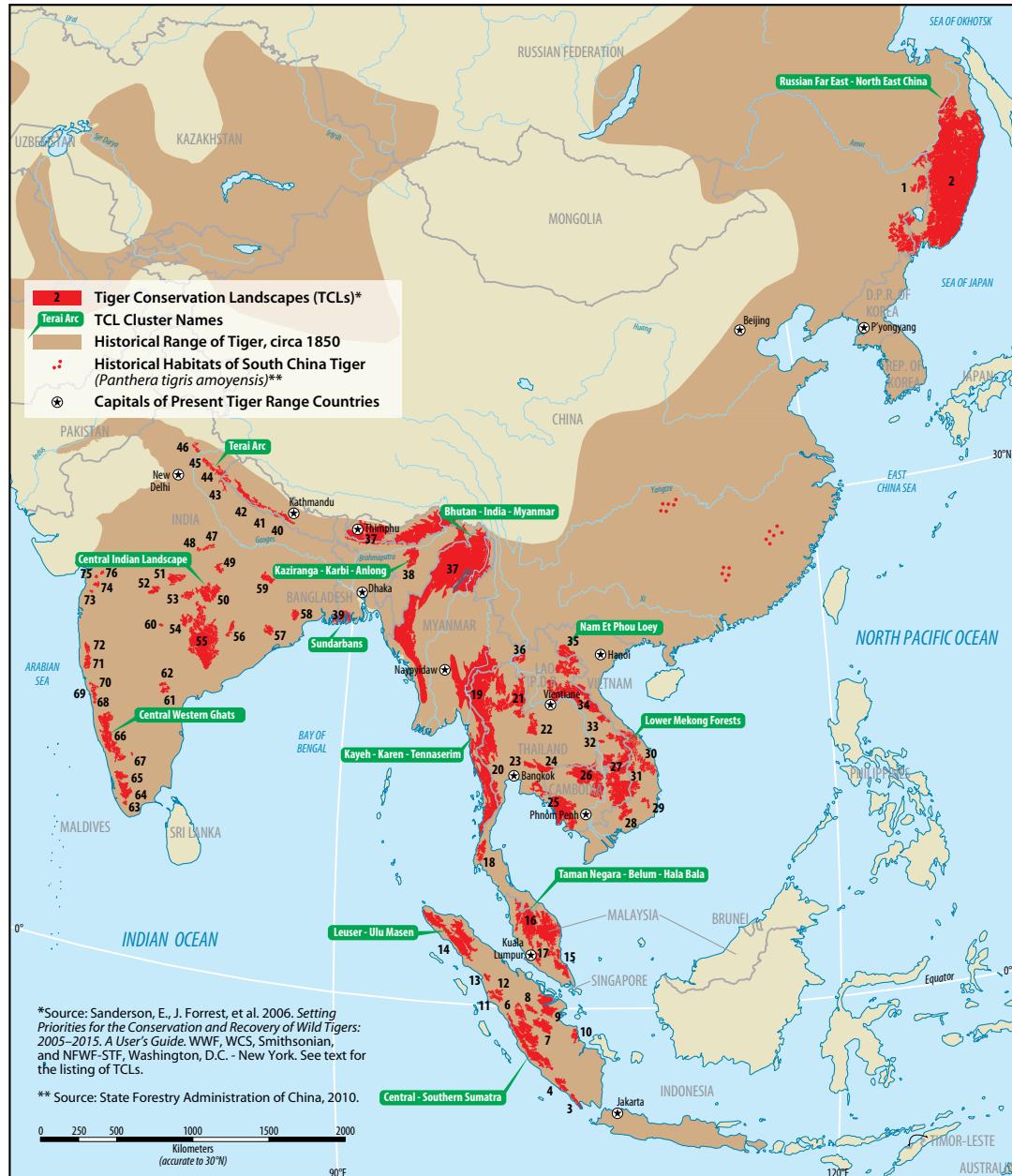
Landscape-scale management and conservation protect essential ecosystem services important for human livelihoods. Maintaining ecosystem services is important to support sustainable development. Because tigers, as a wide-ranging species, require large areas of land to survive in large meta-populations, they are excellent indicators of the integrity and functionality of ecosystems. Working to maintain viable tiger populations therefore operates at the appropriate scale to maintain ecosystem services. The principles of "Smart Green Infrastructure" could be applied to ensure that development is compatible with tiger and biodiversity conservation.

Tigers are a conservation-dependent species and require strong protection because they are in high demand in the illegal trade. Developing a strong conservation ethic among conservation enforcement staff and enhancing their numbers, skills sets, and status to a level commensurate with the importance of their role as the frontline protectors of tigers is an urgent need.

Poaching and the illegal trade and trafficking in tigers and their parts and derivatives driven by consumer demand is a primary and immediate threat to the survival of wild tigers. Tigers have been extirpated by poaching in many areas even where excellent habitat remains. Combating crime against tigers and wildlife crime in general has not been a high priority within TRCs and globally, and wildlife crime is growing. Much of the illegal trade is transnational, and thus requires regional and global cooperation to eradicate.

International and domestic trade in tiger body parts is universally prohibited, but there are opportunities in many countries for improving the clarity and scope of legislative and regulatory measures, and for enlisting the support of the legal profession in the prosecution of wildlife crimes. Laws must be effectively enforced, and

Figure 1.2 Tiger Conservation Landscapes and Historical Range of Tigers.



TCL Legend: 1 = Heilongjiang; 2 = Russian Far East - China; 3 = Bukit Barisan Selatan South; 4 = Bukit Balai Rejang – Selatan; 5 = Kerinci Seblat; Bukit Rimbang Baling; 7 = Bukit Tigapuluh Landscape; 8 = Tesso Nilo Landscape; 9 = Kualar Kampar – Kerumutan; 10 = Berbak; 11 = Bukit Barisan South; 12 = Rimbo Panti – Batang Gadis West; 13 = Sibologa; 14 = Gunung Leuser; 15 = Endau Rompin; 16 = Taman Negara – Belum; 17 = Krau; 18 = Khlong Saeng; 19 = Tenasserim; 20 = Salak – Phra; 21 = Phu Miang – Phu Thong; 22 = Phu Khieo; 23 = Khao Yai; 24 = Thap Lan – Pang Sida; 25 = Cardamoms; 26 = Cambodian Northern Plains; 27 = Southern Annamites; 28 = Cat Tien; 29 = Bi Dup-Nui Ba; 30 = Kon Ka Kinh; 31 = Yokdon; 32 = Xe Bang Nouan; 33 = Hin Nam Ho; 34 = Northern Annamites; 35 = Nam Et Phou Loey; 36 = Nam Ha; 37 = Northern Forest Complex – Namdapha – Royal Manas; 38 = Kaziranga – Garampani; 39 = Sundarbans; 40 = Royal Chitwan; 41 = Royal Bardia South; 42 = Royal Bardia; 43 = Royal Suklaphanta; 44 = Corbett – Sonanadi; 45 = Rajaji Minor; 46 = Rajaji Major; 47 = Panna East; 48 = Panna West; 49 = Bandhavgarh – Panpatha; 50 = Kanha – Phen; 51 = Pachmarhi – Satpura – Bori; 52 = Melghat; 53 = Pench; 54 = Andhari – Tadoba; 55 = Indravati; 56 = Sunabeda – Udanti; 57 = Satkosia – Gorge; 58 = Simlipal; 59 = Palamau; 60 = Painganga; 61 = Nagarjunasagar South; 62 = Nagarjunasagar North; 63 = Shendurney; 64 = Periyar – Megamala; 65 = Anamalai – Parambikulam; 66 = Western Ghats – Bandipur – Khudrenukh – Bhadra; 67 = Biligiri Range; 68 = Western Ghats – Sharavathi Valley; 69 = Dandeli – Anshi; 70 = Dandeli North; 71 = Radhanagari; 72 = Chandoli; 73 = Mahabaleshwar Landscape – South; 74 = Purna; 75 = Mahabaleshwar Landscape – North; 76 = Shoolpaneswar.

efforts to eliminate illicit demand, within TRCs and globally, must proceed simultaneously. Experience from Japan and South Korea shows that eliminating the illicit demand for tiger parts and products is possible.

Engaging local communities in conservation is critical. The people who live near tigers are very often poor and heavily dependent on forest resources, and tend to be alienated by conservation policies that ignore their needs in favor of those of wildlife. Many people also possess livestock, which are usually free-grazed in forests and grasslands where they are vulnerable to tiger depredations; the loss of an individual domestic animal represents a significant economic loss to its owners. In revenge, tigers are poisoned, snared, or otherwise killed. Peoples' attitudes toward tigers and other wildlife also become negative. If depredations continue, tolerance thresholds begin to erode with a concomitant increase in the clamor for retribution and action from politicians to remove tigers and convert the habitat to prevent future threats. Thus, minimizing human-tiger conflict is also a critical part of tiger recovery. Most poaching of the tiger's prey—deer, wild pigs, and wild cattle—was once for local subsistence but now feeds some urban Asian markets where the cachet of wild foods is growing. A reduced prey base contributes significantly to declining tiger numbers.

Participatory, community-based, and incentive-driven practices that give local people a stake in tiger conservation can turn tiger and prey poachers into tiger and prey protectors and forest abusers into forest guardians. These incentives include developing alternative livelihoods and alternative sources of fuel, fodder, and the like to compensate for loss of access to protected forest resources. Some examples are community forestry projects in buffer zones and revenue-sharing with local communities, and conservation-related income-generators such as shared park entry fees, community-managed ecotourism, and payment for ecosystem services schemes or prey or habitat management. Some TRCs such as Malaysia have trained local and indigenous community members as licensed nature guides in protected areas.

In most TRCs, both human and institutional capacity for conservation action is limited. Studies show that fewer than 10 percent of the protected areas in TCLs have highly effective management, and 20 percent have an absolute lack of management. Indian officials report that management effectiveness of 16 of 39 tiger reserves is poor (41 percent). This is mirrored in a global study of management effectiveness in protected areas which found that, overall, 65 percent of the assessed protected areas had management with significant deficiencies.

In most TRCs, current budgets for tiger conservation are insufficient to meet the challenges. Given that most TRCs are developing nations, this is unlikely to change unless new mechanisms are developed to sustainably finance tiger conservation interventions at the scale necessary to recover tiger populations and manage large TCLs.

D. Global Efforts to Save Tigers

As an iconic species of global appeal, the tiger can inspire people to protect all Asian biodiversity through a global campaign to greatly increase awareness of the tiger's plight. A focus on ensuring its survival can provide an effective focus for urgent collaborative action to protect not only tigers and their habitats but also Asian biodiversity in general.

The conservation of the tiger is a global responsibility entrusted primarily to the 13 sovereign nations in which these predators survive. To support the TRCs in addressing the looming biodiversity crisis and highlight tigers as the face of biodiversity, the World Bank, the Global Environment Facility, the Smithsonian Institution, and other partners launched the Global Tiger Initiative (GTI) in June 2008. Since then, the GTI has become a collaboration of governments, including all 13 TRCs, international organizations, and civil society, coordinated by a small secretariat hosted by the World Bank. The collaboration was deepened at a global workshop in Nepal in October 2009, at which the partners shared best practices and developed the Kathmandu Recom-

mendations for scaling up those best practices to achieve real conservation progress on the ground. This led to the First Asian Ministerial Conference on Tiger Conservation in Thailand in January 2010, where the Hua Hin Declaration committed TRCs to accelerating priority national activities and charged the international community with undertaking efforts to support the TRCs as necessary. The Hua Hin Declaration also set the global goal of doubling the number of wild tigers by 2022, the next Year of the Tiger, and endorsed the plan for an International Tiger Forum to be held in Russia. In Bali in July 2010, after a series of National Consultations during which TRCs developed their National Tiger Recovery Priorities (NTRPs; complete NTRPs are in the Annex), the partners met to report on progress and develop the draft St. Petersburg Declaration to be approved by heads of governments. The Global Tiger Recovery Program (GTRP) is built on the foundation of the NTRPs and on Global Support Programs (GSP) to help with actions that individual TRCs cannot do alone. A portfolio of policy, institutional, and expenditure activities has been developed from the NTRPs for ease of engaging with the funding community. The GTRP was approved by the TRCs' national delegations at the unprecedented Heads of Governments International Tiger Forum in St. Petersburg, Russia, in November 2010.

These milestones—and the GTRP—are a result of all 13 TRCs and the international community working together for the first time on a collaborative platform, sharing knowledge and experience and developing a cooperative program to achieve a global goal. The GTRP is a comprehensive, range-country driven effort to save a species and the valuable ecosystems in which it lives for the benefit of current and future generations.

The particular challenges and opportunities for tiger conservation vary from nation to nation. Some TRCs have taken proactive actions including developing national action plans to recover, increase, or double their tiger populations. The national priority activities detailed in the NTRPs are based on good science and analyses of existing and proven best practices and models

employed in one or more TRC, with appropriate habitat- or country-specific adaptations.

TRC Best Practices in Habitat Management

- India's National Tiger Conservation Authority (NTCA), Project Tiger, and core-buffer-corridor strategy is a model for pro-conservation institutions, with strong high-level political support. Malaysia offers another strong model for developing pro-conservation institutions across sectors and in partnership with multiple stakeholders.
- India's laws allow for inviolate critical tiger habitats and voluntary, fairly compensated village relocations have been initiated and budgeted; India and Nepal have conducted voluntary relocations that demonstrate best practices and that have benefited wildlife and villagers.
- Malaysia's recent commitment under its National Tiger Conservation Action Plan to increase the Malayan tiger population up to 1,000 individuals within the Central Forest Spine, a proposed contiguous forest landscape, is an excellent example of making critical tiger breeding areas totally inviolate. As a matter of national policy in Bhutan, tiger conservation is harmonized with its sustainable development goals, based on its principles of Gross National Happiness, and its commitment to maintain 60 percent forest cover. Fifty-one percent of the country is now included in a system of protected areas and biological corridors.
- Vietnam mandates Strategic Environmental Assessments of infrastructure development plans and Strategy on Management of Nature Reserves system.
- Indonesia's restoration of Sumatra's Harapan Rainforest is a model for restoring degraded habitat that includes sustainable use by local communities.
- Vietnam has established a Steering Committee for Biodiversity Conservation and developed a National Action Plan on Biodiversity.
- Cambodia, Malaysia, and Thailand have pioneered having rangers use data and spatial management programs such as Management Information System (MIST) to enhance

- detection and interdiction of poaching and encroachment in protected areas; this system is now also being deployed in Lao PDR, Myanmar, and Nepal. India has introduced an equivalent system called Monitoring System for Tigers—Intensive Protection and Ecological Status (M-STrIPE).
- India has pioneered translocation to restore extirpated tiger populations and Russia and Indonesia have experience in translocating “problem” tigers. Malaysia has an active program of responding to all human-tiger and wildlife-related conflicts throughout the Malayan tiger range.
 - Bangladesh is the world pioneer in raising mangrove plantations. In continuation of this practice, the Forest Department started plantations of palatable species like Keora (*Sonneratia apetala*) in 2000 at Dimerchar, a newly accreted island of Sundarbans East Wildlife Sanctuary, on an experimental basis. This plantation is successful, supplying forage for spotted deer, which now inhabit the area in large numbers (100/km²). Since 2001, afforestation with Keora has continued on a small scale in newly accreted lands and islands of Sundarbans.
 - China’s implementation of programs of Protection of Natural Forests, Recovery of Farmlands for Forests, and Wildlife Conservation and Nature Reserve Development has greatly improved habitats and their management for wildlife, including tigers.
 - China’s wildlife authorities have stopped hunting in tiger range areas and enhanced patrolling and monitoring of wild tiger habitats with improved governmental funding during the past 10 years.
 - China published a law to strictly control the possession and use of hunting rifles in 1997 and uncontrolled firing at wildlife has become almost impossible in China.
 - China has started a house-amelioration policy with governmental investment especially for residents in forests. This attracts many of them voluntarily to move out of forests and will significantly help to reduce human disturbance in wild tiger habitats.
 - In Russia, 25 percent of tiger range is covered by effectively managed protected areas at federal and regional levels with different types of protection regime. With support from the German Global Climate Initiative, 450,000 hectares of tiger habitat became conservation leases managed by indigenous people.
 - Nepal has achieved very good results in participatory buffer-zone forest management that could be a lesson for other TRCs having similar situations. The government has allocated 30–50 percent of protected area revenue to the local communities. This money is used for livelihood improvement of local communities and ecological conservation as well, which is a very good instrument to reduce conflicts between tiger and human. The Nepalese Army is also involved in conservation activities.
- #### **TRC Best Practices in Controlling Poaching and Illegal Trade**
- China enforces strong penalties against poaching, illegal killing, or illegal purchase, sale, or transportation of tigers and tiger products, with prison sentences of as much as 10 years or more plus fines and confiscation of personal property; those engaged in smuggling tiger products can be sentenced to life in prison, and their personal property can be confiscated. Many wildlife offenders have received such penalties.
 - China has established its specialized forest and customs police forces since 1984 and 1999 respectively, with more than 70,000 policemen, and has undertaken a series of special law-enforcement actions and joint inspections by several concerned authorities to combat wildlife and smuggling crimes with highlighted attention being paid to illegal activities concerning tigers.
 - China has sponsored and/or hosted a series of international workshops and training courses on wildlife law enforcement to facilitate cooperation.
 - Nepalese authorities are sentencing tiger poachers to 15 years in jail.
 - India has a specialized Wildlife Crime Control Bureau at the federal level that is charged with promoting operational collaboration among police and customs as

- well as with CITES and INTERPOL, and has created a Special Tiger Protection Force, dedicated to anti-poaching activities and initiated using information technology surveillance.
- Malaysia formed a Wildlife Crime Unit at the national level in 2005 that has been able to enhance the detection, apprehension, and prosecution of offenders engaged in illegal trade and smuggling of wildlife.
 - Myanmar established a National Wildlife Enforcement Task Force especially for controlling illegal trade in wildlife around the country and in border areas to perform actions by the PM's office since 2007. It has good cooperation with CITES, ASEAN-WEN, TRAFFIC, and INTERPOL.
 - Vietnam established the interagency committee for wildlife trade control in August 2010, aimed at strengthening the control of illegal trade in wildlife and their products.
 - Thai-WEN is a model for national, regional, and international cooperation to combat wildlife crime and has been replicated in Cambodia, Indonesia, Malaysia, and Vietnam.
 - ASEAN-WEN is a model for regional and international cooperation in wildlife law enforcement and is being emulated in the developing South Asia Wildlife Enforcement Network.
 - Lao PDR undertook a conservation awareness campaign focusing on combating wildlife crime to reach the thousands of national and international visitors who were in Vientiane for the 25th South East Asian Games in December 2009.
 - Myanmar-WEN is actively collaborating with ASEAN-WEN to combat wildlife crime and enhance people's participation to stop illegal trade.
 - Cambodia has created a mobile law enforcement unit with a 24-hour hotline to combat wildlife crime throughout the country. Penalties for hunting, killing, trading, or exporting tigers or tiger body parts are 5–10 years in prison and confiscation of all evidence. Prison terms are doubled for repeat offenders.
 - Russian Federation established a special "Inspection Tiger" in 1994 to address

poaching, smuggling, and tiger-human conflicts.

- Bangladesh formed a Wildlife Crime Control Unit within the Forest Department in September 2010. Bangladesh Wildlife (Conservation) Act 2010, approved by the Ministerial Cabinet, provides for sentencing tiger poachers to 12 years in jail, with life sentences for repeat offenders.

TRC Best Practices in Engaging with Communities

- Community forestry projects in protected-area buffer zones, locally-managed ecotourism enterprises, and sharing of revenue from conservation and ecotourism activities with local communities have been highly effective in Nepal and in the Periyar Tiger Reserve in India.
- Specialized units to respond promptly and effectively to incidents of human-wildlife conflict were very effective in Russia to reduce animosity toward tigers.
- Bangladesh has formed Co-management Committees through an Integrated Protected Area Co-management project in the 76 villages around the Sundarbans. In collaboration with Wildlife Trust of Bangladesh, the Forest Department has formed Village Tiger Response Teams, engaging local communities to mitigate tiger-human conflict and poaching.
- Vietnam is pioneering local payments for ecosystem services that improve the livelihoods of communities and engage them in conservation.
- Cambodia, India, and Indonesia have trained communities and former poachers, loggers, and soldiers as community and forest rangers, supplying them with alternative livelihoods and greatly reducing illegal activities in Mondulkiri (Cambodia), Periyar and Manas (India), and Sumatra's Leuser Ecosystem. Sumatra's Harapan Rainforest community engagement in restoration was cited earlier.
- Malaysia has trained hundreds of local community members residing around protected areas as nature guides licensed by the tourism authorities.

- Cambodia has trained and employed poachers, loggers, and local people who are knowledgeable about the forest to be forest rangers, worked with local communities to enable them to contribute to conservation through protecting birds' nests, has turned over forest areas to local communities to protect and manage as community forestry, and has increased local community land-tenure rights around conservation areas.
- India is using local/tribal people in the Special Tiger Protection Task Force and 30 percent recruitment of locals has been provided in the creation of the Task Force.
- Eco-Development Committees participate in patrolling and intelligence gathering in India.
- The Chinese wildlife authorities have started a pilot program to ensure reasonable compensation for losses caused by key protected wildlife especially by tigers and their prey since 2007 and now, an insurance policy for local communities in part of tiger range areas is in trial.
- The first-ever collaborative island-wide biological monitoring initiative on Sumatran tigers and their principal prey covering nearly 114,000 km² (~80 percent of the remaining tiger landscapes) along more than 13,500 km of survey routes has been completed in Sumatra involving the Indonesian Ministry of Forestry, WCS, FFI, WWF, ZSL, and the Sumatran Tiger Conservation Program. This initiative provides a robust baseline value for the Indonesian NTRP implementation.
- China has increased investment significantly in nature reserves and protection and monitoring units in tiger range areas to purchase equipment such as computers, GPS, telescopes, etc., and undertaken a series of workshops and training courses during the past 10 years so as to improve capacity.

TRC Best Practices in Habitat Management Systems

- India is following the IUCN system of rating and monitoring management effectiveness in its tiger reserves.
- Pioneering work on scientific monitoring of tiger and prey populations was done in India and Russia, providing models for other TRCs.
- MIST (implemented in many TRCs) and M-STrIPE (India) are model programs that provide the regular feedback required for adaptive management. Malaysia is establishing a monitoring system for tigers and prey in critical tiger habitats.
- Thailand's plan to develop the Regional Conservation and Research Center at Huai Kha Khaeng Wildlife Sanctuary is a model for the development of similar regional capacity building efforts.
- The Wildlife Institute of India develops, implements, and supports innovative science as well as conducts capacity building. The Wildlife Institute also provides advanced training that has long fostered the emergence of wildlife scientists and conservation leaders in TRCs.

TRC Best Practice for Mobilizing Domestic Funding

- Lao PDR's Nam Theun 2 hydroelectric project provides an example of using offsets from infrastructure projects to support a protected area.

The TRCs also recognize that reversal of the tiger crisis is additionally dependent upon financial and technical support from the international community. Moreover, the crisis facing the tiger has yet to receive the international attention it deserves. Saving this species is a common responsibility of the global community at large. Thus, the TRCs requested the international community to provide support for incremental expenditures of the NTRP portfolio of activities (Appendix) and assistance in addressing challenges that transcend national boundaries and exceed the capacity of TRCs acting alone. Global Support Programs (GSPs) and Key Studies respond to this. (Details of the GSPs and Key Studies are in the Appendix.)

The TRCs' strong commitment to the goal of the GTRP is evident in the extent to which implementation of some priority activities included in their NTRPs has been launched in the past 18 months. For example,

- Transboundary collaboration among TRCs has intensified. The development of a new South Asia Wildlife Enforcement Network (SAWEN) was advanced at the First Meeting of the South Asia Experts Group on Illegal Wildlife Trade in Kathmandu in May 2010, when SAARC member countries Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, and Sri Lanka agreed on the structure, functions, and operational parameters for SAWEN, including ideas for developing multilateral activities based on strong inter-agency cooperation at the national level. In June 2010, Nepal and China signed an agreement to enhance cooperation between the two governments in controlling the illegal trade in endangered species parts and products. India and Nepal signed a joint resolution in July 2010 to enhance transboundary cooperation in biodiversity and tiger conservation and strengthen ecological security in the transboundary region. In August 2010, China and Russia agreed to enhance conservation and cooperation in protected areas in a transboundary area for Amur tigers. China and India signed a minute after a bilateral meeting on cooperation in wildlife management and enforcement in September 2010.
- India in June 2010 initiated a nationwide monitoring program to evaluate management effectiveness in its tiger reserves.
- Cambodia launched the Cambodian Wildlife Enforcement Network Co-ordination Unit in August 2010, and Vietnam launched the Inter-agency Executive Committee for Viet Nam Wildlife Enforcement in August 2010.
- China State Forestry Administration issued a special notification to require further enhancement of conservation and management of wild tigers and their habitats, law enforcement and public education, and published special hotline and hot-email for information on illegal activities concerning wildlife and tigers in December 2009 as it welcomed the Year of the Tiger of 2010.
- China has undertaken a series of public awareness campaigns including celebration of the first Global Tiger Day on July 29, 2010, and International Forum on Tiger Conserva-
- tion and Tiger Culture and China 2010 Hunchun Amur Tiger Culture Festival in August 2010.
- Russia in January 2010 undertook an institutional restructuring of an important cluster of tiger reserves and protected areas to strengthen the administrative and conservation effectiveness of their management.
- Nepal declared the 900 km² Banke National Park adjacent to Bardia National Park to create a large protected area complex that is part of the Terai Arc Landscape.
- Nepal is in the final stages of creating a Wildlife Crime Control Bureau.
- Myanmar in August 2010 announced the creation of the world's largest tiger reserve by tripling the size of the Hukaung Valley Tiger Reserve to 22,000 km².
- China has begun to develop a major project to recover Amur tigers in the northeast and has also started planning for recovery of the three other subspecies found in China. China continues its national program for protection of natural forests, recovery of farmland into forests, and development of nature reserves.
- Malaysia passed a comprehensive new Wildlife Conservation Act in 2010 that provides significantly higher penalties and mandatory jail terms for wildlife crime while a hunting moratorium has been imposed on two prey species of tiger: the sambar deer and barking deer.
- Malaysia recently launched the Tenth Malaysia Plan, a national socio-economic development strategy covering 2011–2015, which has integrated the implementation of the National Tiger Conservation Action Plan into development.
- Bangladesh has taken action for early recovery of tigers, prey, and the tiger landscape. The Wildlife (Conservation) Act-2010 was approved by the Bangladesh Ministerial Cabinet in August 2010, providing for greater punishment of tiger poachers.
- To mitigate tiger-human conflict, the "Compensation Policy for Wildlife-Human Conflict-2010" was approved by Government of Bangladesh in September 2010. In this compensation policy, a tiger victim's family

- will get Tk. 100,000/- (US\$1,470) and a permanently disabled tiger victim will get Tk. 50,000/- (US\$735).
- India created the new Sahyadri Tiger Reserve, making it the country's 39th Tiger Reserve.
- India has initiated the use of information technology for surveillance in Tiger Reserves.

The GTRP builds on, but does not supplant or supersede national laws, policies, and programs or international agreements on the conservation

of biological diversity and protection of rare and endangered species, including the tiger, such as the Convention on Biological Diversity (CBD), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and the Convention on the Conservation of Migratory Species of Wild Animals (CMS). Rather, it seeks to support national and international mechanisms for the conservation of biodiversity, especially as they relate to the conservation of wild tigers and foster transboundary and regional cooperation among TRCs.

2

Global Tiger Recovery Program

A. Goal

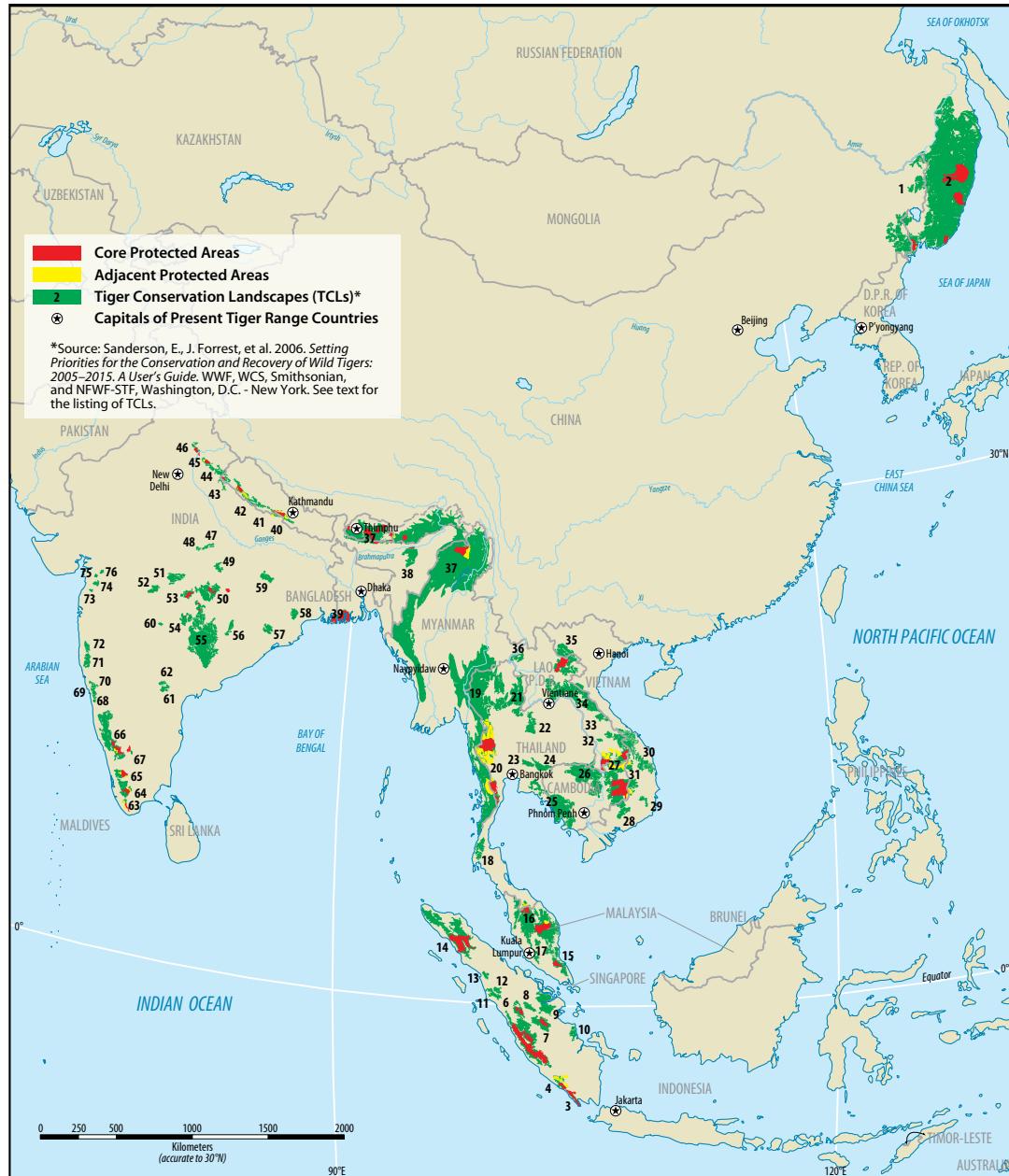
The overarching goal adopted in the Hua Hin Declaration and supported by the GTRP is to reverse the rapid decline of wild tigers and to strive to double the number of wild tigers (Tx2) across their range by 2022. The TRCs as a group are ready to take on this challenge although not all TRCs individually will be able to achieve this goal. However, collectively, based on each TRC's goal, near doubling from the current estimate of about 3,200 tigers across the range to almost 6,000 is possible, contingent on the successful completion of the unique set of national activities and global support activities described in the GTRP, and with the strong

support of the international community and sustained political will (Table 2.1). Despite serious loss, enough habitat remains in a combination of protected areas and larger forested landscapes in Asia that can be maintained or restored and managed in a tiger-friendly fashion to achieve the spatial requirements of Tx2 (Figure 2.1). Thus, the Tx2 goal embodies the larger goal of conserving and managing sustainably 1.2 million km² of forest habitat and 115 inviolate core breeding areas, including 42 source sites, covering about 135,000 km². Experience in the Russian Far East, where conservation efforts succeeded in increasing tiger numbers from a few dozens to 500 in 40 years, indicates that such a large increase is possible.

Table 2.1 Tiger Recovery Goals of TRCs from NTRP Assessments.

TRC	Baseline mean estimated number of tigers, adults (range)	Recovery goal, adults, by 2022	Estimated % increase potential; adults by 2022
Bangladesh	440	Demographically stable at or near carrying capacity	25%; 550
Bhutan	75 (67–81)	Demographically stable population	< 20%; 90
Cambodia	10–30	50; may require translocation program	50
China	45 (40–50)	Significant population growth	100%; 90
India	1,411 (1,165–1,657)	50% increase	50%; 2,100
Indonesia	325 (250–400)	Increase tiger populations at 6 priority landscapes by 100% and occupancy levels by 80%	100%; 650
Lao PDR	17 (9–23)	100% increase	100%; 35
Malaysia	500	100% increase	100%; 1,000
Myanmar	85	50% increase	< 50%; 120
Nepal	155 (124–229)	100% increase, 2010 survey estimated 155	100%; 310
Russia	360 (330–390)	50% increase	50%; 500
Thailand	200	300, 50% increase	50%; 300
Vietnam	Unknown, low numbers, estimated 10s	50 tigers; may require translocation program	50
TOTAL	Mean = 3,643	Overall 60% increase	5,870

Figure 2.1 Protected Areas in Tiger Conservation Landscapes (TCLs).



TCL Legend: 1 = Heilongjiang; 2 = Russian Far East - China; 3 = Bukit Barisan Selatan South; 4 = Bukit Balai Rejang – Selatan; 5 = Kerinci Seblat; Bukit Rimbang Baling; 7 = Bukit Tigapuluh Landscape; 8 = Tesso Nilo Landscape; 9 = Kualar Kampar – Kerumutan; 10 = Berbak; 11 = Bukit Barisan South; 12 = Rimbo Panti – Batang Gadis West; 13 = Sibologa; 14 = Gunung Leuser; 15 = Endau Rompin; 16 = Taman Negara – Belum; 17 = Krau; 18 = Khlong Saeng; 19 = Tenasserim; 20 = Salak – Phra; 21 = Phu Miang – Phu Thong; 22 = Phu Khieo; 23 = Khao Yai; 24 = Thap Lan – Pang Sida; 25 = Cardamoms; 26 = Cambodian Northern Plains; 27 = Southern Annamites; 28 = Cat Tien; 29 = Bi Dup-Nui Ba; 30 = Kon Ka Kinh; 31 = Yokdon; 32 = Xe Bang Nouan; 33 = Hin Nam Ho; 34 = Northern Annamites; 35 = Nam Et Phou Loey; 36 = Nam Ha; 37 = Northern Forest Complex – Namdapha – Royal Manas; 38 = Kaziranga – Garapandi; 39 = Sundarbans; 40 = Royal Chitwan; 41 = Royal Bardia South; 42 = Royal Bardia; 43 = Royal Suklaphanta; 44 = Corbett – Sonanadi; 45 = Rajaji Minor; 46 = Rajaji Major; 47 = Panna East; 48 = Panna West; 49 = Bandhavgarh – Panpatha; 50 = Kanha – Phen; 51 = Pachmarhi – Satpura – Bori; 52 = Melghat; 53 = Pench; 54 = Andhari – Tadoba; 55 = Indravati; 56 = Sunabeda – Udantri; 57 = Satkosia – Gorge; 58 = Simlipal; 59 = Palamau; 60 = Painganga; 61 = Nagarjunasagar South; 62 = Nagarjunasagar North; 63 = Shendurney; 64 = Periyar – Megamala; 65 = Anamalai – Parambikulam; 66 = Western Ghats – Bandipur – Khudrenukh – Bhadra; 67 = Biligiri Range; 68 = Western Ghats – Sharavathi Valley; 69 = Dandeli – Anshi; 70 = Dandeli North; 71 = Radhanagari; 72 = Chandoli; 73 = Mahabaleshwar Landscape – South; 74 = Purna; 75 = Mahabaleshwar Landscape – North; 76 = Shoolpaneswar.

B. Objectives and Portfolio Activities

The priority activities to be implemented include policy and institutional activities to ensure that the proposed incremental expenditures are used effectively. Substantial attention in the NTRPs is devoted to the policy and institutional activities that will make implementation activities more efficient and sustainable (Table 2.2).

The NTRPs incorporate a priority set of concrete project activities to be implemented to achieve national goals. The portfolio of project activities emerged from a collaborative review of the NTRPs with each TRC and consists of 80 concepts that have been grouped into the broad themes of the St. Petersburg Declaration.

They include a blend of investment needs, in some cases incremental operating costs, technical assistance for institutional development, and special studies to keep the program at the cutting edge. These project activities are firmly grounded in best practices that led to the recovery of tigers in some landscapes, although often recovery has not been sustained due to financial or other constraints. Implementation of these project activities and maintaining them over the long-term will allow tigers to recover and other biodiversity under the tiger's umbrella to flourish as well. The portfolio of project activities is summarized under each objective below and presented in greater detail in the Appendix, along with the policy and institutional activities each TRC hopes to undertake.

Table 2.2 Synthesis of Policy and Institutional Activities from NTRPs.

Policy and institutional activities	Bangladesh	Bhutan	Cambodia	China	India	Indonesia	Lao PDR	Malaysia	Myanmar	Nepal	Russia	Thailand	Vietnam
Policy													
Improved legal protection of critical tiger habitats and/or increasing penalties for wildlife crime.	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Stronger legal basis for making critical tiger habitats inviolate.			✓			✓	✓			✓	✓		✓
Improved inter-sectoral coordination, and establishing best management practices for industry and infrastructure development in buffer zones.	✓	✓	✓		✓		✓	✓	✓				✓
Strengthened policies for community participation and sharing of benefits from conservation efforts in buffer zones.	✓	✓		✓						✓		✓	
Develop policies for a captive tiger registration and monitoring system and conservation breeding management plans for the Indochinese tiger													✓
Strengthened policies for transboundary management of shared landscapes and effective transboundary collaboration in law enforcement.	✓	✓	✓	✓	✓	✓				✓	✓		✓
New policies for sustainable finance to ensure adequate transfers for ecosystem services from tiger landscapes.	✓	✓				✓	✓			✓	✓	✓	✓
Institutional													
Create separate and specialized wildlife conservation and enforcement units.	✓		✓		✓	✓		✓	✓	✓	✓	✓	
Support frontline staff with equipment, infrastructure, training, incentives, and insurance.	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓

The objectives of the GTRP are:

- Effectively manage, preserve, protect, and enhance tiger habitats;
- Eradicate poaching, smuggling, and illegal trade of tigers, their parts, and derivatives;
- Cooperate in transboundary landscape management and in combating illegal trade;
- Engage with indigenous and local communities;
- Increase the effectiveness of tiger and habitat management;
- Explore and mobilize domestic and new funding; and
- Bring back tigers to their former range.

TRCs plan to effectively manage, preserve, protect, and enhance tiger habitats by:

- Mainstreaming biodiversity conservation in planning and development processes in tiger habitats;
- Making critical tiger habitats inviolate areas within the larger tiger conservation landscapes where no economic or commercial infrastructure development or other adverse activities are permitted; and maintaining the landscapes and creating corridors around and between them where all permitted development activities are tiger- and biodiversity-compatible;
- Improving protection by using systematic patrolling to safeguard tigers, their prey, and habitats; and

The proposed GSP on Capacity Building, Key Study Assessments of the economic value of TCLs, and Transboundary Coordination and Tiger Translocation workshops support this objective. (See Table 2.3.)

TRCs plan to eradicate poaching, smuggling, and illegal trade of tigers, their body parts, and derivatives through:

- Strengthened national legislation, institutions, and law enforcement to combat crime directed against tigers;
- Strengthened regional law enforcement activities through bilateral and multilateral ar-

rangements such as ASEAN-WEN, SAWEN, the Protocol between the Government of the People's Republic of China and the Government of the Russian Federation on Tiger Protection, and the Protocol between the Government of the People's Republic of China and the Government of Republic of India;

- Strengthened international collaboration, coordination, and communication;
- Calling upon specialized expertise, where relevant, from international organizations including the CITES Secretariat, INTERPOL, the UN Office on Drugs and Crime, the World Bank, and the World Customs Organization (recognizing that some of these agencies may, themselves, require additional resources); and
- Long-term national programs and, with support from the international community, global programs, to create awareness of the value of wild tigers and their ecosystems and thus eliminate the illicit demand for tigers and their parts.

The proposed GSP on Combating Wildlife Crime and the Key Study on Demand Elimination support this objective. (See Table 2.4.)

TRCs plan to enhance habitat management and combat illegal wildlife trade by:

- Working collaboratively on transboundary issues, such as the uninhibited movement of tigers and the management of tiger conservation landscapes; and
- Strengthening regional law enforcement activities through bilateral and multilateral arrangements and strengthened international collaboration, coordination, and communication.

The proposed Key Study on Transboundary Collaboration and the GSP on Combating Wildlife Crime support this objective. (See Table 2.5.)

TRCs plan to gain the participation of indigenous and local communities in biodiversity conservation, minimize negative impacts on tigers, their prey, and habitats, and reduce the incidence of human-tiger conflict, by providing sustainable

Table 2.3 Portfolio in Habitat Management.

TRC	Activity title	Activity description
Bangladesh	Habitat management	Habitat restoration through afforestation and grassland development.
Bhutan	Habitat and species conservation	Classify and define tiger habitat at a landscape scale.
Cambodia	Designation of an inviolate source site	Secure at least one inviolate potential source site, free from habitat conversion and human interference; integrate habitat management into landscape plans.
China	Conservation, extension, and amelioration of wild tiger habitat, and trial reintroduction	Identify priority habitat areas; conserve, extend, and ameliorate the habitats through recovery of farmland to forests and change of unsuitable forests and vegetation; and explore trial reintroduction of captive-bred tigers into their original range area.
India	Securing habitats and improving management	Create inviolate critical tiger habitats, reduce tiger-human conflict, improve habitat management, research and monitoring activities, support patrolling staff.
Indonesia	Creating legal basis of tiger protection	Secure the source sites as the last stronghold for Sumatran tiger population, maintain the integrity of those landscapes, reduce international demand on tiger, its parts and derivatives.
Lao PDR	Establishing inviolate core zone at Nam Et Phou Louey NPA	Establish inviolate core zone to secure source tiger population and connectivity between TCLs.
Malaysia	Enhancing the linkages between the priority habitat areas	Secure the critical tiger habitats in the Central Forest Spine and ensure connectivity through functional corridors.
Myanmar	Enacting legal protection of tiger landscapes	Identify remaining important areas for tigers in and around both TCLs.
Nepal	Managing tiger and habitats	Manage the Terai Arc Landscape as a priority conservation landscape with core areas, buffer zones, corridors to conserve tigers as a metapopulation with trans-boundary ecological linkages.
Russia	Strengthening protected area network	Revise, strengthen, and increase the network of PAs.
Thailand	Habitat management	Provide long-term support for tiger habitat restoration activities.
Vietnam	Strengthening the status and management of protected areas	Recognize and strengthen management of 1 tiger protected area, and make this PA inviolate to development.
Key Study	Translocation of Tigers	Workshop to develop a coordinated, science-based plan for translocation, reintroduction, and rehabilitation of tigers to habitats from which they have been extirpated, or nearly so, and of "problem tigers" that have been involved in conflict situations.

and alternative livelihood options through financial support, technical guidance, and other measures, including mechanisms to reduce and mitigate human losses resulting from human-tiger conflict. (See Table 2.6.)

TRCs plan to increase the effectiveness of tiger and habitat management, basing it on:

- The application of modern and innovative science, standards, and technologies;
- Regular monitoring of tigers, their prey, and habitat;

- Adaptive management practices; and
- Building capacity of institutions involved in science and training and creating a platform for interactive knowledge exchange at all levels.

The proposed Capacity Building and Knowledge Sharing GSP and Scientific Monitoring GSP support this objective. (See Table 2.7.)

To bring back tigers, TRCs welcome efforts to explore opportunities to reintroduce Caspian tigers into the historical ranges from which they have been extirpated.

Table 2.4 Portfolio for Combating Poaching and Illegal Trade.

TRC	Activity title	Activity description
Bangladesh	Habitat protection	Deploy an effective and efficient cadre of wildlife conservation field staff to conserve tigers and tiger habitat.
	Controlling illegal trade and reducing demand	Strengthening wildlife circle and enhancing wildlife crime control activities throughout the country; introduction of smart patrolling in the Sunderbans.
Bhutan	Habitat and species conservation	Strengthen anti-poaching and wildlife law enforcement.
Cambodia	Law enforcement and habitat management	Increase capacity and effectiveness of law enforcement agencies in wildlife and habitat conservation.
China	Strengthening law enforcement	Add protection and monitoring agencies in tiger range areas to form more complete network and strengthen its capacity building for stricter habitat patrolling against poaching and other human disturbance, promote capacity building among wildlife law enforcement agencies to fight against smuggling and illegal trade of tiger products, undertake public awareness campaigns on tiger conservation.
India	Controlling prey and tiger poaching	Establish dedicated Tiger Protection Force for anti-poaching operations in tiger reserves.
Indonesia	Scaling up specialized law enforcement and conflict mitigation	Implement a strengthened patrolling and law enforcement system supported by skilled people, adequate finance and infrastructure, robust management system, and linked to a strong domestic and international network.
Lao PDR	Adopting enforcement and monitoring standards	Implement standard monitoring methods in protected areas across TCLs to monitor tigers and prey (e.g. camera trapping, occupancy survey) and law enforcement (e.g. MIST).
	Controlling illegal trade and reducing demand	Strengthen law enforcement to reduce wildlife crime.
Malaysia	Strengthening law enforcement	Provide effective and long-term protection for tigers and their prey.
Myanmar	Controlling prey and tiger poaching	Strengthen law enforcement to reduce wildlife crime, development of participation and awareness program in local communities.
	Controlling illegal trade and reducing demand	Increase law enforcement units and wildlife police forces, fulfill actions.
Nepal	Adopting enforcement and monitoring system	Institutionalize and implement effective tiger protection and monitoring systems.
Russia	Preventing human-tiger conflict	Prevent human-tiger conflicts and settle conflicts in a timely fashion.
Thailand	Strengthening direct conservation action and enforcement	Promote conservation efforts at the scale of entire populations (e.g., forest complex and associated corridors).
	Facilitating international cooperation	Facilitate international cooperation in tiger conservation efforts, support national and international efforts to manage captive tigers responsibly, convey tiger conservation-related messages to a diverse Thai public and to policy-makers and politicians.
Vietnam	Adopting enforcement and monitoring system	Activate a national monitoring system for law enforcement effectiveness for entire protected area system.
	Combating wildlife crime and regulating captive tiger facilities	Establish national individual captive tiger registration system and professional monitoring program. Develop national conservation breeding plan for Indochinese tiger. Prosecute criminals organizing the illegal trade in tigers and tiger prey. Reduce retail of tiger and prey products. Strengthen information sharing and intelligence analysis. Launch communications campaigns. Delist instructions on use of endangered species.

(Continued on next page)

Table 2.4 Portfolio for Combating Poaching and Illegal Trade. (*Continued*)

TRC	Activity title	Activity description
Global Support Program	Combating Wildlife Crime	Combating Wildlife Crime against tigers, in particular transnational illegal trade and trafficking, requires a global response. A consortium of CITES Secretariat, INTERPOL, UNODC, WCO, and the World Bank, in association with ASEAN-WEN and other WENs, will offer the following on the request of a TRC: (i) Law Enforcement Assessment Workshops; (ii) Transboundary Interdiction Support to sovereign empowered national agencies to conduct interdiction operations at hotspots for trade and trafficking; (iii) Legislative Assessments to identify ways to make wildlife crime a priority throughout criminal justice systems; and (iv) Capacity Building support to implement the findings of assessments.
Key Study	Illicit Demand Elimination	An expert workshop will be held to gather currently available knowledge about consumers' attitudes and motivations, and plan a large-scale, coordinated, and targeted global campaign to change the illicit behavior of current consumers of tiger and its derivatives, to be approved by TRCs.

Table 2.5 Portfolio in Transboundary Collaboration.

TRC	Activity title	Activity description
Bangladesh	Transboundary management	To ensure uninterrupted migration of wildlife in the transboundary landscape and to share better conservation knowledge and techniques with India.
Bhutan	Habitat and species conservation	Strengthen transboundary collaboration with neighboring countries to maintain ecological linkages of tiger landscapes and to curb the illegal trade in tiger parts and derivatives.
Cambodia	Transboundary collaboration	Strengthen transboundary collaboration with neighboring countries to reduce wildlife poaching and cross-border illegal activities.
China	Transboundary collaboration	Improve communication and information exchange with other TRCs at different levels, especially for local law-enforcement agencies in borders and ports. Develop international workshops and/or seminars to share technology and experiences, and to discuss key issues. Coordinate joint law-enforcement actions with other TRCs and organizations.
Malaysia	Transboundary cooperation	Malaysia has designated Belum (117,500 hectares), a critical tiger habitat at the Malaysia-Thailand border, as a protected area. Transboundary cooperation needs strengthening.
Lao PDR	Transboundary collaboration	Strengthening international cooperation to reduce cross-border illegal wildlife trade.
Myanmar	Improving transboundary cooperation	Strengthen transboundary collaboration with the Governments of India, China, and Thailand.
Nepal	Transboundary collaboration	Nepal is working closely with neighboring countries India and China. It plans to enhance the collaboration efforts in the future in order to reduce the illegal wildlife trade and trafficking.
Russia	International cooperation	Strengthen interdepartmental international cooperation, first of all with the Government of China. Develop cooperation with international conservation organizations, charity foundations, and other non-governmental organizations.
Thailand	Transboundary cooperation and management	Strengthen bilateral cooperation with Cambodia, Lao PDR, Malaysia, and Myanmar for transboundary management, enforcement, monitoring, and research.
Vietnam	Transboundary cooperation and management	Strengthen transboundary collaboration with neighboring countries to establish transboundary tiger protected areas and combat wildlife poaching and smuggling.

(Continued on next page)

Table 2.5 Portfolio in Transboundary Collaboration. (*Continues*)

TRC	Activity title	Activity description
Key Study	Transboundary collaborations	Workshops will develop active dialogues to lead to joint planning and management among TRCs that share the high-priority transboundary TCLs of Northern Forest Complex-Nandapha-Manas (Myanmar, India, Bhutan), Russian Far East-Northeast China (Russia, China), Tenasserim (Thailand, Myanmar), Terai Arc (Nepal, India), Belum Taman Negara-Halababa (Malaysia, Thailand), Sundarbans (India, Bangladesh), Southern-Central Annamites and Eastern Plains (Cambodia, Lao PDR, Vietnam), and Nam Et Phou Loey (Lao PDR, Vietnam).

Table 2.6 Portfolio in Community Engagement.

TRC	Activity title	Activity description
Bangladesh	Engaging local communities	Reduce community dependency on forest resources, tiger and prey poaching, tiger-human conflict, and involve local communities in forest management.
Bhutan	Integrating tiger conservation and rural livelihoods	Provide alternative forest resource-use practices to reduce anthropogenic pressure on tigers and tiger habitat.
Cambodia	Law enforcement and habitat management	Integrate habitat management into landscape plans.
China	Coordination of wild tiger conservation with local society and economic development	Compensate injury to humans and property losses from tigers and their prey, adopt proactive measures to prevent injury and losses, and explore and demonstrate tiger-friendly economic development models for better local livelihoods.
India	Community engagement and development	Address human-wildlife conflict, test new landscape-based approaches for conservation and sectoral integration to benefit communities, sustainable livelihoods in buffer, fringe, rural areas, and implement provisions for rehabilitation and resettlement of denotified tribes.
Nepal	Building local community stewardship for conservation	Develop local stewardship and support for tiger conservation.
Russia	Building public awareness and education	Raise public awareness of the Amur tiger as a species of unique national and global value.
Thailand	Empowering local communities	Support local communities in developing sustainable economies that reduce dependence on forest resources; provide protected area committees and community committees with quality information (e.g., data from smart patrol system) on which to base threat reduction decisions and activities.
Vietnam	Building awareness and sustainable economies	Community development program to improve local awareness and reduce reliance on nature resources for livelihoods.

Table 2.7 Portfolio to Increase the Effectiveness of Tiger and Habitat Management.

TRC	Activity title	Activity description
Bangladesh	Building institutional capacity	Develop capacity in the Forest Department for effective wildlife and habitat conservation in the Sundarbans.
	Scientific monitoring, surveys, research	Regular biodiversity status survey, population census, behavioral and ecological study based on the latest scientific methodology.
Bhutan	Habitat and species conservation	Establish a nationwide monitoring program for tigers and prey.
Cambodia	Monitoring of tigers and prey	Implement consistent tiger and prey monitoring protocols in potential source sites.
China	Strengthening institutional capacity	Improve monitoring system and capacity for managing wild tiger populations and their habitats; undertake regular and continuous habitat patrolling and monitoring of wild tiger populations and their habitats according to the scientifically developed guidelines and manual; improve international cooperation mechanism for wild tiger conservation.
India	Institutional strengthening and capacity building	Improve infrastructure and provisions for regular tiger census and monitoring, improve knowledge agenda. Undertake analytical research, special studies, develop knowledge base for policy development, and strengthen the National Tiger Conservation Authority. Ensure provisions for exchange of good practices and strengthening knowledge institutions.
Indonesia	Creating robust monitoring system	Provide long-term biological monitoring data on tigers and their prey as a scientific-based evaluation tool for overall conservation interventions.
Lao PDR	Strengthening institutions and cooperation	Strengthen institutions and cooperation to protect tigers, tiger prey, and habitat.
	Confirming tiger presence	Conduct scientific surveys in all TCLs by 2020. If tigers are confirmed present, then create inviolate core areas to stabilize both tigers and prey.
Malaysia	Adopting monitoring system	Establish a monitoring system for tiger and prey in critical tiger habitats.
Myanmar	Improving management capacity	Improve capacity of management and law enforcement agencies to achieve conservation, strengthen support for tiger conservation across all Myanmar line agencies.
	Adopting monitoring system	Implement standardized monitoring protocols in source landscapes.
Nepal		Implement MIIST.
Russia	Amur tiger monitoring and research	Improve methodological frameworks for Amur tiger monitoring.
Thailand	Building capacity based on successful models	Establish a Regional Tiger Conservation and Research Center at Huai Kha Khaeng Wildlife Sanctuary.
	Monitoring, research, and information management	Monitor tiger and prey populations in priority landscapes.
Vietnam	Scientific monitoring, surveys, research	Implement consistent tiger and prey monitoring systems, comprehensive scientific surveys nationwide on wild tiger population, and attitude surveys on consumption of tigers and prey.
	Enhancing policies and strengthening institutional capacity	Promulgate a new decree on endangered species management. Develop a policy framework for implementing sustainable financing mechanisms for wildlife conservation. Build strong partnerships among government and other stakeholders, including civil society and the private sector. Establish mechanisms for effective information sharing and cooperation among relevant government and international agencies.

(Continued on next page)

Table 2.7 Portfolio to Increase the Effectiveness of Tiger and Habitat Management. (*Continued*)

TRC	Activity title	Activity description
Global Support Program	Capacity Building and Knowledge Sharing	To complement national capacity building efforts, this GSP will support Centers of Excellence, provide Training of Trainers Programs, formalize an Executive Leadership Forum, offer Leadership Training for Wildlife and Protected Area/Tiger Conservation Area Managers and Institutional Capacity Assessments, and support a Community of Practice. In addition, WCS, WWF, Save the Tiger Fund, and the Smithsonian are forming a consortium, open to others, to offer coordinated support to TRCs for capacity building for frontline protected area staff.
	Scientific Monitoring	This program, to be offered by a partnership of the Smithsonian Institution, WWF, and WCS, will conduct workshops, as requested by TRCs, to develop the appropriate monitoring frameworks for particular TCLs; determine baselines on which to measure progress; assess what further capacity building and technology will be required; and, subsequently, assist in meeting those needs.

3

Financial Needs and Mechanisms

Domestic contribution. Some TRCs are spending significant sums and others are willing to contribute more of their own resources to accelerate their national programs. For example, Thailand plans to cover 54 percent of its total program costs with domestic resources, contributing US\$53.5 million to fund the bulk of a habitat patrolling and monitoring system. External support is sought to complete the system and for habitat management and demand-reduction campaigns. Vietnam is financing 59 percent of its program costs with domestic resources focusing on prevention, detection, and suppression of organized tiger and wildlife crime. External resources are needed for demand-reduction campaigns and to strengthen the management of protected areas. Malaysia has committed to double its tiger population by earmarking more than a third of Peninsular Malaysia as the Central Forest Spine which also incorporates the tiger landscape.

TRCs plan to explore and mobilize new and domestic funding, including from such sources as new financing based on forest carbon financing including REDD+, payment for ecosystem services schemes, promotion of ecotourism, and private sector, donor, and NGO partnerships.

Two proposed Key Studies, Valuation of TCL Ecosystems and Sustainable Finance workouts, support this objective. (See Table 3.1.)

TRCs need international support. The process of sustaining political will generated by the Forum will be strengthened through a better analysis and understanding of the true value of tiger landscapes. This will help to spur TRCs to devote policy attention and increased resources to achieve the ambitious goals embodied in the Tx2 framework. But attaining this goal will

Table 3.1 Portfolio to Explore and Mobilize New and Domestic Funding.

TRC	Activity title	Activity description
Bhutan	Building institutional capacity	Enhance institutional capacity of the Department of Forest and Park Services to deal with national park and wildlife protection issues. Develop an integrated financing plan/strategy by the end of 2011.
Indonesia	Mobilizing conservation funds	Establish secured funds to support the long-term protection of tiger populations in priority TCLs.
Nepal	Enhancing management and conservation policies	Create an enabling policy environment for landscape-scale conservation; strengthen national capacity for tiger conservation; develop a sustainable financing mechanism.
Key study	Valuation of TCL Ecosystems	Quantify the economic value of multiple ecosystem services of TCLs to facilitate willingness of governments and communities to invest in protecting valuable ecosystems from further degradation.
Key study	Sustainable Finance Workouts	Workouts will develop national-level strategies for sustainable financing of tiger conservation, propose an action plan, and, working through a multi-stakeholder group, lead to a sustainable financing and mobilization strategy. Potential mechanisms to be tested are REDD/REDD+ financing; policy work, legal reform, and market development to generate new financing through payments for ecosystem services; biodiversity offsets from infrastructure development; and a Wildlife Premium Market (REDD++).

stretch the financial capacity of many TRCs. Global attention and tailored support for national priorities will help further cement these political commitments. Support is also needed for undertaking important regional and global actions beyond the scope of individual TRCs. Projected external financing needed to implement the NTRPs in the first five years of the 12-year program is about US\$330 million (Table 3.2). This is an order of magnitude estimate based on TRC-wide experience and represents the foreseeable costs during the first and critical phase of the global effort to recover tiger populations and habitats. The total and individual TRC estimates will be updated as priorities are realigned and further experience is gained in implementing the priorities to achieve the 12-year goal. Total external financing, including for the NTRP portfolio, the Global Support Programs, Key Studies, and Program Management, is about US\$350 million. (Table 3.3 and Figure 3.1). GTRP financing needs include:

- Urgent investment to make core breeding areas and source sites inviolate;
- Urgent expenditure to better protect core breeding areas/source sites in order to restore habitat and prey and tiger populations;
- Technical assistance to strengthen institutional architecture and systems for wildlife management, including strengthening national systems for law enforcement;
- Investment to better link core habitats through green corridors;
- Community development programs to reduce the dependence of local communities on the natural resources of tiger reserves, to reduce human-tiger conflict, and to make protectors out of potential poachers;
- Global support for collaborative work on transboundary landscapes, capacity building/knowledge sharing, combating illegal trade, and eliminating illicit demand.

International support. Many donors have contributed or are contributing to tiger conservation, but additional external financing is needed for the GTRP. In the past, many bilateral donors, including Australia, Canada, Denmark, Finland, France, Germany, Japan, the Netherlands, Nor-

Table 3.2. Projected Estimated External Financing Needs over 5 Years, by TRC and Objective, US\$ million (NTRPs).

TRC	Habitat management	Controlling prey & tiger poaching	Institutional strengthening & capacity building	Tiger human conflict & community engagement	Controlling illegal trade & reducing demand	Scientific monitoring, surveys, research	Trans-boundary management	Total
Bangladesh	1.5	8.8	8.0	12.8	1.4	2.0	1.0	35.5
Bhutan	2.5	2.5	0.8	0.9		0.6	0.5	7.8
Cambodia	3.5	4.5		4.5		2.5	1.0	16.0
China*	1.0		0.7		0.5		1.0	3.2
India		33.9	31.8					65.7
Indonesia	0.5	5.4	0.4	2.2	0.5	1.8		10.8
Lao PDR	9.0	1.0	0.5		1.2	1.2	1.0	13.9
Malaysia	16.0	6.0	4.0			2.0		28.0
Myanmar	2.5	2.5	3.2		1.0	2.3	0.5	12.0
Nepal	5.0	0.4	5.6	2.9	1.7	1.7	0.5	17.8
Russia	19.0	16.0		2.0		6.0	1.0	44.0
Thailand	1.2	29.3	1.5	2.3	4.8	5.0	1.0	45.1
Vietnam	6.3	3.5	5.3		10.9	3.5	1.5	31.0
Total	68.0	113.8	61.8	27.6	22.0	28.6	9.0	330.8

* China's financing needs will be re-evaluated.

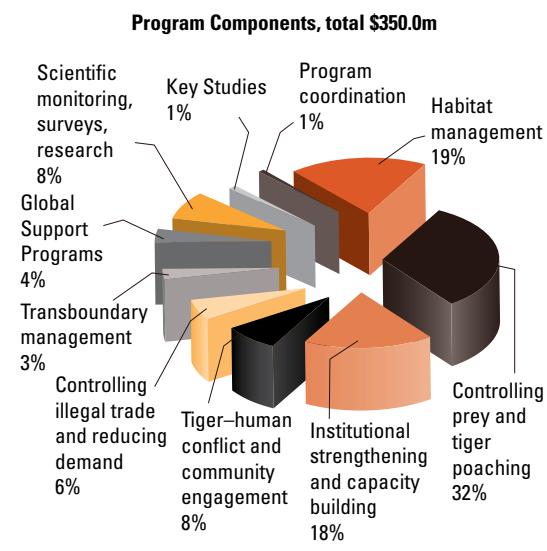
Table 3.3 Projected Estimated External Financing Needed by Program Component, US\$ million.

Component	Estimated cost	Period
I. National Tiger Recovery Priorities (NTRPs) total	330.8	5 years
Habitat management	68.0	
Controlling prey and tiger poaching	113.8	
Institutional strengthening and capacity building	61.8	
Tiger-human conflict and community engagement	27.6	
Controlling illegal trade and reducing illicit demand	22.0	
Scientific monitoring, surveys, research	28.6	
Transboundary management	9.0	
II. Global Support Programs total*	12.5	5 years
Combating wildlife crime	4.0	
Capacity building and knowledge sharing	7.5	
Scientific monitoring	1.0	
III. Key Studies total	2.4	2 years
Valuation of TCL ecosystems studies	0.6	
Sustainable finance workouts	1.0	
Transboundary collaboration workshops	0.2	
Demand elimination study	0.5	
Translocation of tigers workshop	0.1	
IV. Program coordination total	4.3	2 years
Secretariat (to be funded by the World Bank for two years)	4.0	
Technical assistance to the Global Tiger Forum (GTF)	0.3	
TOTAL	350.0	

*All three GSPs will be subject to evaluation after two years and will be renewed as needed.

way, Sweden, Switzerland, the United Kingdom, and the United States, have contributed to protecting tiger landscapes and forests, enhancing law enforcement and combating illegal trade, and engaging communities living next to wild tigers. In the context of REDD+, bilateral donors, notably Norway, have committed major funds to protect forests that are likely to benefit the wild tigers as well. Among the private donors, Save the Tiger Fund provided more than US\$15 million between 1995 and 2007. NGOs such as WWF and WCS as well as foundations including the MacArthur Foundation are major private contributors to tiger conservation. Among the multilateral institutions, the GEF is a major actor with contributions of more than US\$100 million over the last five years in 19 projects implemented through the World Bank and the United Nations Development Program

Figure 3.1 Distribution of program costs.



in all TRCs. The United States Rhinoceros and Tiger Conservation Fund provided more than US\$11 million in grants between 1996 and 2010. The Critical Ecosystem Partnership Fund, a partnership of GEF, World Bank, Government of Japan, Conservation International, and others, also provided several grants for the tiger agenda. Most solutions to the tiger crisis are therefore well known and have proved effective at local scales. However, tiger populations have continued to decline in the last decade despite these efforts. This is a clear indication of the challenge of generating the political will to scale up and sustain these innovative activities. TRCs and funders are working together and creating synergies to help ensure that all resources are maximally effective in protecting tigers and the biodiversity under their umbrella.

In the near term, until sustainable financing mechanisms to pay for the ecosystem services of tiger landscapes are in place, GTRP will require largely grant-based support from multiple sources through a flexible financing framework:

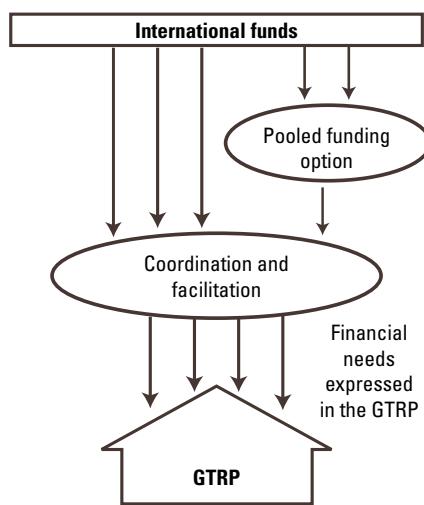
- Assistance from multilateral institutions, in particular the GEF, Asian Development Bank, and the World Bank;
- Assistance from bilateral donors; and
- Support from private sources including NGOs, foundations, corporations, and philanthropists.

Potential funders of all types have multiple options for supporting the GTRP portfolio. Depending upon their comparative advantage, they can support a national program or get engaged in a particular theme across the entire tiger range. The option also exists for smaller funders to support a specific project activity from the portfolio with the confidence that these form a part of a comprehensive, coordinated, and well-monitored global program.

The flexible funding mechanism (Figure 3.2) for the GTRP will:

- Establish and keep current a robust portfolio of project ideas based on good practices as applied in the context of each country;

Figure 3.2 Flexible financing arrangements.



- Help channel multiple parallel funding sources to the portfolio;
- Leverage donor funds to help promote project concepts into full-scale projects that could be co-financed by GEF, IDA, the World Bank, and the Asian Development Bank;
- Leverage funds from related sectors such as forests, climate change and carbon, water, communities, and infrastructure, and create co-benefits for tigers and their landscapes; and
- Develop common monitoring and reporting in collaboration with TRCs to help track implementation and enhance mutual accountability.

Some parts of the GTRP that address global and regional issues would benefit from pooled funding, although much of the GTRP portfolio can be funded through parallel financing from multiple donors. These include undertaking policy analyses, combating the illegal wildlife trade, implementing robust TRC-wide monitoring systems, knowledge sharing, and eliminating global illicit demand for tiger parts and derivatives. Therefore, the GTRP envisages that private, corporate, and public donors will have the option to participate in pooled funding through the creation of one or more trust funds, accommodating both with official and private donors. Options include

a Multi-Donor Trust Fund managed by an multilateral development bank and/or a joint trust fund managed by international NGOs, or other suitable mechanisms. Management arrangements will meet the best fiduciary and governance requirements for pooled funds, including a system agreed in consultation with TRCs for prioritizing the allocation of these resources.

TRCs will employ acceptable monitoring systems and common performance indicators that will enable donors to track the impacts of their contributions on performance and results. A three-part monitoring system will be established. Part 1 will be monitoring tigers, prey, and habitat; part 2 will report on the progress of program implementation based on performance indicators; and part 3 will deal with

resource mobilization and utilization. Such reports will be done working closely with national authorities and then consolidated into an Annual Report.

Over the medium term, a shift from donor grant support to more sustainable forms of financing is envisaged. The goal of all TRCs is to rely eventually on a system of sustainable funding. As a first step, there are plans to develop national strategies for sustainable finance, hoping to put in place financing mechanisms such as revenues from nature-based tourism, international or domestic payment for ecosystem services schemes, offsets from infrastructure and resource extraction, possibly a premium market linked to REDD for wildlife conservation, and other mechanisms.

4

Program Management

Management arrangements aim to maintain the momentum generated by the Global Tiger Initiative since 2008 in order to avert the impending crisis of extinction. To ensure achievement of the GTRP's goals, its implementation will need to be coordinated and managed at three levels: (i) program level; (ii) national level, and (iii) activity/project level. National- and project-level arrangements will vary depending on specific TRC government decisions and individual project requirements as agreed with donors. In all cases, implementation will be by national institutions, in conjunction with any NGOs they select. There will be systematic national tracking of program implementation and systematic reporting to national authorities. TRCs are committed to put in place or strengthen as needed their national systems of project and policy implementation.

At a program-wide level, the successful implementation of the GTRP will require program management arrangements that are goal- and action-oriented with built-in mechanisms of accountability and transparency. These arrangements will need to be flexible to accommodate a large variety of potential funders and be fully open to include all stakeholders (TRCs, development partners, etc.), and robust to ensure accountability and transparency. To avoid waste and duplication, the TRCs have expressed a desire to rely as much as possible on existing organizations and structures. A strong and customized financial, institutional, and governance arrangement is needed to channel resources to fill critical gaps, ensure the necessary coordination, and minimize reporting demands on TRCs. It is imperative that these arrangements be agreed upon and established urgently to give confidence to the potential donor community.

The key program management functions are to:

- Help as needed further develop national strategies and portfolios, taking into account a country-driven approach;
- Help ensure and sustain ongoing political support through studies, workshops, and policy dialogues;
- Promote resource mobilization and effective matching of available funding with TRCs' prioritized funding needs;
- Coordinate funding partners;
- Systematically report on program implementation, funding, and results; and
- In case of pooled funds, help develop and apply agreed upon criteria for access to such funds including appropriate independent evaluation of performance.

To ensure a quick launch of the implementation of the GTRP, the TRCs gave the GTI Secretariat the interim mandate to fulfill these functions and asked the World Bank to shoulder the costs of the GTI Secretariat. The management tasks involve:

- **An Annual Program Consultation** with all TRCs and funding and implementation partners to review progress achieved, consider the findings of monitoring and evaluation reports, and establish future directions of the program;
- **Periodic systematic consultations** with the funding community to review the funding situation, direct energies at filling key gaps, and coordinate the flow of external resources based on need and performance. A special sub-committee of funders providing pooled funds would guide the allocation and use of such pooled funds; and

- **Thematic consultations** on specific program elements, especially to review the recommendations of Key Studies and program evaluation.

The national programs that form the foundation of the GTRP will be implemented by TRC national authorities with the support of a multitude of national and international partner organizations. National authorities will be assisted by partner organizations at the request of TRCs. Partner organizations will include intergovernmental organizations, convention secretariats, multilateral and bilateral funding agencies, international and national NGOs, foundations and private companies, and research, education, and media organizations. All organizations that share the strategic goals of the GTRP will be invited to be Implementation Partners and/or Funding Partners, and to participate in program management fora, such as the Annual Program Consultations, financing partner consultations, and thematic consultations. GSPs and Key Studies will be implemented through lead agencies designated for this purpose and as agreed with TRCs, using prioritization criteria as agreed for pooled funds.

TRCs acknowledged the Global Tiger Forum (GTF) as the only existing intergovernmental / international body dedicated to the conservation of wild tigers and encouraged a more active role for GTF. GTF has undertaken an internal review of its own experience and effectiveness and is expected to strengthen its functioning by, among other things, ensuring that all TRCs are motivated to become members and by adding skilled staff. The GTRP includes provision of technical assistance to the GTF (US\$300,000 over two years) to progressively strengthen its capacity to take on key functions as agreed with TRCs.

International partners are coming together to establish operational partnerships, each to be guided by its own operational modalities, for helping TRCs implement specific tasks. The key ones in development are:

- **Combating Wildlife Crime,** in which CITES, INTERPOL, UNODC, WCO, and World Bank

are developing a partnership that has been formalized through the signature of an MoU. The aim of this partnership will be to provide coordinated services to TRCs to help implement the GSP on combating wildlife crime, with INTERPOL and WCO supporting operational interdiction efforts and UNODC and CITES supporting assessments and capacity building, based on TRC demand. WENs in the region will also be associated. The World Bank will provide fiduciary services to this partnership.

- **Building Capacity and Knowledge Sharing,** in which the Smithsonian Institution, Save the Tiger Fund, Wildlife Conservation Society, WWF, IFAW, Wildlife Institute of India, and the World Bank Institute are forging a partnership. It will aim to provide the best available advice to TRCs at their request to build the professional capacity of field personnel in scientific reserve management supported by a sound policy and institutional environment and resources for application of skills learnt. Resources to implement this capacity building are programmed in the national portfolios of TRCs as well as in the GSPs. The TRCs welcome other partners to join this consortium.
- **Streamlining External Funding Support:** All Funding Partners supporting TRCs in the implementation of the GTRP through the flexible funding mechanism will be invited to constitute a funders' partnership to systematically track progress in mobilizing resources, channel resources to fill key gaps, and ensure effective program coordination.

International and national NGOs will continue to play a prominent role in helping TRCs implement the GTRP, if TRCs request this help. Their roles fall into three broad categories:

- Developing and sharing knowledge, continuing the role they have played in developing with TRCs many of the best practices that form the foundation of the NTRPs and thus the GTRP;
- Supporting field implementation, extending the outreach of TRCs governments to support communities, and tracking the illegal wildlife trade; and

- Channeling resources raised internationally and domestically to high-priority needs, either in parallel or through pooled funds.

Program implementation will span 12 years, up to 2022, the next Year of the Tiger. While the priority activities taken to avert the crisis will be customized to national needs and many of these activities will happen in parallel, across the tiger's range a pattern will be discernible.

- The top priority of program implementation will be to make source sites and critical tiger habitats inviolate and to offer strict protection to stop tiger and prey poaching in such areas;
- Immediate work is needed to begin to address some of the longer-term issues of creating a legal environment and institutional architecture favorable to wildlife and tiger conservation. This will involve the kind of policy and institutional activities listed in the Appendix;
- Simultaneously, the emphasis should be on implementing landscape-wide policies and management systems that are friendly to wildlife and biodiversity conservation, engage local communities, and integrate key sectors (such as roads, mining, hydro power, and plantations); and
- TRCs will strive to create sustainable financing mechanisms that may include payment for ecosystem services schemes.

The activities of the first five years of the program are currently described here to ensure a prompt launch of the program, with a program revalidation after a mid-term review in 2013–14. The first two-year period will emphasize:

- Strengthening or creating as needed program implementation mechanisms in all TRCs;
- Development of effective international support and partnership mechanisms;

- Acquiring full funding for the expenditure portfolio (Appendix);
- Completing the planned policy and institutional development activities; and
- Undertaking regional transboundary tiger conservation projects.

As a follow-up to the high-level commitments endorsed at the Tiger Forum, a series of events that address implementation of the GTRP and the NTRPs, including fund-raising, are to be organized in the first half of 2011.

Early implementation results will be reviewed against the overall program targets and disseminated in the subsequent phases. It is expected that most of the GTRP project portfolio will have been substantially implemented during the first five years. A major evaluation of the entire program will be conducted by the TRCs and partners in 2014, to review the program targets and strategic directions and develop a new portfolio of activities and their coordinated implementation and resourcing mechanisms.

Reporting will be carried out at program-wide, national, and project/activity levels. The main program-level reporting effort in the medium and long term will be linked to a TRC-wide science-based monitoring system—the ‘Tiger Progress Report’—that should consistently record range-wide indicators and trends of wild tiger populations and habitats across all TRCs. Based on strengthened national reporting systems in TRCs, an Annual Progress Report will be prepared. The Progress Report will also integrate reports by inputs from partners, linked to specific projects and activities. An Annual Financial Report will recognize all financial contributions to tiger conservation including funds from related sectors that create tiger co-benefits. The Annual Progress Reports will be public documents.

5

Expected Results, Success Factors, and Likely Risks

A. Expected Results

The first five years of GTRP implementation are critical for averting the tiger's plunge toward extinction and laying the foundation for the ultimate goal of doubling wild tiger populations by 2022 and conserving 1.2 million km² of tiger habitat. By 2015, the following results can be anticipated as signposts of effective progress toward Tx2:

- **Tiger population recovery:** The baseline in 2010 is estimated to be 2,200 tigers in viable, protected breeding populations and 3,200 to 3,500 tigers overall in 13 TRCs. The expected result in 2015 is that tiger populations in most critical tiger habitats have been stabilized and at least some are showing signs of increase. Doubling the number of tigers will require expanding effective protection to entire landscapes, which will require sustained investment and effort beyond 2015, but by the end of the first phase of the GTRP there should be some evidence of tiger recovery. Priority support would be given to TRCs that have made high-level commitment to Tx2.
- **Protection and enhancement of TCLs:** By 2015, most critical tiger habitats should be declared inviolate and be professionally managed, well patrolled, and have adequately trained and equipped staff. Key transboundary landscapes will be cooperatively managed. Looking ahead to 2022, professional management should be in place in most of the TCLs.
- **Combating wildlife crime:** The baseline in 2010 is that seizures of illegally traded tiger parts and products in the TRCs are equivalent to approximately 200 dead tigers per year, a figure that is probably far fewer than

the true level. Looking ahead to 2022, the goal is to effectively eliminate tiger poaching and trade. The expected result by 2015 is that seizure levels may increase initially as law enforcement effort is improved and scaled up but should then start to decline, and tigers and their derivatives are no longer evident in illegal trade, as shown by surveys and monitoring.

■ **Illicit demand reduction:** The baseline in 2010 is that public awareness of the severity of the tiger's crisis is relatively low, as measured by attitudinal surveys. Looking ahead to 2022, the goal is to eliminate illicit demand for tigers and their products and engage a broad spectrum of societal support for tiger conservation. The expected result in 2015, in key market areas, should be a measurable increase in public awareness and decline in consumer willingness to purchase illegal products, as determined by surveys and focus groups.

■ **Community engagement:** The baseline in 2010 is that viable breeding tiger populations are jeopardized in many places by local communities depleting natural resources and are characterized by growing levels of human-tiger conflict. Looking ahead to 2022, the goal is that people who live near tigers will view them as an asset rather than a liability. The expected result by 2015 is a reduction in the number of conflict-killed tigers around critical tiger habitats, and an increase in support for tiger conservation in the surrounding communities.

■ **Excellence in tiger landscape management:** The baseline in 2010 is that professional reserve management is not widely practiced, whether it is a system of managing patrolling or providing incentives to staff for performance, or a capacity to accurately assess

the status of tiger populations on a frequent enough basis to detect population trends. Looking ahead to 2022, the goal is to have professional reserve management and consistent science-based monitoring systems in place across much of the tiger's range.

- **Sustainable financing for tiger landscape conservation:** The baseline is that except for a few reserves that raise resources for communities and themselves through tiger- and wildlife-based tourism, all expenditures are funded through national budgets or grants. By 2015, evaluation of the true value of tiger landscapes would have been completed for all TRCs and national-level sustainable financing and mobilization strategies will have been adopted. By 2022, sustainable financing mechanisms to pay at least 15-20 percent of the cost of protecting tiger ecosystems should be operational in all TRCs.

B. Some Success Factors

The current 12-year effort has some important features that enhance the prospects of success:

- **The institutional basis in the TRCs is significantly better than 12 years ago.** TRCs vary in the strength and longevity of their institutions, policies, and project-level interventions related to tiger and wildlife conservation. For instance, India's Project Tiger, which was converted into a statutory authority, called the National Tiger Conservation Authority, in 2006, has been successful: India has 39 tiger reserves and six major tiger conservation landscape complexes with source populations of tigers. India also has robust, scientifically sound programs backed up by strong legislation, large federal expenditure plans, and considerable political will. Malaysia has strengthened its domestic legislation greatly and has mainstreamed Tx2 in the National Tiger Conservation Action Plan and various development plans. During the past 12 years, China has started National Program for Natural Forest Protection, Recovery of Farmland for Forests, Wildlife Conservation and Nature Reserve Development, and

Pilot Compensation for losses caused by key protected wildlife, especially by tigers. China also has significantly improved capacity in conservation of wild tigers and their habitats and law enforcement against poaching, smuggling, and illegal trade of tigers and their products. In some other TRCs, institutions and policies are weak, and budgets for conservation are inadequate. Nonetheless, all TRCs have basic conservation institutions and policies with a reasonable legal basis for protecting tigers. All have designated protected areas. All are parties to CITES and the CBD. All have dedicated conservation leaders. Examples of best practices in tiger and wildlife conservation exist in all TRCs.

- **For the first time, there is a TRC-wide plan, developed by the TRCs, based on sound science and proven best practices, that addresses all of the threats to the tiger's survival and realistically estimates the incremental costs necessary to implement the plan.** The NTRPs that form the foundation of the GTRP set tiger and biodiversity conservation in the context of rapid economic growth and support environmentally sensitive growth, emphasizing the important economic, ecological, and community co-benefits of TCLs. The GTRP treats tiger conservation as the face of biodiversity conservation and competent land-use management. It recognizes that protection is just one important part of the governance of complex social-ecological systems and that there is no one-size-fits-all solution to tiger conservation. The solution in each TRC is unique, yet built on a global examination of best practices.

Global efforts to bring the attention of policy makers to the plight of the tiger have been made before, notably in 1973, which led to India establishing its now famous Project Tiger, credited with a recovery of tigers in India. Another major attempt was made in 1995, when the support of the Exxon Corporation (now Exxon-Mobil) led to the creation of the Save the Tiger Fund, whose investments have supported scientific research and the development of many of the best practices now in place in TRCs. Many NGOs have also devoted substantial effort and

support to advance tiger conservation. But sustained attention, strong political commitment in the face of competing demands, and collaboration across the range and with non-range countries have been largely absent. The current effort aims to correct this by:

- Ensuring that the TRCs continue to actively plan in a common framework. With shared goals and action plans, customized to each TRC, the prospects of effective implementation are enhanced.
- Enhancing political will through a better and wider recognition of the crisis and the threat it poses to biodiversity in general and to the multiple benefits that the tiger landscapes provide.
- Generating systematic monitoring and reporting through an Annual Report to International Tiger Forum participants and the public, maintaining high-level attention to progress.
- Systematically bringing the international community program delivery consortia to provide stronger effective support to TRCs to deal with the crisis.

C. Likely Risks

There are risks that need to be managed. These risks originate in the challenges of mainstreaming conservation into development. The impetus for conservation comes from a top-down process led by enlightened policy makers because conservation and the value of services from tiger landscapes has yet to be fully internalized in the value systems of developing, poverty-challenged economies. Mainstreaming may occur at the global, national, and regional level but may

fizzle out at the local levels where the tigers exist. The major risks are:

- **Insufficient attention to the needs of local communities that live near tigers.** This risk is best managed by ensuring that policies at higher levels support strong engagement with local stakeholders they receive co-benefits from tiger conservation and that human-tiger conflict is effectively mitigated and compensated;
- **Loss of political attention due to under-appreciation of the benefits of tiger conservation.** This risk is best managed by a process of annual stocktaking at senior levels as well as by prompt work in each TRC to disseminate the multiple benefits of tiger landscapes and to monetize these benefits through global and local mechanisms;
- **Slow adoption of best practices.** These best practices are now widely known and accepted in the TRCs but their successful adoption needs a sound policy and institutional environment, professionalism, and external funding to support the incremental costs of some key activities. This risk is best managed by linking financial support to the creation of favorable policy and institutional environments; and
- **Ineffective collaboration among global partners.** All operational partnerships emerging from the GTI process need to function effectively, without the bureaucratic delays customary in working across institutional boundaries. This risk can be mitigated with early signing of MoUs among consortia members, and through the effective functioning of the coordinating body to provide vital connectivity and support.



6

Conclusion

Wild tigers are at a tipping point and action, or inaction, in the coming decade will decide the tiger's fate. Action will lead to the tiger's recovery; inaction or mere maintenance of the status quo will lead to its extinction. The eventual fate of tiger populations depends on the extent and character of the environments in which they live

and on how societies value them. In many ways the GTRP is less about tigers and more about people and societies, and the choices they make. The GTRP represents the last best hope for the survival of the world's most magnificent species and the valuable landscapes in which it lives.



Appendix.

Portfolio of Policy, Institutional, and Expenditure Activities from the National Tiger Recovery Priorities

A. Policy and Institutional Activities

Bangladesh	<p>Government to implement Bangladesh Tiger Action Plan (2009 to 2017).</p> <p>Revise and enact a new Wildlife Conservation Act 2010 with associated rules to enhance penalties, create special wildlife conservation units.</p> <p>Approve "Wildlife Compensation Policy 2010" to mitigate human-tiger conflict.</p> <p>Sign Protocol on conservation of tigers of the Sundarbans between Bangladesh and India to improve transboundary law enforcement mechanism, scientific research, monitoring, and wildlife crime control.</p> <p>Create a devoted institution for wildlife conservation and management with appropriate training and logistical support to retain expertise and skills.</p> <p>Strengthen and upgrade Wildlife Circle to Wildlife Wing with more dedicated manpower.</p> <p>Mainstream conservation into the development agenda through an economic valuation of the Sundarbans landscape.</p>
Bhutan	<p>Finalize the Protected Areas and Wildlife Act.</p> <p>Create a bilateral policy and MoU between India and Bhutan for collaborative management of transboundary protected areas and to designate Transboundary Peace Parks.</p> <p>Integrate clear policies on PES to strengthen local communities into overall government conservation policies and acts.</p> <p>Strengthen coordination between different units of the Department of Forests and Park Services (DoFPS).</p>
Cambodia	<p>Designate an inviolate source site.</p> <p>Inter-ministerial cooperation and coordination to ensure sustainable management of land use across the Eastern Plains Landscape</p> <p>Transboundary agreement between Cambodia and neighboring countries on combating wildlife crime across the border.</p> <p>Review of existing wildlife regulations and legislation governing penalties for poaching and trade in species of high commercial value.</p>

China	<p>Introduce policy and legal backing for a conservation plan for wild tigers.</p> <p>Introduce policy to improve capacity for conservation and monitoring system, especially for local agencies to ensure their regular and effective habitat patrolling, monitoring, and evaluation.</p> <p>Introduce policy to improve capacity for law enforcement system so as to ensure market inspection, information sharing, and special joint actions.</p>
Indonesia	<p>Upgrade laws for arresting poachers and illegal wildlife traders and increase penalties.</p> <p>Develop laws to protect tiger habitat outside of protected areas in priority landscapes.</p> <p>Strengthen cross-sectoral program planning.</p> <p>Establish a high-level inter-agency (MoF, Police, Customs, MoJustice) command team to deal with wildlife traders and work with INTERPOL, UNODC, and WCO.</p>
Lao PDR	<p>Government to endorse the Tiger National Action Plan.</p> <p>Revise the national protected areas regulation into a Prime Minister's Decree to grant higher status to the protected area system.</p> <p>Facilitate sustainable funding using policy and legislation provisions (e.g. through payments for watershed protection, given the high number of proposed hydropower developments in Lao PDR).</p> <p>Establish Lao WEN; a Prime Minister's Commission on Endangered Species; and a Tiger Taskforce under MoF.</p>
Malaysia	<p>Finalize the enactment of the new Wildlife Conservation Act and its subsequent enforcement.</p> <p>Establish a coordination mechanism within the Ministry to monitor the implementation of the NTCAP and CFS.</p>
Myanmar	<p>Amend penalties in the current law and legislation with regard to tiger-related offences.</p> <p>Review existing development policies to strengthen support for tiger conservation and integrate it into the development agenda.</p> <p>Create meaningful cooperation among government line agencies for effective and efficient law enforcement and education outreach for tiger conservation.</p>
Nepal	<p>Amend the NPWC Act 1973 and Forest Act 1993 to enable landscape conservation.</p> <p>Gazette the Terai Arc Landscape (TAL) as a priority conservation landscape and place TAL conservation as a high-profile feature in the political agenda.</p> <p>Expand social mobilization to elicit community stewardship for conservation.</p> <p>Establish a National Tiger Conservation Committee (NTCC), WCCB, and SAWEN.</p>
Russia	<p>Prescribe legal requirements to prosecute those who sell and purchase tiger skins on the Internet.</p> <p>Amend the forest legislation to protect Korean pine and oak trees.</p> <p>Amend laws to provide economic incentives to increase prey populations.</p> <p>Amend laws to include stiff punishments for illegal procurement and transport of tiger parts.</p>

Thailand	<p>Develop policies on promotion, salaries, and social security systems for protected area staff and park rangers.</p> <p>Encourage policy makers to develop policies on career paths for superintendents of protected areas (national parks and wildlife sanctuaries) for effectiveness and continuity of the work quality.</p> <p>Up list tigers to the reserved species under the Wild Animal Reservation and Protection Act B. E. 2535 (1992).</p> <p>Strengthen enforcement of wildlife crime under the Wild Animal Reservation and Protection Act B.E. 2535 (1992) to make sure that convicted offenders receive the highest penalty of Wildlife Laws and related legislation.</p> <p>Establish and run the Regional Tiger Conservation and Research Center at Huai Kha Khaeng Wildlife Sanctuary.</p> <p>Establish wildlife crime units and CITES transboundary check points.</p>
Vietnam	<p>Sign transboundary MoUs for better coordination to tackle trade and smuggling.</p> <p>Develop policies on smart green infrastructure in TCLs to prevent non-SUF infrastructure being constructed within tiger PA.</p> <p>Develop policies for a captive tiger registration and monitoring system and breeding management plans for the Indochinese tiger.</p> <p>Issue directive to dismantle organized tiger crime as a matter of national urgency.</p>

B. Expenditure Portfolio Summary (developed from NTRPs and GSPs)

Table 1 Estimated external financing by country and theme normalized to 5-year period, US\$ million

Components	Theme						Total
	A. Habitat management	B. Controlling prey and tiger poaching	C. Institutional strengthening & capacity building	D. Tiger–human conflict & community engagement	E. Controlling illegal trade & reducing demand	F. Scientific monitoring, surveys, research	
NTRPs							
Bangladesh	1.5	8.8	8.0	12.8	1.4	2.0	1.0
Bhutan	2.5	2.5	0.8	0.9	0.6	0.5	7.8
Cambodia	3.5	4.5		4.5	2.5	1.0	16.0
China*	1.0		0.7		0.5	1.0	3.2
India		33.9	31.8				65.7
Indonesia	0.5	5.4	0.4	2.2	0.5	1.8	10.8
Lao PDR	9.0	1.0	0.5		1.2	1.2	13.9
Malaysia	16.0	6.0	4.0			2.0	28.0
Myanmar	2.5	2.5	3.2		1.0	2.3	0.5
Nepal	5.0	0.4	5.6	2.9	1.7	1.7	17.8
Russia	19.0	16.0		2.0		6.0	1.0
Thailand	1.2	29.3	1.5	2.3	4.8	5.0	45.1
Vietnam	6.3	3.5	5.3		10.9	3.5	31.0
Sub-total NTRPs	68.0	113.8	61.8	27.6	22.0	28.6	9.0
GSPs							
Combating wildlife crime					4.0	4.0	
Capacity building and knowledge sharing					7.5	7.5	
Scientific monitoring						1.0	1.0
Sub-total GSPs				7.5	4.0	1.0	12.5
Key studies							
Valuation of TCL ecosystems					0.6		0.6
Sustainable finance workouts					1.0		1.0
Transboundary collaborations							
Demand elimination					0.5		0.5
Translocation of tigers							0.1
Sub-total key studies	0.1	1.6	0.5				2.4
Total*	68.1	113.8	70.9	27.6	26.5	29.6	9.2

Note: with Program Coordination's \$4.3 million the total sums up to \$350 million. * China's financing needs will be re-evaluated.



Expenditure Portfolio Details

(US\$345.7 million)

A. HABITAT MANAGEMENT

A-1: Bangladesh – Habitat Management; US\$1.5 million; 4 years

Objectives: Habitat restoration through afforestation and grassland development. *Activities:* Afforestation of fodder plant Keora (*Sonneratia apetala*) and grassland development for prey herbivores (spotted deer and barking deer). *Outcomes:* Improve habitats of prey animals and number of prey animals will increase.

A-2: Bhutan – Habitat and species conservation; US\$2.5 million; 5 to 8 years

Objectives: Classify and define tiger habitat at a landscape scale in Bhutan. *Activities:* Identify and delineate tiger core zones and dispersal corridors, establish management zones based on habitat use and distribution of tigers, revise the current corridors, develop a mechanism to assess infrastructure development impacts, assess impacts of climate change and land-use practices on tiger landscapes. *Outcomes:* Conservation and management of a tiger meta-population in Bhutan, proactive measures to prevent impacts from development projects, projection of the impact of climate change on tiger habitat for adaptation strategies.

A-3: Cambodia – Designation of an inviolate source site; US\$3.5 million; 3 years

Objectives: Secure at least one inviolate potential source site, free from habitat conversion and human interference. *Activities:* Identification of suitable source site for eventual reintroduction of wild tigers, clear mandate for management of the source site for tiger recovery, designations

of tiger source sites, demarcate boundary of inviolate area for tiger conservation. *Outcomes:* Establish potential tiger source site, develop management plan for recovery of wild tigers in source site.

A-4: China – Optimization of wild tiger habitat; pending; 5 years [subject to change]

Objectives: Achieve maximum expansion of tiger range areas, a notable improvement in habitat quality and genetic exchanges among key isolated population, reintroduce captive-bred South China tiger into trial natural areas. *Activities:* Habitat inventory, protection, management planning, GIS database for existing and potential areas for four wild tiger subspecies; technical guidance on habitat restoration for wild tigers, pilot projects on recovery of farmland to forests; change of inappropriate forest and vegetation; maintaining of necessary grasslands in 1–2 sites, scaled up later; exploration of feasibility of captive-bred tigers to be released to the nature; monitoring released tigers. *Outcomes:* Priorities identified, habitats are extended and improved, prey density increased.

A-5: Indonesia – Creating legal basis of tiger protection; US\$0.5 million; 5 years

Objectives: To secure source sites as tiger population strongholds within priority landscapes and to maintain the integrity of these landscapes. *Activities:* Mainstreaming tiger and habitat protection through National Development Program (e.g. PNPM and other similar initiatives), identifying and selecting at least one tiger releasing site within each tiger priority landscapes, mapping the concession areas

and connectivity within the priority landscapes and comprehensively reviewing the ecological status of the Sumatran tiger population occupying them, integrating identified source sites into park management plan, and priority landscapes into provincial and district spatial planning, implementing legally binding protocols for the best management practices (BMP) of forest industry land uses to ensure their contribution to tiger conservation efforts at the priority landscapes, incorporating the ecological needs of Sumatran tigers into the evaluation criteria of Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (AM-DAL), implementing performance bonds to license holder to protect tigers and restore their habitats (Environmental Law No. 32 of 2009). *Outcomes:* Local regulation of Rimba Integrated Area (20,500 km²) across three priority tiger landscapes enacted and replicated to other priority landscapes, the integrity of the Sumatran source sites and the wider priority tiger landscapes are secured and well maintained, contribution to global climate change mitigation effort by securing 73,413 km² of the priority tiger landscapes.

A-6: Lao PDR – Establishing inviolate core zone at Nam Et Phou Louey NPA; US\$9.0 million; 5 years

Objectives: Establish inviolate core zone to secure our source tiger population and connectivity between TCLs. *Activities:* Land-use planning and zoning demarcation in NPAs, law enforcement, outreach and education, relocation of livestock grazing areas out of the core zone, support alternative livelihood for local communities, strengthen capacity, funding and authority of protected area institutions; boundary demarcation, land concessions and infrastructure development in TCLs to comply with PA management plans and zoning, PA management plans to ensure cross-sectoral compliance with PA TPZs and corridors, village land-use planning and allocation outside of PA boundaries. *Outcomes:* Better protection of tigers and prey, increase in tiger numbers, good engagement of local communities; secured corridors of habitat linking NEPL NPA source sites and other TCLs.

A-7: Malaysia – Enhancing the linkages between the priority habitat areas; US\$16.0 million; 5 years

Objectives: Secure the core areas in the Central Forest Spine and ensure connectivity through functional corridors. *Activities:* Belum-Temengor Complex, Taman Negara, and Endau-Rompin Complex are strictly protected, expanded, or sustainably managed, new protected areas, ecologically sound land use in corridors, sustainable logging practices in forest reserves, community-based, better management practices and effective awareness programmes to mitigate human-tiger conflict, a sustainable financing mechanism, smart infrastructure to facilitate wildlife crossing, mechanism within the Ministry to coordinate and monitor the implementation of the NTCAP and CFS. *Outcomes:* Landscape of tiger habitat with connected core areas large enough to support a population of up to 1,000 tigers with minimal human-tiger conflict, ecological corridors maintained for tigers and prey, actual sites for wildlife crossing identified and monitored.

A-8: Myanmar – Enacting legal protection of tiger landscapes; US\$2.5 million; 4 years

Objectives: Identify remaining important areas for tigers in and around both TCLs. *Activities:* Surveys for tiger presence in unprotected areas around both TCLs, nomination of important tiger areas for legal protection. *Outcomes:* Legal designation of areas important for tigers, incorporation of new areas into management planning for existing source landscapes.

A-9: Nepal – Managing tiger and habitats; US\$5.0 million; 5 years

Objectives: Manage the TAL as a priority conservation landscape with core areas, buffer zones, corridors to conserve tigers as a metapopulation with transboundary ecological linkages. *Activities:* Research and management to remove alien invasive plant species and maintain habitat quality, protect core areas, corridors, and buffer zones from human encroachment, manage critical tiger habitat to restore and increase tiger and prey populations, hand-over corridor forests to local communities for management, as-

sess impact of development projects on tigers, prey, and habitat, transboundary linkages with India and China through complementary management. *Outcomes:* A stable meta-population of at least 250 adult tigers in the TAL, with trans-boundary ecological links.

A-10: Russia – Strengthening protected area network; US\$19.0 million; 2 to 10 years

Objectives: Revise, strengthen, and increase the network of PAs. *Activities:* Ecological corridors (areas under management regimes called to limit adverse impact on Amur tiger habitats from clear-cutting, road construction, etc.) to connect protected areas, protection zones with restricted regimes of nature resource use on land adjacent to PAs, additional public support to PAs to backup their inspection teams, among other things, through increasing their salaries and supplying needed equipment, additional area of nature reserves and national parks in the Amur tiger range. *Outcomes:* About 25% of tiger range covered by effectively managed PAs and/or areas with other types of conservation regime.

A-11: Thailand – Habitat management; US\$1.2 million; 5 years

Objectives: Provide long-term support for tiger habitat restoration activities. *Activities:* Use of controlled burns to maintain grass-base for ungulate recovery, suppress fires effectively in evergreen forest areas, reintroduction program of ungulate prey with the ex-situ bred species (i.e., sambar, Eld's deer, and hog deer), natural and artificial water sources for tigers and ungulates, system to control invasive species, planning for corridor and habitat restoration. *Outcomes:* Habitat is suitable for other wildlife species and native biodiversity is restored.

A-12: Vietnam – Strengthening the status and management of protected areas; US\$6.3 million; 5 years

Objectives: Recognize and strengthen management of one tiger Protected Area, make this PA inviolate to development. *Activities:* Conduct feasibility studies to identify the tiger conservation site and develop management plan for the iden-

tified site including a) Eastern Plains Dry Forest Complex: Dak Nam SFE, Yok Don NP, Cu Jut SFE, Ya Lop SFE, Chu Prong; b) Bu Gia Map NP; c) Chu Mon Ray NP (and forest in Sa Tay District); d) Song Thanh NR—Dak Rong, Vu Quang—Pu Mat, Sop Cop District, Son La province (which border the Nam Et Phou Louey NCBA in Lao PDR); government recognize at least one PA as Vietnam's Tiger Protected Area and agree to apply minimum standards for resourcing, protecting, monitoring, management, and capacity; make this site a demonstration site for tiger conservation; transboundary taskforce on wildlife protection to patrol the Tiger Protected Area; support front-line staff with equipment, infrastructure, training, incentives, and insurance; re-settlement plan for people living inside the PA and in critical corridors; building community development program to improve local awareness and reduce their dependence on natural resources; a decree ensuring no non-SUF infrastructure be constructed within Tiger Protected Area; "Smart Green Infrastructure framework" to ensure no adverse effects of infrastructure development on tiger landscapes; procuracy and court authorities to help them apply strict penalties for wildlife criminals under provisions of current laws. *Outcomes:* Establish at least one potential tiger source site, develop management plan for this site.

A-13: Key Study – Translocation of tigers; US\$0.1 million; 2 years

Objectives: Share experience and discuss best practices and experience to date with translocation of tigers and other large carnivores. *Activities:* A 3–4 day technical meeting in a tiger range country. *Outcomes:* An agreed upon, coordinated, science-based plan for translocation, reintroduction, and rehabilitation of tigers.

B. CONTROLLING PREY & TIGER POACHING

B-1: Bangladesh – Habitat protection; US\$8.8 million; 3 years

Objectives: Deploy an effective and efficient cadre of wildlife conservation field staff to conserve tigers and tiger habitat. *Activities:* Retention and

hiring of new technical staff, equipment, technology-based monitoring and protection including MIST, radio-tracking, effective patrolling, risk insurance for hardship and high-risk posts, coordination with police, coast guard, local administration, local communities, and media. *Outcomes:* Better protective measures for tiger habitat in the Sundarbans, better monitoring of tiger and prey populations, better understanding of tiger ecology, behavior, and population demographics, improved inter-ministerial and transboundary collaboration.

B-2: Bhutan – Habitat and species conservation; US\$2.5 million; 5 to 8 years

Objectives: Strengthen anti-poaching and wildlife crime enforcement. *Activities:* Strengthen anti-poaching and wildlife enforcement with the Nature Conservation Division as the coordinating body, intelligence networks (including at community levels) with database of poachers, collaboration with Customs, Police, Armed Forces, Judiciary, and Bhutan Agriculture and Food Regulatory Authority. *Outcomes:* Reduced killing and trade of tiger parts and derivatives.

B-3: China – Securing populations of wild tigers and their prey; pending; 5 years

Objectives: Establish regular habitat patrolling in tiger range areas for antipoaching. *Activities:* 1) Improvement of equipments and facilities; 2) Development of guidelines and manuals; 3) Establishment of coordination mechanisms between different authorities and local communities; 4) Training course and technical workshops for staff. *Outcomes:* 1) Increased number of wild tigers and prey resources; 2) Decreased poaching cases.

B-4: Cambodia – Law enforcement and habitat management; US\$4.5 million; 5 years

Objectives: Increase capacity and effectiveness of law enforcement agencies in wildlife and habitat conservation. *Activities:* Recruit and train law enforcement officers in wildlife conservation, conservation ethics, legal statutes, law enforcement, and investigation and MIST,

training for judiciary in legal statutes; necessary field equipment and transportation, sufficient budget for maintaining and operational activities, adequate management infrastructure (e.g. patrol stations and patrol routes), frequency and efficiency of regular patrols to monitor illegal activity within the source site and protected areas in the broader landscape, with strict monitoring of law enforcement operations using MIST and full integration of monitoring into conservation area management. *Outcomes:* Reduced environmental crimes that threaten tiger and tiger prey, strengthened enforcement and implementation of national wildlife and forestry legislations to protect tigers and its prey.

B-5: India – Securing habitats; US\$33.9 million; 5 years

Objectives: Establish dedicated Tiger Protection Force (TPF) for antipoaching operations in tiger reserves. *Activities:* Professionalizing the Tiger Protection Force in patrolling, communications, surveillance, and enforcement; providing equipment for quick mobility, including all-terrain vehicles; providing field gear and equipment. *Outcomes:* Improved protection of tiger habitats; increased participation of local communities in antipoaching activities.

B-6: Indonesia – Scaling up specialized law enforcement; US\$5.4 million; 5 years

Objectives: To implement a strengthened patrolling and law enforcement system supported by skilled people, adequate finance, infrastructure, a robust management system ,and linked to a strong domestic and international network of supporters. *Activities:* Adding and operating 30 well equipped Species Protection Units, creating well-trained elite investigation groups (100 staff), enhancing patrolling capacity by implementing MIST and spatially-explicit monitoring framework in priority landscapes, 3 maximizing the effectiveness of Ministry of Forestry—Specialized Rapid response Unit (SPORC) in wildlife crime issues. *Outcomes:* Tiger conservation units (mitigation, protection, law enforcement) are actively working in priority tiger landscapes, tiger poaching and trade reduced by 90% from the baseline value.

B-7: Lao PDR – Adopting enforcement and monitoring standards; US\$1.0 million; 5 years

Objectives: Implement standard monitoring methods in protected areas across TCLs to monitor tigers and prey (e.g. camera trapping, occupancy survey) and law enforcement (e.g. MIST). **Activities:** Technical training for staff, installation of MIST. **Outcomes:** Standard monitoring system is in place across projects.

B-8: Malaysia – Strengthening law enforcement; US\$6.0 million; 5 years

Objectives: Provide effective and long-term protection for tigers and their prey. **Activities:** Staffing, training, resourcing enforcement teams, focused and intelligence-driven anti-poaching patrol strategies in the Central Forest Spine, especially in Taman Negara, Belum-Temenggor Complex at the Malaysian-Thailand borders, and in the Endau-Rompin Complex at Pahang-Johor state border, stricter enforcement of the new wildlife legislation, additional funds to support increased patrolling, multi-agency enforcement task force, capacity building for tiger conservation through the Institute of Biodiversity (IBD, DWNP). **Outcomes:** Improved legislative and regulatory protection, efficient anti-poaching patrols, better enforcement, increase apprehension and prosecution of illegal wildlife traders and poachers, comprehensive training programs developed through IBD, DWNP.

B-9: Myanmar – Controlling prey and tiger poaching; US\$2.5 million; 5 years

Objectives: To control prey and tiger poaching effectively. **Activities:** Strengthening patrol activities and law enforcement by Tiger Protection Unit in TCLs; monitoring the tiger and its prey base; raising public awareness regarding the conservation of tigers and elimination of tiger trade by cooperation and coordination of respective agencies; protecting tiger core habitat area by declaring the strict rules and regulations; increase effective patrolling and integrate with appropriate database (e.g; MIST) for effective management. **Outcomes:** A true reduction of tiger-related crimes indicated by a gradual decrease of professional hunting and arrests; improving law

enforcement throughout the expanded PAs with increased staff assignment; increase of tiger and tiger prey populations to be doubled from current levels in TCLs; more support from local and others government line agencies in saving wild tigers and their habitats.

B-10: Nepal – Adopting enforcement and monitoring system; US\$0.4 million; 4 years

Objectives: Institutionalize and implement effective tiger protection and monitoring systems. **Activities:** Implement and upgrade MIST complemented by intelligence networks, illegal wildlife trade database, periodic population monitoring using camera-trapping and occupancy surveys at three-year intervals, anti-poaching mechanisms in protected areas, community-based protection units and intelligence networks, necessary human resources and infrastructure for effective protection. **Outcomes:** A stable meta-population of at least 250 adult tigers in the TAL, with transboundary ecological links.

B-11: Russia – Preventing human-tiger conflict; US\$16.0 million; 2 to 10 years

Objectives: Prevent and timely settle human-tiger conflicts. **Activities:** Safety rules on how to behave in the case of a tiger encounter, outreach to local people and hunters, effective ways to repel tigers, radio collaring, resources for the Tiger Special Inspection Program, Amur Tiger Recovery Centre for orphaned tiger cubs, veterinary services. **Outcomes:** Two Recovery Centers are established for rehabilitation of orphaned tiger cubs. Tiger Special Inspection equipped with adequate resources and prevents conflict situations. Local people and hunters trained how to behave in the case of a tiger encounter.

B-12: Thailand – Strengthening direct conservation action and enforcement; US\$29.3 million; 5 years

Objectives: Promote conservation efforts at the scale of entire populations (e.g., forest complex and associated corridors). **Activities:** MIST-based Smart patrol system in Tenasserim—WEFCOM, staffing, training, and resourcing competent park ranger teams, wildlife crime units, and

informant network around Tenasserim—WEF-COM, attorneys and judges to ensure substantial punishment for wildlife crime against tigers and other large ungulates, overhaul the park ranger system to a higher living and working standard, landscape-scale ecological and development models for tiger conservation and engage stakeholders in development sectors (i.e., roads, oil and gas, mining, power). *Outcomes:* The real landscape protection costs, actions, and activities to stop the bleeding and to recover wild tigers are understood and adopted at the policy level.

B-13: Vietnam – Adopting enforcement and monitoring system; US\$3.5 million; 5 years

Objectives: Activate a national monitoring system for law enforcement effectiveness for entire protected area system. *Activities:* Officially adopt MIST (or a similar system), train all protected area managers and staff to implement MIST with a monthly review cycle, develop a quarterly and annual reporting mechanism for the entire protected area system. *Outcomes:* MIST (or a similar system) piloted and running, PAs managers are trained to implement MIST professionally.

C. INSTITUTIONAL STRENGTHENING & CAPACITY BUILDING

C-1: Bangladesh – Building institutional capacity; US\$8.0 million; 2 years

Objectives: Develop capacity in the Forest Department for effective wildlife and habitat conservation in the Sundarbans. *Activities:* Transition from production forestry to conservation, budget allocation for Sundarbans based on the ecological services, inter-sectoral collaboration, FD organizational and cultural change, training and capacity building of staff. *Outcomes:* Improved conservation of the Sundarbans and its wildlife measured in terms of tiger, prey, and habitat.

C-2: Bhutan – Building institutional capacity; US\$0.8 million; 5 years

Objectives: Enhance institutional capacity of the Department of Forest and Park Services

to deal with the national park and wildlife protection issues, develop an Integrated Financing Plan/Strategy by the end of 2011. *Activities:* Synchronize mandates of existing units, strengthen DoFPS partnerships, explore creation of an autonomous unit for protection services, recruit, train, and provide logistical support to DoFPS field staff; develop financing strategy/plan with the full range of activities for the tiger recovery program. *Outcomes:* DoFPS capable of developing and effectively executing wildlife/biodiversity conservation programs and projects, sustainable financing for tiger recovery plan.

C-3: China – Strengthening institutional capacity; pending; 5 years [subject to change]

Objectives: Improve monitoring system and capacity for wild tiger populations and their habitats; enhance capacity building for law-enforcement agencies in key areas. *Activities:* Institutional analysis followed by restructuring of the responsibilities and arrangement among existing monitoring agencies, new conservation monitoring agency; staffing, training, and resourcing the monitoring teams; a series of seminars and mutual visits among the TRCs to understand concerns, best practices, including enforcement. *Outcomes:* Well-functioning conservation monitoring system with clearly defined responsibilities; timely understanding of tiger population and habitat dynamics, effective anti-poaching activities; multi model international exchange and cooperation on wild tiger conservation.

C-4: India – Building institutional capacity; US\$21.3 million; 5 years

Objectives: Undertake analytical research, special studies, developing knowledge base for policy development and strengthen the National Tiger Conservation Authority (NTCA). *Activities:* Launching study on the economic evaluation of key tiger reserves; specialised study on habitat / corridor restoration and socioeconomic mapping of tiger landscapes; establish regional offices of the NTCA. *Outcomes:* Improved policy dialogue in spatial planning for developmental projects, better institutional coordination.

C-5: India – Building institutional capacity; US\$10.5 million; 5 years

Objectives: Ensure provisions for exchange of good practice and strengthening knowledge institutions. **Activities:** New course on integrated development and conservation at tiger landscape level; exchange programs with leading parks / countries for park managers; strengthening of training facilities in States. **Outcomes:** Improved spatial planning process around tiger reserves; increased exchange of knowledge and best practices; improved infrastructure for training and higher number of trained frontline staff at the park level.

C-6: Indonesia – Building institutional capacity; US\$0.4 million; 5 years

Objectives: To improve patrolling and law enforcement system by the establishment of infrastructure and a robust management system that link to a strong domestic and international network of supporters; to establish secured funds to support the long-term protection of tiger population at priority TCLs. **Activities:** Establishing a national tiger advisory board, setting up a tiger conservation fund under the existing legal framework (Environmental Law No. 32 of 2009) and through mutual partnership among key stakeholders, allocating and earmarking sufficient funds from the forestry budget for law enforcement including regular forest patrols and rapid reaction units for conflict response, implementing watershed management, certification, carbon trading, and tax schemes to conserve tiger and prey habitats in priority landscapes, exploring new and additional funds from donors and private through pledges and/or project proposals. **Outcomes:** A blueprint for a national adaptive management scheme is established and implemented by the management authorities and their relevant partners in priority tiger landscapes, the Sumatran tiger advisory board is established and in working order in supervising the implementation of the adaptive management scheme, sustainable funding for tiger conservation is established.

C-7: Lao PDR – Strengthening institutions and cooperation; US\$0.5 million; 5 years

Objectives: Strengthen institutions and cooperation to protect tigers, tiger prey, and habitat. Ac-

tivities: Staffing, training, and resourcing the capacity of DoFI, customs staff, border staff, economic police and CITES MA and SA, establish Lao WEN, lines of communication among conservation and developmental ministries (road, mine, hydro), a Prime Minister's Commission on Endangered Species and under the PM Commission (housed in the PM Environment Committee) and under MAF create a Tiger Taskforce. **Outcomes:** Lao WEN; PM Commission on Endangered Species, and Tiger Taskforce.

C-8: Malaysia – Strengthening conservation mechanism and capacity; US\$4.0 million; 5 years

Objectives: Strengthen the national tiger conservation mechanism and the capacity of Institute of Biodiversity for training, research, and awareness. **Activities:** Assisting in the monitoring and implementation of the NTRP, developing curriculum, modules, and training programme. **Outcomes:** Monitoring and coordination at the national level improved; information, knowledge, and skills strengthened.

C-9: Myanmar – Improving management capacity; US\$3.2 million; 5 years

Objectives: Improve capacity of management and law enforcement agencies to achieve conservation, strengthen support for tiger conservation across all Myanmar line agencies. **Activities:** Recruit and train more FD staff in wildlife conservation, law enforcement and monitoring techniques, provide necessary field equipment and funding for operations and maintenance, expand management infrastructure, increase effective patrolling and integrate with appropriate database (e. g MIST) for effective management, national level inter-ministerial dialog, improved national policies. **Outcomes:** Measurable decline in wildlife-related crimes, especially those associated with tigers, fully informed government, policies related to tiger conservation strengthened.

C-10: Nepal – Enhancing management and conservation policies; US\$5.6 million; 5 years

Objectives: Create an enabling policy environment for landscape-scale conservation; strengthen national capacity for tiger conservation; de-

velop a sustainable financing mechanism. *Activities:* Amend laws, regulations and guidelines, gazette the TAL as a priority conservation landscape, National Tiger Conservation Committee (NTCC), WCCB, and SAWEN, economic valuation of ecological services, transboundary cooperation mechanisms with India and China; staffing, training, and resourcing field and centre operations for research, smart patrolling, intelligence, judiciary procedures, infrastructure related to park and forest management and patrolling, a high-level wildlife trade monitoring and enforcement authority at the Centre; carbon-related funds for tiger conservation, payments for water and other hydrological services. *Outcomes:* Conducive policies and political support for tiger conservation; national capacity enhanced to counter poaching and trade in wildlife and parts/derivatives, Tiger Conservation Fund established.

C-11: Thailand – Building capacity based on successful models; US\$1.5 million; 5 years

Objectives: Establish a Regional Tiger Conservation and Research Center at Huai Kha Khaeng Wildlife Sanctuary. *Activities:* Staff and administrative structure to run the center, sufficient facilities and equipment, enforcement and research to serve both Thailand and the region, technical and enforcement-related curricula that will prepare participants to meet protected area management standards. *Outcomes:* The skills shared in the region by using the facility in WEFCOM.

C-12: Vietnam – Enhancing policies and strengthening institutional capacity; US\$5.3 million; 5 years

Objectives: Promulgate a new decree on endangered species management; develop a policy framework for implementing sustainable financing mechanisms for wildlife conservation; build strong partnerships among government and other stakeholders (including civil society and the private sector); establish mechanisms for effective information sharing amongst relevant government agencies. *Activities:* Review of the current management and policy framework on endangered species conservation, re-evaluate all species according to IUCN Red List criteria,

a decree on appropriate management and protection of endangered wildlife including tigers in partnership with all relevant ministries and partners; a range of policies to enable the implementation of appropriate sustainable financing mechanisms; develop and carry out training modules for enforcement and management staff, support front-line staff with equipment, infrastructure, training, incentives, and insurance; MoUs between relevant government ministries and agencies, partnerships with civil society groups and private sector; MoUs with international organizations, and bilateral, multilateral cooperation on tiger and other wildlife conservation and protection. *Outcomes:* Consolidated policy framework on endangered species management and conservation, improved enforcement and management capacities, and strengthened cooperation among relevant government authorities and partnerships with civil society groups and private sector, and international institutions/organizations on wildlife conservation.

C-13: Global Support Program – Capacity Building and Knowledge Sharing; US\$7.5 million; 2 years

Objectives: Complement national capacity-building efforts and build strong cadre of knowledgeable and skilled field staff who are motivated by an institutional and community framework to do a good job. *Activities:* professionalize core wildlife, habitat, and protected area management positions; engage high-level policy and decision-makers in enhancing institutional capacity; and provide ongoing opportunities for learning, knowledge sharing, collaboration, and support among stakeholders. *Outcomes:* Centers of Excellence, Training of Trainers Programs, an Executive Leadership Forum, Leadership Training for Wildlife and Protected Area Managers, Institutional Capacity Assessments and Consultations, and a Community of Practice.

C-14: Key Study – Valuation of TCL Ecosystems; US\$0.6 million; 2 years

Objectives: Quantify the economic value of multiple ecological services of TCLs to facilitate willingness of governments and communities to invest in protection of valuable ecosystems from

further degradation. *Activities:* Assessments of the flow of fresh water, protection from natural hazards, sustaining production of hydropower, supporting agriculture and fisheries, sequestration of carbon, biodiversity-based ecotourism. *Outcomes:* Studies in Bangladesh, Bhutan, India, Nepal, Thailand, and Vietnam.

C-15: Key Study – Sustainable Finance Workouts; US\$1.0 million; 2 years

Objectives: Develop national-level strategies for sustainable financing of tiger conservation activities and propose an action plan for mobilizing sustainable financing. *Activities:* Designation of a multi-stakeholder group; organization of workshop(s); initiation of feasibility study; endorsement of sustainable financing strategy; and development of a communications strategy to mobilize funding. *Outcomes:* Pilot programs to test the most promising sustainable financing approaches: Reduced Emissions from Deforestation and Degradation (REDD), payments for ecosystem services (PES), and biodiversity offsets.

D. TIGER HUMAN CONFLICT & COMMUNITY ENGAGEMENT

D-1: Bangladesh – Engaging local communities; US\$12.8 million; 5 years

Objectives: Reduce community dependency on forest resources, tiger and prey poaching, and tiger-human conflict and to involve local communities in forest management. *Activities:* Alternative income-generation projects (ecotourism, apiculture, pond fish culture, poultry rearing, alternative energy), forest co-management councils, benefit sharing programs, tiger response teams, compensation funds, insurance support. *Outcomes:* Improved habitat condition, socio-economic development and empowerment of local communities, positive attitude towards wildlife, better protection of tiger and prey species.

D-2: Bhutan – Integrating tiger conservation and rural livelihoods; US\$0.9 million; 5 to 8 years

Objectives: Provide alternative forest resource use practices to reduce anthropogenic pressure

on tigers and tiger habitat. *Activities:* Alternative energy, better pasture and herd management, community-based eco/nature tourism, micro-credit scheme and micro-enterprise projects, revenue-sharing from hydro-schemes, community-based livestock insurance programs, human-wildlife coexistence education and awareness. *Outcomes:* Greater awareness of conservation needs, community stewardship, less habitat degradation, better livestock management, reduced human-tiger conflict and greater tolerance of depredations.

D-3: Cambodia – Law enforcement and habitat management; US\$4.5 million; 5 years

Objectives: Integrating habitat management into landscape plans. *Activities:* Conduct an assessment of suitable tiger habitats in the potential source site(s) and, if needed, create artificial micro-habitat for tiger and its prey species; integrate legal designations of tiger source sites through consultation with relevant stakeholders, capacity building, and coordination, awareness-raising program for the tiger source site. *Outcomes:* Science-based tiger conservation objectives are fully considered and integrated with conservation planning working group and other relevant agencies.

D-4: China – Coordination of wild tiger conservation with local society and economic development; pending; 5 years

Objectives: Increasing understanding and support from local communities. *Activities:* Compensate injury to humans and property losses from tigers and their prey, adopt proactive measures to prevent injury and losses, and explore and demonstrate tiger-friendly economic development models for local better livelihoods. *Outcomes:* Human disturbance to wild tiger habitats declines; local people tend to provide information and other help to protection agencies for wild tiger conservation.

D-5: Indonesia – Enhancing human-tiger conflict mitigation; US\$2.2 million; 5 years

Objectives: To improve the capacity of the Ministry of Forestry of Indonesia in reducing casu-

alties of both tigers and humans in conflict hot-spots at priority landscapes. *Activities:* Establishing three Rescue Teams for capturing, pre-conditioning, and relocating problem tigers, and improving local veterinarian capacity in the field, establishing Conflict Mitigation Coordinating Team at provincial level and Response Unit at district level to assist and facilitate human-tiger conflict resolution, especially in areas with high human-tiger conflict, developing and implementing a comprehensive strategy for human-tiger conflict mitigation that includes practical guidelines for animal handling, transportation, translocation, release, and euthanasia. *Outcomes:* Tiger, human, and livestock deaths due to conflict reduced by 80% from baseline values.

D-6: Nepal – Building local community stewardship for conservation; US\$2.9 million; 5 years

Objectives: Develop local stewardship and support for tiger conservation. *Activities:* Effective, proactive human-tiger conflict mitigation program, rapid-response teams, public awareness programs, integrated/alternative livelihood programs, alternative energy uses, payments for conservation of ecological/environmental services, and conservation offsets to local communities. *Outcomes:* Community stewardship and support for tiger conservation in the TAL.

D-7: Russia – Building public awareness and education; US\$2.0 million; 2 to 10 years

Objectives: Raising public awareness of the Amur tiger as a species of unique national and global value. *Activities:* Targeted PR campaigns to create a positive image of the tiger as a symbol of the region's wildlife, preserved spiritual culture, traditional knowledge, rituals and customs of indigenous peoples aimed at conserving and respecting the Amur tiger, sustainable nature resource management practices, negative public opinion about poaching. *Outcomes:* Local people are aware of significance of the tiger as a symbol of the Far Eastern region and provide support for its conservation.

D-8: Thailand – Empowering local communities; US\$2.3 million; 5 years

Objectives: Support local communities in developing sustainable economies that reduce dependence on forest resources. *Activities:* Link communities with agricultural science institutes and agencies to promote agro-forestry in buffer-zone areas around priority landscapes to reduce non-timber forest products (NTFPs) collection inside PAs, wildlife-based ecotourism with a concrete benefit sharing with communities in appropriate areas in and around PAs. *Outcomes:* Better livelihood and reduced poverty.

E. CONTROLLING ILLEGAL TRADE & REDUCING DEMAND

E-1: Bangladesh – Controlling Illegal Trade & Reducing Demand; US\$1.4 million; 3 years

Objectives: Strengthening wildlife circle and enhancing wildlife crime controlling activities throughout the country, introduction of smart patrolling in the Sundarbans. *Activities:* Employment of additional staffs for strengthening wildlife circle, monitoring and control of wildlife trades at airport, seaport and border area, implementation of spotted deer farming policy to reduce public demand for bush meat from spotted deer, which is a major prey animal of tiger. *Outcomes:* Number of prey animals (spotted deer) will be increased and at the same time number of tiger will be increased, at the same time wildlife offences will be decreased.

E-2: China – Strengthening law enforcement; pending; 5 years [subject to change]

Objectives: Promotion of capacity building among wildlife law enforcement agencies, development of awareness and education on tiger conservation. *Activities:* Provide practical training to the frontline wildlife enforcement officers, and promote coordination and cooperation among wildlife enforcement agencies at various

levels; message to the public on damage to wild tiger brought by smuggling and illegal trade of their products, target-oriented propaganda and education in key ports, bordering areas, markets, and collection and distribution centers, reporting phone hotline, wide dissemination of typical illegal trade cases to facilitate public further understand the legal consequences of illegal activities. *Outcomes:* Public's awareness will be significantly raised, more cooperative in reporting the illegal activities.

E-3: Indonesia – Addressing wildlife trade; US\$0.5 million; 5 years

Objectives: To reduce international demands for tigers, their body parts, and derivatives. *Activities:* Upgrading the legal basis for arresting suspected poachers and higher penalties for prosecuted poachers and wildlife traders, establishing a high-level inter-agency command unit (Police, Customs, Justice, Interpol, UNODC, and WCO) to interdict and prosecute major illegal wildlife traders who operate across state and national boundaries, developing and implementing a comprehensive strategy for wildlife law enforcement, reconfirming countries involved in international trade of tiger and its parts and derivatives, obtaining commitment to stop the international trade of tiger and its parts and derivatives from all countries involved. *Outcomes:* Tiger conservation units (mitigation, protection, law enforcement) are actively working on priority tiger landscapes, tiger poaching and trade reduced by 90% from the baseline value, international demand for tigers, their body parts and/or derivatives is reduced by 90% from the baseline value.

E-4: Lao PDR – Controlling illegal trade and reducing demand; US\$1.2 million; 5 years

Objectives: Strengthen law enforcement to reduce wildlife crime. *Activities:* Enforcement staff training, informant network, routine/responsive patrol, public awareness. *Outcomes:* Wildlife crime control units established and operating, better public understanding about negative impacts of wildlife trade.

E-5: Myanmar – Controlling illegal trade and reducing demand; US\$1.0 million; 5 years

Objectives: To strengthen law enforcement activities with national and regional cooperation. *Activities:* Message to the public on damage to wild tigers brought by smuggling and illegal operations of their products; enforcement staff training, information network, and routine patrol; increase awareness among stakeholders and law enforcement agencies to fight against wildlife trafficking. *Outcomes:* Integrate tiger conservation as a priority task in the development agenda of government agencies; increase of tiger and prey densities in and around tiger habitats; cooperative management agreements between TCL authorities and local villagers in place and functioning; better public understanding about negative impacts of wildlife trade and reducing demand of tigers.

E-6: Nepal – Controlling illegal trade and trafficking; US\$1.7 million; 5 years

Objectives: Reduce illegal wildlife trade and trafficking which is very severe issue to Nepal. *Activities:* Capacity building of protected area personnel and police, develop information-sharing mechanism, develop reward and punishment mechanism in illegal trade and trafficking. *Outcomes:* The illegal trade and trafficking will be reduced by 80%, working capacity will be enhanced and eventually tiger conservation will be supported.

E-7: Thailand – Facilitating international cooperation; US\$4.8 million; 5 years

Objectives: Facilitate international cooperation in tiger conservation efforts, support national and international efforts to manage captive tigers responsibly. *Activities:* Strengthen enforcement capacity of Thailand's CITES programs, ASEAN-WEN, bilateral cooperation with Cambodia, Laos, Malaysia, and Myanmar for trans-boundary enforcement, monitoring, and research; control programs for captive breeding of tigers, database of individual tracking records, enforce illegal activities on captive tigers, public

campaigns on the difference between wild and captive tiger conservation, strengthen management information system (MIS) for wildlife conservation. *Outcomes:* Stronger international network to fight wildlife crime, public understands the difference between wild tiger conservation and illegal captive tiger business that harms tiger conversation.

E-8: Vietnam – Control illegal trade and regulate tiger conservation breeding facilities; US\$10.9 million; 5 years

Objectives: Prevention, detection, and suppression of organized tiger and wildlife crime are significantly strengthened; demand for tiger and other wildlife products is significantly reduced and support for wild tiger conservation is significantly increased; captive tiger facilities are developing towards ex situ conservation to support conservation of wild tigers. *Activities:* prosecute criminals organizing the illegal trade in tigers and tiger prey; government issue Directive on dismantling organised tiger crimes as a matter of national urgency, strengthen sharing information and cooperation on prevention and investigation of transboundary and international illegal tiger and willdlife trade, support front-line staff with equipment, infrastructure, training, incentives, and insurance; reduce retail sales of tiger and prey products; sustained enforcement campaign against retailers illegally selling tiger and prey products; strengthen information sharing and intelligence analysis; professional intelligence analysis system; enhance capacity to investigate and prosecute wildlife crimes; wildlife crime training module developed, delivered, and also integrated into existing curricula, international cooperation on training, improving capacity of relevant authorities on combating illegal tiger and wildlife trade; review and analyze current system and propose new issuance and amendments on wildlife protection laws to identify gaps and propose issuance and amendment to law documents in support of effective enforcement efforts and apply higher punishments under regulations of current laws to violators; identify economic, social, cultural factors that cause increasing declines in wildlife and tigers; launch awareness and communications

campaigns; delist instructions on use of endangered species; establish national individual captive tiger registration system and professional monitoring programme; training of multi-agency team in animal identification techniques, all captive tigers are individually identified using stripe pattern, DNA and microchips, national database on captive tiger identification, monitoring protocols of captive tiger facilities; national conservation breeding plan for Indochinese tiger. *Outcomes:* Directive on wildlife crime prioritization issued, investigations launched, comprehensive training courses carried out; innovative communication campaigns launched, number of population using tiger products and tiger prey reduced; standard registration systems for tiger is applied, breeding management plan for Indochinese tiger endorsed.

E-9: Global Support Program – Combating Wildlife Crime; US\$4.0 million; 2 years

Objectives: Launch a consortium of four international agencies charged with wildlife law enforcement—CITES Secretariat, INTERPOL, United Nations Office on Drugs and Crime (UNODC), and the World Customs Organization (WCO)—plus the World Bank to offer support to sovereign empowered national agencies. *Activities:* Law Enforcement Assessment Workshops and Strategy Development; Transboundary Interdiction Support; Legislative Assessments; and Capacity Building support. *Outcomes:* up to 20 interdiction operations at known hotspots for tiger trade and trafficking; recommendations to make wildlife crime a priority through the entire chain of the criminal justice system; implementation activities.

E-10: Key Study – Demand Elimination; US\$0.5 million; 2 years

Objectives: Launch a large-scale, coordinated, and targeted campaign to change the behavior of current consumers of tiger derivatives. *Activities:* Expert workshops to gather currently available knowledge and plan the campaign. *Outcomes:* Insights about consumers' attitudes and motivations, the design of a future global program and support for national awareness programs.

F. SCIENTIFIC MONITORING, SURVEYS, RESEARCH

F-1: Bangladesh – Scientific monitoring, surveys, research; US\$2.0 million; 5 years

Objectives: Regular biodiversity status survey, population census, behavioral and ecological study based on latest scientific methodology. **Activities:** Tiger and prey animal census at two- or three-year intervals, survey and monitoring by the use of appropriate techniques in Sundarbans. **Outcomes:** Number of prey animals (spotted deer) will be increased and at the same time number of tigers will be increased in Sundarbans, improved capacity and efficiency of field staff.

F-2: Bhutan – Habitat and species conservation; US\$0.6 million; 5 to 8 years

Objectives: Establish a nationwide monitoring program for tigers and prey. **Activities:** Conduct nationwide tiger and prey survey to establish national baseline based on camera trapping and occupancy or distance surveys, establish routine monitoring protocols for tigers, preys, and habitats (MIST). **Outcomes:** National baseline and database to assess the status of Bhutan's tiger population.

F-3: Cambodia – Monitoring of tigers and prey; US\$2.5 million; 5 years

Objectives: Implement consistent tiger and prey monitoring protocols in potential source sites. **Activities:** Establish and train tiger research and monitoring teams, establish a baseline for tiger and key prey species within the tiger source sites, establish, adopt and implement tiger and prey monitoring protocols in the tiger source sites. **Outcomes:** Standardized indicators of prey and tiger recovery provided on regular basis and fully integrated into management planning and resource allocation.

F-4: Indonesia – Creating robust monitoring system; US\$1.8 million; 5 years

Objectives: To provide long-term biological monitoring data on populations of tigers and their prey that can, in turn, provide a science-based

evaluation of the overall effectiveness of tiger conservation interventions. **Activities:** Conducting a time-series biological monitoring survey on the status of tiger and key prey at the source sites, developing standardized survey methodological design and protocols for surveys of tiger and prey species populations and distribution, conducting a workshop and establishing an online and real-time national database that monitors the status and distribution of the tiger and its prey, conducting programmatic trainings on tiger conservation and monitoring methods, comparative studies, and on-the-job training for MoF technical units and NGOs, conducting programmatic trainings on human-tiger conflict mitigation techniques and tiger conservation in general for UPT PHKA, local government officers, general public, and other relevant institutions, producing an atlas of Sumatran tigers and large mammals that will be regularly updated every three years, investigating new technologies to monitor priority tiger landscapes, carrying out a feasibility study on establishment and operation of Rescue and Recovery Center in Sumatra for problem tigers. **Outcomes:** A robust, time-series dataset of trends in tiger and prey populations is available, well trained stakeholders are actively involved in tiger conservation.

F-5: Lao PDR – Confirming tiger presence; US\$1.2 million; 5 years

Objectives: Conduct scientific surveys in all TCLs by 2020 and if tigers are confirmed then create inviolate core areas to secure stabilization of both tiger and prey. **Activities:** Training national staff, equipment recruitment, and conducting scientific surveys for tigers and prey in all key national protected areas. **Outcomes:** Published baseline data on tigers and prey.

F-6: Malaysia – Adopting monitoring system; US\$2.0 million; 5 years

Objectives: Ensure better estimation and monitoring of tiger population. **Activities:** Establishment of monitoring teams, hiring of additional staff, training, purchase of equipments such as camera traps, GPS. **Outcomes:** Core Tiger Habitat database established to assess the status of Malaysia's source tigers.

F-7: Myanmar – Adopting monitoring system; US\$2.3 million; 5 years

Objectives: Implement standardized monitoring protocols in source landscapes. **Activities:** Recruit and train more FD staff in monitoring protocols, establish a baseline for tiger and tiger prey species, review existing biological monitoring protocols and standardize for future use, implement MIST across both tiger landscapes. **Outcomes:** Monitoring protocols standardized and providing regular indication of population change, monitoring protocols fully integrated into planning and resource allocation.

F-8: Nepal – Adopting systematic monitoring system; US\$1.7 million; 5 years

Objectives: Develop systematic tiger and prey monitoring systems, research methods, and dissemination of research results. **Activities:** Encourage younger generation in wildlife research focusing on the tiger, develop research methods, involve local communities and make them capable of self-monitoring and evaluation of their own efforts. **Outcomes:** Robust research and monitoring methods will be developed, self realization of local communities will be reduced human and tiger conflicts.

F-9: Russia – Amur tiger monitoring and research; US\$6.0 million; 2 to 10 years

Objectives: Improve methodological frameworks for Amur tiger monitoring. **Activities:** Activities, included in the research program, are specified in the Strategy of Amur Tiger Conservation in the Russian Federation as approved by Ordinance of the MNR # 25-p of July 2010. **Outcomes:** Modern scientific data provide basis for determination of actual conservation actions.

F-10: Thailand – Monitoring, research, and information management; US\$5.0 million; 5 years

Objectives: Monitor tiger and prey populations in Tenasserim-WEFCOM. **Activities:** High standard annual population monitoring systems, landscape-scale occupancy monitoring for tigers and their prey, a nationwide survey and reporting system on tiger and prey situation based on scientific methods. **Outcomes:** The

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

F-11: Vietnam – Scientific Monitoring, surveys, research; US\$3.5 million; 5 years

Objectives: Consistent tiger and prey monitoring systems, comprehensive scientific surveys nationwide on wild tiger population, attitude surveys on consumption of tigers and its prey. **Activities:** Implement a professional systems to monitor tigers and tiger prey, carry out scientific surveys nationwide on wildlife tiger population and its current distribution, carry out public attitude surveys on tiger and other wildlife consumption. **Outcomes:** Professional systems to monitor tiger and its prey put in place and running, comprehensive research on current wild tiger population and distribution implemented nationwide and one public attitude survey on tiger and other wildlife consumption carried out.

F-12: Global Support Program – Scientific Monitoring; US\$1.0 million; 2 years

Objectives: Develop the appropriate monitoring framework for the TCLs, assess what further capacity building and technology will be required, and, subsequently, assist in meeting those needs. **Activities:** A series of workshops as requested by TRCs divided into TCLs or clusters of TCLs with similar characteristics. **Outcomes:** Monitoring framework for the TCLs, assessments of required capacity building and technology needs.

G. TRANSBOUNDARY MANAGEMENT

G-1: Bangladesh – Transboundary management; US\$1.0 million; 5 years

Objectives: To ensure uninterrupted migration of wildlife in the transboundary landscape and to share better conservation knowledge and techniques. **Activities:** Develop agreement, protocols or regional project involving India, Nepal, Bhutan and Bangladesh for protection of wildlife resourc-

es. Regular patrolling for control of poaching and illegal trade of wildlife. *Outcomes:* Poaching incidence and illegal trade through transboundary landscape will be reduced. Number of tiger and prey animals will be increased.

G-2: Bhutan – Habitat and species conservation; US\$0.5 million; 5 to 8 years

Objectives: Strengthen transboundary collaboration with neighboring countries to maintain ecological linkages of tiger landscapes and to curb the illegal trade of tiger parts and derivatives. *Activities:* Monitor cross-border movement of animals, set up cross-border administrative coordination mechanisms for joint patrolling, intelligence sharing, and policing of wildlife trade. *Outcomes:* Meta-population links between tigers in India and Bhutan, reduced killing, trafficking, and trade in tigers and parts.

G-3: Cambodia – Transboundary collaboration; US\$1.0 million; 5 years

Objectives: Strengthen transboundary collaboration with the governments of neighboring countries to reduce wildlife poaching and cross-border illegal activities. *Activities:* Set up collaboration and cooperation mechanism to combat illegal transboundary activities driven by international demand for wildlife products, establish and train law enforcement team, conduct annual coordination meetings for exchange of experiences on law enforcement patrol activities. *Outcomes:* Increased number of anti-poaching patrols along the border, increased communication between the key agencies in Cambodian and neighboring countries as well as CITES, INTERPOL, and NGOs, concerning the wildlife trade, routes and intelligence.

G-4: China – Transboundary collaboration; pending; To be specified years [subject to change]

Objectives: Extension of international cooperation and communication on global tiger conservation. *Activities:* Strengthen communications between TRCs through international seminars and mutual visits; to understand the concerns of different parties, exchange and share technology and experiences in tiger con-

servation, in anti-smuggling and anti-illegal trade operations involving tiger projects; and analyze issues facing global wild tiger conservation and explore the directions in which joint efforts must move; promote the establishment of information exchange between and cooperation amongst grass-roots conservation agencies in tiger distribution areas in border zones; promote the exchange of information and co-operation among grass-roots law enforcement agencies in border areas and ports; strengthen communication and information exchange with concerned international organizations including WCO, CITES, INTERPOL, etc., to help and guide actual law enforcement actions, and to improve capacity of local law enforcement units by introduction of advanced technologies and experience through the channels. *Outcomes:* Multi-level, multi-format system for international information exchange and cooperation on wild tiger conservation, deeper mutual understanding and stronger mutual support with TRCs.

G-5: Lao PDR – Transboundary collaboration; US\$1.0 million; 5 years

Objectives: Strengthening international cooperation to reduce cross-border illegal wildlife trade. *Activities:* Enforcement staff training, international workshops, checkpoint operation, joint-patrolling for wildlife trade. *Outcomes:* Transboundary wildlife control units established, strict law enforcement on cross-border wildlife trade.

G-6: Myanmar – Improving transboundary cooperation; US\$0.5 million; 4 years

Objectives: Strengthen transboundary collaboration with the Governments of India, China, and Thailand. *Activities:* Increase dialogue with bordering countries concerning tiger and other wildlife crimes, assess opportunities to conduct annual meetings to promote cooperation in law enforcement in key border areas. *Outcomes:* Transboundary agreements between Myanmar, India, Thailand, and China, increased cooperation at key border areas for the enforcement of wildlife crime.

G-7: Nepal – Improving transboundary management and cooperation; US\$0.5 million; 5 years

Objectives: Enhance and strengthen transboundary collaboration with India and China. *Activities:* Increase dialogue, information sharing on wildlife crimes, collective conservation efforts, annual meeting and capacity building. *Outcomes:* Illegal trade will be controlled, capacity of both sides will be enhanced, and information sharing network will be developed.

G-8: Russia – International cooperation; US\$1.0 million; 2 to 10 years

Objectives: Develop cooperation with international conservation organizations, charity foundations, and other non-governmental organizations. *Activities:* Transboundary reserves for seamless movement of Amur tigers and other wildlife across the border, actions to suppress smuggling and re-selling of Amur tiger poaching products, research programs and international Amur tiger research cooperation, management of the captive Amur tiger populations as part of the European Breeding Program of the European Association of Zoos and Aquariums (EAZA) and American Association of Zoos and Aquariums (AZA). *Outcomes:* Russian and foreign Amur tiger specialists enabled to share ideas, draw upon international best practices, and implement joint activities throughout the tiger range.

G-9: Thailand – Transboundary cooperation and management; US\$1.0 million; 5 years

Objectives: Strengthen bilateral cooperation with Cambodia, Laos, Malaysia, and Myanmar for transboundary management, enforcement, monitoring, and research. *Activities:* Initiate dialogue and conduct staff training, international meetings and workshops, joint operations (i.e.,

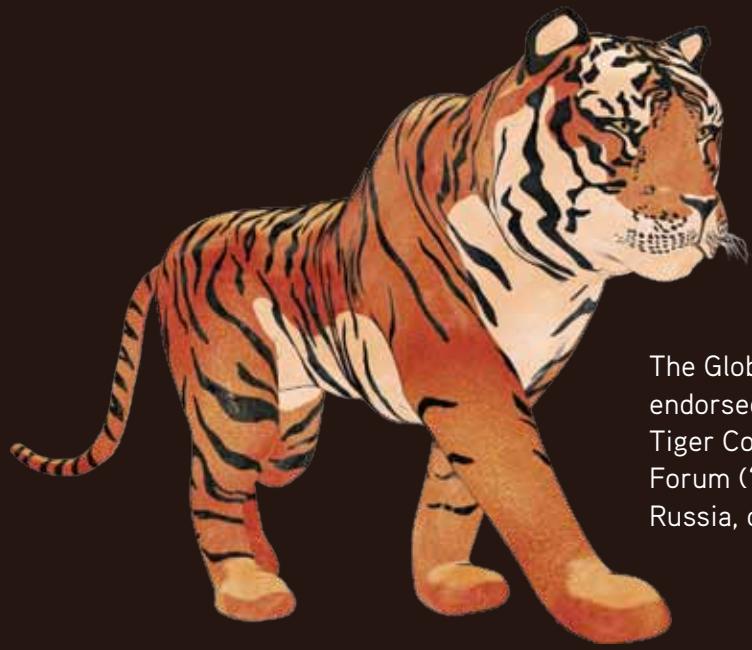
patrolling) with neighboring countries concerning illegal wildlife trade (including cross-border poaching and smuggling of tigers) and transboundary protected areas management. *Outcomes:* Transboundary tiger habitats well protected and international cooperation on tiger conservation and enforcement between Thailand and neighboring countries strengthened.

G-10: Vietnam – Transboundary cooperation and management; US\$1.5 million; 3 years

Objectives: Strengthen transboundary collaboration with neighbouring countries to establish tranboundary tiger protected areas and combat wildlife poaching, smuggling. *Activities:* Initiate dialogues with Laos and Cambodia to conduct feasibility studies of establishing potential tiger source sites, sign MoUs on tiger source site management collaboration and cross-border anti-poaching and smuggling. *Outcomes:* Establish tranboundary potential tiger source site, develop collaborative management plan for the site, MoUs signed on strengthening wildlife smuggling control.

G-11: Key Study – Transboundary collaborations; US\$0.2 million; 2 years

Objectives: Facilitate dialogues for transboundary collaboration and joint management among TRCs that share TCLs. *Activities:* Knowledge sharing of existing best practices for transboundary protected area (TBPA) management; modification, if necessary to adapt to regional conditions; planning for continued communication and collaboration. *Outcomes:* Three regional workshops are proposed, in South Asia, in Southeast Asia, and the Russian Far East-Northeast China aiming to develop Joint Management Plans for these landscapes under the NRTPs.



The Global Tiger Recovery Program was endorsed in the St. Petersburg Declaration on Tiger Conservation at the International Tiger Forum ('Tiger Summit'), held in St. Petersburg, Russia, on November 21–24, 2010.