



National Tiger Conservation Authority

# s t r i p e s

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■ **India's Leopard Count -2018**

■ **Corporate Social Responsibility  
for Tiger Conservation**



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## FROM MEMBER SECRETARY'S DESK

The Project Tiger aims not only in conserving the tiger which is top predator of Indian forests but also a whole gamut of associated wildlife including co-predators and prey. For the first time, during the quadrennial All India Tiger Estimation exercise of 2018, an effort was also made to reliably estimate the population of leopard, the co-predator which is next to tiger in the trophic levels. This issue of STRIPES covers the details of leopard population estimation undertaken by NTCA and Wildlife Institute of India.

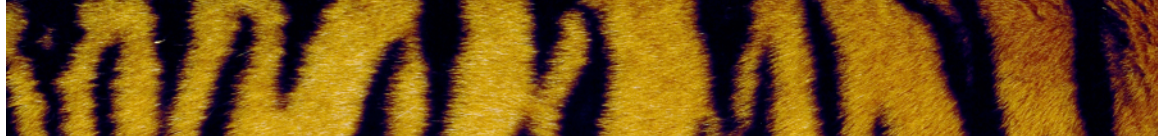
India as per the commitment made in St Peterburg summit has now achieved the target of doubling the tiger number well before the target year 2022. The growing tiger numbers also bring newer challenges of managing the tigers in human dominated landscape particularly during dispersal. The case studies from Tipeswar Wildlife Sanctuary give insights into managing tigers in human-tiger negative interactions when tigers are at the receiving end.

The Covid 19 pandemic has impacted almost all spheres of life including biodiversity conservation. In this issue, we focus on Corporate Social Responsibility (CSR) which can be leveraged for obtaining funding support for wildlife conservation efforts by tiger reserves. I am optimistic that readers will find this issue interesting and informative. Happy reading!

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# India's Leopard Count - 2018



Shri Prakash Javadekar, Hon'ble Minister, EF&CC releases "Status of Leopard in India" report on 21.12.2020

■ By Kausik Banerjee

In India, tiger is not only a conservation icon but also acts as an umbrella species for majority of eco-regions in the subcontinent. Securing tigers safeguards micro niches in the forest ecosystem which in turn conserve the life forms at the smallest levels ensuring water and climate security.

Indeed, this has been the driving concept of Project Tiger, a flagship conservation initiative by the Government of India since 1973. Currently India with an estimated population of 2,967 tigers is home to nearly 75% of the global tiger population and has already fulfilled its resolve of doubling tiger numbers, made at St. Petersburg in 2010, much before the target year of 2022.

In recent years, tiger is on its way to recovery

in the country. However, evaluating the overarching impact of tiger conservation investments requires targeted estimation and monitoring of other sympatric (co-occurring with tigers) species such as leopards occupying the next level in the trophic pyramid.

Leopard is the most widely distributed and adaptable member of the big cat (Felidae) family. They are extremely versatile and occur in almost every kind of habitats, from the rainforests of the tropics to deserts and temperate regions. The Indian subspecies is found in all habitats of India, absent only in the arid Thar desert and Sundarban mangroves.

In the Himalayas they are sometimes sympatric with snow leopards. They serve as major predators in most of the forested landscapes in India and co-occur with tigers, lions and dhole. However, their current distribution and numbers have

significantly decreased across the range due to habitat loss, prey depletion, conflict with human interests and poaching over the last century.

Despite decreasing numbers and range, their ubiquitous presence across human habitations leads to misconceptions regarding their current population. Much of our knowledge on leopard status in the Indian subcontinent comes from site specific studies.

### Leopard Estimation - 2018

The All India Tiger Estimation done quadrennially since 2006 is steered by the National Tiger Conservation Authority (NTCA) with technical backstopping from the Wildlife Institute of India and implemented by State Forest Departments and conservation partners. Leopard density and abundance was reported for the first time in the 2014 cycle of All India Tiger Estimation for tiger occupied states of India which estimated the leopard population at 7,910 leopards within tiger habitats.

The latest cycle of Tiger Estimation conducted in 2018 also estimated leopard population within the forested habitats in tiger occupied states. Other leopard occupied areas such as non-tiger bearing states and landscapes, non-forested habitats (coffee and tea plantations and other land uses from where leopards are known to occur), higher elevations in the Himalayas, arid landscapes and majority of North East landscape were not sampled and, therefore, the estimated population is the minimum number of leopards in the country.

The 2018 survey which was accredited as the largest camera trap wildlife survey by the Guinness World Records was the most comprehensive to date and was conducted digitally using android phones and GPS through M-STrIPES (Monitoring System for Tigers Intensive Protection and Ecological Status)

application with an extensive foot surveys that covered 522,996 km.

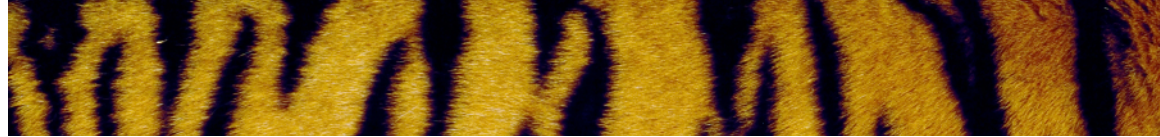
Camera traps (remote, thermal and motion sensitive devices that start recording when an animal passes by) were deployed in 26,838 locations at 141 different sites (Tiger Reserves and tiger bearing landscapes) across India and surveyed an effective area of 121,337 km<sup>2</sup>.

The camera trap data was then transferred and processed at the NTCA Tiger Cell of the Wildlife Institute of India by a team of trained wildlife biologists using specially developed software (M-STrIPES desktop, geotagging and segregation software - CaTRAT, pattern recognition software - ExtractCompare and Hotspotter) to,

- (i) visualize and summarize survey data in a geographic information system,
- (ii) segregate millions of wildlife photographs to species and
- (iii) fingerprint tigers and leopards from their unique stripe and rosette patterns to identify individual animals.

### Results at a Glance

In total, the camera traps captured over 34 million photographs of wildlife (76,651 of which were tigers and 51,777 were leopards; the remainder were other fauna). Data processing resulted in identifying 5,240 individual adult leopards. To correct for imperfect detection by remote cameras, the best scientifically established method known as spatially explicit capture-mark-recapture (SECR) was used to arrive at leopard population. In areas without cameras, statistical models were used that incorporated survey-based information on ecologically relevant determinants of tiger density such as prey availability, human disturbance and habitat characteristics, to



estimate leopard population.

The overall leopard population in tiger range landscape of India in 2018 was estimated at 12,852 (SE range 12,172 - 13,535). Since leopard status is determined as a population estimate through sampling, it is not known with 100% certainty and the numbers given in parenthesis are the standard error range of these estimates.

The highest number of leopards were recorded in Madhya Pradesh, Karnataka and Maharashtra in that order. Leopards occurred in both prey rich areas as well as in multiple use landscapes. Genetic analysis reveals that leopard populations across the country are not strictly genetically structured, as opposed to tiger populations which show structuring and only distance playing a role in differentiating leopard populations.

### Conservation Implications

Like tigers, India is one of the major strongholds for leopards, globally, supporting the largest population of the species in any country. Other African countries which support similar or higher leopard populations include Namibia, Tanzania, Kenya, Botswana, Mozambique, South Africa and Zambia, although the scientific credibility of countrywide population estimates for these countries remain questionable.

Increasing leopard population in India poses newer challenges for its conservation and management. Despite their widespread distribution, leopard habitats are being increasingly fragmented, and such small fragmented areas with low wild prey densities cannot harbour a sizable population of leopards. This has resulted in leopards venturing out into human dominated landscapes and ending up in conflicts. Intense conflicts are mostly reported from hills of Shivalik-Terai landscape and parts

of Central India. The forests of Central Indian landscape harbours the largest population of leopards in its fragmented forest patches.

While genetic data and population data suggest that leopard populations across is continuous, there is an increasing need for corridor connectivity, and improvement of habitat, to reduce interface with humans and thereby reducing the chance of conflict.

With leopards venturing out into human habitations more often, developmental projects need appropriate mitigation measures and greener technology to sustain not only leopards, but also other carnivores and biodiversity in general. With the government's efforts towards increasing protection, along with a range of measures to improve habitat conditions (like village relocation), tiger and leopards have shown remarkable recovery. We are at that juncture where socio-economic development and conservation are at a critical point.

It is now important, more than ever, to incorporate and implement a model of adaptive management of Protected Areas which are still in poor condition and can be improved, and explore possible models for coexistence of large carnivores with humans.

Wildlife sensitive development and retrofitting of linear infrastructure will ensure the fulfilment of the commitment our Honorable Prime Minister made on International Tiger Day while releasing the Status of Tiger in India 2018; "Development along with Conservation". This commitment made the Nation proud and paved the way for the need to safeguard our precious biological heritage while walking the path toward modern development ●

*Dr Kausik Banerjee, Project Scientist, NTCA Tiger Cell.*

# Management of Snare Injuries in Tigers:

*Case studies from Tipeshwar Wildlife Sanctuary, Maharashtra*

■ By Ravikiran Govekar

The policy level initiatives taken by Government of India and various State Forest Departments, the legal protection provided, the systematic and scientific management practices and the other proactive conservation measures taken up for over past four decades have resulted in increase in the numbers of tiger, other co-predators and their prey species in India.

This increased number of predators and prey species however resulted into increased human-wildlife negative interface cases in some of the tiger bearing areas. There have been several instances of wild animals using the human dominated landscape for food, water and dispersal. Crop depredation by wild herbivores prompted few individuals to indulge in illegal activities such as killing the wild animals by electrocution, poisoning, snaring etc. Often, these illegal techniques are also used for purposeful hunting.

Wild animals often fall prey to different types of traps and snares deployed in the forests bordering the agricultural areas. Sometimes, tigers get trapped in snares set up for herbivores and in the absence of timely action it can lead to death of the animal. These snares pose significant threat to tigers across tiger range countries in Asia. However, prompt action and pragmatic management interventions can lead to a normal and healthy life of the injured animal.

In this article, we will consider two such cases of the rescue of the sub-adult tigers from snares, their treatment and radio-collaring and post-collaring dispersal in Tipeshwar wildlife sanctuary during the period February 2019 to

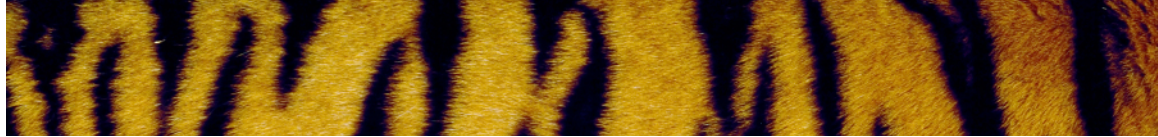
March 2020. One of the two tigers has created a world record of walking the longest recorded distance of over 3,017 km in 13 months.

The Tipeshwar wildlife sanctuary is an important protected area in Vidarbha, Maharashtra, with an area of 148.62 sq.Km. It is an undulated landscape with a dry deciduous forest habitat having predominance of teak forest. The sanctuary is within the Tadoba landscape and is connected with Tadoba-Andhari Tiger Reserve, Kawal tiger Reserve and Painganga Sanctuary through the forested corridors.

At present (2020) there are 5 adult and 9 sub-adult tigers. (DFO Wildlife, Pandharkawada pers. Commu.). The sanctuary is surrounded by 20 villages within a distance of 2km from its boundary and therefore forest-agricultural area interface is very prominent, resulting into tigers often venturing into agricultural areas for cattle depredation. After the reporting of two cases as described below, several anti-snare drives were implemented and efforts were made to minimize the chances of animals being snared. No other incidence of tiger being snared was reported thereafter.

## Case Studies

**Case 1:** In the third week of February 2019, a sub-adult male tiger TWLS T1-C1, age about 22 months was seen in Pilkhan area of sanctuary with an elongated injury on abdominal region causing deep and lacerated wound on the body. The prompt managerial interventions such as closing down of tourism area and deployment of camera traps for monitoring the animal movement were undertaken for minimizing the disturbance to the animal in trauma and for ensuring the quick rescue operation. Well



planned monitoring resulted into quick localization of the injured sub-adult tiger, who used to move along with his male sibling, C2. On 27th February morning, the animal which quite elusive due to thick lantana thicket was darted. After immobilization, it was observed that the injury was caused due to the tight clutch-wire snare and it had extended to both sides of the body. The metal wire snare was removed from the body and injury was treated. A VHF-GPS Collar (Vetronix) with drop-off facility was fitted around the neck as a part of the long-term project on the tiger dispersal studies in Vidarbha landscape, a joint project by the Maharashtra Forest Department and Wildlife Institute of India.



Removal of clutch-wire snare from T1 C1

**Case 2:** In the second incidence, another sub-adult male tiger (TWLS T1-C3, sibling of TWLS T1-C1) which was fitted with a GPS collar (Vetronix-iridium) on February 25, was found limping due to some injury to his right foreleg.

On close observations, a nylon rope snare was noticed which had caused a deep and lacerated wound on the fore leg. The rescue operation was also initiated immediately by identifying the vantage points and deploying teams over machans, as the entire area was full of lantana thickets. New paths were created to traverse the area easily with the darting material. Despite very limited scope for aiming, the animal was tranquilized from the vehicle on 1st June, 2019. In this case, the injury was found extending up

to the metacarpal bones.



Left: Nylon rope snare on foreleg, Right: wound being treated

Both the sub-adult males (C3 & C1) were tranquillised using combination of Inj. Medetomidine(50 ug/kg) and Inj. Ketamine (2 mg/kg) with a Dan-inject syringe projector. After about 15 minutes, animals were approached. Nylon snare from the foreleg and clutch wire snare from abdomen were removed from the body and the wounds were flushed, cleaned and dressed, and the anti-inflammatory drugs and antibiotics were administered intramuscularly. This was followed by injecting reversal agent Inj. Atipamazole 25 mg. All records of vital body indicators were recorded. The induction and recovery was smooth in both the cases.

### Post Monitoring

In each case, the camera traps were deployed for observing tiger movement and the healing injuries were continuously monitored. Within a month of treatment, the injuries caused by snares had healed. VHF ground tracking and camera trap based monitoring indicated that both the tigers had started hunting normally. Since both the tigers were fitted with GPS based radio collar, their entire movements could be



recorded from February 2019 for about next one year. The sub-adult C3 traveled across the Maharashtra-Telangana borders, traveled through Pandharkawada division, Adilabad division and then returned to settle down in the parts of Tipeshwar wildlife sanctuary. The said tiger is now fully-grown adult tiger defending his own territory.

The TWLS T1-C1, however has explored the huge landscape. Leaving the Tipeshwar wildlife sanctuary in June 2019, the tiger had continuously traveled for about 10 months from Tipeshwar to Pandharkawada division, Adilabad division in Telangana, Painganga sanctuary, Nanded division, Pusad division, Hingoli division, Washim division, Akola division, Buldana-Dnyanganaga sanctuary, Jalna district and up to Aurangabad district till famous Ajanta hills.

conflict -barring one avoidable attack on an intruder; and without many cases of cattle depredation. All the movements of tiger were closely monitored by the field monitoring teams using satellite telemetry data. The tiger was finally found settled in Dhyanganga sanctuary in Akola district in January 2020 and the radio-collar was then remotely removed on 28th March, 2020

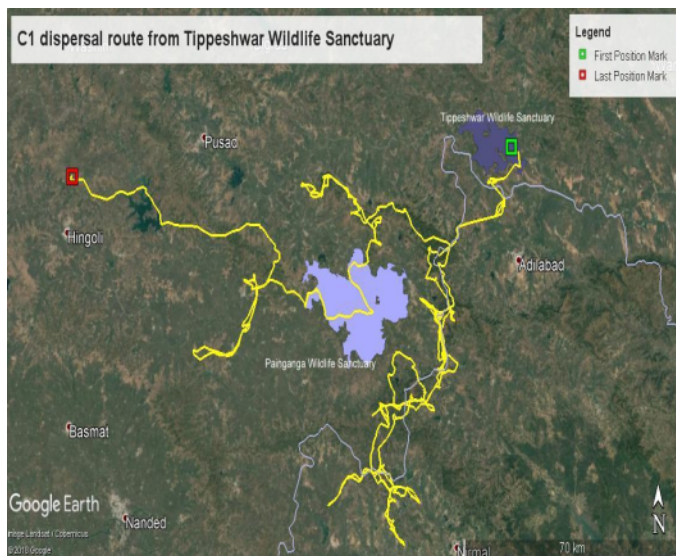
Thus, both the snared tigers were successfully rescued to give them a new lease of life and gave interesting insights into the tiger dispersal patterns in human dominated landscape through satellite telemetry study.

## Conclusion:

The treatment of a non-captive tigers under trauma requires a systematic planning and precise execution of management interventions. Proper response system and well planned search operations help localizing the animals quickly, which can lead to early capture for the further treatment. A simple activity of removal of snares from the body along with flushing and dressing of wound of the tigers just once not only saved their life, but also enabled them to spend a normal life and disperse naturally.

Post monitoring of treated tigers through satellite telemetry gave us vital information on territorial and dispersing behaviour of tigers. Any delay in capture and treatment of tigers injured by snares may become fatal. It is always a good strategy for the tiger reserve managers to undertake frequent anti-snaring drives in sensitive areas particularly in the fringe areas of the tiger reserves to detect and remove the snares ●

*Dr Ravikiran Govekar, Field Director, Pench Tiger Reserve, Maharashtra.*



C1 dispersal route from Tipeshwar Wildlife Sanctuary

In total 13 months since radio-collaring, the tiger C1 had travelled for about 3,017 km and walked through two states, ten forest divisions, two regions of Maharashtra, and catchment area of east flowing Godavari and west flowing Tapi river. This entire journey through human-dominated area was however without any

# Exploring Corporate Social Responsibility For Tiger Conservation

■ By Amit Mallick

India's development agenda along with the concomitant issues of population growth, infrastructure deficit, the pressures of urbanization and industrialization and the imperative of an emerging economy have placed a huge demand on our forest ecosystem, biodiversity and the associated areas of water security.

The Govt. of India has adopted the National Wildlife Action Plan (NWAP) 2017-2031 that outlines the road map reiterating its commitment to wildlife conservation. It reviews the challenges and outlines strategies and actions to address them taking into account India's ethos and commitments towards natural resource conservation both nationally and globally inter alia adopting a landscape approach for wildlife conservation.

The NWAP also recognizes the concerns relating to climate change impacts on wildlife by integrating actions that need to be taken for its mitigation and adaption into wildlife management planning processes and addresses the need to deal with impasse between development and conservation and its meaningful reconciliation.

It recognizes that Human Wildlife conflict (HWC) which is continuously increasing at local and regional scale, is largely a human induced phenomenon which needs to be tackled at local as well as regional level with active support of all stakeholders including agencies involved in conservation and development projects.

Science based species specific, region specific conflict mitigation plans for their

implementation with active support of all stakeholders can help in prevention of this HWC situation. The NWAP intends to achieve this by ensuring adequate and sustained funding including Corporate Social Responsibility (CSR) partnerships in conservation for its implementation.

The 2006 amendment to the Wildlife (Protection) Act 1972 mandates the creation of Tiger Conservation Foundation in Tiger Reserves across the Country. This is done with the intent of providing additional institutional support to strengthen the management of Tiger Reserves for addressing existing and emerging challenges to conservation in view of the rapid changes taking place in the demographic, socio-political and economic aspects in the landscape.

The provisions enable Tiger Conservation Foundations to solicit technical, financial, social, legal and other support required for the activities of the foundation for achieving the above said objectives.

## Rationale

With only 2.4% of world's land area, India accounts for 7 to 8% of the world's plant & animal species. It is one of the 18 mega-diverse countries & harbors 3 global bio-diversity hotspots. With fresh air & oxygen, source of fresh water for the rivers, arresting of soil erosion, production of numerous nutritional elements & habitat for variety of flora & fauna, the eco-system of a forest thus provides a lot of value to mankind.

As per Economic valuation of Tiger Reserves in India and the monetary values of flow benefits emanating from tiger reserves, range from Rs.

8.3 to 17.6 billion annually. In terms of unit area, this translates into Rs. 50,000 to 190,000 per hectare per year. In addition, tiger reserves protect and conserve stock valued in the range of Rs. 22 to 656 billion.

Fundamental Duties mandate that - It shall be the duty of every citizen of India, to protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for living creatures (The Constitution of India, Article-51-A (g)).

As funding support mechanism through the Governments often face limitation/paucity, CSR support can increasingly boost conservation initiatives with the active and willing support from institutions leveraging their CSR towards nature conservation. Unlike in countries that can afford to fund to maintain parks from general budget/revenues, these parks need to be funded through tourism or alternate opportunities and some Parks are too unstable or remote to attract tourists. Several organizations have understood and realized ways and means to fund towards protection of nature for parks with no revenues.



However, from an investment perspective the key drivers may include:

- a) Consistent cash flows are needed every year to fund essential conservation programs/activities;
- b) The principal value of the endowment and prudent management; and
- c) Long-term sustainability accounted for, in

investments as in conservation activities.

## Corporate Social Responsibility (CSR)

Corporate Social Responsibility is an innovative policy instrument and can be utilized for the cause of conservation of forests and wildlife through converging partnerships.

India's new Companies Act 2013 (Companies Act) has introduced several new provisions which change the face of Indian corporate

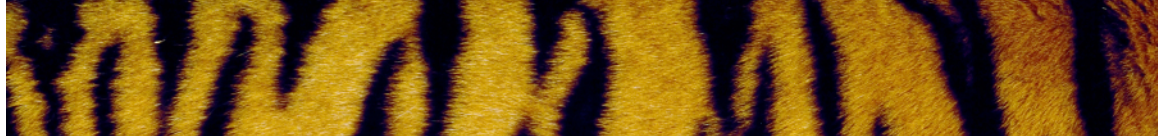
business. The concept of CSR rests on the ideology of give and take. Companies take resources in the form of raw materials, human resources etc. from the society. By performing the task of CSR activities, the companies are giving something back to the society.

Ministry of Corporate Affairs has notified Section 135 and Schedule VII of the Companies

Act as well as the provisions of the Companies (Corporate Social Responsibility Policy) Rules, 2014 (CRS Rules) which has come into effect from 1 April 2014. Section 135 of the Companies Act provides the threshold limit for applicability of CSR to a Company i.e.

- (a) net worth of the company to be Rs. 500 crore or more;
- (b) turnover of the company to be Rs. 1000 crore or more;
- (c) net profit of the company to be Rs. 5 crore or more.

As per the CSR Rules, the provisions of CSR are not only applicable to Indian companies, but also applicable to branch and project offices of a foreign company in India. Every qualifying



company requires spending of at least 2% of its CSR Committee and Policy: average net profit for the immediately preceding 3 financial years on CSR activities.

Further, the qualifying company will be required to constitute a committee (CSR Committee) of the Board of Directors (Board) consisting of 3 or more directors. The CSR Committee shall formulate and recommend to the Board, a policy which shall indicate the activities to be undertaken (CSR Policy); recommend the amount of expenditure to be incurred on the activities referred and monitor the CSR Policy of the company. The Board shall take into account the recommendations made by the CSR Committee and approve the CSR Policy of the company.

The term CSR has been defined under the CSR Rules which includes Definition of the term CSR: but is not limited to: Ÿ Projects or programs relating to activities specified in the Schedule; or Ÿ Projects or programs relating to activities undertaken by the Board in pursuance of recommendations of the CSR Committee as per the declared CSR policy subject to the condition that such policy covers subjects enumerated in the Schedule.

The above definition of CSR assumes significance as it allows companies to engage in projects or programs relating to activities enlisted under the Schedule. Flexibility is also permitted to the companies by allowing them to choose their preferred CSR engagements that are in conformity with the CSR policy.

The activities that can be facilitated by the company to achieve its CSR obligations under CSR could include:

(i) Eradicating extreme hunger and poverty, promotion of education, promoting gender equality and empowering women, reducing child

mortality and improving maternal health, combating human immunodeficiency virus, acquired, immune deficiency syndrome, malaria and other diseases, ensuring environmental sustainability, employment enhancing vocational skills, social business projects, contribution to the Prime Minister's National Relief Fund or any other fund set up by the Central Government or the State Governments for socio-economic development and relief and funds for the welfare of the Scheduled Castes, the Scheduled Tribes, other backward classes, minorities and women and such other matters as may be prescribed.

(ii) Forests cover a third of all land on Earth, providing vital organic infrastructure for some of the planet's densest, most diverse collections of life. They support countless species as well as 1.6 billion human livelihoods, yet humans are also responsible for 32 million acres of deforestation every year.

(iii) Forests, with their variety of resources and vast bio-diversity, are the heritage that we have received from our ancestors. As responsible citizens we will bequeath the very same heritage to our future generations. We have to teach ourselves to associate the same nobility in thought & action to the preservation of forests.

### CSR scope of activities

(i) Various activities where Corporate Social Responsibility can play a role are: Infrastructure and Equipment's, (Forests & Wildlife Protection, Eco-tourism), Livelihood & Skill Development for communities around forests (Youths, Women & Other Fringe area dwellers), Habitat Improvement/ Increasing Forest Area (Wildlife Sanctuaries & Tiger Reserves, Wildlife Corridors and Village Rehabilitation, Community owned Nature

Conservancy), Villages & Community Development around Forests (Health & Sanitation, Village Infrastructure and Village Adoption), Public Awareness & Knowledge Dissemination (Schools & Colleges, Forest Staff, Guides & Interpretators)

The future of the planet, its living conditions are all a function of the state of our forests. Forests and communities around them are in urgent need of support from decision makers, administrators and corporates.

Corporate social responsibility towards forests has a multiplying effect on various factors that are important to support systems of life on earth. CSR is a way to invest and return to the Earth the resources we are constantly using in the name of development. By focusing any CSR activity towards conservation of forests and wildlife we are actually planning to conserve for a secured future and engaging towards a sustainable investment and management.

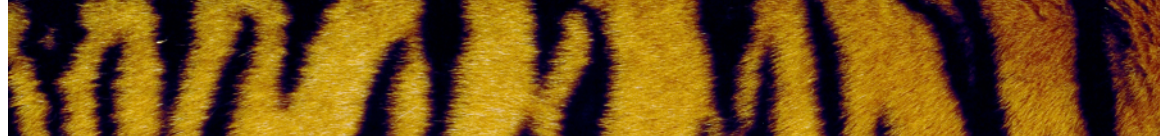
In the said context, it is necessary to acknowledge that Tiger conservation is a shared responsibility of the Central Government, State Governments, Civil Society Institutions and People.

The States and Tiger Conservation Foundations need to gear up and play a pivotal role to explore avenues to garner support through the CSR mechanism. As such meaningful association with corporate houses would enable building green partnerships for long term wildlife conservation and ultimate people's support in sustainable forest and wildlife management ●

*Dr Amit Mallick, Inspector General of Forest, NTCA*

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## Conservation of Northern River Terrapin in Sundarban Tiger Reserve

■ By Tapas Das

Known commonly as the Northern River Terrapin (*Batagur baska*) is a river turtle belonging to the family Geomydidae of the order Testudines. It is listed as a critically endangered in the IUCN Red List and also in the “Top Twenty-Five Turtles in Trouble” published by Turtle Conservation Coalition in 2011. It is also listed in the Appendix-I of CITES and commercial international trade in specimens of the species is prohibited.

Once it was widely distributed in India, Bangladesh, Myanmar, Thailand, Cambodia, Indonesia, Malaysia and Singapore. It is currently believed to be functionally extinct in the wild, with no confirmed records of wild specimens in the recent past.



Northern River Terrapin - Female

### Morphology

The Northern River Terrapin is one of the largest freshwater and backwater turtle, with carapace reaching up to 60cm and attains a maximum weight of 25 kg. The carapace has a moderate depression and the juveniles of the species have a vertebral keel on the carapace. The head is proportionately small, with a pointed and upwards-tending snout. Band like

scales are found in both forelimbs and hind limbs.

The carapace is olive brown in color and large yellowish plastron which is strongly angular (laterally) in young individuals and convex in case of adults. The head and neck have brown colouration with reddish at the base. During the breeding season, in males, head and neck turns black in colour with a crimson or orange dorsal surface and red or orange forelegs; the color of the pupils of a female turns brown whereas the pupils in the males turn yellowish-white.



Northern River Terrapin - Male

### Distribution and Habitat

The species is found in parts of Bangladesh and Indian Sundarbans (West Bengal), Bhitarkanika in Odisha (India), Indonesia, and Malaysia. It is locally extinct from Myanmar, Singapore, Thailand and Vietnam. It is believed to be functionally extinct in the wild across its range, with surviving individuals being held completely in captivity. It is an aquatic species but uses terrestrial nesting grounds, frequenting the tidal zones of estuaries large rivers and mangroves.

## Conservation in Sundarban Tiger Reserve

Since the 1980's ex situ conservation program of Olive Ridley turtle (*Lepidochelys olivacea*), was fully operational in Sundarban Tiger Reserve, which involved collection of eggs from the turtle pits and incubation in a controlled environment at Sajnekhali. The hatchlings were subsequently released in the sea.

During 1983 amongst the hatchlings of Olive Ridley turtle nine hatchlings of some other species were spotted and later these were identified as Northern River Terrapin (*Batagur baska*). In the Year 2008, 12 *Batagur baska* (7 males & 5 females) were rediscovered from the Sajnekhali pond and identified as *Batagur baska* and Ex Situ conservation programme was reinstated with the help of Turtle Survival Alliance.

*Batagur baska* Ex Situ conservation Programme has seen considerable success in Sunderban Tiger Reserve. By 2014 there were 144 individuals of *Batagur baska* at Sajnekhali, main centre of captive breeding program in Sundarbans, representing the world's largest

colony of the species.



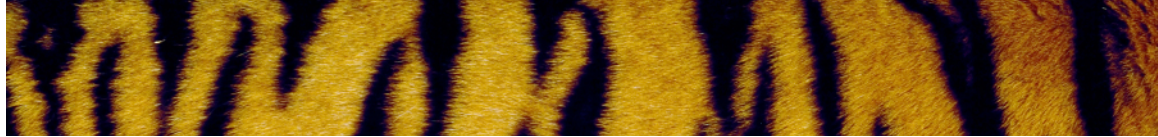
As the number of individuals were increasing gradually, six more assurance colonies have been set up at Chamta, Jhingekhali, Netidhopani, Jhilla, Dobanki and Harikhali. Turtles that weigh more than 5 kg on an average are kept in the assurance colonies in Chamta, Jhingekhali, Netidhopani, Jhilla, Dobanki and Harikhali ●

*Tapas Das, Field Director, Sundarban Tiger Reserve, West Bengal.*

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Netidhopani camp in Sunderban Tiger Reserve



## EVENTS AT NTCA

### Secretary, MoEF&CC visited Corbett & Ranthambore Tiger Reserve

Shri R P Gupta, Secretary, MoEF&CC visited Corbett Tiger Reserve and Ranthambore Tiger Reserve during October and November, 2020 for reviewing the management interventions undertaken at reserve level for tiger conservation.



### Pilibhit Tiger Reserve, Uttar Pradesh and Manas Tiger Reserve, Assam win TX2 Award

The Pilibhit Tiger Reserve, Uttar Pradesh has won the TX2 award for doubling the tiger numbers in a record time. The award is instituted by CATS, Global Tiger Forum, IUCN, UNDP, The Lion's Share and WWF for celebrating the 10 year anniversary of 13 Tiger Range Countries committing to double the global population of wild tigers by 2022. The Manas Tiger Reserve, Assam has been conferred with

TX2 Conservation Excellence Award for protecting the tigers in Transboundary Manas Conservation Area (TraMCA),



### Visit of Shri Rajiv Pratap Rudy, Hon'ble MP & Member, NTCA to Corbett and Valmiki Tiger Reserve

Shri Rajiv Pratap Rudy, Hon'ble MP & Member, NTCA visited the Corbett Tiger Reserve on 23rd and 24th December, 2020 as part of appraisal and review of Tiger Reserve Management related issues requiring intervention at the highest level of governance. During the field visit, he reviewed the tiger reserve management by holding discussions with park managers and field staff of tiger reserve. He also interacted with frontline staff present at the camp and discussed welfare issues.







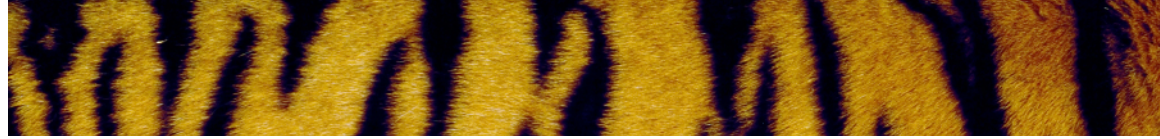
He also highlighted the recent achievements of NTCA which includes: Release of AllIndia Tiger Estimation (AITE) report on 28thJuly 2020 by Hon'ble MEF&CC andChairman, NTCA; Guinness World Record for using largest number of camera trapsfor monitoring tigers and their prey base and Tx2 Award by consortium of GEF,UNDP, IUCN, WWF & GTF to Pilibhit Tiger Reserve and Manas Tiger Reserve.

The Member Secretary, NTCA also apprised the participants about the visit of ShriRajiv Pratap Rudy, Hon'ble Member, NTCA to Valmiki Tiger Reserve and visit of the Secretary, MoEF&CC to Corbett and Ranthambore Tiger Reserve and mentionedabout valuable suggestions/ feedback received during these visits for improving tigerreserve management. This was followed by agenda wise discussion.

## 18th NTCA meeting held under the Chairmanship of Shri Prakash Javadekar, Hon'ble Minister, MoEF&CC

The 18th NTCA meeting was held under Hon'ble MEF&CC/Chairman NTCA on 7th December, 2020 through video conference. nts. The ADG (Project Tiger) & Member Secretary, NTCA, apprised the members about COVID-19 pandemic and the measures taken like issue of advisory, closing of tiger reserves for visitationby NTCA in the wake of COVID-19 infection in Bronx zoo tigers in the USA. Due to these preventive measures and timely intervention not a single case has been reported in the wild tigers of India.



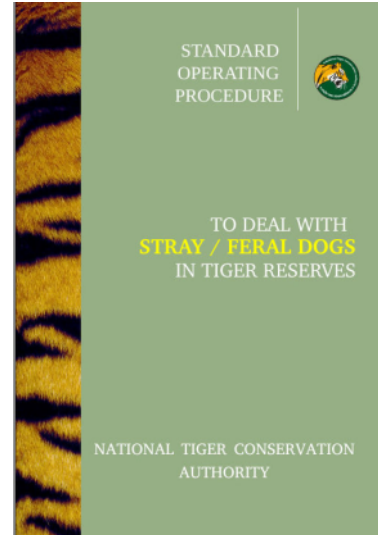


## Release of Standard Operating Procedure on Stray Dogs in Tiger Reserves by Shri Babul Supriyo, Hon'ble Minister of State, MoEF&CC

Shri Babul Supriyo, Minister of State, MoEF&CC released the Standard Operating Procedure (SOP) which deals with emergency arising out of stray and feral dogs in tiger reserves.



The main purpose of the SOP is to ensure that stray/ feral dogs are handled in the most appropriate manner to avoid disease spread and physical injury to tigers and other wildlife.



The SOP is available for download on NTCA website.

## In memoriam

On 17-12-2020 a team comprising of Thiru Pon Ganesan, Forest Guard, Thiru K Sathishkumar, Forest Watcher, along with anti-poaching watchers and a volunteer Thiru Muthu Prabhakara Cherapandiyan, set out for collecting data for phase IV tiger monitoring in Singamalai beat of Vilamundy forest range of Sathyamangalam Tiger Reserve. While the team was busy in collecting data, a wild elephant suddenly attacked the team and unfortunately Thiru Satishkumar and Thiru Muthu Prabhakar were trampled to death.

The NTCA deeply mourns the loss of a dedicated forest watcher and a committed volunteer and offers condolences to the bereaved family members.



Late K. Sathishkumar  
Forest Watcher, Sathyamangalam TR



Late P. Muthu Prabhakara Cherapandiyan  
Volunteer

# Message of Hon'ble Prime Minister on the occasion of Wildlife Week - 2020



सत्यमेव जयते

प्रधान मंत्री  
Prime Minister

## MESSAGE

Wildlife conservation is ingrained in our ethos and has always been an integral part of our tradition and culture. Our holy Constitution also enshrines this philosophy by including conservation of forest and wildlife as one of the fundamental duties of every Indian.

Our country hosts the last wild population of Asiatic lions. It also possesses the distinction of having the highest number of tigers in the world. The results of the concerted efforts of the nation towards conserving our wildlife are showing. The resolve of doubling tiger numbers has been fulfilled. We have achieved this target well in advance.

With a robust and wide network of protected areas, our commitment towards wildlife protection is as strong as ever. Eco sensitive zones provide a peripheral support and act as a buffer around national parks and sanctuaries. Taking great strides in this direction, several such zones have been notified to enhance the space availability for thriving wildlife.

India remains a natural home to a variety of migratory species. For this reason, Gandhinagar Declaration adopted during the 13<sup>th</sup> Conference of Parties to Convention on Migratory Species prioritized the integration of the concept of "ecological connectivity" into the 'Post 2020 Global Biodiversity Framework'. We are emphasizing on the conservation of migratory birds and marine species.

India harbours 17% of world population within 2.4% land area of the world. Developmental needs of the country are paramount. However, we believe wildlife and biodiversity conservation are equally imperative.

India gives a special attention to plastic waste management. We are resolute in our efforts to reduce single use plastic and micro-plastic pollution for sustainable development along with a prospering biodiversity.

Encouraged by the success stories of Project Tiger and Project Elephant, we are now making efforts to conserve other endangered species through Project Lion and Project Dolphin. Contribution from people from all walks of life would help attain the desired goals of these projects.

Coinciding with the birth anniversary of Mahatma Gandhi, the apostle of peace and non-violence, the celebration of 'Wildlife Week' is an ideal occasion to reaffirm our commitment towards conservation of wildlife and harmonious co-existence of all living beings.

(Narendra Modi)

New Delhi  
आश्विन 14, शक संवत्, 1942  
06<sup>th</sup> October, 2020



**National Tiger Conservation Authority**  
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