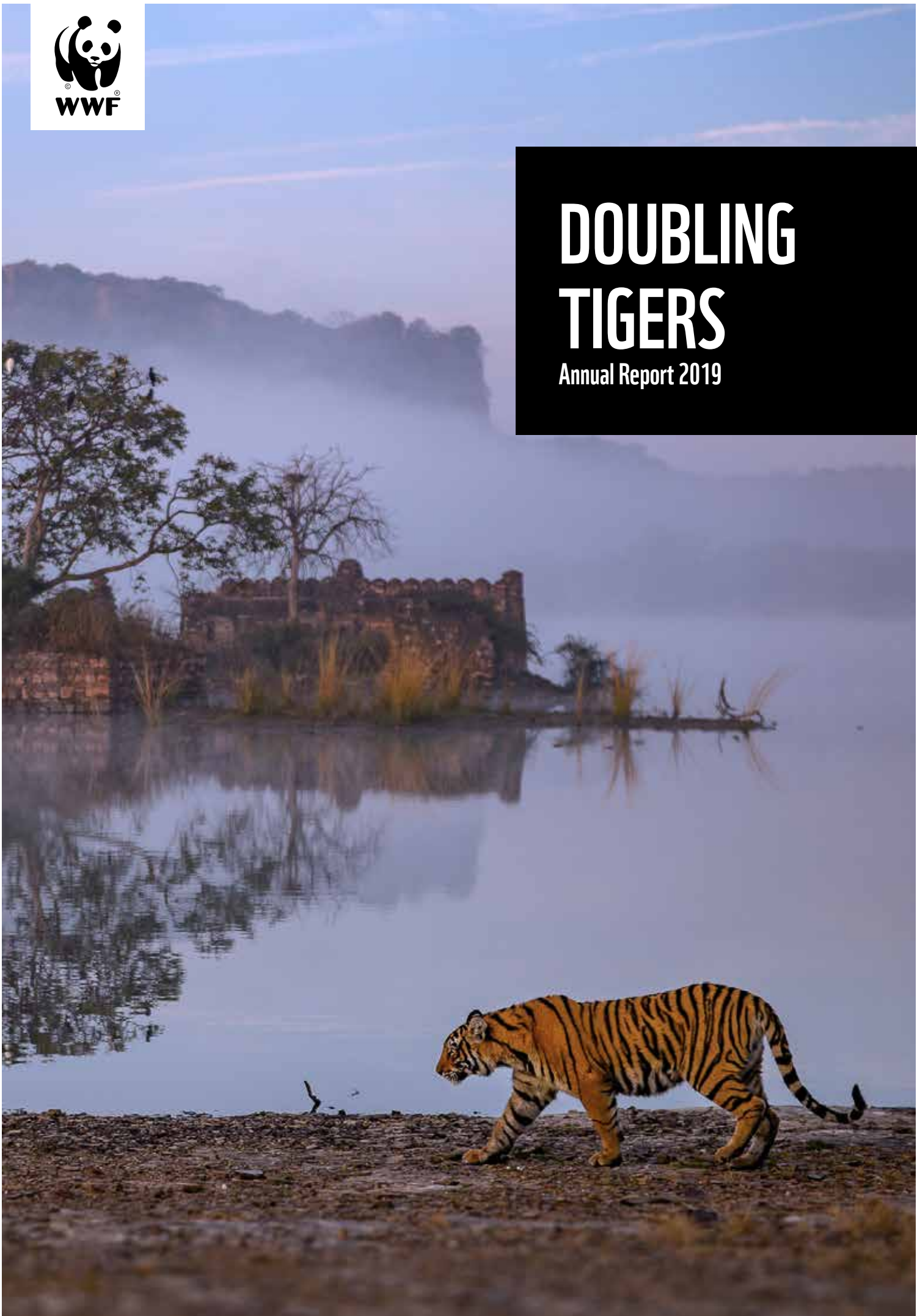




DOUBLING TIGERS

Annual Report 2019





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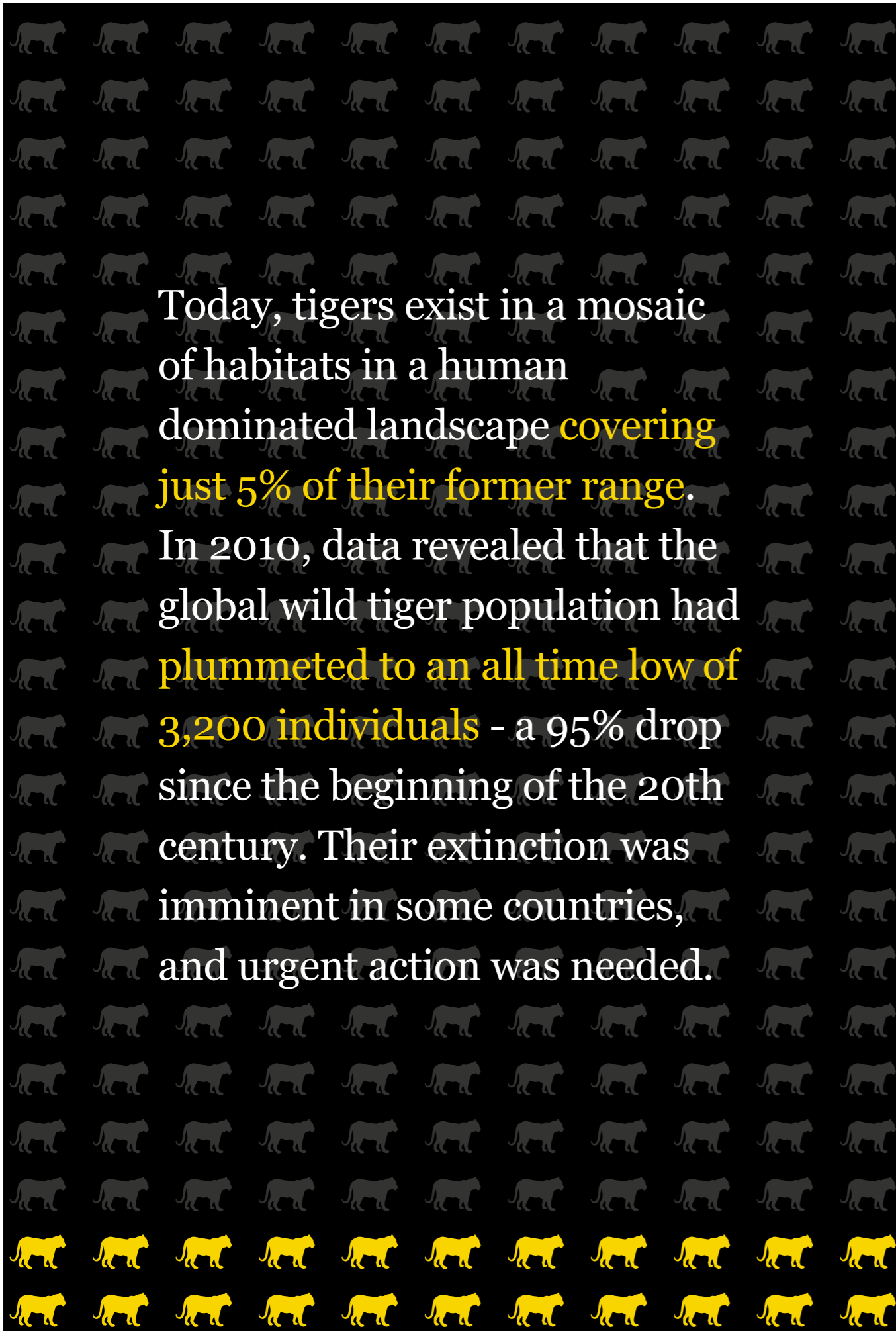


A GLOBAL MISSION

TO CHANGE THE FATE OF AN
ICONIC BIG CAT

© Nitish Madan

Dedicated mothers: tigresses raise their cubs alone, protecting them from predators and teaching them how to hunt.



Today, tigers exist in a mosaic of habitats in a human dominated landscape covering just 5% of their former range. In 2010, data revealed that the global wild tiger population had plummeted to an all time low of 3,200 individuals - a 95% drop since the beginning of the 20th century. Their extinction was imminent in some countries, and urgent action was needed.

WWF'S TIGERS ALIVE INITIATIVE LOOKING BACK AT 2019



We celebrate the upward trend of tiger numbers in India after the completion of the largest ever tiger survey.

“At the beginning of the last century the mighty tiger was abundant in its historical range. Wandering the vast forests and grasslands of Asia they could be found as far west as Turkey, to the tip of the Russian Far East, and even as far south as Bali. Wherever they roamed, the planet’s largest cat incited such awe and wonder they would become woven into the fabric of Asia’s cultural history - in literature, legends and religion.

In the 21st century the tale of the tiger took a tragic turn. Today, tigers exist in a mosaic of habitats in a human dominated landscape covering just 5% of their former range. In 2010, data revealed that the global wild tiger population had plummeted to an all time low of approximately 3,200 individuals - a 95% drop since the beginning of the 20th century. Their extinction was imminent in some countries, and urgent action was needed.

We knew that something could be done, and so that year marked the beginning of one of the greatest single species conservation and recovery efforts in history. WWF, tiger range nations, the World Bank and other partners came together at the Tiger Summit in St Petersburg and set an ambitious goal called TX2: to double the global wild tiger population by 2022, the next lunar Year of the Tiger.

WWF has since been supporting tiger range countries to reach that goal. Together, we have been rewriting the tiger narrative through field and policy work incorporating traditional and international knowledge, and a focus on securing the basic needs of tiger biology. 2016 marked a pivotal moment: for the first time in tiger conservation history, research suggested the global wild tiger population stopped declining and had increased.

Today we continue to support tiger conservation in 14 landscapes across 12 countries. We work side by side with local partners and the communities who share their homelands with tigers. We support the biologists using cutting edge technology to monitor our progress, and the rangers in the field who track poachers and deactivate deadly snares. We amass support from those in the private sector who want to be part of TX2. We sit at the table with governments and policy makers, helping them to fulfill their commitments to TX2.

Looking back at 2019 we celebrate the upward trend of tiger numbers in India after the completion of the largest ever tiger survey. This success paves the way forward, proving it is possible for large carnivores to survive in a human dominated landscape, provided human-tiger interaction is managed. But in some countries the road to tiger recovery remains fraught with challenges. Further evidence of the extinction wave that is sweeping across much of Southeast Asia was seen in Laos, where a five year study revealed no evidence of tigers in that country. In Malaysia, 2019 marked a turnaround for tigers as the dramatic decline in tiger numbers was only checked by the the upscaling of community patrols. There has never been a greater urgency to take action for tigers in Southeast Asia.

As we head into 2020 we have to build on the hard earned gains made to conserve our planet’s most iconic big cat. We are on a mission to ensure they thrive for generations to come.

We’re ready. Are you?”

Stuart Chapman,
Leader of WWF’s Tigers Alive Initiative

MAJOR MOMENTS 2019



67 TIGER SITES ACROSS 10 COUNTRIES

These sites are now using Spatial Monitoring and Reporting Tool (SMART) technology to help mitigate poaching.

MARCH

THAILAND

ASEAN MINISTERS CALL FOR INCREASED REGIONAL COOPERATION to combat illegal wildlife trade in the “Chiang Mai Statement”

Thailand champions tackling illegal wildlife trade during its 2019 ASEAN (Association of Southeast Asian Nations) Chairmanship. WWF and TRAFFIC were invited to the special ASEAN Ministerial Meeting on illegal wildlife trade in Chiang Mai.

JANUARY

SOUTHEAST ASIA’S TIGER CRISIS PUT ON THE RADAR

as the 3rd Stocktaking Conference of the Global Tiger Recovery Programme explicitly recognises the crisis while also calling for a “Southeast Asia Tiger Revival Consortium”, marking a major moment in the intergovernmental process toward doubling tigers. This was hosted by the Government of India, in partnership with Global Tiger Forum and WWF.

MAY

CHINA



14 leading courier and logistics companies SAY “NO” TO ILLEGAL WILDLIFE TRADE

signing a “Voluntary Code of Practice to Refuse Delivery of Illegal Wildlife Trade Products”.



JUNE

CA|TS-LOG GOES LIVE

as a software that captures and visualises CA|TS (Conservation Assured Tiger Standards) scores and site based information on tiger management and conservation impact.

JULY

INDIA

2,967 TIGERS



One of the world’s most detailed surveys for a single species found that India’s wild tiger population estimate continues to increase. WWF were on the ground supporting over 6,000 camera trap locations, while training several thousand forest department personnel.

JULY

THAILAND

CUBS ON CAMERA!

Three tiger cubs from two mothers were photographed in Mae Wong Kleng, Thailand, providing great hope for tigers in the area.

JULY

MYANMAR



RENEWED HOPE FOR TIGERS

as camera trap surveys show evidence of tiger breeding in Myanmar’s two major tiger landscapes: Upper Chindwin and Dawna Tenasserim.

AUGUST

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) AGREES STRONGER MEASURES ARE NEEDED TO STOP TIGER TRADE IN KEY AREAS

including the role of captive breeding of Asian big cats. Launched during the CITES CoP, the TRAFFIC “Skin & Bones: Unresolved” report revealed 2,359 tigers were seized globally in 19 years and highlights where urgent action is needed to stop tiger trade.

SEPTEMBER

INDIA

TIGERS FOUND AT NEW HEIGHTS IN THE HIMALAYAS

Field surveys assessing tiger presence in high altitude areas captured tigers on camera traps above 3,600m in Uttarakhand and above 3,300m in Sikkim. This initiative was conducted through a collaboration between WWF-India, the National Tiger Conservation Authority, Wildlife Institute of India, Global Tiger Forum and state forest departments.

NOVEMBER



Updated “Life on the Frontline 2019” report reveals: NEARLY 2/3 OF RANGERS ‘RARELY’ OR ‘NEVER’

have access to communication devices on patrol.

ROUGHLY 60% OF RANGERS



in tiger range countries have no insurance coverage for cases of serious injury or death.

SEPTEMBER

NEPAL



TIGERS ON THE MOVE THROUGH THE RESTORED SHIKAARBAS CORRIDOR

Camera trap evidence shows tigers are dispersing from Nepal’s Chitwan and even Parsa National Park (where tiger numbers have climbed from an estimated four in 2008 to 18 in 2018) using a once degraded patch of land that has been restored through years of planning and action. The transboundary Shikaarbass Corridor is now teeming with wildlife.

OCTOBER

RUSSIA

KOMISSAROVSKY WILDLIFE REFUGE ESTABLISHED in key territory for tigers and leopards

The new protected area in Primorsky Region borders two protected areas in China. The three areas form an important ecological corridor enabling tigers and critically endangered Amur leopards to move between China and Russia.

DECEMBER

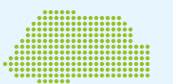
RUSSIA

AMUR TIGER POPULATION ON THE RISE

in Russia’s Evrieskaya Province, according to camera traps

DECEMBER

BHUTAN



CONGRATULATIONS BHUTAN!

Two sites receive CA|TS accreditation

Jigme Singye Wangchuck and Royal Manas National Parks, securing the future for tigers in a critical landscape.

12 COUNTRIES

14 TIGER LANDSCAPES

Around 83% of wild tigers live in WWF supported landscapes.

These landscapes constitute 60% of the current tiger range.

The network of sites and corridors that make up the landscape can be seen as a mosaic of areas identified for their potential role in the recovery and expansion of tiger populations. WWF is working to secure these critical habitats and to restore sites in Kazakhstan and Cambodia so that tigers can be returned to two of their ancestral homes.

For tigers, for people

As well as harbouring the entire global wild tiger population, the majority of the world's people live in Asia. Tiger landscapes and the forests, grasslands, savannas and mangrove swamps they comprise provide invaluable ecosystem services to the billions of people living in Asia. Protecting tigers means so much more than protecting a single species.


This high population pressure dynamic presents one of the greatest threats to tigers, but with it a unique opportunity to demonstrate that co-existence with large carnivores is possible.

WHERE WE WORK



Freedom to move

More than half of WWF supported tiger landscapes straddle international borders, and facilitating cooperation between tiger range countries is a crucial component of WWF's goal to double wild tigers.



When the world decided to double wild tigers, a major part of WWF's commitment was to set up the Tigers Alive Initiative to work together with Tiger Range Countries to drive forward the TX2 goal.

HOW WE WORK

Venturing out: Between 17 and 24 months of age, tiger cubs leave their mother's side in search of their own territory.

How we work

WWF is using three main strategies to recover tiger populations. Each requires a bold vision, exceptional leadership and commitment from governments, communities and conservation investors.

- (1) Protect and Connect: protecting, connecting and restoring critical tiger landscapes.
- (2) Stop the Trade: weakening demand for tiger products and severing trade chains.
- (3) People Centered Tiger Conservation: strengthening public, private and community support for tiger conservation.

Better together

In each of our 14 priority landscapes WWF partners with governments, local communities and grassroots organisations to benefit tigers, people and ecosystems.

We work with technical partners to deliver critical protection tools such as SMART (Spatial Monitoring and Reporting Tool) and M-StrIPES (Monitoring System for Tigers - Intensive Protection and Ecological Status), to inform and help improve anti-poaching patrols. Likewise, the implementation of tiger specific protected area management standards (CA|TS), as well as our approach to reducing poaching through the Zero Poaching Toolkit would not have been possible without collaboration with our partners.

An innovative approach

In this rapidly changing world, conservation must evolve and constantly adapt. WWF facilitates and supports innovative interventions across tiger range countries, such as patrol prediction using artificial intelligence, eDNA testing for biodiversity monitoring, and a SMART plug-in which helps track and monitor criminal networks and repeat offenders. Throughout this report you'll read more about our innovative approaches to securing a future for tigers.



FORESTS FIT FOR TIGERS

Given good quality habitat, sufficient prey and adequate protection, tigers can increase their numbers relatively quickly. In the past, balanced ecosystems were able to support this top predator, but today's tiger is a conservation dependent species, meaning interventions are needed to ensure tiger landscapes contain the necessary components for them to thrive.

Tiger heartlands

WWF is active across more than 200 tiger sites across the 14 landscapes, but since 2018 we have focussed attention on 50+ tiger heartlands identified as having the highest potential for tiger recovery. Though these vital heartlands cover just 6% of the remaining tiger range they are home to around one quarter of the world's tiger population.

In 2019 WWF consolidated baseline information on biological indicators across the tiger heartlands, helping to set new targets for tiger population recovery at a site level and enabling exploration of realistic scenarios accounting for other environmental, social and political factors.

Although we have various tiger-specific data for all heartlands there are only 15 sites with adequate information on tiger prey. This limits our understanding of tiger recovery potential. WWF is exploring innovative monitoring systems to reduce investments required to gather this vital data. We are piloting eDNA sampling from freshwater to deduce species composition in an area and finding ways to use existing camera trap images to provide prey densities.

CA|TS: setting an international benchmark

The Conservation Assured Tiger Standards (CA|TS) mission is to secure safe havens for tigers by demonstrating and promoting best practices in protected area management. The CA|TS accreditation scheme works by encouraging tiger conservation areas to meet a set of standards and criteria necessary to assure effective, long term tiger conservation. Designed by an international group of experts and protected area managers, CA|TS provides an opportunity for individual sites or complexes to showcase their commitment to, and success in, protecting tigers. Tiger conservation areas taking part in CA|TS are registered and, following an assessment, management gaps are identified or the site is submitted for accreditation (achieving the standards as verified through an independent review process).

What started as a small project is now a global partnership comprising tiger range governments, inter-governmental agencies, institutions, NGOs and conservation areas.

2019 saw the completion of five-year country plans for all the seven tiger range countries implementing CA|TS, defining a road map for the standards in each country. Importantly, this process also led to a commitment to bring more key areas under the CA|TS umbrella.

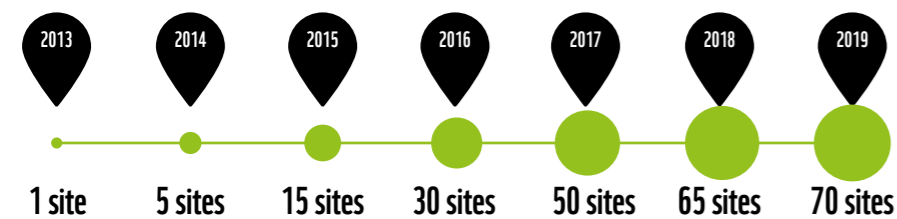


© Vladimir Cech

A place to call home: tigers need large territories with sufficient prey and protection from poachers.

CA|TS for Jaguars: CA|TS has helped in the push for effective interventions towards conserving the 170,000 or so jaguars living in Latin America, as standards (based on CA|TS) were developed by Jaguar experts and partner agencies in consultation with CA|TS team. This was launched as a pilot in 2019.

70 sites registered across 7 countries



CA|TS ACCREDITED SITES

- 2015 CHITWAN NATIONAL PARK, NEPAL
- 2015 SIKOTE-ALJN NATURE RESERVE, RUSSIA
- 2017 LANDSDOWNE FOREST DIVISION, INDIA
- 2018 RAMNAGAR FOREST DIVISION, INDIA
- 2019 ROYAL MANAS NATIONAL PARK, BHUTAN
- 2019 JIGME SINGYE WANGCHUCK NATIONAL PARK, BHUTAN

What CA|TS tells us about the heartlands

A rapid assessment of the 50+ tiger heartlands using a scaled down version of CA|TS was carried out in 2019, enabling WWF to assess site needs, capacity and performance/management levels. The results highlight conservation successes across many of the heartlands, and signal areas in need of our focus into the future.

The value of these surveys was underpinned in India, when implementation of CA|TS in areas outside of tiger reserves resulted in the government allocating funds for vital tiger areas that had previously received little attention, particularly when compared against designated tiger reserves which are well funded.

WWF's tiger heartlands are home to 1/4 of the global tiger population



70% of sites in South Asia (Bhutan, India, Nepal) and Amur Heilong (China, Russia) are adequately or effectively managed

ONLY 32% of heartlands in Southeast Asia are being managed effectively, of which all are in Thailand



"Winter mornings in Corbett are always special. As we took a turn on the road we saw fresh pug marks, and there she was patrolling her territory dressed in the shades of winter."

- Nitish Madan, photographer

© Nitish Madan



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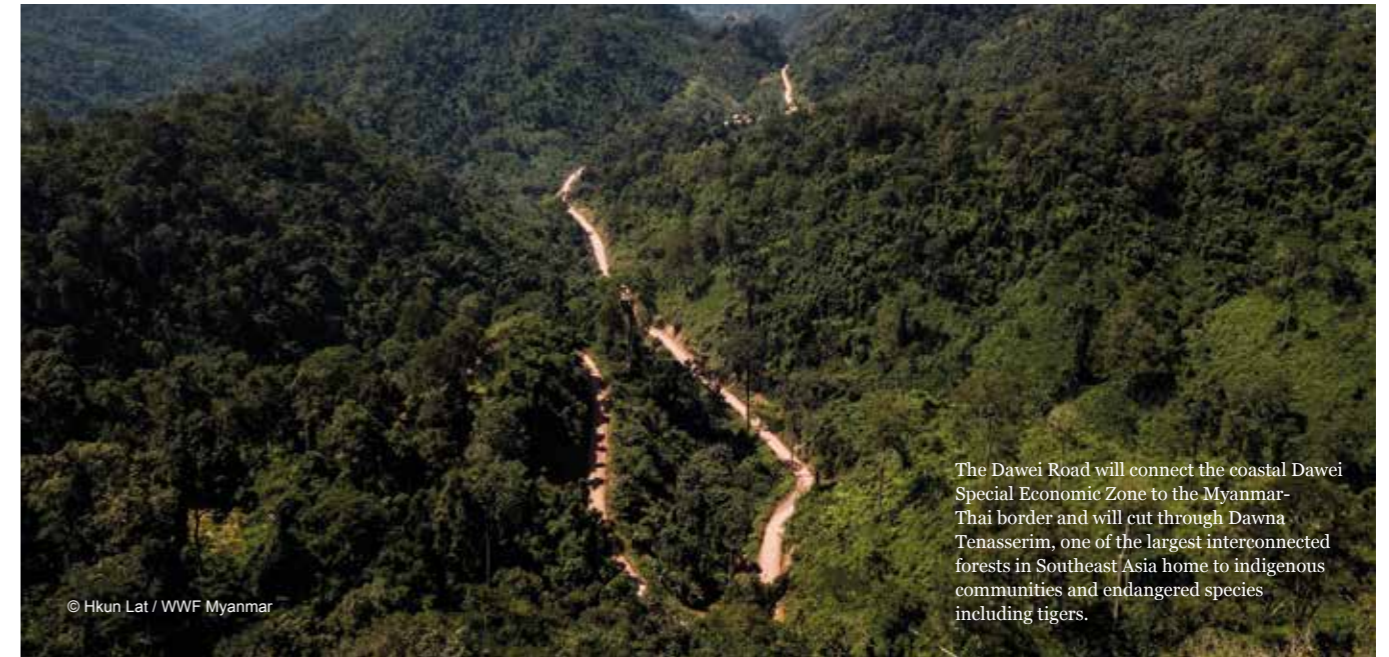
A new lease of life: Rewa the tigress spotted by camera traps with her four new cubs.

BHUTAN

Two more parks are CA|TS approved!

In December 2019, three years after Bhutan began implementing CA|TS, two parks in the country received CA|TS accreditation: Royal Manas National Park, the country's oldest park, and Jigme Singye Wangchuck National Park. This indicates, through an independent evaluation process, that the two protected areas have achieved the highest global standards of tiger conservation.

An individual tigress, Rewa, symbolises the impact of conservation efforts in Jigme Singye Wangchuck National Park. Rewa was first spotted through camera trap photos in 2012, looking frail and thin. In 2014, Rewa was seen again via camera traps but this time, she had three healthy female cubs. Most recently in January 2019 Rewa was captured with four new female cubs!



© Hkun Lat / WWF Myanmar

The Dawei Road will connect the coastal Dawei Special Economic Zone to the Myanmar-Thai border and will cut through Dawna Tenasserim, one of the largest interconnected forests in Southeast Asia home to indigenous communities and endangered species including tigers.

MYANMAR

Road to be designed with wildlife in mind

In July 2019, WWF presented the Nature in Peril: the risk to forest and wildlife from the Dawei-Htee Road" at a workshop organised by the Ministry of Construction in Myanmar. Following years of advocacy, recommendations provided by WWF have been incorporated into the design of the road, which traverses critical habitat. These include: 12 wildlife crossing measures, recommendation of establishing a critical conservation zone, an environmental management fund and direct benefits to local communities from monitoring and maintenance of wildlife crossing measures.

THAILAND

Cubs on camera!

In Mae Wong Klong Lan in late 2019, three tiger cubs from two mothers were photographed. One male and one female cub are the offspring of 'MKF5' who has been monitored by WWF since 2014. This is her third litter. Another cub of around five months old, is the offspring of 'MKF8', a new resident female who entered the population in 2018. The changing demographics in favour of resident, breeding females provides great hope for the tigers in Mae Wong Klong Lan.

Innovations

This year WWF, with the CA|TS Partnership, launched CA|TS-LOG; a software that inputs, tracks and visualises CA|TS scores. Among other things, the secure platform helps to monitor changes over time across wildlife habitats, provide site managers with a first-cut assessment and early warning of major developments that could threaten protected areas. Bhutan, China, India, Malaysia, Nepal and Russia are the first to pilot the software.

Looking forward

In 2020, WWF and the CA|TS Partnership will re-survey 112 tiger conservation areas covering over 200,000 km² and holding an estimated 70% of the world's wild tigers. This will be an update of Safe Havens for Wild Tigers: A Rapid Assessment of Management Effectiveness against Conservation Assured Tiger Standards released in February 2018, which was the first overview of the management effectiveness of tiger conservation areas across Asia. This updated data, based on criteria set by CA|TS, will show the change over the last two years and be presented at the 2020 Global Tiger Initiative ministerial meeting in Malaysia in order to better inform tiger conservation decision making.

With partners

CA|TS support group:

Equilibrium Research, Freeland, Fauna & Flora International, Global Wildlife Conservation, Global Tiger Forum, IUCN, Panthera, Smithsonian Institution, UNDP, WCPA, WildTeam, WWF and ZSL.

Tiger Range Country governments:

Bangladesh, Bhutan, China, India, Malaysia, Nepal, Russia.



FEATURE

AN EXTENSIVE SURVEY FOR LARGE MAMMALS

COUNTING TIGERS IN INDIA

India is home to the world's largest wild tiger population, despite being the second most populous country on earth. It takes an enormous commitment of time, resources and expertise to sustain wild tigers here. Every four years, the All India Tiger Estimation (AITE) exercise is conducted to estimate tiger populations across India, while also collecting important data on their prey and habitats.

The National Tiger Conservation Authority (NTCA) of Ministry of Environment, Forest & Climate Change, Government of India and Wildlife Institute of India led the AITE in 2018. A total of 381,400 sq.km of forests were surveyed for tiger signs and prey estimation and 593,882 person days were invested into the exercise which covered 141 sites, setting a new global standard for large carnivore monitoring. The survey also delivered important results that tell us more than just how many tigers are living in India. WWF in partnership with the NTCA and State Forest Departments covered approximately one fourth of the sites.

Over to Dr. Dipankar Ghose, Director of WWF-India's Wildlife and Habitats Programme, to shed some light.

"Given the immense pressures on India's biodiversity, the current estimates are encouraging both for tigers and India's natural heritage and speak of strong commitment of the government, conservation organizations, local communities and the support of citizens of India."

- Mr. Ravi Singh, CEO & SG, WWF India

What were the results of India's latest tiger survey?

According to the latest results of AITE, released by the NTCA, India's tiger population stands at 2967 individuals (SE 2,603 – 3,346).

What makes this estimation unique in comparison to previous years?

For the first time, camera trapping was extended to various sites and cameras were also installed at a higher density relative to previous surveys (one pair of camera traps in every 2 sq.km grid, instead of the earlier 4sq.km grid), as per the NTCA's updated protocol. An unprecedented combined effort was invested in camera trapping with 381,400 sq.km of forest surveyed in total.

In such a vast country with numerous tiger landscapes, how do conservationists go about determining tiger populations?

The exercise involves surveys for carnivore signs and prey abundance estimation, camera trapping for tigers, and analysis of remotely sensed data to map the extent of tiger habitats and derive relevant variables on habitat quality and human impacts for analysis. These data are combined and statistical models are used to derive estimate of tiger populations and occupancy for tigers and their prey at site, landscape and national scales.

It is a huge investment of resources. Why do we count tigers? Does the survey give us any other important information?

We estimate tiger abundance and other demographic parameters to assess the species status over space and time. This is important because of the immense pressures on tiger populations and habitats. In addition, the monitoring exercise also provides valuable information on the movement of dispersing tigers and has helped us identify existing and potential corridors in need of conservation actions. This has furthered understanding of tiger occurrence and behavior in human-dominated landscapes and enabled management of human-wildlife conflict in corridors and sustained engagement with multiple stakeholder groups.

What was WWF's role?

WWF India's biologists worked with the NTCA and State Forest Departments in the tiger monitoring conducted in WWF's priority tiger recovery sites and beyond. The team also conducted several capacity building workshops for state forest department field staff on the methods of conducting sign surveys, deploying camera traps, and data management.



Invisible tigers are notoriously elusive and well camouflaged, but thanks to modern technology we do not need to be able to see the tiger for ourselves to know it is there.

We've come a long way since counting pugmarks. Could you take us through some of the technological innovations in wildlife monitoring that were used in this survey?

Primary field data was recorded digitally using mobile phone applications like M-STrIPES (Monitoring System for Tigers - Intensive Protection and Ecological Status), which uses GPS to geotag photo-evidence. Technological tools such as CaTRAT (Camera Trap data Repository and Analysis Tool) which automatically segregates camera trap photographs of species, was also used. Similarly, Program ExtractCompare6 fingerprints tigers based on their stripe patterns enabling us to count the number of individual tigers (> 1-year-old). In areas where tigers occur in very low densities, information on tiger abundance is assessed through individual identification from DNA derived from scat.

What are some of the greatest challenges in species monitoring?

Given that there is great heterogeneity in the distribution and density of tigers, it is necessary to sample habitats spanning expansive landscapes. This can be immensely logistically

challenging and resource intensive, and especially difficult in areas where tigers occur at low densities. The management of vast quantities of data – including the identification of individual tigers from many thousands of camera trap images – is also a daunting and labour-intensive task, even when aided by technology. Finally, the monitoring of unmarked species (prey species in particular) is a key challenge because camera trap data on prey species cannot be used to reliably assess population parameters.

Is WWF doing anything to make wildlife monitoring more affordable and effective in the future?

WWF is working on developing a range of population, management and habitat indicators that can be used to assess progress towards tiger recovery across a range of scenarios, including when information on animal abundance is sparse. We are also working with the Tigers Alive Initiative to develop methods to efficiently assess prey populations from camera trap and sign survey data. We have also co-designed and are supporting the development of a low-cost camera trap with rechargeable batteries. Once these are ready, we will seek permission from NTCA and State Forest Departments for using in the field.

Rapid urbanisation, land-use, mining and linear infrastructure and poaching all pose a great threat to India's tiger population. How is WWF addressing these challenges?

In order to make linear infrastructure projects such as roads and railways tiger-friendly, WWF India engages closely with policymakers, planners and executing agencies to advocate on avoidance of critical biodiversity areas to enable safe passage of wildlife. The ecological restoration of abandoned mining sites and engaging in siting new mines and mining infrastructure in critical wildlife corridors has also emerged as a key area of work in recent years, primarily in the Central India Landscape.

We also have a strong programme to encourage the involvement of local communities living around tiger habitats in conservation through a multi-pronged approach emphasising community-based natural resource management including biodiversity conservation, promotion of sustainable livelihood activities and managing human-wildlife conflict.

WWF India is also actively engaging with regional and city planners to explore how the expansion of cities in and around tiger landscapes can be better planned and managed in a manner that conserves critical forest areas in the vicinity.

WITH PEOPLE

Tigers live in some of the world's most densely populated countries. Amid increasing competition for resources, planning for tiger recovery means ensuring tigers have space to roam and that their prey have the resources to flourish, in ways that benefit rather than hinder the people who share the landscapes with them.

WWF's People Centred Tiger Conservation approach expands on existing community-based conservation work to further promote sustainable partnership with, and gain active support from communities and other stakeholders in tiger landscapes. The foundation of this approach is built upon trust and we continually strive to ensure the needs, priorities and capabilities of communities living in tiger landscapes are properly considered through deepening the development of social mapping and community level programmes. This is done through developing co-management and leadership mechanisms for habitat management, incentivising protection and employment in conservation actions, supporting access and usage rights to indigenous lands, or linking local products to bigger market opportunities.

A shared home: Women carry firewood through Sal forest in Mankanthpur, Uttarakhand, located in the Kosi-Baur wildlife corridor.



Local school children take part in ecology educational lessons. Sephu Gewog village, Wangdue Phodrang District, Bhutan.

INDONESIA

Securing sustainable alternatives

WWF-Indonesia has been conducting protection-focussed awareness raising in communities living in and alongside a tiger heartland, Rimbang Baling - Bukit Betabuh. This includes aims to strengthen stewardship to conserve forests and wildlife, and encourage a move away from unsustainable practices such as poaching and forest conversion activities. Through an integrated ecological and social development programme, WWF-Indonesia and partners, including YAPEKA and INDECON, are working together with government and communities to promote sustainable livelihood alternatives such as ecotourism and organic farming. Further to this initiative in 2019, WWF supported the community of Tanjung Belit Village, directly adjacent to Rimbang Baling, to issue their customary code and village regulation act to protect ~300ha of Imbo Batu Dinding customary forest. The village government is now processing the legal application to authorities including the Ministry of Forestry for formal recognition of the area as a community forest.

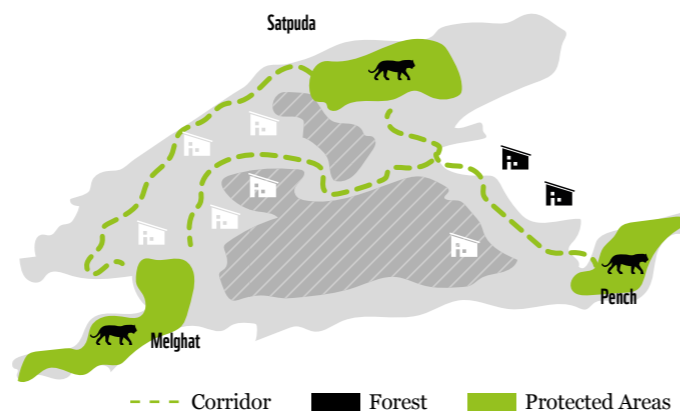


INDIA

Securing corridors with cotton

In an innovative project launched by WWF in collaboration with the C&A Foundation (a corporate foundation aiming to transform the fashion industry), cotton farmers in the Indian state of Madhya Pradesh are being encouraged to cultivate cotton organically. The project, set up in the Satpuda - Pench corridor, in the Central India Landscape, will improve the ecology of a corridor connecting two key sites for tigers. WWF is working with the local stakeholders to ensure safety so that the big cats move freely through the landscape. The project will also secure more prosperous livelihoods for communities living in the area and likely reduce human wildlife conflict. More than 6,000 farmers from 124 villages are involved in the project, which covers 2,400 hectares of land. The cotton produced is then procured by the Denmark-based garment company 'Neutral' at a premium rate. WWF's aim is to move towards a 'Sustainable Production Landscape' in this area.

An innovation WWF is leading on, "*Wildstuff: the tiger-friendly marketplace*", is exploring how to create an online marketplace that aggregates produce from tiger landscapes, plus attracts premium prices for those commodities.



Isong, a honey farmer from the Talang Mamak tribe, collects honey from a Sialong tree using techniques taught to him by his father. Sialong means "big tree with honey". Suo-Suo Village, Sumatra, Indonesia.

The SAFE approach

As the human population grows and wild places are transformed to feed, house, and transport people, contact with wildlife increases. As species recovery programs succeed, there is also a likelihood that wildlife contact with people will also increase. With both these trends playing out in parallel, increasing conflict occurrence can lead to a loss of tolerance locally, and even the active removal of wildlife such as tigers. The SAFE approach to managing human wildlife conflict offers a balanced way forward by gradually making a site safer through reduction of both risk to people and their assets, as well as wildlife and their habitat. In this manner SAFE can decouple human and tiger numbers from the number of human wildlife conflict incidents.

Human wildlife conflict factors missing at almost all sites:



Monitoring and data collection systems



Human wildlife conflict information systems



Early warning systems and safer outdoor working conditions



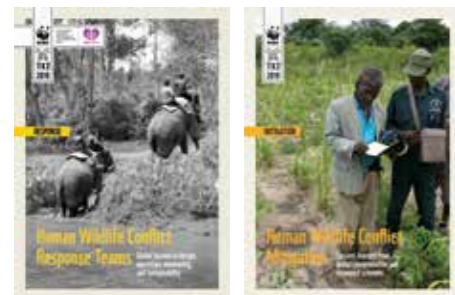
Human wildlife conflict friendly farming practices and insurance schemes



Response systems

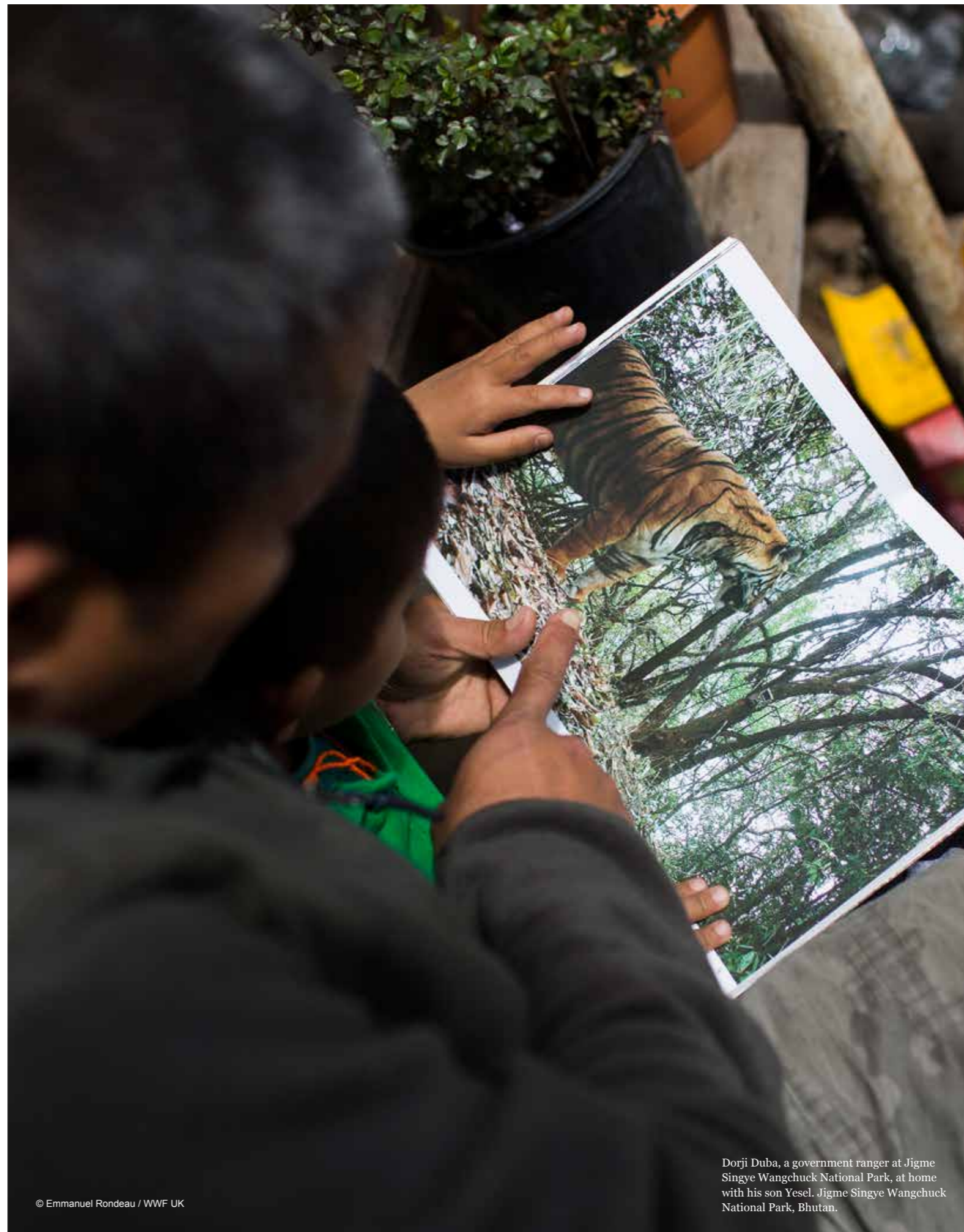
In 2016, building upon decades of human-wildlife-conflict work, WWF began assessing the level of risk and safety across tiger landscapes through human wildlife conflict rapid assessment workshops. Since then assessments for sites in India, Nepal, Indonesia, Cambodia, China, and Bhutan have been completed. The results provide valuable lessons and have shone a light on common gaps in managing human wildlife conflict. If sites are to become SAFE in the long term, it is these initial enabling features that must be put in place first.

Many of the gaps identified across tiger landscapes had not been researched comprehensively, or was characterised by a lack of available substantive information. In response, WWF has instigated a series of research reports specific to these topics. This SAFE Series was established in 2019 and seeks to be an open resource to enhance the science and practice of human wildlife conflict management. The report series launched with the release of two reports in 2019 and will be further expanded over the coming years.



**SAFE SERIES
MORE
COMING
SOON**

As an insight to what a SAFE System might look like, Nepal offers us perhaps a view of the future. There, conflict species – elephant, rhino and tiger – are on the increase, and yet current data suggest that conflict incidents are decreasing. This success is a result of the long term, integrated management of human wildlife conflict with communities.



Dorji Duba, a government ranger at Jigme Singye Wangchuck National Park, at home with his son Yesel. Jigme Singye Wangchuck National Park, Bhutan.

© Emmanuel Rondeau / WWF UK

Looking forward

In 2020, WWF will develop targeted human wildlife conflict management plans for each tiger landscape using the SAFE systems assessment results.

At the same time, our work towards “Wild Stuff: the tiger-friendly marketplace” will be ramped up in order to achieve fair market prices for produce which is sourced or grown sustainably by communities located in and around wildlife habitats. We will be engaging corporate partners in designing how this could function in tiger landscapes and ensure local livelihoods benefit while contributing to species recovery.

Tackling the interlinked challenges of landscape connectivity, livelihoods, and human wildlife conflict in the coming year will lay the foundation of a people-centred tiger conservation approach through to 2022 and beyond.

With partners

WWF strives for a safe and mutually beneficial sharing of land for both tigers and people, partnering with communities in the adoption of sustainable livelihoods to reduce forest dependence, and to address human wildlife conflict holistically. The TX2 goal cannot succeed without our partners, the local communities.

A tiger cub is sitting on the forest floor, looking upwards. The background is a dense forest with many trees and green foliage. The lighting is soft, suggesting a forest environment.

PROTECTION FROM POACHING

As well as the encroachment of human activities, poaching is one of the most immediate threats to tigers, particularly to tigers who move out of protected areas. As such, effective protection is critical if tiger numbers are to be sustained or recovered. This includes protection from organised poaching activities and also the increased usage of snares (rudimentary wire traps) that has proven to be so devastating for wildlife populations in Southeast Asia.

In our efforts to halt poaching, we are engaging local experts and institutions to strengthen ranger capacity on the ground. At the same time we provide training for rangers in the use of SMART (Spatial Monitoring and Reporting Tool), an intuitive open source software that incorporates information gathering and patrol data, and delivers innovative ways to aid managers in strategic enforcement activity planning. Through this work, we also partner with local community patrol teams that are driven to protect the natural resources in their homelands.

WWF has facilitated experience sharing between tiger range countries through the Asia Poaching Prevention Working Group, and provides guidance on zero poaching toolkit implementation. Support is also offered to tiger range countries so that they may build protection strategies, and make strategic interventions where they count the most.

WWF also released a report this year which draws attention to the major problem of low prosecution rates for cases of wildlife crime, particularly in Asia. It also sets out a strategy for working with a select group of expert partners to increase transparency in this area, and produce compelling evidence that can be used to drive positive change on this issue.

Taking it easy: tigers sleep up to 20 hours a day, saving valuable energy for challenging hunts.

The Zero Poaching Toolkit

The Zero Poaching Toolkit is a group of tools which, when used together, can stop poaching. The toolkit helps national and state agencies, protected area managers, rangers and other frontline protection staff close the gaps in anti-poaching efforts. The tools are freely available and supported by a host of organisations.

www.zeropoaching.org

SMART about poaching

WWF assessed all the WWF supported SMART sites in Asia in order to guide investments in capacity building.

Through a partnership with SigFox, WWF has enabled park management in Bhutan to receive real time alerts on the whereabouts of rangers 24/7, irrespective of phone connectivity. This innovation will help to improve response time to anti-poaching intelligence and improve strategic patrol deployment.



11 COUNTRIES

with WWF supported sites using SMART

67 SITES

in tiger range countries

14 SMART CONNECT

Sites in tiger range countries

“Sigfox wants to support wildlife conservation looking at topics which could be addressed globally and affordably.”

Ludovic Le Moan, Co Founder of Sigfox



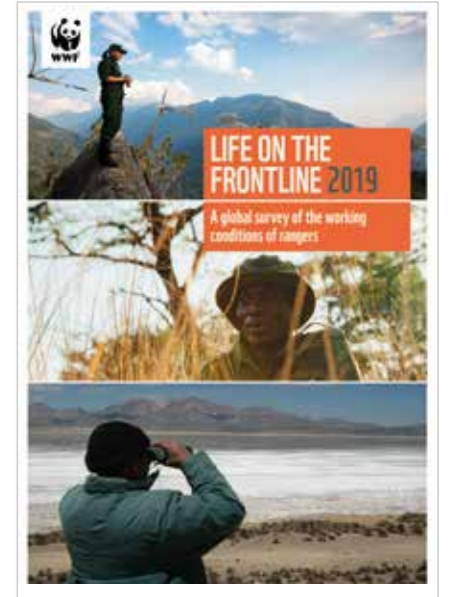
© Hkun Lat / WWF Myanmar

A Myanmar ranger in training.



© Nitish Madan

Krishna (T19) stretching herself after a nap.



Life on the Frontline in 2019

The 2019 “Life on the Frontline” publication reports the results from the comprehensive survey of 7,110 rangers at their places of work across 28 countries. This included country-wide surveys in 10 of the 13 tiger range countries, and partial tiger landscape ranger surveys in two others. Rangers play a critical role in conservation the world over, but the survey revealed that many are experiencing health and safety risks that could be significantly reduced with appropriate interventions. For example, analysis of surveys results and related activities revealed:

NEARLY 2/3 of rangers ‘rarely’ or ‘never’ have access to communication devices on patrol

ROUGHLY 60% of rangers in tiger range countries have no insurance coverage in case of serious injury or death

6 TIGER RANGE COUNTRIES (Bangladesh, Cambodia, Indonesia, Laos, Myanmar and Malaysia) fall below the recommended number of rangers (2 - 10) per 100km² (IUCN, 2006)

Asia's first World Ranger Congress

WWF provided financial and technical support to the 9th World Ranger Congress from 12-16 November 2019 in Nepal - the first time in Asia. Participants, of which 40 per cent were women, included over 550 rangers across 70 countries. WWF also supported 34 rangers from 12 countries to attend. This landmark event encouraged and supported capacity building for rangers. The [Chitwan Declaration](#) that came out of the Congress urges conservation NGOs to work together for the next three years to implement the actions identified in the declaration.



Snares are often made of a cheap length of cable or wire.

MALAYSIA

Mobilisation boost for critical community patrol teams

Malaysia's jungles are in the spotlight for the wrong reasons. Specialised poaching syndicates have moved in and set snares that target tigers and other high-value species, threatening to drive Malaysia's tigers to extinction. Under current trends, Malaysia's tigers could be gone within three years. As part of its response, WWF-Malaysia launched an initiative nicknamed 'Project Stampede', which drastically increased the number of community patrol teams mobilised to remove snares. These teams consist of Orang Asli indigenous peoples who have been trained to patrol independently, using the SMART system. The result has been a decrease of 89% in snare encounters since before the project was launched.



A five-year-old male tiger is sedated and freed from a snare set by poachers near the Gerik-Jeli highway in Malaysia.

CAMBODIA

Maximising impact with artificial intelligence

Over the course of six weeks, 24 rangers were able to recover more than 1,000 snares in a pilot area in Srepok Wildlife Sanctuary, Cambodia (a tiger reintroduction site), with support from artificial intelligence (AI). Through the SMART partnership, WWF is working with Harvard University to facilitate the testing of AI and machine learning to predict poaching hotspots where limited ranger resources can be best distributed. The SMART partnership is now integrating the technology into the SMART software, in a module called "PAWS", with financial support from Microsoft.

Looking forward

After establishing the baseline on global ranger working conditions, WWF will work with partners in 2020 to address gaps at a site level and in national and international policy. We are also now preparing national reports for key tiger range countries that will be used as advocacy tools to improve the situation for rangers risking their lives to protect wildlife.

WWF will continue to support the professionalisation of rangers including strengthening newly established ranger institutions and identifying local trainers that will raise the bar on sustainable capacity building as per anti-poaching training guidelines set by the International Ranger Federation.

With partners

Life on the Frontline: 2019

University of Central Florida, Global Tiger Forum, Global Wildlife Conservation, KEHATI (Indonesian Biodiversity Foundation), The University of Karachi, ELEMOTION, IUCN Bangladesh, Ranger Federation of Asia, University of Nottingham, Kasetart University, USAID

Partners in SMART:

WWF, Peace Parks Foundation, Wildlife Conservation Society, Wildlife Protection Solutions, Frankfurt Zoological Society, Zoological Society London, North Carolina Zoo, Panthera, Global Wildlife Conservation

Partners supporting rangers:

ZeroMass Water, Sigfox Foundation, Harvard University and Oxford University



© Dinesh Khanna

Merapi finds evidence of poaching camps in the forest whilst out on patrol.



FEATURE

MERAPI AND THE LAST TIGERS

The Belum-Temengor Forest Complex is claimed to be one of the world's oldest rainforests. It sits within the largest continuous forest complex in Peninsular Malaysia, sprawling the border with Thailand to the North. This rich ecosystem hosts a wide variety of flora and fauna; a chorus of over 300 bird species sing from the canopy and around 130 mammal species dwell below - among them are 14 of the world's most endangered species. It is also one of just three remaining strongholds for Malaysia's tigers.

In 2019, the preliminary results of Malaysia's first National Tiger Census bore devastating results. The population estimate has plummeted to less than 200 individuals, from an already fragile figure of 500 in 2003. The severe decline is largely due to an insidious threat pervasive across Southeast Asia: snares. Home-made wire or cable snares hidden on the forest floor are one of the most simple and effective hunting techniques practiced in the tropics. Widely accessible, easy to set up and impossible to detect - snares are the silent killer emptying Malaysia's forests. For tigers they are a double threat: indiscriminate, the snares kill not only the tigers, but also their critical prey base.

Merapi is a senior member of an indigenous patrol team working with WWF-Malaysia to combat the snaring crisis.



Merapi

My name is Merapi Mat Razi. I'm 28 years old. I live in Raba village in the Belum-Temengor Forest Complex. Our village sits on flat land, surrounded by green hills. It is peaceful here. At night I mostly hear the stream in front of my house which I share with my family. My neighbours have a small vegetable farm, and a few cattle that roam freely.

In my free time I like to go fishing in the nearby lake. In the past I would hunt squirrels and leaf monkeys, but that was when the wildlife was abundant. A lot has changed here in the last ten years. I have noticed the decline in wildlife due to the snaring.

“If we can prevent poaching and remove the snares, the number of animals will increase. It is hard work, but I feel it is important to protect my home and the wildlife living within it.”

On patrol

I start work at around 9am, patrolling on foot for 7 to 10 kilometers per day. It takes around eight hours before I head back to basecamp. I walk along old logging roads, ridges, alongside the streams. It's tiring, and the weather slows me down if it's raining or especially hot. My job is to remove or destroy snares I find. I also try to assist enforcement agencies to arrest poachers. Recently I have been training juniors within my community to help in the fight against poaching, together with WWF-Malaysia's Project Stampede team - a group of community members

mobilised as an emergency response to the snare crisis. In total we are around 65 people.

In 2018 our team received information about an incursion in Royal Belum State Park. We mobilised a team to check for snares in the area. On that trip alone, we found at least 100 snares. Sadly, we also found the carcasses of a wild boar and two sun bears. The animals had been trapped, but the poachers had already disappeared.

Dangerous encounters

I have encountered poachers in the forest around five times. On one occasion, we happened upon two men dressed in green uniforms. We greeted one another, and reported the incident to my colleagues outside the forest. This is what we have to do to be safe. As we don't have enforcement powers, we remain non-confrontational for our own safety, and do not give any indication that we are conducting anti-poaching activities.

Yes, the work can be dangerous. The poachers set many snares in the forest. All different sizes, they can catch tigers, wild boar, barking deer, sambar, sun bears, pheasants and even elephants. I remember a very scary moment whilst out trekking along a ridge near the Gadong River with the team. One of my team members suddenly stepped on a snare and was caught. It looked like the snare had been there for one month, waiting to be triggered.

“We destroyed that snare, along with the other five just ahead of it. Each was 6mm in diameter - big enough to injure animals as large as elephants.”



Wild motivation

I will never forget the day I saw a wild tiger back in 2011. That day my team and I were patrolling along a trail next to Perak River, heading eastward. While on a ridge, we stopped to rest. Out of nowhere, just 100 metres away, a tiger leapt onto the trail, and fled. We stood in silence in a state of shock. We think perhaps it was startled by our voices.

I hope my kids will see a wild tiger someday.

Thanks to the patrols led by Merapi, and those mobilised as part of Project Stampede, active snare encounters have been reduced by 89% in Belum-Temengor. But this is a stop-gap measure. Without major, imminent intervention, Malaysia's national icon could be extinct within two years. WWF is supporting the Malaysian Government to establish long-term, sustainable solutions to protect Malaysia's tigers and secure a future for all the biodiversity in Belum-Temengor.



NOT FOR SALE

Every year an average of 124 dead tigers are seized, their parts and products trafficked across borders by international criminal networks. Driven by a demand for traditional medicines, health tonics, ornamentation and increasingly as a status symbol, their skin, teeth, bones and other body parts are big business. Poaching will continue as long as there is demand and governments fail to enforce trade bans.

WWF is striving to stop the illegal trade in tigers. A pilot in the Terai Arc Landscape in India will help improve linkages between information management systems held by WWF and wildlife trade specialists TRAFFIC, and assist law enforcement agencies to collaborate from protected tiger sites through to trafficking routes. To stem the flow of tiger trade along key trafficking routes our tiger trade strategy, developed in partnership with TRAFFIC, includes interventions helping combat illegal trade in species beyond tigers. An example of this is proposed systemic changes to improve law enforcement along key trade routes by enhancing collaboration and information sharing amongst law enforcement agencies and across borders.

Other interventions are more specific to tigers, such as working towards a phase out of tiger farms which feed the illegal trade and can stimulate demand, and supporting the expansion of enforcement tools such as DNA analysis and stripe pattern recognition from seized tiger skins. WWF is also building up our work in China and Vietnam, the main destinations for tiger consumption, for targeted behaviour change campaigns to reduce demand.

WWF uses its influence to elevate the issue of wildlife crime to the highest levels of governments across the globe. At the 18th meeting of the Conference of the Parties to Convention on International Trade in Endangered Species (CITES COP18) in Geneva in August there was overwhelming support for specific decisions to strengthen interventions tackling the Asian big cat trade. These included deadlines for sharing photos of seized tiger skins as an enforcement tool, greater direction on demand reduction, improved enforcement and reporting and Secretariat missions to facilities breeding Asian big cats which may be of concern for their involvement in trade.

Seized tiger pelt with claws (*Panthera tigris altaica*) at the Russian customs academy in Vladivostok, Primorie, Russia.



Turned into products: the claws, teeth, bones and other body parts of poached or farmed tigers are harvested and turned into products sold as part of the illegal wildlife trade.

© Ola Jennersten / WWF Sweden

VIETNAM

Who's buying?

TRAFFIC has analysed tiger consumers in Vietnam to understand the profiles and motivations of buyers and users. This provides invaluable information to inform behaviour change approaches that are targeted to have greater impact in reducing demand for tiger parts and products.



6%

of respondents said they had bought or used tiger products



83%

of tiger product buyers had bought tiger bone glue



10%

bought tiger claws



7%

bought tiger teeth



71%

of users consumed their last-used tiger product for so-called medicinal purposes



187

online adverts were observed on social media and eCommerce sites in just one month in 2017

Skin & Bones: Unresolved

The release of the TRAFFIC “Skin and Bones Unresolved” report provided valuable information to advocate a need for urgent action on tiger trade, including decisions taken at CITES COP18.



2,359

tigers seized in 19 years



1,142

seizure incidents

CHINA

China logistics companies say “no” to tiger transport

Under a TRAFFIC-led initiative, following discussions with China Express Association (CEA), 14 leading courier and logistics companies in China signed a *Voluntary Code of Practice to Refuse Delivery of Illegal Wildlife and Products*. The companies, covering 90% of China’s courier and logistics business in 2018, included domestic giants EMS, SF-Express and YTO-Express, alongside well-known international companies DHL and FedEx.

CHINA

Celebrities speak up for big cats

Mr. Deng Lun, a famous actor in China with more than 34 million followers on Weibo (China’s equivalent of Twitter) joined WWF-China’s tiger campaign. He called on the public to refuse consumption of tigers or tiger products. Meanwhile, his public service announcements with the TX2 message and advice to refuse consumption of tiger products were posted in six prominent locations at Beijing’s international airport.

INDIA

#CaninesForFelines

TRAFFIC announced the winners of Canines for Felines, a special contest for wildlife sniffer dogs trained under a TRAFFIC and WWF-India programme. The awards seek to highlight the invaluable contributions made by sniffer dogs and motivate handlers.

Since his deployment, Nirman and his handlers Mr Raj Kishore Prajapati and Mr Ashok Kumar Gupta, have helped solve 35 wildlife cases including six tiger-related cases leading to the arrest of several wildlife criminals along with recovery of poached tiger carcasses and seizure of tiger body parts.



© WWF

Looking forward

WWF and TRAFFIC will continue to work together to stamp out the tiger trade. We will use an upcoming comprehensive analysis of legislation in the tiger range countries for targeted advocacy to address the weaknesses uncovered.

Behaviour change campaigns in China and Vietnam will target messages and approaches based on the findings of tiger consumer surveys.

We will capitalise on advocacy opportunities around the CITES Standing Committee meeting in October 2020 which will assess government progress on implementation of measures to tackle tiger trade, including learnings from the CITES Secretariat missions.

To establish a mechanism to better understand tiger trade, WWF and TRAFFIC will explore the feasibility of developing a Tiger Trade Index to allow for better decision making, by conservation organisations, governments and other partners. We currently rely significantly on seizure information and market surveys to inform us on tiger trade, but this does not account for variance in such factors as levels of enforcement effort.

With partners

TRAFFIC, IUCN-Environmental Law Centre and a number of other non-governmental organisations, academic institutions, government departments, law enforcement agencies and intergovernmental bodies.



DRIVING POLITICAL MOMENTUM

Securing tigers beyond 2022 will rely on an unwavering commitment from governments in tiger range countries to implement policies that prioritise tiger habitats and protect them from exploitation. WWF's policy work underpins all of our efforts toward doubling tigers. We continually strive to elevate and sustain political momentum within tiger range countries, while at the same time supporting inter-governmental processes. Within these processes we push the agenda and dialogue towards the most pressing tiger conservation problems - those that might lead to the quickest recovery of tigers if they were better addressed by governments.

Two critical upcoming meetings will determine the extent of government commitment to tiger conservation for decades to come: the 4th Asia Ministerial Conference on Tiger Conservation hosted in Malaysia in 2020, and the Vladivostok Global Tiger Summit in Russia in 2022. WWF is supporting agenda development for these meetings, while also preparing evidence-based cases in support of specific policy changes. Such changes would include the introduction of national anti-snaring strategies, an increase in tiger protected areas budgets in those countries which currently spend the least, as well as improved intra-governmental collaboration mechanisms such as the formation of National Tiger Committees.

A skilled survivor: as a solitary animal, tigers must master the skill of hunting to survive, moving silently to within striking range before leaping as far as 30 feet.

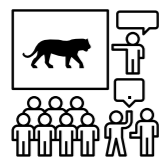
Galvanising action in response to crisis

Efforts to reverse the steep decline of tigers in Southeast Asia received a major boost when a regional tiger crisis was explicitly recognised at the 3rd Stocktaking Conference on the Global Tiger Recovery Programme in Delhi in January 2019. This led to a final set of recommendations that called for the creation of a 'South East Asia Tiger Revival Consortium' that would gather the investments and expertise needed to help tigers rebound in that sub-region. This decision represented a sharp departure from previous meetings, and was a reflection of efforts by WWF and its partners to make this matter a top priority over the final three years of the Global Tiger Recovery Plan period.

Governments step up for tigers

The 3rd Stocktaking Conference was also characterised by an unprecedented flurry of political engagement in the species, in that a significant number of tiger range countries announced their intentions to host major tiger meetings in the near future.

MALAYSIA



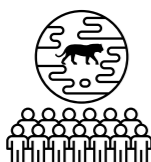
Malaysia announced it would host the 4th Asia Ministerial Conference on Tiger Conservation in June 2020. As the first tiger meeting to be held in Southeast Asia, after 2010 St. Petersburg Summit, it will offer a rare opportunity to focus on the unique and pressing problems facing the seven tiger range countries of that region.

BHUTAN AND NEPAL



Bhutan and Nepal indicated a desire to host major international meetings on tiger conservation in 2020.

RUSSIA



Russia confirmed at the Stocktaking Conference that they would host a second major tiger 'Summit' in 2022. This event would represent the close of the original Global Tiger Recovery Programme and chart the course for international tiger conservation beyond 2022.

A pledge for protection

The Malaysian government announced an increase to broader environmental budgets, and for the first time a species-specific allocation to the preservation of tigers, as well as orangutans. These are both commendable steps, and WWF will push for further political support, especially given that preliminary results of the first National Tiger Census suggest less than 200 wild tigers remain in the country. During the year WWF-Malaysia also launched the Malayan Tiger Pledge in support of the creation of a National Tiger Committee chaired by the highest political will, as this would allow for executive decisions in support of tiger recovery to be most efficiently implemented by the relevant agencies.



© Nitish Madan

Crossing the line: a tigress puts a male tiger firmly in his place.

The Chiang Mai Statement

A special ASEAN (Association of Southeast Asian Nations) Ministerial Meeting on Illegal Wildlife Trade in Chiang Mai, Thailand, in March 2019 resulted in ministers responsible for CITES implementation issuing the Chiang Mai statement which focuses on increasing efforts and regional cooperation to combat illegal wildlife trade. Thailand assumed the ASEAN chairmanship in 2019 and has shown interest in leading illegal wildlife trade issues. WWF-Thailand and TRAFFIC were invited specifically to the Chiang Mai Ministerial where they participated in the partners' dialogue session.

Looking forward

One of the biggest challenges facing wild tigers and other wildlife are snares. In 2020 we will be launching a landmark report to highlight the scale of the snaring crisis in Southeast Asia, and to push for specific actions and investments from governments in the region. Important high-level forums such as the 3rd ASEAN Conference on Biodiversity and the 4th Asian Tiger Ministerial Meeting will be used to amplify this message.

Between 2020 and 2022 WWF will work with partners to secure pledges and set a strong framework for what comes after. Discussions will start this year in order to guarantee a well-planned process and Summit that maximises tiger investment and recovery outcomes.

With partners

The Global Tiger Forum (GTF), International Union for the Conservation of Nature (IUCN), United Nations Development Programme (UNDP), United Nations Office on Drugs and Crime (UNODC), and the Smithsonian Institution, among others.

WWF also recognises the value of growing academic contributions to driving policy change for tiger conservation, and has engaged the following such institutions; Boise State University, University of Southern California, Harvard University and Oxford University Wildlife Conservation Research Unit amongst others.



WILD AGAIN

When tigers have gone extinct in an area, one final hope remains - reintroduction. The mighty Caspian tiger was declared extinct in Kazakhstan 70 years ago, driven out of existence due to trapping, hunting and habitat degradation. The even more recent disappearance of Cambodia's tigers, last seen on camera traps in 2007, is a further cautionary tale of the impact of uncontrolled poaching.

Exploring tiger reintroduction is one of the many ways WWF is working to double global tiger numbers. As an umbrella species, tigers provide space for a variety of wildlife to flourish, meaning that the successful return of tigers to areas where they have become extinct will result not only in healthier and more balanced ecosystems, but also potentially substantial revenue for local and national economies, as detailed in WWF's 2017 report "Beyond The Stripes: Save Tigers Save So Much More" report.

As part of landmark conservation projects WWF plans to support reintroduction of tigers to Kazakhstan and Cambodia. The ecologically significant reintroduction sites of Ili-Balkhash in Kazakhstan, and the Eastern Plains of Cambodia both hold great promise for long-term tiger recovery. Though the road to reintroduction is long and complex, in 2019 we have continued to move toward a future when tigers are returned to their ancestral homes.

Tigers territories: tigers live in an extraordinary range of habitats from grasslands and forests, to mountains and mangrove swamps.



Unlike the species they safeguard, rangers need protection from the harsh climate in Ili-Balkhash.

© Grigory Mazmanians / WWF Russia

KAZAKHSTAN

Poachers of the past

In 2019 nine people from local villages received grants to support ecologically oriented small business activities. This programme is critical to compensate losses in communities where historically poaching has been an important source of income, and WWF continues to look for other financial support mechanisms for people in Ili-Balkhash.

1000 hectares, as well one goitered gazelle per 1000 hectares. These prey densities are not yet enough to support a healthy tiger population and so WWF and partners are working to boost prey recovery. This was kickstarted in 2018 with the release of the first five endangered Bukhara deer which are now being monitored via satellite collars as part of the reintroduction programme.

Winterproof rangers

A winterproof nomad yurt, constructed with foam using 3D printing technology, will act as a ranger outpost. With extreme temperatures as low as -45C in winter and +45C in summer, the yurt - the first of its kind in Kazakhstan's protected areas - will provide critical respite for rangers all year round.

Eye in the sky: using thermal imaging to monitor tiger prey species

Pilotless aircraft with thermographic cameras enabled WWF to undertake a monitoring census confirming the level of wild boars and roe deer as more than five individuals per



Communications systems strengthen capacity for law enforcement units to respond more quickly to illegal activities detected such as chainsaw or gunshot sounds.

CAMBODIA

Zoning plan approved

The Cambodian Prime Minister approved the Zonation Plan of the Srepok Wildlife Sanctuary (the proposed reintroduction site) in February 2019.

Transboundary collaboration

WWF-Cambodia in partnership with WWF-Vietnam convened the first transboundary meeting between the programme offices, developing a draft Eastern Plains Landscape Transboundary Action Plan to address illegal wildlife trade between the two countries. To build on this, intergovernmental meetings are being set to shape and drive transboundary collaboration, facilitated by WWF through funding support and convening power.

Monitoring tiger prey

WWF, government, and research institution partners continued to monitor tiger prey populations throughout 2019, a key factor in determining the viability for tiger reintroduction. The research was conducted using camera traps and line transect surveys. Though WWF continues to support increased patrols in Srepok Wildlife Sanctuary high levels of widespread snaring mean overall tiger prey species are in decline. The current density of prey is well below levels needed as a prerequisite for tiger reintroduction and so active recovery of prey species will be required as part of the tiger reintroduction project.

A site level reintroduction success: proof in the population

The Amur tiger population in Russia's Evreiskaya Province, which can be traced almost exclusively from reintroduced tigers, has climbed significantly without further intervention in recent years. In December 2019 camera trap images and field monitoring conducted by WWF partners revealed that a reintroduced tigress nicknamed Lazovka had given birth to at least two cubs, whilst another reintroduced tigress, nicknamed Svetlana, bore three cubs. The population is now around 20 individuals, with no fewer than three breeding females. The tigers used for this reintroduction were removed from the wild by WWF partners due to conflict incidences or concerns and were moved only after a period of rehabilitation. These findings demonstrate that the reintroduction programme, supported by the Amur Tiger Center and the Rehabilitation Center TIGR, has been a roaring success.

With partners

Ambitious projects such as tiger reintroduction require leadership and drive from the national governments, our primary partners in Cambodia and Kazakhstan. In both Kazakhstan and Cambodia's Srepok Wildlife Sanctuary WWF is the primary partner of the government building momentum towards returning tigers to their rightful home.



Adaptable cats: Tigers are incredibly adaptable animals that can be found in a variety of climates and habitat types across Asia. They can survive in extreme temperatures: from -40°C (Russia) to +40°C (India).



FEATURE

RETURN OF THE TIGER

WHAT WILL IT TAKE TO BRING THEM BACK TO KAZAKHSTAN?

In a landmark effort WWF is supporting a project aiming to return tigers to their ancestral home in Kazakhstan. Kazakhstan's Caspian tiger was declared extinct 70 years ago after falling victim to habitat loss, systematic hunting by military troops and reduction of prey - mainly boar and Bukhara deer. But today with the leadership of the Government of Kazakhstan and the promise of the ecologically significant region of Ili-Balkhash long-term tiger recovery is within our grasp. If successful it could mark the first international tiger reintroduction in history, and will be an invaluable opportunity to secure the future of this big cat.

Grigory Mazmanyants, Director of the Central Asia Programme for WWF-Russia, tells us more about the project.



© Grigory Mazmanyants / WWF Russia

Grigory Mazmanyants is the Director of the Central Asia Programme for WWF-Russia to reintroduce tigers to Kazakhstan.



© Grigory Mazmanyants / WWF Russia

Prey reintroduction: the Bukhara deer went extinct in Ili-Balkhash in 1912, but has since been reintroduced.



© WWF Russia

The Amur tiger is the closest living relative of the now extinct Caspian Tiger.

How was the reintroduction site selected?

Two areas were proposed for potential reintroduction based on an initial analysis of lands in Central Asia using materials from the “Econet Central Asia” project. With WWF-Russia’s support, an expert group studied these potential sites from 2005-2009 and found that the most promising conditions for tiger restoration are on the Ili River delta and the south shores of Lake Balkhash. Here there are significant natural tiger habitats, although they are partially settled by humans and used for grazing livestock.

Could you explain the steps involved in the tiger reintroduction programme?

It will take at least 15 years, and will include three key stages: First - habitat preparation. This started in 2018 and will last until 2024. The release phase will last another nine years, until 2033. In the programme we speak about the translocation of at least ten tigers in this period, starting with three individuals: two females and one male. Finally the programme monitoring will start in 2033 and continue for at least 15 years. This involves control and population monitoring, developing sustainable management, ecological tourism and so on.

How are you preparing the landscape for tigers?

We’re doing a number of things such as establishing a protected area to ensure protection and increasing the prey base up to 25 individuals per 1000 ha, as well as reforesting at least 10,000 ha of riparian forest. Importantly, we are consulting and working with communities throughout the process, and will be developing prevention mechanisms for potential human-wildlife-conflict issues, as well as preparing compensation mechanisms in the event that any cattle are lost to tigers. We are also constructing enclosures for temporary holding of tigers so they can be monitored closely to ensure they are fit for release.

Where will the tigers come from?

The tigers will come from the Russian Far East, as DNA analysis has shown that the Amur tiger is the closest living relative to the Caspian tiger that once lived in Kazakhstan.

What will the translocation process look like?

They will be captured in the wild, and after receiving veterinary care they will be transported by special aircraft for six hours, by helicopter for two hours, and finally released into an enclosure in the Ili-Balkhash Landscape.

How many tigers could Ili-Balkhash support in the future?

The area has the capacity to support 120 tigers if there is sufficient prey. We will need to ensure the population is sustainably managed perhaps with nature based tourism in place.

What kind of challenges does a project of this scale face?

Well there are a lot – but the biggest thing is that we need to involve a lot of people: reserve staff, locals and officials. Reforestation, reintroduction, increasing the prey et cetera - this is all possible with money. But even with billions of dollars it is not possible to finish the project without people, their professionalism, support and as most importantly – their wish to do it.

The Caspian tiger went extinct in Kazakhstan nearly 70 years ago, due to familiar challenges. How do we know history won’t repeat itself?

There are three main reasons tigers went extinct. First, it was perceived as a threat. The common position was ‘kill the tiger!’. That situation has changed. Today the tiger is a protected species, and tiger tourism is a potential source of income, so their presence can be positive. We need to

be certain that the communities are fully in support of the project, putting in place every measure to ensure human-wildlife conflict is mitigated.

Second, the level of prey was decimated by unregulated hunting. The Bukhara deer, for instance, went extinct in Ili-Balkhash in 1912. Nowadays we have a reserve, nature protection as well as a hunting free zone.

Finally, agriculture development - cutting trees and reeds, increased cattle, overgrazing and so on contributed to the Caspian tiger’s extinction. We now have a chance to steer future development in a sustainable direction that supports both people and tigers.

This is a major project. The people behind the scenes must be dedicated. On a personal note, why do you care so much about bringing tigers back to Kazakhstan?

I started to work for nature protection 35 years ago. It is the opportunity of a lifetime to be involved in such an ambitious conservation project. We are not only conserving and stabilising a situation, but we are on the counter attack in the fight to protect nature, and I want to be in the front row!

A large-scale mural of a tiger's face is being painted on a wall. The tiger's face is the central focus, with its eyes looking directly at the viewer. The stripes are dark and bold against the lighter background. In the foreground, a painter wearing a green jacket and a black beanie is standing on a scissor lift, working on the mural. The background is a mix of orange, brown, and black tones, suggesting a natural habitat.

TURNING THE VOLUME UP FOR TIGERS

GIANT TIGER COMES TO GERMANY

A gigantic tiger appeared in Berlin's city centre, painted by internationally renowned street art duo, Herakut. The tiger is part of WWF-Germany's awareness campaign to get the message out on wildlife trafficking.

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1 TOMORROW'S TIGERS
 Tomorrow's Tigers launched in January 2019 in London, UK, to raise awareness and significant funding for WWF's work towards TX2. The project, through a collaboration with Artwise, features specially commissioned, limited edition art rugs by 10 internationally-renowned artists.

2 CHINA SHINES A LIGHT ON BIG CATS
 In 2019 China hosted an International Forum on Tiger and Leopard Conservation in Harbin, establishing the Harbin Consensus on Strengthening Cooperation in Cross-border Conservation of Tigers and Leopards. Also on Global Tiger Day 2019 a series of public awareness activities spotlighted tiger and leopard conservation in China.

3 BUSH MEAT REDUCTION CAMPAIGN
 In Cambodia raises critical awareness on Global Tiger Day 2019.

4 4000 PEOPLE RUN FOR CONSERVATION
 The Malayan Tiger Run in Putrajaya marked the beginning of WWF-Malaysia's year-long initiative aimed at mobilising civil society's support for on-going tiger conservation efforts.

5 BRINGING THE WILDERNESS TO BANGKOK
 WWF-Greater Mekong, in partnership with key stakeholders, hosted an exhibition entitled "Dawna Tenasserim: the Hidden Forests of Asia" in tribute to the natural wonders of Dawna Tenasserim, a forested wilderness straddling the international border with Myanmar and Thailand, and home to tigers.

6 AUSTRALIAN FOOTBALL PLAYERS SWAP TURF FOR TIGERS
 Three players from the Richmond Football Club, whose mascot is the tiger, have become WWF tiger ambassadors, lending their voices to help save their endangered namesake.

7 SOWING THE SEEDS FOR THE NEXT GENERATION OF CONSERVATIONISTS
 During National Wildlife Week, WWF-India organised a Nature Trail with university students to teach the basics of pugmark identification, survey techniques and documentary film.

8 A TRIP AROUND THE GLOBE ON RUSSIA'S TIGER TRAIL
 WWF-Russia has renewed the unique "Tiger Trail" which was donated to Vladivostok in 2010 by WWF and the delegates of the World Youth Tiger Forum. Now, 13 stainless steel slabs with the names of the current range countries are sparking on Vladivostok's beach promenade symbolising the concern of the present and future generations with tiger conservation. The trail is crowned by a bronze sculpture of two tiger cubs.



7

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THANK YOU

We could not do what we do without the generosity of everyone of our donors. Through your support, we edge closer to the goal of TX2. WWF would like to offer special recognition the following partners that have provided key strategic support and investment in WWF's tiger programme.

Aage V. Jensen Charity Foundation	From Conflict to Collaboration – Biodiversity as a bridge – Phase II
Asian Tigers Group	Working Together to Help Double the Number of Tigers in the Wild
B. Grimm	Significant Support for Tiger Recovery in the Upper Western Forest Complex in Thailand
Barbara Holden	Advancing Tiger Monitoring and Protection through the Establishment of a Tiger Research Center in Royal Manas National Park, Bhutan
Danida	Inclusive Green Economies in Developing Countries
Dhanin Tawee Chearavanont Foundation	Bhutan for Life
Discovery, Inc.	Project C.A.T (Conserving Acres for Tigers)
Dr Bevan Jones	Supporting Collaborative Conservation in the Ler Mu Lar landscape in Myanmar
Dr Rimington Legacy	Improving Management and Protection of Tiger Heartlands and Tackling Critical Threats
European Union	Advancing CSO's Capacity to Ensure Sustainability Solutions (ACCESS) in Cambodia
Francois and Sheila Brutsch	Supporting Wild Tiger Conservation in Thailand and Myanmar
German Cooperation via KfW Development Bank and IUCN	Communities for Tiger Recovery in Rimbang Baling, Indonesia and Transcending Boundaries for Tiger Recovery in Nepal and India
Global Environment Facility	Strengthening National Biodiversity and Forest Carbon Stock Conservation through Landscape-based Collaborative Management of Cambodia's Protected Area System as Demonstrated in the Eastern Plains Landscape (CAMPAS)
Green Climate Fund	Integrated Landscape Management to Secure Nepal's Protected Areas and Critical Corridors
Hull City Tigers	Bhutan for Life
Humanscale Corporation	Working in Partnership to Double Wild Tiger Numbers
Linda Mars	Tiger Conservation in Eastern Cambodia
Mars Petcare	Supporting Wild Tiger Conservation
Maybank Foundation	Supporting WWF's Work to Help Tigers Thrive
Michael and Stacey Grealish	Strengthening Tiger Conservation in the Belum-Temengor Forest Complex
Nordens Ark	Supporting Wild Tiger Conservation
Orientis	Long term Persistence of the Amur Tiger at its' Northern Edge
Prince Albert II of Monaco Foundation	Supporting Efforts to Double the Number of Tigers in the World
Richmond Football Club	Welcoming Tigers back Home to Amur Heilong in Russia and China and Saving Thirty Hills in Sumatra, Indonesia
Robert and Mayari Pritzker Family Foundation	Working Together to Double Wild Tiger Numbers
Segré Foundation	Tiger Conservation in Bhutan and the Eastern Himalayas
The Katherine J. Bishop Fund	Professionalising Ranger Training in India and Bhutan
The Praxis Companies/American Bath Group	Myanmar Wildlife Ranger College
The Silent Foundation	Supporting Wild Tiger Conservation
Tiger Beer	Tackling the Malaysian Tiger Crisis
U.S. Agency for International Development	Investing in Efforts to Combat Illegal Wildlife Trade and Secure Vital Tiger Habitats
U.S. Department of State	Wildlife Sanctuary Support Program, Cambodia
U.S. Fish and Wildlife Service	Fighting Wildlife Trafficking in the Golden Triangle
VTB Bank	Rhino/Tiger Conservation Fund
World for Tigers Foundation	Conservation of Endangered Big Cat Species in Russia
	Supporting Tiger Recovery in the Upper Western Forest Complex in Thailand

In addition we would like to thank our generous donors and partners that give at this highest level of strategic support but wish to remain anonymous.



WE ARE DOUBLING WILD TIGERS

WE ARE A COLLECTIVE OF DEDICATED CONSERVATIONISTS FROM ALL OVER THE WORLD, FROM OFFICE DESKS TO FIELD STATIONS, AND CORPORATE BOARDROOMS TO REMOTE VILLAGES, WE ARE UNITED IN THE GOAL TO ACHIEVE TX2.



TX2 IS THE GLOBAL GOAL TO DOUBLE WILD TIGERS BY 2022



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For contact details and further information, please visit our international website at www.panda.org