

Subject: Zoology

Paper : Economic Zoology & Wild-Life

Project Tiger

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Project Tiger in India

India hosts more than 70% of total Tigers in the world and about 90% in south Asia. It is no surprise then that we are also prime targets for tiger hunters and poachers. To overcome this threat **Project Tiger** was launched in 1973 in India. Since the population of these beautiful big cats is spread across many states in India.



Tiger

In the early 19th century, there were about 40,000 **Royal Bengal Tigers** in India. Within seven decades, Royal Bengal Tiger's population dwindled to a mere 1800. The government looked into the issue and initiated steps to revive the tiger population in the country.

Project Tiger in India was launched on **1st April 1973** as a major wildlife conservation project in India. It was launched from the Jim Corbett National Park of Uttarakhand.

The initiative is funded by the Union Govt. of India and administrated under the Ministry of Environment, Forests and Climate Change. **National Tiger Conservation Authority (NTCA)** is the immediate supervising agency.

Tiger Reserves

- Tiger Reserves - the areas for the protection of tigers and their prey; which are notified under the project tiger launched in 1973.
- The total number of Tiger reserves has increased from 9 in 1973 to around 50 presently.
- The state governments declare an area as a tiger reserve on the recommendations of national Tiger conservation authority.
- The Tiger Reserves are divided into core zone and buffer zone.

Core zone

- Core zone is the areas which are to be kept free of biotic disturbances and Forestry operations and are required to be kept inviolate to ensure Tiger conservation. The above objectives have to be achieved without affecting the lawful rights of Scheduled Tribes and other forest dwellers.
- The state governments, after consultation with an expert committee which is constituted for this purpose, notify the core areas and the Tiger Reserves.
- Activities such as Forestry operations, a collection of minor forest produce grazing of domestic animals and human disturbances etc are not allowed in core areas.

Buffer zone

- Buffer zone includes the area which is peripheral to the core area of Tiger Reserves. It aims at providing supplementary habitat for dispersing tigers along with allowing the coexistence of human activity.
- Buffer zone areas aim to promote coexistence of tigers and its prey species with the tribal population and ensure their livelihood, developmental, social and cultural rights.
- The gram-sabha and expert committee constituted for this purpose determine the limitations of human activity in the buffer zone.
- The boundaries of tiger reserves cannot be changed without the recommendations of National tiger conservation authority and the approval of the national board for wildlife.
- The state governments cannot de-notify any tiger reserve, except in public interest with the approval of and NTCA and the national board for wildlife.
- The Tiger task force has given recommendations to strengthen the project tiger by providing it statutory and administrative powers.
- National board for wildlife Tiger task force NTCA.

National Tiger conservation authority (NTCA)

- In December 2005, after the recommendations of Tiger task force, the national Tiger conservation authority was established.
- The Wildlife Protection Amendment Act, 2006 provides for constitution of a statutory authority, the national Tiger conservation authority. This was to help in the implementation of various Tiger conservation efforts and measures.

Members of NTCA

- **The national Tiger conservation authority was set up under the chairmanship of the Minister for the Environment and Forest.**
- The NTCA will have following members:
- Eight experts who have the qualifications in wildlife conservation and the Welfare of Scheduled Tribes and other forest dwellers.
- 3 members of parliaments (1 Rajya Sabha, 2 Lok Sabha).
- The ex officio member secretary of NTCA will be the inspector general of a forest, who is the in charge of Project Tiger.
- Other members.

Powers and functions of NTCA

- Its functions include the approval of Tiger conservation plans which have been prepared by the various state governments.
- Assessment and evaluation of different aspects of sustainable ecology and ecosystem and to disallow the ecological and sustainable land use practices which include mining, industrial development etc in the Tiger Reserves.
- For better implementation of Tiger conservation plans ensuring the provision of critical support which includes scientific, information technology and legal support.
- It has a responsibility to provide information about the protection and conservation plan of Tiger Reserves, estimation of the number of tigers and their natural prey species, surveillance of disease, mortality of tigers; and providing information about patrolling, and other management aspects which are necessary for the future plan of conservation of Tiger Reserves.
- It prescribes the normative standards and guidelines which are necessary for tourism activities in the tiger Reserves. It also ensures the implementation of its guidelines for tiger conservation in the buffer zone and core area of tiger reserves.
- It facilitates the tiger reserve management in the state for the protection and conservation of biodiversity initiatives through eco-development and people's as per the approved guidelines and management plans.
- It has the responsibility to ensure capacity building and skill development of staff and officers who are responsible for the management and protection of Tiger Reserves.

Estimation of Tiger population in India

- In India, Tiger census is carried out every four years, the last census was conducted in 2014 in which the total number of Tigers in India was 2226. Tiger census is conducted to know about the tiger population trend and estimates the number, density and change in tiger population indices - which is a measure of tiger occupancy in a particular area.
- It also helps to gather information about the density of tiger populations and their prey species.

- Pugmark census technique is one of the most commonly used methodologies to calculate the number of tigers. The imprints of the pugmark of tigers are recorded and used for the identification of individual tigers.
- New methods such as camera trapping, DNA fingerprinting, and mobile app are now being used to accurately calculate the total number of individual tigers.
- In-camera trapping, the photograph of different tigers are recorded and the individual tigers are differentiated by analysing the stripes of tigers which are different for different tigers. Indian DNA fingerprinting, tigers are identified by using their scats for DNA analysis.

Phase IV monitoring protocol

- For the proper monitoring of Tiger population, India has initiated the Phase IV of Tiger estimation program in November 2011.
- The methodology of phase IV estimation was developed by Wildlife Institute of India (WII) and national Tiger conservation authority NTCA after consultation with wildlife experts and conservationists. It uses statistically sound procedures and methodology to estimate the population of tigers and their prey species.
- It uses camera traps, at the density of 25 double-sided cameras as per hundred square kilometres and a minimum 1000 trap Nights per hundred square kilometres.
- Phase IV of Tiger monitoring programme provides an early indication of the status of Tiger population in the country. It is crucial for long-term management and conservation and protection of tigers in wild.
- It also monitors the population of prey species using distance sampling protocols.

Tiger population estimates

- Tiger census was carried out in 2006, 2010 and 2014. The next census is being carried out in 2022.
- According to Tiger census 2006, there were around 1411 Tigers in India. The Tiger population increased to 1706 in 2010 and 2226 in 2014.

Tiger census 2018

- The Tiger census 2018 has begun and the new data about Tiger population is released. The total number of tigers is 2967 in different states of India.
- States with highest numbers of tiger populations such as Karnataka, Uttarakhand, Madhya Pradesh and Tamilnadu have reported about an increase in the numbers of Tiger population. Uttarakhand which had the second largest population of tigers in 2014 (442) has reported about the increase in Tiger population to at least 340.
- For the first time in the tiger census, neighbouring Nepal, Bangladesh and Bhutan are also being included in the tiger census as they constitute a larger Tiger range in the subcontinent. The officials of Nepal, Bhutan and Bangladesh are being trained in India to

carry out the tiger census. Involving these countries in the tiger census would remove the chances of double counting of tigers as they move between the national borders.

- The all India tiger estimation, 2018 is more accurate and precise than earlier estimates as new technology is being adopted. An Android phone based application along with its desktop version, M-STrIPES (Monitoring System for Tigers-Intensive Protection and Ecological Status) is being used for collecting and analysing data about the Tiger population.
- This application automatically records the track log of service and authenticates the recorded data on signs and animal sightings with the geotagged photographs of tigers and other animals. Further, the camera density has been increased and the number of cameras to be used in 2018 is around 15000.
- The census also estimates the number of leopard population and prey species of tigers. In 2014, India's Leopard population was around 11000.

Tiger Population is increased about 34% from 2014 to 2018

Table: State wise tiger population according to 2014 & 2018 census.

State/ Tiger Population	2014	2018
Bihar	28	31
Uttarakhand	340	442
Uttar Pradesh	117	173
Andhra Pradesh	68	48
Telangana	—*	26
Chhatisgarh	46	19
Jharkhand	3	5
Madhya Pradesh	308	526
Maharashtra	190	312
Orissa	28	28
Rajasthan	45	69
Goa	5	3
Karnatak	406	524
Keral	136	190
Tamilnadu	229	264
Arunachal	28	29
Assam	167	190
Sundervan	76	88

***- not recorded**

Action and initiatives were taken by the government for Tiger conservation

The government of India has taken several steps which include legal steps, administrative steps and financial steps to ensure and promote Tiger conservation in India.

Legal initiatives

- The Wildlife Protection Act 1972 was amended in 2006 to provide enabling provisions and constituting National Tiger conservation authority. Also, tiger and other endangered species crime control bureau were created through this amendment.
- The punishments for cases of offences related to the Tiger Reserves and its core area was increased.

Administrative Actions

- The government has taken steps for preventing poaching activities which includes a special strategy for monsoon patrolling etc.
- Under the chairmanship of respective Chief Ministers, state-level steering committees have been established along with the establishment of the Tiger Conservation Foundation.
- A special Tiger Protection Force was created by the Union budget 2008.

Financial initiatives

- The Government of India is providing financial and technical Support to the state governments under the centrally sponsored schemes such as Project Tiger, and integrated development of wildlife habitats etc.

Problems involved with Project Tiger

- The forest rights act 2006 passed by Indian Parliament recognises the historical rights of Scheduled Tribes and other forest-dwelling communities in the forested areas. This has created a controversy over its implications on the tiger reserves and tiger conservation.
- Further, there is lack of sufficient provisions in case of abuse of power by the authorities which can exaggerate the tiger crisis.

why are tigers endangered?

The Tigers are facing threats mainly due to poaching, destruction of habitat, loss of prey species etc.

Man-animal conflict

- The man-animal conflict has been a major threat to the Tiger population. Human activities are leading to loss of habitat for the tigers and their prey species.
- Due to the expansion of Agricultural activities, the pressure in the buffer zone of Tiger reserves has increased. Tigers have started coming out to the villages in search of prey and have attacked domestic animals and human beings. This has resulted in man-animal conflict and many tigers have been killed in retaliation.

Hunting and illegal trade of tigers

- Hunting has been a major threat and has been responsible for the decline in the numbers of tigers in the past. The use of bones, teeth of the tiger for making medicines, jewellery etc has been responsible for the hunting and poaching of tigers.
- Also, hunting is seen as a symbol of status which has been a responsible for a decline of tiger population in the past, especially in the 20th century.

Anthropogenic activities

- Anthropogenic activities such as mining, industrial activities, construction of roads and Highways etc have resulted in the destruction of Tiger habitat.
- Other activities such as the building of dam as in case of planned Ken Betwa River interlinking project which can negatively affect the nearby Panna Tiger Reserve.
- All these activities have led to a large loss of prey species population such as deer etc which in turn affects the number of tigers.

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