

People and Tiger habitats: The tiger crisis is closely linked to the forests and the people who have been living in these forests for centuries. The tiger districts, in most cases, are classified as the 150 poorest 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 and little infrastructure for developmental activities as well.

Throwing out people and fencing the reserves, as will be discussed in detail below, has obviously failed as a conservation strategy. Wildlife managers say that the tiger cannot be protected within islands that our reserves have become. In the last tiger census (2001-02), more than half the tigers were found not inside but outside the tiger reserves. That is, not in the core tiger habitat areas but in the buffer and the fringe areas where the tiger then has to share its habitat with people. Since these areas shrink in their vegetative capacity, survival of the tiger becomes impossible. The reason these areas shrink is because of unlimited use and immense biotic pressure put by the communities on these areas once they are shoved out of their original habitats.

The reason the tigers move out, as wildlife experts explain, is because they need territory. To understand conservation of tigers, it is important to know how a tiger lives and mates.

The tiger society moves around the breeding female, who starts breeding at the age of three or four years in a limited-fixed home range. She has tenure of five-seven years before she loses her range to another fierce competitor. The adult tiger has a wider range, overlapping several breeding females, three on an average. In favorable conditions, females give birth to litters of three-four cubs once every three-four years. When roughly two years old, the cubs are abandoned by their mother and these are known as dispersing transients (floaters) by biologists. Tigers move 10-15 kilometers per day and can move over hundreds of kilometers, in search of a new home.

This gives rise to a forked problem- one the one hand the habitat of the tiger shrinks in a big way as it cannot move out of the precincts of the park to establish its territory, on the other hand the resources of the people also shrink and then they exert even more pressure on the tiger reserve.

For instance, in Kanha tiger reserve, field managers keep a count of the number of tiger cubs. They know they should have an increase of 10 tigers in the reserve area every year to maintain a viable population. They account for the mortality

of the young and the old when they estimate the population increase of tigers. But the population does not increase. The number of tigers remain the same. This is because the young tigers, searching for more territory move beyond the reserve boundaries and though once they were lush green forests outside the reserves, now because of the landscape is degraded as people live there. No efforts have been taken to improve the people's habitats and the tigers are also rapidly decreasing in number.

Thus its is essential to find out ways of co-existence between people and the tigers in the reserve areas. However, many problems that have arisen in trying to accomplish this feat.

Relocation- the way it works: Relocation of villages from the reserve is done through the beneficiary- oriented tribal development scheme. During the 9th Plan, the scheme's approved outlay was Rs 19 crore, of which, between 1997-98 to 2001-02, total of Rs 14.39 crore was spent to relocate 2,157 families from different protected areas, approx. Rs 67,000 per family was spent. In the 10th plan this scheme is not restricted to the tiger reserves alone but is merged with the Centrally sponsored schemes of Project Tiger as well as development of national parks and sanctuaries. In the 10th plan, within the umbrella scheme, there is a provision of Rs 10-15 crore towards relocation, roughly Rs 2 crore a year. The government's budget provides for an amount of Rs 1,00,000 to every family for its relocation needs. Thus with an annual provision of Rs 2 crore, no more than 200 families can be relocated in a year (Task Force Report figures)

The Wildlife conservationists say that it is imperative to create inviolate spaces for the tigers. They explain that India must be prepared to set aside 37,761 sq kms of tiger reserve area which they say is barely 1% of the country's land area.

In 1970's when the reserves were created, the international agencies had advised India to put away at least 2000 sq. kms with similar contiguous areas so that viable population of about 300 tigers could breed and survive. The task force appointed by Karan Singh went on to check the feasibility of this and found that this much area could not be allotted in each case and hence smaller reserves were created that were meant to operate as model parks for tigers' conservation purposes. This task force also noted immense human pressure in the chosen reserve areas and hence came up with a management plan of the core and buffer areas, one in which no human population would be permitted, while the other could have a policy of coexistence.

Though as a management strategy this sounds like a good division, the legal processes are a bit muddled with regard to the above. While the concept of core-buffer is deployed for administrative purposes of the reserve, the law provides for something else; two main categories of protected reserves- national park and sanctuaries, and two categories of protected forests- reserve forests and protected forests. In many cases, where the settlements were many adjustments were made to exclude these areas from the core and keep them under the category of either a sanctuary or a reserve forest. In fact in some areas, the core areas of the tiger reserve do not have the legal protection a forested space gets when it receives a national park status. It remains a sanctuary, but the administrative staff has to manage it as a completely protected zone.

The problem is also that though so much emphasis is put on the “biotic pressure” that is being put on the reserves because of the old forest settlers here, there is absolutely no empirical data that supports this claim. Neither is there much discussion on how one could mitigate the biotic pressure without arousing the wrath of the people. Even Project Tiger noted “information on the effects of villages and their occupants on the surrounding areas is generally lacking”, and “poaching by the villagers in the reserves is spasmodic and its effect is negligible. Villagers are undoubtedly a fire hazard, but they are also available to assist in extinguishing serious fire”. Since the inception of Project Tiger, a total of 80 villages and 2,904 families have been relocated from different tiger reserves.

Relocation and Land Rights: Across the country, there is no revenue land available where relocated colonies could be given land and therefore State governments increasingly ask for forest land to be diverted for non-forestry purposes to resettle families. This can be done with the sanction of the Centre and an application has to be filed under the Forest Conservation Act of 1980 for this kind of land type. Recent direction of the Supreme Court require state governments to pay the net present value of the diverted forest land and the cost is computed by the apex court at Rs 5.8 to 9 lakh per ha (depending on the category of the forest that is diverted) The forest land is then cleared of all vegetation before resettling families there. What is important here is that even though the forest land is relocated, it is still classified in government records as “forests” which means that the regulations of the Forest Conservation Act of 1980 apply to this land. Thus the families remain highly restricted in that their use of land is limited. As a result people who get these lands find no alternative but to join the fringe villages and thus end up putting even more pressure on the protected areas to meet their survival needs.

Some Examples of Relocated colonies: In Karnataka's Nagarhole tiger reserve, of the roughly 1,500 families living inside and over 3,500 other claimant families displaced earlier, some 250 families have moved outside. The forest department has worked hard on providing the villagers with model houses, yards and even solar panels. Each family has been given 2.5 hectares of land for cultivation. But as the families have little economic ability to invest in the development of the land, they find that they still have to earn their living from labor and foraging in the forest.

In April 2005, villagers living in Dobjhirna village in Hoshangabad district of MP were engaged in a hostile battle with the forest department. The department was planning to shift a village, Dhai, from within the core area of Satpura tiger reserve and had identified the land of Dobjhirna for relocation. The problem was that Dobjhirna was itself an "illegal" settlement, the villagers were living on and cultivating what was officially the forest department land. With the department moving in to clear land for the new settlers, the proposed relocation became a cause of tension and violence between the forest department and the residents of that village.

Although conservationists too believe that human habitation within the core area of the park are leading to degradation of the tiger's habitat, but pushing out people in an unplanned manner is also not the solution. One case in point is the study conducted by Ghazala Shahabuddin of Delhi based Council For Social Development. The extensive study reports that 40% of core I is severely depleted to the point of being incapable of supporting any prey. According to the park authorities, besides the 11 villages in the core, there are 12 villages inside the sanctuary and five more within the reserve, 28 all within Sariska's 881 km sq. area. In addition there are nearly 200 villages in the vicinity of Sariska. The authorities do not have any concrete estimates of the livestock pressure in this area.

Somewhere it is important to reflect upon these figures in Sariska and the role of the Forest Department in bringing the situation to the brink. The Rights of the people have still not been settled even though the process began as early as 1983. The 11 villages in the core area, as the Shahabuddin's report suggests, are denied any form of developmental facilities. Some years back the park authorities even stopped the people from practicing agriculture which meant that people increase their livestock which in turn increased grazing pressures in this area. The rehabilitation of one village undertaken in 1973 was handled so badly, that the people returned to their original habitats after a while. The process of relocation is being carried out and thought through without being consultation with the

local people which has created a feeling of mistrust and apathy among the settlers.

Another researcher, Radhika Johari, a doctoral student at the department of anthropology, York University, USA, reports of her conversations with the villagers within the reserve, who recalled violent efforts of the administration to evict on revenue villages from the core area. The villagers at Kraska spoke of how they were offered land outside the core area, how they relinquished their land ownership certificates only to face opposition from the exiting residents of the village and to find that the land allotted was hilly and unsustainable. They sold off this land at cheap rates and returned to the core area, this time as illegal settlers.

But it is also important to note that relocation from the core area is also essential. A J T Johnsingh of the Wildlife Institute of India, who has worked for a long time in this habitat argue that Core I is capable of sustaining both prey and tiger species. For this to happen the village of Urmi, which has 26 families and a high livestock population must be relocated from here.

The Bhadra relocation experience is considered a model for future relocations. This 500 km sq. area was declared a wildlife sanctuary and tiger reserve in 1998. The 1992 census found there were 736 families in 16 villages located within the sanctuary area. In 2003, a study conducted by wildlife researchers found 4,000 people were living inside Bhadra, a few had "legal" status but most were "encroachers". Researchers also studied the impact of human activity and found that the villagers were dependent on minor forest produce and firewood. The use pattern of the villagers showed an estimated effected area of about 12 sq kms, that of around 13 villages excluding the village area per say. The total area affected by human impact was about 53.70 sq kms, around 11% of the sanctuary area. Initially people's reaction to relocation was very hostile but gradually the forest department made an attempt to work in consultation with the people here. In its official document chronicling the relocation process, government of Karnataka says, "to wax eloquent on conservation to people who are cut off from civilization during monsoons is a ridiculous proposition. After all theses people have been living here for over centuries. To deny them the right to use the game roads, to cut fodder for livestock or to gather firewood seemed inhuman."

The quality of the land given to the settlers was of very high productivity. It is also a bout 50 kms away from the sanctuary so it encourages people o think of

new livelihood opportunities. The fact that all settlers, so called “legal” or illegal” were all given land also worked in the favor of relocation procedures.

Some examples of successful coexistence: Bilirangan wildlife sanctuary is one of the successful experiments in sustainable use of minor forest product or non-timber forest produce. Here, such extraction is not only systematically run but has also been closely monitored by the forest department, ecologists, conservationists as well. All the observing groups agree that the collection of non-timber forest produce is a sustainable source of livelihood for the tribal peoples.

However in February, the principal Chief Conservator of forests (wildlife) of the Karnataka government instructed the sanctuary to ban non timber forest produce collection by the tribal cooperative society, Larger Area Multipurpose Cooperative Society. This, the wildlife department said was in tandem with the amended section of the Wildlife Protection Act, 1972 which does not permit removal of forest produce from the sanctuary other than for bona fide needs of the community living in and around the sanctuary.

The Soliga tribes, centuries ago, migrated from the Nilgiris to settle here. Once the area was declared a sanctuary, they were allowed to practice shifting agriculture and were engaged as labor in various forestry operations and plantations. Primarily a hunting tribe, the Soliga gave up hunting and continued to gather forest produce, including honey and lichen. The tribal cooperatives were formed to regulate the collection of forest produce, purchase the produce at fixed rates and then auction it off. The government created it under the state forest department to collect and sell non timber forest produce, besides managing other activities for the state’s tribals. Before this, the tribals used to sell the produce at a pittance to a city contractor who had bagged the rights for collection from the forest department. Over the eight years, the arrangement developed into a systematic process with the involvement of two non government organizations- the Vivekananda Girijana Kalyan Kendra and the Ashoka Trust for Research and Ecology and Environment.

It has taken Vivekananda Girijana Kalyan Kendra almost two decades to set up the entire infrastructure. Now they have a secondary high school for the Soliga, a primary health centre and a honey processing factory, they also provide alternative employment through vocational activities. In the last two years, profits have been ploughed back to the community from all their activities.

Ecologist Siddapa Shetty of ATREE who has been carrying out research in this area for long, reports that they did not have to teach the Soligas much when it came to sustainable forest relationships. The Soligas are themselves very selective and systematic about collecting lichen, amla as well as honey. It is not random and certainly not a rampant exploitation of forest produce.

In Periyar tiger reserve there has been an interesting effort to provide people, who were earlier poachers and smugglers of cinnamon bark, with an alternative source of livelihood from tourism in the park. These ex- vayana bark smugglers have now become companions of the forest guards who patrol periyar tiger reserve. Information about tree felling and smuggling is quickly relayed to the ranger by these former poachers over a walkie talkie, the patrol team is reinforced and the forest thief is overpowered.

Every day at dusk, one of the former poachers surveys the crowds at the local bus stop in the town of Kumily for suspicious elements from his old days. The old network thus, now works for the forest department rather than against it.

In 1997 when these smugglers and poachers were caught by the forest department, they were offered a deal, that the case against them would be dropped in return for their services for the forest. Twenty two poachers agreed. Thus this helped the forest department to touch upon the hitherto unexplored forest area and as the “illegal” elements were co-opted into the department, the offenses against the forests also came down.

The group eco development committees here- the former cinnamon bark collectors, the Tribal Trekkers, the Tribal Heritage and the Periyar Tiger Samrakshan Samiti are involved in ecotourism activities such as border hiking, jungle rafting and bamboo rafting.

The Tribal Trekkers eco development committee was constituted by recruiting young men from amongst the Mannas and the Paliyan tribes living in settlements of the fringes of the tiger reserve. This committee was set up with a fund of 3.5 lakh, it today has Rs 4,26,490 in its community development fund. It has even given other eco development committees loans of Rs 2 Lakh.

Note: Another example that I have heard of but not read anywhere is that of a conservation effort in Manas, where a society of ex poachers has been established to work with the forest department called Maozi Gendri. We should check this one.

Conservation policies also presume that human settlements are automatically bad for the forest cover, although this has never been proven empirically. It is also important to look at the relocation costs of people, in real tangible terms and herein lie the roots for their dissatisfaction with the forest policies, to an extent. Rucha Gupte from Nagpur University has worked on quantifying the value of the minor forest produce used by people living within Tadoba-Andhari tiger reserve in Maharashtra. She gathered information on the number of cattle and the collection of fodder, firewood, medicinal plants, fruits and household timber. The imputed value of these resources was a staggering 77.5 lakh a year for all the six villages in the sanctuary. This is much more than what they earn from 'legal' practices like cultivation etc. Still, Ghate found, despite use of forest cover, between 1989-2001 the forest cover had actually increased and not reduced in the tiger reserve. In fact she found that the pressure was more on land that had villages surrounded by other villages rather than the villages that were in the reserve area alone. Another researcher, HarinI Nagendra also confirms these findings.