



Project Tiger: A Conservation Program for Saving the Indian Tiger

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Abstract:

Project Tiger is a tiger conservation programme launched in 1973 by the Government of India during Prime Minister Indira Gandhi's tenure. The project aims at ensuring a viable population of Bengal tigers in their natural habitats and also to protect them from extinction, and preserving areas of biological importance as a natural heritage forever represented as close as possible the diversity of ecosystems across the tiger's distribution in the country. Project Tiger has over time evolved into a management system that has abstracted the tiger from its habitat by highlighting its charismatic functions. However, the abstraction has also caused the tiger to be valued for its narrow consumptive uses. The paper critiques partial equilibrium frameworks that have attempted to value a tiger in terms of demand and supply functions rather than as an integral element of an ecosystem. While considering the superiority of the Total Economic Value concept as a value determining method, the paper also points to the limitation of the concept in not addressing the conflicts between use and non-use values of a tiger. The project's task force visualized these tiger reserves as breeding nuclei, from which surplus animals would migrate to adjacent forests. The Funds and commitment were mastered to support the intensive program of habitat protection and rehabilitation under the project.

Keywords: *Project Tiger, conservation programme, Bengal tigers, natural heritage, Total Economic Value concept, breeding nuclei, habitat protection and rehabilitation*

1. Introduction

21st Century Tiger are working with ZSL and UCL to support Indian tiger projects. Home to the largest wild tiger population in the world, the latest tiger census (2010) suggests that there are over 1700 Indian tigers living in 39 tiger reserves. They live in a wide range of habitats including the high-altitude, cold, coniferous Himalayan forests, the steaming mangroves of the Bangladesh Sunderbans, the swampy reed lands, the scorched hills of the Indian peninsula, the lush wet forests of Northern India and the arid forests of Rajasthan.

During the tiger census of 2006, a new methodology was used extrapolating site-specific densities of tigers, their co-predators and prey derived from camera trap and sign surveys using GIS. Based on the result of these surveys, the total tiger population has been estimated at 1,411 individuals ranging from 1,165 to 1,657 adult and sub-adult tigers of more than 1.5 years of age. Owing to the project, the number of tigers has improved to 2,226 as per the latest census report released on 20 January 2015.

2. What is project Tiger?

Launched on April 1973 Project Tiger has successfully emerged as one of the champion endeavors of Tiger conservation as formulated by a special task force set up under Wildlife Conservation Act to address the problem of dwindling Tiger population in the country. Though the initial push for the action was constituted by the growing concern to protect the Royal Bengal Tigers, the disturbing data presented by the 1972 All India Tiger Census, which enumerated the Tiger population at an alarming 1,827 as compared to the figure of 40,000 present at the turn of 20th century called for immediate action to curb the progressive decline of wilderness resulting in the disturbance of viable tiger habitats.

Project Tiger was first launched at the Corbett National Park in Uttaranchal. In the year 1973-74 there were nine national parks (Manas, Bandipur, Ranthambore, Palamau, Similipal, Corbett, Kanha, Melghata, and Sundarbans) that were declared as the part of the Project Tiger.

While the number increased to twenty-nine in 2006, falling in 17 different states around the country. The total area which is covered by these Project Tiger Reserves is approximately around 38, 620 km², which is 1.17 % of the total geographical area of the country. With the view to provide the legal backing to the scheme of the Project Tiger, National Tiger Conservation Authority (NTCA), a statutory body under the Ministry of Environment and Forests, was even set up for the protection of Tigers in the country.

3. Project Tiger's objectives

1. Limit factors that lead to reduction of tiger habitats and to mitigate them by suitable management. The damages done to the habitat were to be rectified so as to facilitate the recovery of the ecosystem to the maximum possible extent.
2. To ensure a viable population of tigers for economic, scientific, cultural, aesthetic and ecological values.
3. The Indian tiger population at the turn of the 20th century was estimated at 20,000 to 40,000 individuals. The first country-wide tiger census conducted in 1972 estimated the population to comprise a little more than 1,800 individuals, a reduction in tiger population.

4. List of Tiger reserves in India

Sr. No.	States	Tiger reserve
1.	Assam	<ul style="list-style-type: none">• Kaziranga Tiger Reserve• Manas Tiger Reserve• Nameri Tiger Reserve
2.	Arunachal Pradesh	<ul style="list-style-type: none">• Namdapha Tiger Reserve• Pakhui Tiger Reserve
3.	Andhra Pradesh	<ul style="list-style-type: none">• Nagarjunsagar- Srisailam Tiger Reserve
4.	Bihar	<ul style="list-style-type: none">• Valmiki Tiger Reserve
5.	Chhattisgarh	<ul style="list-style-type: none">• Achanakmar Tiger Reserve• Indravati Tiger Reserve• Udanti & Sitanadi Tiger Reserve
6.	Jharkhand	<ul style="list-style-type: none">• Palamau Tiger Reserve
7.	Karnataka	<ul style="list-style-type: none">• Bandipur Tiger Reserve• Nagarhole (extension) Tiger Reserve• Bhadra Tiger Reserve• Anshi Dandeli Tiger Reserve• Biligiri Rangaswamy Temple Wildlife Sanctuary
8.	Kerala	<ul style="list-style-type: none">• Periyar Tiger Reserve• Parambikulam Tiger Reserve

9.	Madhya Pradesh	<ul style="list-style-type: none"> • Bandhavgarh Tiger Reserve • Bori-Satpura Tiger Reserve • Kanha Tiger Reserve • Panna Tiger Reserve • Pench Tiger Reserve • Sanjay Dubri Tiger Reserve
10.	Maharashtra	<ul style="list-style-type: none"> • Melghat Tiger Reserve • Pench Tiger Reserve • Tadoba Andhari Tiger Project • Shahayadri Tiger reserve • Nagzira Navegaon Tiger Reserve • Bor Tiger Reserve
11.	Mizoram	<ul style="list-style-type: none"> • Dampa Tiger Reserve
12.	Odisha	<ul style="list-style-type: none"> • Satkosia Tiger Reserve • Simlipal Tiger Reserve
13.	Rajasthan	<ul style="list-style-type: none"> • Ranthambhore Tiger Reserve • Sariska Tiger Reserve • Mukundara Hills Tiger Reserve
14.	Tamil Nadu	<ul style="list-style-type: none"> • Kalakkad Mundanthurai Tiger Reserve • Anamalai Tiger Reserve • Mudumalai Tiger Reserve • Sathyamangalam Tiger Reserve
15.	Telangana	<ul style="list-style-type: none"> • Kawal Tiger Reserve • Nagarjunsagar Srisailam Tiger Reserve
16.	Uttar Pradesh	<ul style="list-style-type: none"> • Dudhwa Tiger Reserve • Pilibhit Tiger Reserve
17.	Uttarakhand	<ul style="list-style-type: none"> • Corbett Tiger Reserve • Rajaji Tiger Reserve
18.	West Bengal	<ul style="list-style-type: none"> • Buxa Tiger Reserve • Sunderbans Tiger Reserve

5. Management

Project Tiger is administered by the National Tiger Conservation Authority. The overall administration of the project is monitored by a steering committee headed by a director. A field director is appointed for each reserve, who is assisted by a group of field and technical personnel.

1. Shivalik-Terai conservation unit
2. North-East conservation unit
3. Sunderbans conservation unit
4. Western Ghats conservation unit
5. Eastern Ghats conservation unit
6. Central India conservation unit
7. Sariska conservation unit
8. Kaziranga Conservation Unit

The various tiger reserves were created in the country based on 'core-buffer' strategy:

6. Core Areas

The core areas are freed of all human activities. It has the legal status of a national park or wildlife sanctuary. It is kept free of biotic disturbances and forestry operations like collection of minor forest produce, grazing and other human disturbances are not allowed within.

7. Buffer Areas

The buffer areas are subjected to 'conservation-oriented land use'. It comprises forest and non-forest land. It is a multi-purpose use area with twin objectives of providing habitat supplement to spillover population of wild animals from core conservation unit and to provide site specific codevelop mental inputs to surrounding villages for relieving their impact on core area. For each tiger reserve, management plans were drawn up based on the following principles:

1. Elimination of all forms of human exploitation and biotic disturbance from the core area and rationalization of activities in the buffer zone.
2. Restricting the habitat management only to repair the damages done to the ecosystem by human and other interferences so as to facilitate recovery of the ecosystem to its natural state.
3. Monitoring the faunal and floral changes over time and carrying out research about wildlife.

By the late 1980s, the initial nine reserves covering an area of 9,115 square kilometers (3,519 square miles) had been increased to 15 reserves covering an area of 24,700 km² (9,500 sq mi). More than 1100 tigers were estimated to inhabit the reserves by 1984. By 1997, 23 tiger reserves encompassed an area of 33,000 km² (13,000 sq mi), but the fate of tiger habitat outside the reserves was precarious, due to pressure on habitat, incessant poaching and largescale development projects such as dams, industry and mines. Wireless communication systems and outstation patrol camps have been developed within the tiger reserves, due to which poaching has declined considerably. Fire protection is effectively done by suitable preventive and control measures. Voluntary Village relocation has been done in many reserves, especially from the core, area. Livestock grazing has been controlled to a great extent in the tiger reserves. Various compensatory developmental works have improved the water regime and the ground and field level vegetation, thereby increasing the animal density. Research data pertaining to vegetation changes are also available from many reserves. Future plans include use of advanced information and communication technology in wildlife protection and crime management in tiger reserves, GIS based digitized database development and devising a new tiger habitat and population evaluation system.

Principle guidelines that were implemented for each Tiger Reserves around the country are as follows:

- Elimination of all kind of human activities and biotic disturbance from the core areas.
- Put restrictions on the habitat management to only repair those parts which have been damaged due to the human and other disturbances.
- Carrying out the research on the wildlife and floral and faunal changes from time to time.

8. Controversies and Problems

Project Tiger's efforts were hampered by poaching, as well as debacles and irregularities in Sariska and Namdapha, both of which were reported extensively in the Indian media. The Forest Rights Act passed by the Indian government in 2006 recognizes the rights of some forest dwelling communities in forest areas. This has led to controversy over implications of such recognition for tiger conservation. Some have argued that this is problematic as it will increase conflict and opportunities for poaching; some also assert that "tigers and humans cannot co-exist". Others argue that this is a limited perspective that overlooks the reality of human-tiger coexistence and the role of abuse of power by authorities, rather than local people, in the tiger crisis. This position was supported by the Government of India's Tiger Task Force, and is also taken by some forest dwellers' organizations.

9. Danger to the Tigers Paradise

India is the home to the largest number of tigers in the world. But there are several threats to the paradise of the tigers. According to the estimate of the World-Wide Fund (WWF), the population of Tigers has dropped to 95% in the last century. Among all the factors, poaching and shortage of prey is the biggest factor behind the dwindling population of Tigers. In the countries like China, there has been a constant demand of tiger's bones and its other body parts for the making of traditional medicines. On the other hand, increasing human activities in the jungles and the loss of natural habitats are the matter of concern.

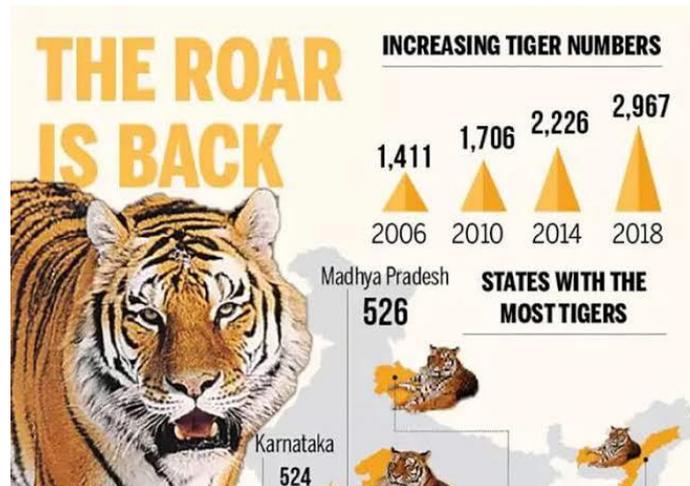


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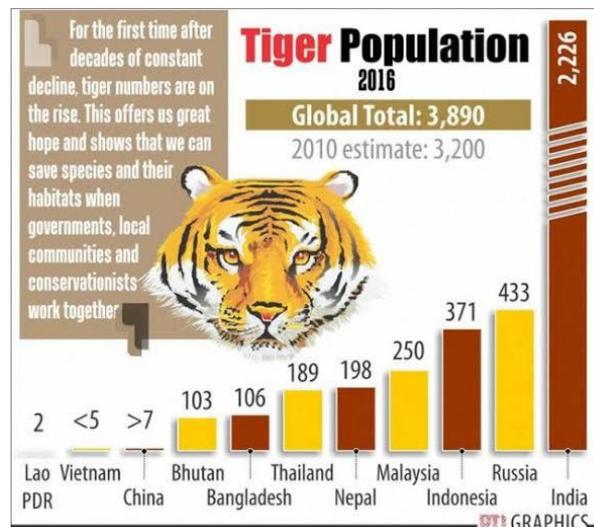


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10. Government's Role in Economic Perspective

According to the current news there are plans to establish eight new Tiger Reserves in the states of Tamil Nadu, Karnataka, Chattisgarh and Assam. The government of has allotted Rs 600 crore under the scheme. There are also plans to rehabilitate the denotified tribes or communities involved in the traditional haunting and curb all the unlawful activities in the reserves. After all Project Tiger is the real hope of the survival of this endangered species.

11. Project Tiger act as an Umbrella Scheme for Conserving the Biodiversity

Covering the huge path of success, Project Tiger made the path for other Projects. Hence in this manner Government of India updated the Wildlife Protection Act on 1972 in this way along with tigers, other wildlife also gets protected, and other National Parks also take initiative to save the

endangered species. For example; Gir Forest in Gujarat conserves the Lions. Along with Project Tiger other Projects like Project Musk deer; Project Rhinoceros also sets a milestone. Despite all the challenges these projects made people realise the importance of other wildlife.

Government became more aware of the species that were depleting and they took other initiative to save other endangered species as well. Now along with Tiger, other species are also being saved.

12. Conclusion

Tiger Sightings have become quite rare these days in India, reason being the Tiger killings because of its multitude of medical or medicinal or magical properties that that is why tiger trade is very profitable. Genuinely the tiger skin is not fashionable but the smuggling of the Tiger Fur and coats are not difficult for improvised hunters. So, it is very important to save our national animal for the danger of extinction.

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