Celebration of International Tiger Day 29th July, 2021



International Tiger Day and its significance

Global Tiger Day is celebrated every year on July 29th as a way to raise awareness about this magnificent but endangered big cat. The day was founded in 2010, when the 13 tiger range countries came together to create Tx2 – the global goal to double the number of wild tigers by the year 2022. The International Tiger Day this year is celebrated with the slogan/theme, "Their Survival is in our hands". The main aim is to aware people of the declining tiger population and conserving tigers globally. According to World Wildlife Fund (WWF), globally there are only 3900 tigers are left. 95% of the tiger population got extinct in the activities like poaching from the beginning of the 20th century. Tigers are one of the most majestic and royal species that we have seen globally. They are also called the "Umbrella Species" as their conservation also conserves many other species in the same habitat thereby maintaining an ecological balance.

This International Day is celebrated annually with the slogan/theme, "Their Survival is in our hands". The main aim is to aware people of the declining tiger population and conserving tigers globally. According to World Wildlife Fund (WWF), globally there are only 3900 tigers are left. 95% of the tiger population got extinct in the activities like poaching from the beginning of the 20th century. Tigers are one of the most majestic and royal species that we have seen globally. They are also called the **keystone species** as their conservation also conserves many other species in the same habitat thereby ensures an ecological balance.

Since India has around 70% of the global tiger population, it plays a vital role in the annual celebration. With Tiger reserves in place and thriving efforts by the Environment department, India has successfully doubled the tiger population ahead of the 2022 target.

Tigers: Our Planet's Most Iconic Big Cat

The tiger is one of the most iconic and fiercest solitary hunters of Asia. It is also the largest big cat species in the world. There are two recognized subspecies of tiger: the continental (*Panthera tigris tigris*) and the Sunda (*Panthera tigris sondaica*). The largest of all the Asian big cats, tigers rely primarily on sight and sound rather than smell for hunting. They typically hunt alone and stalk prey. A tiger can consume more than 80 pounds of meat at one time. On average, tigers give birth to two to four cubs every two years. If all the cubs in one litter die, a second litter may be produced within five months.

In India, the Bengal Tigers are widely distributed from the alpine Himalayas to the rain forests of southern Western Ghats and from the dry forests of Rajasthan to the moist forests of north-east India. Tigers generally gain independence at around two years of age and attain sexual maturity at age three or four for females and four or five years for males. Juvenile mortality is high, however—about half of all cubs do not survive more than two years. Tigers have been known to reach up to 20 years of age in the wild. Tigers are mostly solitary, apart from associations between mother and offspring. Individual tigers have a large territory, and the size is determined mostly by the availability of prey. Individuals

mark their domain with urine, faeces, rakes, scrapes, and vocalizing. The body length of the majestic male ranges from 275-290 cm and of the female around 260 cm. The size and colour vary according to the geographic location and climate. Tiger is solitary and territorial and the territory of an adult male may encompass territories of two to seven females. It is carnivorous and hunts for prey primarily by sight and sound. It feeds on deer, wild pig, bovid and sometimes even other predators like leopards and bears.

India holds the largest population in the world of wild tigers—in addition to one of the highest human populations. Project Tiger, a conservation program initiated by Indira Gandhi, has been active since 1973. One of the most significant achievement of the project has been the formation of more than 25 highly monitored tiger reserves in reclaimed land where human development is banned. The effort has been credited with tripling the number of wild Bengal tigers from approximately 1,200 in 1973 to more than 3,500 in the 1990s.

Tiger landscapes in the country

> The Shivalik Hills and Gangetic Plains landscape

- The Shivalik Hills and Gangetic Plains landscape in India spans across the states of Himachal Pradesh, Uttarakhand, Uttar Pradesh, Bihar, West Bengal and Assam and is comprised of three parallel geological zones, viz. the Shivaliks, the bhabar tract and the terai plains. For convenience of assessment of tigers, herein, this landscape is limited to the eastern extent of Bihar. The lower altitude hills of West Bengal and Assam are included in the Brahmaputra plains and North-eastern hills.
- The terai region is a part of one of the 200 globally important eco-regions for its intact large mammal assemblages. Johnsingh et al. (2004) identified nine Tiger Habitat Blocks (THBs) in this region as disjunct forest blocks with varying tiger populations. These THBs formed a continuum of forests with tigers and their prey until recent times till anthropogenic disturbances and reclamation of land for agriculture disrupted the forest continuity, leaving them connected by means of 13 essential narrow corridors.

Central Indian Landscape Eastern Ghats

- The Central India and Eastern Ghats landscape comprises of the semi-arid zone of Rajasthan, central Indian plateau (Maharashtra, Madhya Pradesh, Chhattisgarh, Jharkhand and Odisha) and includes parts of the Eastern Ghats (Telangana, Andhra Pradesh and Odisha). Parts of the northern Western Ghats (Sahyadri) in Maharashtra are included here for convenience so as not to split the state into two landscapes.
- Wildlife habitats of Central Indian and Eastern Ghats landscape are the most fragmented in the country. It is in this landscape that maximum flux in tiger occupancy has occurred with maximum patch extinctions as well as colonisations. According to Tiger Status Report (2018), the landscape had four populations that have more than 100 adult tigers each. The largest of these (Kanha-Pench Block) had over 300 tigers. Some of the major PAs within this landscape remain connected only through linear forest patches and these habitat connectivities are primarily threatened by agriculture, industrial and infrastructural development and are declining rapidly as observed from the expansion of night light data between 2014 and 2018. However, these degraded corridors facilitated gene flow between them. Within this landscape, there are smaller sub-units of tiger landscape, which incorporate one, or several PAs that may or may not have tiger populations, yet are essential for long-term persistence of the species in the region.

Western Ghats Landscape

- The coastal plains of Konkan in the north, Kanara in the centre and Malabar in the south, bound the Western Ghats on the west. The coastline varies in width, from 30-60 kilometers, being the narrowest 0 around 14-15 N. In the north, the Ghats are bounded by the Satpura range positioned in an east-west direction, forming an important bio-geographical barrier between the Western Ghats and the remaining parts of India. The Vindhya and Ajanta ranges in the north further strengthen this barrier. 0 The contiguity of the Western Ghats is disrupted at three locations. Around 16 N is the Goa gap, then 0 the 40 kilometer wide Palakkad/Palghat Gap around 11 N, followed by the southernmost and the 0 narrowest Shencottah gap at 9 N. Recent studies indicate that such geographical barriers have impacted the population and genetic structure of wildlife populations across the gaps.
- Tiger population for the entire landscape in 2018 was estimated to be 981 (SE 871 1,093) tigers with Karnataka supporting the maximum tigers followed by Tamil Nadu and Kerala. Tiger densities in the Western Ghats ranged between 12 tigers per 100 km in Nagarhole TR to 0.03 tigers per 100 km in Anshi-Dandeli (Kali) TR.

> North Eastern Hills and Brahmaputra Flood Plains

- The Brahmaputra flood plains and North East hills landscape comprises of three zones viz. North Bengal Dooars, Brahmaputra Flood Plains and North Eastern hill ranges. The landscape is connected to the eastern part of the country through a narrow Siliguri corridor which lies between Nepal and Bangladesh. The north-eastern hill region comprises of several hill ranges and can be categorized as Eastern Himalayas and north-east hills. The eastern Himalayas extend from the Koshi Valley in Central Nepal to northwest Yunan in China and include North East India, and hill districts of West Bengal.
- Tiger occupancy was recorded from an area of 331 sq. km of forests within the Brahmaputra Valley and North East Hills landscapes, with an estimated population of about 219 (194-244) tigers. About 6040 sq.km areas were not sampled in 2018 where tiger presence was recorded in 2014.

> Sundarban

- Sundarban is the only mangrove habitat which harbours tigers and is a global priority Tiger Conservation Landscape Unit (Dinerstein et al. 1997). These mangrove forests are also the world's largest contiguous halophytic mangrove 2 habitat covering an area of 10,000 km, with about 66% of the landscape in Bangladesh and 34% in India. It is also a globally important wetland and was declared a World Heritage Site in 1987 by United Nations Educational, Scientific and Cultural Organisation (UNESCO).
- According to the Tiger Status Report (2018), there has been a positive trend over the years in tiger abundance which is not statistically significant and therefore the population can be considered stable. The low coefficient of variation (high precision) of 11% in tiger abundance of 2018 was largely due to the extensive camera trap coverage and high recaptures of tiger individuals.

Tiger reserves in the country

There are 51 tiger reserves in India.

Table: Tiger Reserves in India

| S.No. | Name of Tiger Reserve | State | Area of the core / critical tiger habitat (In Sq. Kms.) | Area of the buffer / peripheral (In Sq. Kms.) | Total area (In Sq.Kms.) |
|-------|------------------------------------|----------------------|--|--|----------------------------|
| 1 | Bandipur | Karnataka | 872.24 | 584.06 | 1456.3 |
| 2 | Corbett | Uttarakhand | 821.99 | 466.32 | 1288.31 |
| | Amangarh (buffer of Corbett TR) | Uttar Pradesh | - | 80.6 | 80.6 |
| 3 | Kanha | Madhya Pradesh | 917.43 | 1134.361 | 2051.791 |
| 4 | Manas | Assam | 526.22 | 2310.88 | 2837.1 |
| 5 | Melghat | Maharashtra | 1500.49 | 1268.03 | 2768.52 |
| 6 | Palamau | Jharkhand | 414.08 | 715.85 | 1129.93 |
| 7 | Ranthambore | Rajasthan | 1113.364 | 297.9265 | 1411.291 |
| 8 | Similipal | Odisha | 1194.75 | 1555.25 | 2750 |
| 9 | Sundarbans | West Bengal | 1699.62 | 885.27 | 2584.89 |
| 10 | Periyar | Kerala | 881 | 44 | 925 |
| 11 | Sariska | Rajasthan | 881.1124 | 332.23 | 1213.342 |
| 12 | Buxa | West Bengal | 390.5813 | 367.3225 | 757.9038 |
| 13 | Indravati | Chhattisgarh | 1258.37 | 1540.7 | 2799.07 |
| 14 | Namdapha | Arunachal Pradesh | 1807.82 | 245 | 2052.82 |
| 15 | Dudhwa | Uttar Pradesh | 1093.79 | 1107.9848 | 2201.7748 |
| 16 | Kalakad- Mundanthurai | Tamil Nadu | 895 | 706.542 | 1601.542 |
| 17 | Valmiki | Bihar | 598.45 | 300.93 | 899.38 |
| 18 | Pench | Madhya Pradesh | 411.33 | 768.30225 | 1179.63225 |
| 19 | Tadoba-Andhari | Maharashtra | 625.82 | 1101.7711 | 1727.5911 |
| 20 | Bandhavgarh | Madhya Pradesh | 716.903 | 820.03509 | 1536.938 |
| 21 | Panna | Madhya Pradesh | 576.13 | 1021.97 | 1598.1 |
| 22 | Dampa | Mizoram | 500 | 488 | 988 |
| 23 | Bhadra | Karnataka | 492.46 | 571.83 | 1064.29 |
| 24 | Pench | Maharashtra | 257.26 | 483.96 | 741.22 |
| 25 | Pakke | Arunachal Pradesh | 683.45 | 515 | 1198.45 |
| 26 | Nameri | Assam | 320 | 144 | 464 |
| 27 | Satpura | Madhya Pradesh | 1339.264 | 794.04397 | 2133.30797 |
| 28 | Anamalai | Tamil Nadu | 958.59 | 521.28 | 1479.87 |

| | TOTAL | | 40787.1567 | 32978.41801 | 73765.58272 |
|----|---------------------------------------|----------------------|------------|-------------|-------------|
| 51 | Srivilliputhur Megamalai | Tamil Nadu | 641.86 | 374.7 | 1016.57 |
| 50 | Kamlang | Arunachal Pradesh | 671 | 112 | 783 |
| 49 | Orang | Assam | 79.28 | 413.18 | 492.46 |
| 48 | Rajaji | Uttarakhand | 819.54 | 255.63 | 1075.17 |
| 47 | Bor | Maharashtra | 138.12 | 678.15 | 816.27 |
| 46 | Pilibhit | Uttar Pradesh | 602.798 | 127.4518 | 730.2498 |
| 45 | Amrabad | Telangana | 2166.37 | 445.02 | 2611.39 |
| 44 | Nagarjunsagar Srisailam | Andhra Pradesh | 2595.72 | 700.59 | 3296.31 |
| 43 | Nawegaon-Nagzira | Maharashtra | 653.674 | 1241.27 | 1894.944 |
| 42 | Mukandra Hills | Rajasthan | 417.17 | 342.82 | 759.99 |
| 41 | Sathyamangalam | Tamil Nadu | 793.49 | 614.91 | 1408.4 |
| 40 | Kawal | Telangana | 892.23 | 1123.212 | 2015.44 |
| 39 | Biligiri Ranganathaswamy Temple | Karnataka | 359.1 | 215.72 | 574.82 |
| 38 | Sahyadri | Maharashtra | 600.12 | 565.45 | 1165.57 |
| 37 | Parambikulam | Kerala | 390.89 | 252.772 | 643.662 |
| 36 | Nagarahole | Karnataka | 643.35 | 562.41 | 1205.76 |
| 35 | Mudumalai | Tamil Nadu | 321 | 367.59 | 688.59 |
| 34 | Sanjay-Dubri | Madhya Pradesh | 812.571 | 861.931 | 1674.502 |
| 33 | Dandeli-Anshi | Karnataka | 814.884 | 282.63 | 1097.514 |
| 32 | Achanakmar | Chattisgarh | 626.195 | 287.822 | 914.017 |
| 31 | Kaziranga | Assam | 625.58 | 548 | 1173.58 |
| 30 | Satkosia | Odisha | 523.61 | 440.26 | 963.87 |
| 29 | Udanti-Sitanadi | Chattisgarh | 851.09 | 991.45 | 1842.54 |







***** Tiger corridors in the country

The National Tiger Conservation Authority in collaboration with the Wildlife Institute of India has published a document titled "Connecting Tiger Populations for Long-term Conservation", which has mapped out 32 major corridors across the country, management interventions for which are operationalised through a Tiger Conservation Plan, mandated under section 38V of the Wildlife (Protection) Act, 1972. The list of macro/landscape level tiger corridors are as under:

| S. | Landscape | Corridor | States/ Country |
|----|---|--|--|
| 1 | Shivalik Hills & Gangetic Plains | (i) Rajaji-Corbett | Uttarakhand |
| | | (ii) Corbett-Dudhwa | Uttarakhand, Uttar Pradesh, Nepal |
| | | (iii) Dudhwa-Kishanpur- Katerniaghat | Uttar Pradesh, Nepal |
| 2 | Central India & Eastern Ghats | (i) Ranthambhore-Kuno- Madhav | Madhya Pradesh, Rajasthan |
| | | (ii) Bandhavgarh-Achanakmar | Madhya Pradesh, Chhattisgarh |
| | | (iii) Bandhavgarh-Sanjay Dubri- Guru Ghasidas | Madhya Pradesh |
| | | (iv) Guru Ghasidas-Palamau- Lawalong | Chhattisgarh & Jharkhand |
| | | (v) Kanha-Achanakmar | Madhya Pradesh, Chhattisgarh |
| | | (vi) Kanha-Pench | Madhya Pradesh, Maharashtra |
| | | (vii) Pench-Satpura-Melghat | Madhya Pradesh, Maharashtra |
| | | (viii) Kanha-Navegaon Nagzira- Tadoba-Indravati | Madhya Pradesh, Maharashtra, Chhattisgarh, Andhra Pradesh |
| | | (ix) Indravati-Udanti Sitanadi- Sunabeda | Chhattisgarh, Odisha |
| | | (x) Similipal-Satkosia | Odisha |
| | | (xi) Nagarjunasagar-Sri Venkateshwara National Park | Andhra Pradesh |
| 3 | Western Ghats | (i) Sahyadri-Radhanagari-Goa | Maharashtra, Goa |
| | | (ii) Dandeli Anshi-Shravathi Valley | Karnataka |
| | | (iii) Kudremukh-Bhadra | Karnataka |
| | | (iv) Nagarahole-Pusphagiri- Talakavery | Karnataka |
| | | (v) Nagarahole-Bandipur- Mudumalai-Wayanad | Karnataka, Kerala, Tamil Nadu |

Table showing tiger corridors in India

| | | (vi) Nagarahole-Mudumalai- Wayanad | Karnataka, Kerala, Tamil Nadu |
|---|-------|---------------------------------------|-------------------------------|
| | | (vii) Parambikulam- | Kerala, Tamil Nadu |
| | | Eranikulam-Indira Gandhi | |
| | | (viii) Kalakad Mundanthurai- | Kerala, Tamil Nadu |
| | | Periyar | |
| 4 | North | (i) Kaziranga-Itanagar WLS | Assam, Arunachal Pradesh |
| | East | | |
| | | (ii) Kaziranga-Karbi Anglong | Assam |
| | | (iii) Kaziranga-Nameri | Assam |
| | | (iv) Kaziranga-Orang | Assam |
| | | (v) Kaziranga-Papum Pane | Assam |
| | | (vi) Manas-Buxa | Assam, West Bengal, Bhutan |
| | | (vii) Pakke-Nameri-Sonai | Arunachal Pradesh, Assam |
| | | Rupai-Manas | |
| | | (viii) Dibru Saikhowa-D'Ering- | Assam, Arunachal Pradesh |
| | | Mehaong | |
| | | (ix) Kamlang-Kane-Tale Valley | Arunachal Pradesh |
| | | (x) Buxa-Jaldapara | West Bengal |

Tiger population in India

It was only after the Sariska debacle in 2004-05 (and subsequently in Panna in 2007-08), where despite total local extinction of tigers due to poaching, official records showed presence of substantial tigers based on the pugmark census. This disaster and its extensive media coverage prompted the Prime Minister of India to appoint the Tiger Task Force (TTF) with a mandate to develop a strategy for tiger conservation in India. Besides recommending the creation of the National Tiger Conservation Authority (NTCA), and amendment of the Wildlife (Protection) Act 1972, the TTF also suggested a country wide monitoring of tigers and their ecosystems based on modern scientific protocols developed by the Wildlife Institute of India in collaboration with Project Tiger Directorate and Madhya Pradesh Forest Department. NTCA in collaboration with the State Forest Departments, Conservation NGO's and coordinated by the Wildlife Institute of India (WII), has conducted a National assessment for the "Status of Tigers, Co-predators, Prey and their Habitat" every four years since then. The first status assessment of 2006 was peer reviewed by international carnivore experts and the IUCN (Tiger Status Report, 2018).

The parameters used to assess the Indian tiger population status are abundance, i.e., the number of individuals in a population occupying the same space at the same time, and density i.e. abundance scaled by area and spatial distribution. The first countrywide assessment was done in 2006 and it estimated India's tiger population to be 1,411. The second and third assessments were carried out in 2010 and 2014 which estimated India's tiger population to have increased to 1,706 and 2,226 respectively (Tiger Status Report, 2018).

Geospatial techniques had made it possible to map the data that would enable better understanding of the results and would also help in comparing the results as well.

| State (landscanes) | | Tiger Population | | | | | |
|--|------|------------------|------|------|--|--|--|
| State (landscapes) | 2006 | 2010 | 2014 | 2018 | | | |
| Shivalik-Gangetic Plain Landscape Complex | | | | | | | |
| Uttarakhand | 178 | 227 | 340 | 442 | | | |
| Uttar Pradesh | 109 | 118 | 117 | 173 | | | |
| Bihar | 10 | 8 | 28 | 31 | | | |
| Shivalik Gangetic | 297 | 353 | 485 | 646 | | | |
| Central Indian Landscape Complex and Eastern Ghats Landscape Complex | | | | | | | |
| Andhra Pradesh | 95 | 72 | 68 | 48 | | | |
| Telangana | - | - | - | 26 | | | |
| Chhattisgarh | 26 | 26 | 46 | 19 | | | |
| Madhya Pradesh | 300 | 257 | 308 | 526 | | | |
| Maharashtra | 103 | 169 | 190 | 312 | | | |
| Odisha | 45 | 32 | 28 | 28 | | | |
| Rajasthan | 32 | 36 | 45 | 69 | | | |
| Jharkhand | - | 10 | 3 | 5 | | | |
| Central India | 601 | 601 | 688 | 1033 | | | |
| Western Ghats Landscape Complex | | | | | | | |
| Karnataka | 290 | 300 | 406 | 524 | | | |
| Kerala | 46 | 71 | 136 | 190 | | | |
| Tamil Nadu | 76 | 163 | 229 | 264 | | | |
| Goa | - | - | 5 | 3 | | | |
| Western Ghats | 412 | 534 | 776 | 981 | | | |
| North Eastern Hills and Brahmaputra Flood Plains | | | | | | | |
| Assam | 70 | 143 | 167 | 190 | | | |
| Arunachal Pradesh | 14 | - | 28 | 29 | | | |
| Mizoram | 6 | 5 | 3 | 0 | | | |
| Nagaland | - | - | - | 0 | | | |
| Northern West Bengal | 10 | - | 3 | 0 | | | |
| North East Hills, and Brahmaputra | 100 | 148 | 201 | 219 | | | |
| Sunderbans | - | 70 | 76 | 88 | | | |
| TOTAL | 1411 | 1706 | 2226 | 2967 | | | |

Table: Tiger population (for years 2006, 2010, 2014, 2018)







Graph showing tiger population (for years 2006, 2010, 2014, 2018)

Source: Ministry of Environment, Forest and Climate Change

Tiger deaths reported in India

According to NTCA, based on the location of tiger mortality event the mortality data from 2012-2020 is grouped into three categories namely the tiger mortalities that took place inside tiger reserve, those events that happened outside tiger reserves and seizures. The mortality data indicates that out of total 857 tiger mortality events 55.78% (478 tiger deaths) of all the mortality events took place inside the tiger reserves, and 31.627% (271 tiger deaths) of tiger mortalities were recorded outside the boundary of tiger reserves and 12.60% (108) were seizures. Causes for tiger mortality are natural, poaching, unnatural-not poaching, seizures.

The details of tiger deaths as reported by States, during the last three years are as follows:

| State | 2018 | 2019 | 2020 | Total |
|----------------|------|------|------|-------|
| Andhra Pradesh | 2 | 1 | 1 | 4 |
| Assam | 1 | 5 | 6 | 12 |
| Bihar | 0 | 1 | 1 | 2 |
| Chhattisgarh | 1 | 1 | 1 | 3 |
| Goa | 0 | 0 | 4 | 4 |
| Gujarat | 0 | 1 | 0 | 1 |
| Jharkhand | 0 | 0 | 1 | 1 |
| Karnataka | 15 | 12 | 12 | 39 |
| Kerala | 5 | 1 | 10 | 16 |
| Madhya Pradesh | 28 | 31 | 29 | 88 |
| Maharashtra | 21 | 18 | 16 | 55 |
| Nagaland | 1 | 0 | 0 | 1 |
| Odisha | 2 | 0 | 0 | 2 |
| Rajasthan | 6 | 3 | 3 | 12 |
| Tamil Nadu | 4 | 7 | 8 | 19 |
| Telangana | 0 | 2 | 0 | 2 |
| Uttar Pradesh | 6 | 4 | 9 | 19 |
| Uttarakhand | 8 | 7 | 4 | 19 |
| West Bengal | 1 | 2 | 1 | 4 |
| Total | 101 | 96 | 106 | 303 |









Graph showing tiger deaths in India (for years 2018, 2019, 2020)

Source: Ministry of Environment, Forest and Climate Change

Human deaths reported in India

Incidents of human wildlife conflicts are reported from various parts of the country. The Wild Life (Protection) Act, 1972 empowers the State Chief Wildlife Warden for taking appropriate measures for management of human wildlife conflict situations. The Ministry of Environment, Forest and Climate Change has issued advisories dated 24th December 2014 and 1st June 2015, in context of human wildlife conflicts to all the States /UTs, wherein they have been requested to take proactive steps including exercise of powers under the Wild Life (Protection) Act, 1972, for mitigation of human wildlife conflict.

|--|

| S. No. | State | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Total |
|-----------|----------------------|------|------|------|------|------|------|-------|
| 1 | Andhra Pradesh | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | Arunachal Pradesh | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | Assam | 1 | 0 | 1 | 1 | 1 | 0 | 4 |
| 4 | Bihar | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Chhattisgarh | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | Jharkhand | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | Karnataka | 1 | 2 | 0 | 0 | 1 | 4 | 8 |
| 8 | Kerala | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| 9 | Madhya Pradesh | 12 | 8 | 10 | 5 | 2 | 1 | 38 |
| 10 | Maharashtra | 13 | 7 | 19 | 7 | 2 | 26 | 74 |
| 11 | Mizoram | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 | Orissa | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| 13 | Rajasthan | 0 | 1 | 0 | 0 | 2 | 5 | 8 |
| 14 | Tamil Nadu | 3 | 1 | 1 | 0 | 0 | 0 | 5 |
| 15 | Telangana | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | Uttar Pradesh | 2 | 1 | 15 | 19 | 5 | 7 | 49 |
| 17 | Uttarakhand | 3 | 1 | 2 | 0 | 1 | 3 | 10 |
| 18 | West Bengal | 12 | 18 | 14 | 12 | 15 | 3 | 74 |
| Y | Year wise total | | 42 | 62 | 44 | 31 | 49 | 275 |















Graph showing human deaths reported in India (for years 2018, 2019, 2020)

Source: Ministry of Environment, Forest and Climate Change

Conservation efforts adopted in India

As a large predator, the tiger plays a key role in maintaining healthy ecosystems. These ecosystems supply both nature and people with fresh water, food, and health. Securing tiger landscapes could help protect at least nine major watersheds, which regulate and provide freshwater for over 800 million people in Asia. To save tigers, we need to secure forest and grassland habitats across Asia where they live. By protecting large, biologically diverse landscapes, we allow tigers to roam and preserve the many other threatened species that live there. To protect just one tiger, we have to conserve an estimated 10,000 hectares of forest.

A national ban on tiger hunting was imposed in 1970, and the Wildlife Protection Act came into force in 1972 and this act was set to formulate a project for tiger conservation with an ecological approach. Indian tiger census conducted in 1972 exposed the existence of only 1827 tigers.

Project Tiger is a major effort to conserve the tiger and its habitats in India started in 1973. The National Tiger Conservation Authority (Normative Standards for Tourism activities and Project Tiger) Guidelines, 2012, provide for consolidating and strengthening the "source" population of tiger and its prey in tiger reserves, protected areas and tiger bearing forests. The said guidelines elaborate the activities which are required to be taken up in such areas to ensure tiger conservation takes place, as follows: (i) Redressing man-animal conflict (ii) Capturing problematic

and aberrant wild animals (iii) Monitoring of wild animals (iv) Anti-poaching operations (v) Habitat improvement measures.

Efforts made by the Government of India through the National Tiger Conservation Authority during the last five years for the conservation and increase in tiger population in the country are as under:-

- Adoption of M-STrIPES, an android application for smart patrolling and collection of ecological data from the field.
- Completion of fourth cycle (2018) of the All India Tiger Estimation using refined methodology with subtle modifications.
- Completion of Management Effectiveness Evaluation of Tiger Reserves in 2018 cycle wherein 21 tiger reserves have been rated in 'Very Good' category, followed by 17 tiger reserves rated in 'Good' category and 12 tiger reserves rated in 'Fair' category.
- To ensure success of tiger conservation efforts, financial and technical inputs are being provided to tiger bearing forests outside tiger reserves which are assessed for quality of management interventions through the Conservation Assured | Tiger Standard (CA|TS) framework.
- Sensitization workshops were held for agencies such as the Railways, National Highway Authority of India, EIA assessors of the MoEF&CC besides IRTS probationers to ensure that tiger is not seen as a drag on development. Further, Technical advice has been provided on formulating mitigating strategies for linear infrastructure with the WII, Dehradun which has been advised to the State.
- Interstate landscape level meetings for the field officers of adjacent tiger reserves and tiger bearing divisions have been initiated for capacity building and coordination, since 2018.

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29th JULY 2021 INTERNATIONAL TIGER DAY

TIGER POULATION CONSERVATION ROAD MAP INDIA

- 1973 Project Tiger is a tiger conservation program launched by Government of India.
- 1980 9 reserves covering an area of 9,115 Sq Km
- 1984 Increased to 15 reserves covering an area of 24,700 Sq.km. 1100 tigers were estimated
- 1997 23 Tiger Reserves covering an area of 33,000 sq.km
- 2006 GIS based methodology was used camera trap and sign surveys.Tiger population was estimated 1,411.
- 2015 The number of tigers increased to 2,226 as per the census.
- 2018 Reported a significant increase in the tiger population in India to 2,967 numbers.

THEME "THEIR SURVIVAL IN OUR HANDS"



National Tiger Status Assessment 2018-19. The most accurate survey conducted. The survey covered 381,400 sq.km of forested habitats in 20 tiger occupied states of India.A foot survey of 522,996 km was done for carnivore signs and prey abundance estimation. 317,958 habitat plots were sampled for vegetation, human impacts and prey dung. Camera traps were deployed at 26,583 locations. A total of 2,461 individual tigersphoto-captured. The overall tiger population in India was estimated at 3,346.





ENIVS Resource Partner WWF-INDIA Supported by Ministry of Environment, Forest & Climate Change, Govt of India

"We must protect tigers from extinction. Our planet's future depends on it." - Michelle Yeoh