

02

A paradigm change

Making conservation work

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The current crisis of disappearing tigers in Sariska may be looked upon as a tragedy. But the Tiger Task Force prefers to view it as an opportunity. Here is the chance to take a close and exhaustive look at the manner in which the tiger has been hitherto conserved; to understand where, after 30 years, a programme exclusively devoted to protecting this magnificent animal has gone wrong; and find how today's lacunae may be transformed to the tiger's advantage, so that the future of its protection may be a positive one.

The protection of the tiger is inseparable from the protection of the forests it roams in. But the protection of these forests is itself inseparable from the fortunes of people who, in India, inhabit forested areas. Thus, any regulatory or enforcement regime that wishes to throw a protective ring around the tiger must take into cognisance that, apart from the tiger, the protection equation contains two other variables: the forests and the people that live in and around it. This is the unique situation conservation in India has always faced and tried to grapple with.

But over the last 30 years the style of conservation that developed in India and is now unilaterally predominant is one that has not taken all three variables into account. It has tried to cater to the tiger, exclusively. People inhabiting protected areas have been discounted and displaced. Their livelihoods have been destroyed. So they have become not protectors of the forest, but poachers and smugglers of wood and other forest produce.

The peculiar situation that has emerged is that as people's marginalisation has led to poverty, the tiger's fortunes, too, has got impoverished. The history of conserving the tiger in this country is the manner in which this process has isomorphically unfolded. The carnivore-human conflict has exacerbated: the truth of its exponential growth is visible in and around most tiger reserves. So is the visible degradation of the forest, at once source of people's livelihoods and the home of the tiger.

The question then is: how do we protect the tiger? How do we regenerate these lands? How must we manage the competing, but equally vital, needs of human livelihood? We don't have the option to choose one over the other: the poverty of one will destroy the other. It is quite literally about coexistence.

Resolution, therefore — untested across the world — will lie in our abilities to create an environment so that the tiger, forests and people can coexist.

It is, therefore, important to design policies and actions which are multi-pronged and which

- focus on enhancing the protection of tigers in the short-run and earmark inviolate spaces for its existence;
- safeguard the future of the tiger by involving local communities with reciprocal and collaborative models, to share the benefits of conservation; and
- involve local communities in rebuilding the forest economies of the tiger's habitat so that all can grow.

This is the paradigm of 'inclusive growth' that will safeguard the Indian tiger: the Indian model of conservation. Nothing else.

The tiger's habitat

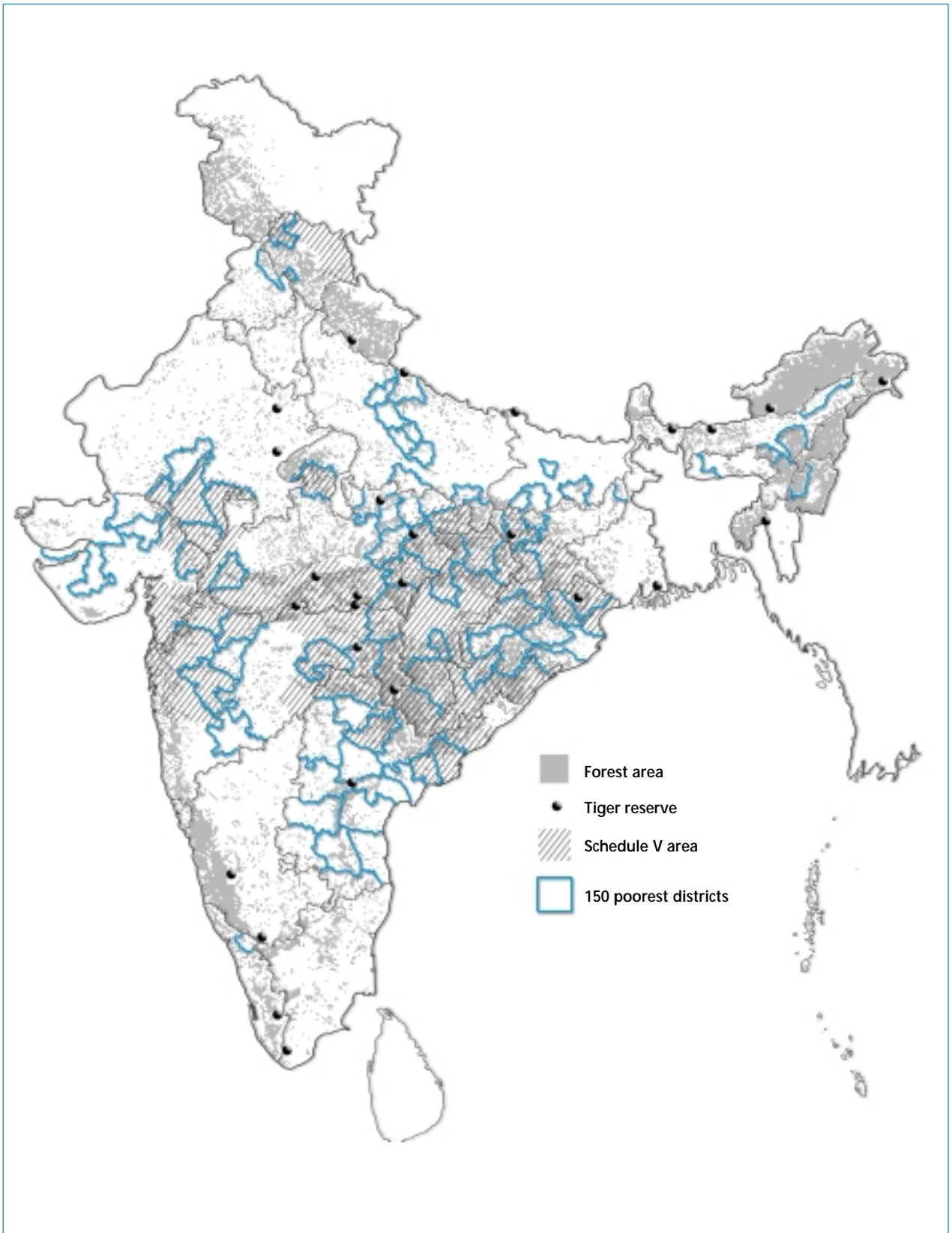
India's primary tiger habitat is spread over vast areas of central India, and the Western and Eastern Ghats. These are also the areas where the majority of our scheduled tribes live. These lands are enormously rich in natural resources — forests, minerals — but the irony is that the people living in them are among the poorest in the country. The other key tiger habitats are in the Himalayan region and its foothills.

These lands — the habitat of tigers as well as people — also provide most of central and peninsular India with its water. They are the source of the water that irrigates farmlands, that villagers drink and that cities guzzle freely, exchanging it cheaply with their excreta.

These forests are essential for our survival. We need them for ecological security — to replenish water systems, provide habitats for wild species and as our biodiversity treasure troves. We also need them for economic security — for firewood, fodder, building material for people and raw material for industry. While managing forests for such distinct objectives is complicated enough, what makes the issue more difficult is that there are poor people living on these lands. They need this land for their survival, but their land rights have never been settled. The question is, what is to be done with these people.

Evicting them and fencing the forests in cannot be the answer. If that is done, the people will break the fence down to work the forests. Handing the forests over to the people and letting them cut these down cannot be the answer either.

TIGERS AND PEOPLE: THE COEXISTENCE CONUNDRUM



Source: Project Tiger directorate

Without the forests, people will have no wherewithal to survive.

The tiger crisis is, first and foremost, a forest crisis. The core of the problem is our inability to manage our forest wealth in a way both sustainable and productive. As a result, we have been left with small areas — largely our protected area network — which remain as forests.

These forest ‘islands’ are under heavy stress. The reason is that the land outside them, also forest land, is today highly degraded and unproductive. It cannot meet the basic needs of the people who live on these lands. It cannot provide them with livelihood opportunities. In fact, because the land is forest land, development of irrigation and other facilities is also curtailed. The cycle of poverty grows, and with this, the pressure on the last remaining bastions intensifies.

The people share the tiger's habitat

It is important to realise India's conservation programme is located not in the homes of its rich, but in the settlements of its very poorest. It is their land that is set aside for protection. It is they who share their resources with the tiger, without getting any benefits in return.

The tiger districts are, in most cases, classified as the poorest 150 districts in the country. These are also the districts classified as Schedule v areas — primarily inhabited by tribals — and have little or no irrigation facilities (see map: *Tigers and people: the coexistence conundrum*).

To succeed, tiger conservation must take these facts into account. It has to bring benefits to this region and to its poor people. The question is how. It is here we must understand the economy. People, who co-inhabit the tiger's home, are forest-dependent. They live within a biomass subsistence economy, which is based on subsistence agriculture. This economy can only survive if there is livestock to minimise the risk of crop failure and to provide manure for the lands. The livestock insurance policy needs grazing lands, as agriculture is poor and unirrigated; fodder, therefore, is only available in the open lands. The lack of assured fodder also means that people cannot keep quality livestock as they need to minimise their risks.

The land is not fit for agriculture in most cases, and crop yields are meagre. People can only survive if they have access to forest resources from where they can collect firewood for sale or live off the collection of various forest produce — from honey to *mahua*. For them, life is just not possible without the forests. People, therefore, live within the reserves not because this gives them huge benefits, but because they have no alternative. Their economy — like the

tiger — depends on the forests.

But while relocating villages, agencies only think in terms of ‘land’ and not of ‘access to forests’. Planners do not take into consideration the ‘gross natural product’ of forests, which sustains the lives of millions in this country. However, unless the land given for relocation is irrigated and fertile, people will have no option but to continue to live within a forest-dependent economy — which means, they put stress on the forest resources once again.

The challenge, therefore, is to rebuild forest economies so that the habitats of tigers as well as the livelihoods of the poor can be protected. The issue is not about tigers *per se*, but about recreating economic and livelihood basis for forests to be regenerated.

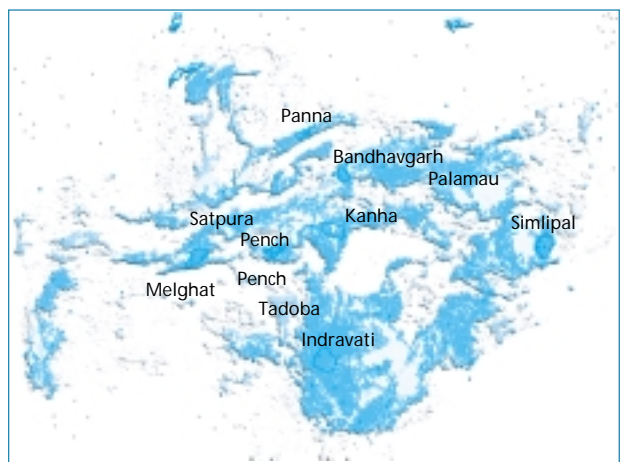
The tiger shares people's habitat

In Kanha tiger reserve in Madhya Pradesh, field managers keep a count of the number of tiger cubs. They know that they should have an increase of 10 tigers in the reserve every year to maintain a viable population. They account for mortality of the young and old when they estimate the population increase of the big cats.

But the population does not increase. The numbers of tigers in the reserve remain the same. This is because the young tiger, in search of territory, moves beyond the protected enclave to the world outside. Once there were forests outside the reserve, and the tiger had survived. But now the landscape is degraded. Poor people live there. They live on the forests. But no investments have been made to improve their habitat. The tiger, as a result, is in grave danger (see map: *Central India: forests and tiger reserves*).

Coexistence is threatened. It is important to realise that not only do the people use the tiger's

CENTRAL INDIA: FORESTS AND TIGER RESERVES



Source: Project Tiger directorate

habitat, but the tiger too needs the people's habitat. This is the coexistence challenge.

Wildlife managers say that the tiger cannot be protected within the 'enclaved islands' that our reserves have become. In the last tiger 'census', more than half the big cats were found not inside but outside the tiger reserves. These are lands which the tiger shares with people. But as the forests degrade in the landscape, the habitat shrinks. The source — areas where the tiger breeds or its natal areas — are the reserves. The sinks, where the tiger goes to live, lie in the lands outside.

This is because the tiger needs territory. To understand conservation of tigers, it is important to understand how the tiger lives and mates. The tiger society revolves around the breeding female, who starts breeding at three-four years of age in a relatively fixed home range. She has a tenure of five-seven years before she loses her range to a vigorous competitor. The adult male tiger has a larger range, overlapping several breeding females — three on an average. In favourable conditions, females give birth to litters of three-four cubs once every two-three years. When roughly two years old, the young are abandoned by their mother and these are known as dispersing transients (floaters) by biologists. Tigers move 10-15 km per day. Transient tigers can move over hundreds of kilometres in search of new homes.

This gives rise to a double jeopardy: on one hand, the habitat of the tiger shrinks drastically as it cannot move beyond the park to establish its territory. On the other, the resources of people also shrink and they then exert even more pressure on the tiger reserve.

There is, therefore, no choice but to find ways of coexistence. If people are not allowed into the tiger's habitat, they will be even more resentful of the creatures' entry into their habitat. This is why tiger poisoning cases are on the rise. This is why tigers in the wild will not survive. We must get out of the 'island' mentality. The tiger's home is its landscape, wherever it ranges. It is this we have to learn to protect.

How will that be done?

There are two essential strategies:

1. The habitat must be made inviolate for the tiger where it must. It must be shared between the people and the tigers in a way that peace prevails. The poverty of one, otherwise, will be the destruction of the other.
2. The outside forest habitat must be regenerated so that people can be less dependent on the enclaves of the tiger, and the tiger has more space in the surrounding landscape to live.

All share the forest habitat

We will have to understand why our forests are in trouble: this is the real challenge of the tiger crisis. If we work hard, we can protect a few hundred tigers in the protective islands of our reserves. If we improve our enforcement, we can protect a few more. But if we really want to safeguard the future of tigers, we will have to regenerate our forests.

The problem is that we do not know how. In the past, the State had appropriated forest resources from local communities. Over the years, logging and mining led to rampant degradation. If the British stripped the forests of Ratnagiri in coastal Maharashtra to make ships and railway lines, independent India sold its forests for a pittance to the pulp and paper industry. This was the extractive phase of forest use.

But in the early 1980s, the State turned track from exploiting natural resources to protecting them. Under the Forest Conservation Act, 1980, only the Central government had the right to allow forest land to be converted to non-forest purposes (roads, power stations, dams and the like). This was the conservation phase.

The rampant diversion of land for development stopped, but deforestation continued. So, since the 1990s, the Supreme Court has stepped in, imposing checks on how forests are to be worked. Many different orders aimed at stopping deforestation have been issued over these years. In December 1996, the Court ordered a ban on timber felling, unless the forest department made a working plan for forested regions demarcating areas that could be logged. In 1998, it said that all working plans for all forest divisions had to be prepared by the state governments but approved by the Centre. It has banned the transport of logs from the northeastern states and ordered the closure of all unlicensed sawmills and wood processing plants; states have been asked not to allow new ones either.

But the tragedy is that while deforestation has reduced, forest degradation continues.

The *State of Forest Report 2003* shows that the country has lost 26,245 sq km of dense forests between 2001 and 2003. On the other hand, the open forests — forests with a crown density of only 10 to 40 per cent — have increased by 29,000 sq km. The country now has 11.88 per cent of its geographical area under dense forests, of which only 1.56 per cent could be classified as very dense, with a canopy cover of over 70 per cent (see *table: Net change in forest cover in the country since 2001 assessment*).

The problem is that dense forests are disappearing in the very habitats that we are concerned with in this report — the habitats of tigers and poor people. According to the *State of Forest*

NET CHANGE IN FOREST COVER IN THE COUNTRY SINCE 2001 ASSESSMENT (IN SQ KM)

Assessment year	Dense forest	Open forest	Total forest cover	Scrub
2001	41,809	258,729	675,538	47,318
2003	390,564	287,769	678,333	40,269
Change	-26,245	29,040	2,795	-7,049

Source: Anon 2003, State of Forest Report 2003, Indian Council for Forestry Research and Education, Dehradun

Report, as much as 63 per cent of the dense forest in the country is in its tribal districts. This, as we have said earlier, is also the tiger district (see table: Forest cover and tribal districts).

The maximum loss of dense forest cover has also occurred in these very tiger-tribal districts. The tiger’s habitat is under threat. The people’s livelihoods are impoverished. There are millions who live in these forest lands. The answer cannot be to throw them out; neither can it be to exclude them from the management of these forests. The forests will continue to degrade as people will continue to use these lands. This is the real challenge we face.

The problem with forest management

The fact is that we have always legislated to protect the forests; we have never managed or regenerated them. What we have learnt is to protect our forests using draconian measures, but we do not know how to increase the productivity of these lands which have competing needs and users. Today, vast areas of forest land in the country lie under-utilised and under-productive. The reason is we cannot increase productivity without involving the people who use these increasingly degraded lands.

Indeed, because we do not know how to involve people in their management, we cannot build futures from these lands. Economic progress, to us, is not

FOREST COVER AND TRIBAL DISTRICTS

Total dense forest in India (2003 estimation)	390,564 sq km
Total dense forest in tribal districts	246,858 sq km
Percentage of dense forest of the country found in tribal districts	63 per cent

Geographical area in tribal district	1,103,463 sq km
Very dense forest in tribal district	36,932 sq km
Moderately dense forest in tribal district	209,926 sq km
Open forests	160,440 sq km
Total forests	407,298 sq km
Percentage of forest cover of the geographical area of the tribal district	37 per cent

Source: Anon 2003, State of Forest Report 2003, Indian Council for Forestry Research and Education, Dehradun

about keeping forests. The value lies in destroying them for mining, industries. Similarly for the poor, managing forests as forests does not bring them wealth. They can only survive if they clear forests, to cultivate marginal and degraded lands from which the returns are always meagre. The land degrades further, the people become more destitute: so turns the vicious cycle of poverty.

We have to learn to differentiate between forests which need to be protected at all costs — pristine forests, biological hotspots, tiger habitats — and forests, which need to be managed and used and then regenerated. It is clear that we still have to learn to use our resources sustainably for developmental purposes.

It is no wonder, then, that poor people come to live in rich lands, or that environmental protection comes into conflict with development. The economic security of poor people has to be enjoined to the forests, which in turn are the habitats of wild species and essential for ecological security.