

A Study on the Conservation Programs for Tigers

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Abstract – Over the past 150 years the tiger range has collapsed by more than 93%, and the wild tiger population has declined to less than 3,500 animals. The precipitous decline is attributed in part to poaching, but also to extensive habitat loss and fragmentation. The remaining tigers live as isolated populations confined to protected areas, scattered across the vast range, from India to Indonesia and north to the Russian Far East.

Many of the protected areas are, however, too small to sustain viable populations and the natural ecology and behavior of tigers. In response, conservation biologists have proposed a new paradigm for conserving tigers; the creation of conservation landscapes, where proximate protected areas can be linked with habitat corridors that can facilitate dispersal movement and maintain ecological and genetic connectivity. Managing the tiger populations as larger, connected meta-populations can increase the ecological, demographic, and genetic viability of tiger populations, and the probability of long term persistence.

Keywords: Conservation, Programs, Tigers

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INTRODUCTION

Tigers are global icons, personifying wild, natural areas. They are also apex species that play a significant role in structuring the ecosystems they live in. Studies have shown that removal of apex species like the tiger can lead to cascading negative impacts including degradation of ecosystem structure and function, which can also affect the natural capital and ecosystem services that are critical for survival of humans. This course introduces the participants to a new paradigm in tiger conservation, including a biological rationale and justification of why such an approach is an imperative for tiger conservation.

Unlike the traditional approach where protected areas were the primary focus of tiger conservation, landscape conservation requires that conservation interventions be extended beyond the protected areas boundaries including their buffer zones, corridors and the matrix habitat. Such an approach requires engagement of multiple stakeholders, various line ministries, agencies, and their extension services responsible for resource and land management, multiple donors investing in projects at the landscape level, and private sectors and industries that have economic interests and investments in different parts of the landscape. Therefore, successful landscape conservation requires better coordination and prioritization of land and resource use and allocation. It also requires

supporting policies that recognize conservation areas in the landscape as legitimate land-use categories, and prevents conflict between conservation and development priorities.

Our tiger conservation experiences are located in protected national parks in India. These are some of the most important areas in the world for tiger conservation and protection, as they provide a safe haven in which the tigers can live freely. Populations of these big cats have been declining for a century as they compete with growing human populations for habitat space, which is a serious concern when you consider that tigers are solitary animals and claim large territories.

Conservation efforts in recent years mean that tiger numbers are on the rise, but they are certainly not out of the woods yet.

Current tiger populations are extremely difficult to calculate as their habitat is so fragmented, but the cats are classified as endangered.

The conservation of tigers is not just about increasing their numbers as more tigers require more habitat, which is becoming less and less available each day. It is important that tiger populations stop dwindling, and habitat stops being lost.

Tigers are facing an increasing number of problems when it comes to surviving in the regions they have previously thrived in for thousands of years.

- Poaching – every single part of the tiger is traded in illegal markets. It is used in traditional Asian medicine which has no medicinal value at all, making the deaths of these animals for this purpose unnecessary.
- Habitat Loss – tigers have lost 93% of their historical range as their habitat has been destroyed or degraded by human activity.
- Human-Wildlife Conflict – with smaller forests to hunt in, tigers are forced to kill livestock and when they do the farmers often retaliate and kill the big cat.

CONSERVATION PROGRAMS FOR TIGERS

Tigers are fast and early breeders. The gestation period in tigers is as short as 1032 days under favorable conditions. Demographic parameters show that females start breeding at a mean age of 3.4 years and the litter size is usually three. Further, the inter-birth interval could be as short as 20 months. This reflects favorable reproductive attributes of the tiger. The survival rate among the cubs is also high if litters are large. With an intact habitat and prey population, tigers can easily recover from loss of population and this has been the key to the success of the tiger conservation programs around the world.

Tiger, being at the apex of the food chain, can be considered as the indicator of the stability of the eco-system. For a viable tiger population, a habitat should possess a good prey base, which in turn will depend on undisturbed forest vegetation. Thus, 'Project Tiger', is basically the conservation of the entire eco-system and apart from tigers, all other wild animals also have increased in number in the project areas.

The tiger is a very important member of the ecosystems that it inhabits. It shares a symbiotic relation with the jungles that harbour it. The tiger needs a minimum density of herbivorous ungulates to sustain it. The herbivores in turn need vegetation to sustain their population. There is a limited area of forest, and hence foliage, available. This means that there is limited food for the herbivores to feed on. This in turn implies that a given forest area can sustain only a certain maximum number of tigers. Thus, conserving the tiger is not just about the number of tigers. It is a much broader concept that required the conservation of the entire eco-system.

The Project had been drawn to cover a six-year period from April 1, 1973 to March 31, 1979, thus covering the last year of the Fourth Plan and the entire Fifth Five Year Plan. The total projected fund

requirement was Rs 58 million. The Central Government was responsible for planning, coordination and part financing¹³ while the State Government was responsible for only execution and financing a part of the recurring cost of the project.

Project Tiger was launched in 1973 with 9 tiger reserves- Bandipur, Corbett, Kanha, Manas, Melghat, Palamau, Ranthambore, Similipal, and Sunderbans. The basic philosophy was to not interfere with nature. The survival of the tiger was looked at from the logic of it being at the apex of the food chain and hence it followed that the natural habitat was to be sustained. A 'core-buffer' model was followed. The core areas were freed from all sorts of human activities and the buffer areas were subjected to 'conservation oriented land use'.

Accrual of new rights in the area mentioned in the notification is immediately barred. The District Collector is responsible for determination and settlement of all rights pertaining to the notified area. He is required to issue a proclamation in every town/village in and around the area that is mentioned in the notification. The proclamation invites the local people to present their claims and demand compensation.

The District Collector then enquires²⁴ into the authenticity/permissibility of the rights and/or claims filed and the compensation demanded. If the rights and/or claims cannot be settled, the area under dispute must be excluded from the proposed national park. On the settlement of all such rights and claims, the government issues a final notification to the effect of declaring the area as a national park.

There are two areas in every National Park- the core and the buffer. The core area is supposed to be absolutely devoid of any human population or intervention. The use of the buffer area for conservation-oriented activities is allowed. Once an area is declared as a National Park, all inhabitants must be removed from within the national park. More often than not, there are human habitations within intended parks. It is required by law to relocate these settlements. Removing them from their ancestral land puts them through great hardship and deprives them from their means of livelihood. Such displaced²⁵ people may be called 'green oustees'. Their displacement leads to inadvertent conflicts between the interests of humans and wildlife in these regions.

DISCUSSION

The Project Tiger receives funds in accordance with the Five-Year Plan. A year prior to the beginning of each Five-Year Plan, the Planning Commission calls for a meeting of all the States to decide how much funds will be allocated to each State and under various heads. Each state

submitted a proposal of how much funds it needed to the Deputy Advisor of Environment, Planning Commission. The proposal is negotiated before the meeting on the proposal takes place in New Delhi. On the conclusion of negotiations the amount allocated to each Project Tiger National Park in each state is finalised for the duration of the ensuing Five-Year Plan.

All expenditures under non-recurring and eco-development are totally paid for by the Central Government. The Central Government and the Government of the State in which the park is geographically situated share recurring expenditure on a 50:50 basis. It must be noted that the year of operation runs in consonance with the financial and not the calendar year. The APO is a request for funds for the parks from Project Tiger Directorate, Bikaner House, New Delhi³¹. Project Tiger receives this Annual Plan of Operation that contains a detailed breakdown of the line items under which the park proposes to spend the allocated funds. The degree of detail present in an Annual Plan of Operation varies from park to park.

The Director of Project Tiger³² reviews the APOs of various parks on receiving them. After reviewing them, the Project Tiger Directorate may sanction the full amount (which is rarely the case), reduce the heads of expenditure on various heads, remove certain heads altogether, direct a new allocation of funds between the various heads or even suggest new heads. However, at all times it must ensure that the total amount sanctioned to each reserve does not exceed the total amount allocated for that particular reserve in the current Five-year Plan. If there are major discrepancies, the APO is returned to the concerned State for revaluation. The Director of Project Tiger seems to have considerable power in this regard.

Clearly, the conservation strategy of the government has failed as far as protection of the wildlife is concerned. In part it can be attributed to the inadequate number and inadequately trained staff. However, even if the Government of India is able to adequately man all tiger reserves, one must wonder whether the tiger in the Indian forests will be safe. Tigers in India do not live just in Project Tiger National Parks. A good number of tigers dwell in Protected Areas (PA) that is not under Project Tiger. To expect the Government to be able to man every area where there are forests is not practical. Conservation efforts should aim at reducing the threats to tigers by enforcing wildlife laws strictly, curbing illegal wildlife trade, and promoting local interests in the conservation of wildlife for a conservation program sustainable in the long run.

Forest Guards, who are the ground-level enforcement staff, usually are trained only once during the course of their employment. This training, too, is not up to the mark. Proper training is lacking. Non-Government Organisations (NGOs) and various

international agencies train the forest guards from time to time. This training, too, is sporadic in nature.

Adequate Infrastructure is lacking in most Project Tiger National Parks. The Forest Guards and Range Officers are not adequately equipped. Roads, wireless equipment, jeeps, arms and ammunition and other anti-poaching equipment are lacking in many Project Tiger National Parks. Even where arms are available, the bearers of the arms do not have the permission to use them.

Forests and Wildlife are subjects under the concurrent list⁸⁸ in the Indian Constitution. Project Tiger, a Centrally Sponsored Scheme, is planned by the Central Government and executed by the State Governments. The Central Government has limited powers over the execution of Project Tiger. Thus, while the guideline issued by the Central Government maybe sound their translation in ground realities depend totally on the commitment of the State Government to the issue. Also, it leads to excessive reliance of the State Governments on the Central Government for funds for issues on the concurrent list. This, in case of Project Tiger, has led to a dismal state of management of most National Parks in the country where most National Parks still lack the basic infrastructure, staff, etc envisaged by the Task Force of 1972.

The Indian tiger conservation program¹⁰⁴ largely relies on the 'guns and guards' to conserve the tiger. This is a centralised approach to wildlife conservation. It had met with initial success in India but its effectiveness now is questionable since tiger populations in India have been declining for some time now.

CONCLUSION

Tigers in India can be looked at as public goods that provide benefits to the society at large and not necessarily any direct economic benefit. It is difficult to measure and realize the utility that their conservation can possibly provide, and any benefit from having the tigers is long term and opaque. The villagers/tribes in India do not see the tiger conservation as having any economic benefit at all. It is well established that markets do not work in the case of public goods¹⁰⁵ and more so in the case of conservation as it provides no immediate and tangible benefits to firms to earn revenues and profits. One way to theorize the problem is that if the tiger can become a resource to those who kill it, (particularly the immediate killers - the poachers) killing the tiger will reduce considerably. This is to say that if the tiger can be used to generate an income stream for those who hunt it then they would not, at the minimum, hunt the tiger unsustainably. To be effective and sustainable, conservation policies must not only be ecologically

sound and economically efficient, they must also be locally acceptable.

REFERENCES

1. Chomitz KM, Griffiths C (2016). Deforestation, shifting cultivation and tree crops in Indonesia: Nationwide patterns of smallholder agriculture at the forest frontier. In: Research Project on Social and Environmental Consequences of Growth-Oriented Policies, Working Paper 4. Washington DC: World Bank.
2. Ekhuemelo DO, Amonum JI, Usman IA (2016). Importance of Forest and Trees in Sustaining Water Supply and Rainfall. Nigeria Journal of Education, Health and Technology Research; 8: pp. 273-280
3. Chomitz KM, Buys P, Luca GD, Thomas TS, Wertz-Kanounnikoff S. (2015). At Loggerheads? Agricultural Expansion, Poverty Reduction and Environment in the Tropical Forests. World Bank Policy Research Report. Washington DC: World Bank.
4. Lawson TL (2012). Deforestation and induced changes in meso/micro-climate. In: Lal R, Sanchez PA, Cummings RW Jr, editors. Land Clearing and Development in the Tropics. Rotterdam/Boston: Balkema. pp. 195-202
5. Yin H, Li C (2011). Human impacts on floods and flood disasters on the Yangtze River. Geomorphology;41: pp. 105-109
6. Foster GR, Lane LJ, Milder WF (2013). Seasonally ephemeral cropland gully erosion. In: Proceedings of Natural Resources Modeling Symposium, Oct. 16-21. Pingree Park, CO., USA; pp. 263-365
7. Zheng FL.(2016). Effect of vegetation changes on soil erosion on the loess plateau. Pedosphere;16: pp. 420-427
8. Merzer T. (2016). The effects of different vegetative cover on local hydrological balance of a semiarid afforestation. M.Sc. thesis, Jacob Blaustein Institute for Desert Research.
9. Myers N, Mittermeier RA (2010). Biodiversity hotspots for conservation priorities. Nature; 403: pp. 853-854
10. Millennium Ecosystem Assessment (MEA). Ecosystems and Human Well-Being: Biodiversity Synthesis. Washington, DC: World Resources Institute.
11. Chakravarty S, Ghosh SK, Dey AN, Shukla G (2012). Deforestation: Causes, effects and control strategies. In: Global Perspectives on Sustainable Forest Management. Rijeka: In. Tech. pp. 3-28

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