

WILDLIFE IN INDIA : CHALLENGES IN THE NEW MILLENNIUM

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Introduction

As India enters the new millennium, this mega biodiversity country faces challenges of such magnitude that threaten to seriously emasculate its once proud heritage of wild fauna and flora. Many of the threats are generated by forces within, but international demand for products of wild species is an equally important factor. There are hopes, but if radically new solutions are not conceived, and more importantly, implemented, India will lose all or most of its wildlife heritage within a few decades.

An international visitor arriving today at any of the metropolitan cities of India will see a mid-boggling chaos of seething humanity, overcrowding, traffic snarls, slums, life support systems giving in at the seams. Smaller towns are no different. He will wonder if this could be the land of wild Tigers and Elephants. Yet, a mere two hundred miles North and South of the capital city of New Delhi, there are wild Tigers. Leopards and wild Elephants are even closer. Statistics are impressive: India harbours 60% of world's wild Tiger population, 50% of Asian Elephants, 80% of the one-horned Rhinoceros and the entire remnant population of the Asiatic Lion. A long list of other charismatic species follows. The range of wild flora is larger. India is the

top exporter of medicinal plants to Germany and a major exporter to many other countries of the West. The conundrum is explained by India's inherent reverence of all life forms. Even trees, hills and stones are objects of worship.

Wildlife - Crisis of Survival

A crisis of survival of wild species was caused by India's partition in 1947 and the resultant population exchange. Large areas of forests were cleared to accommodate a burgeoning population. By the 1960s, warning signals had gone up that 'natural' India was under stress. The Tiger population in India hit its lowest level of around 1,700. Remedial measures taken in early 1970s under the leadership of Prime Minister, Indira Gandhi, made impressive gains which are relevant even today.

Habitat degradation : A renewed crisis is upon us, and this time around, there are no easy solutions. The threat to wild species from habitat degradation is set to accelerate in the new millennium. The prime mover is, of course, population growth which has crossed the billion mark, with no slackening of birth rate. The bulk of the population growth is in the segment of population at the lowest levels of education and income. These are the very people dependent upon bounties of nature, often at subsistence

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level, and sadly, the people who are most affected by degradation of natural resources. The great majority of Indians cook their food on firewood, using something like 300 million tonnes of it annually, of which less than one third is extracted sustainably. This in itself is a time bomb. Extraction of fuelwood, fodder and other Non-Timber Forest Produce including medicinal plants are already documented at unsustainable levels. As there are really no alternatives available to the people dependent upon these resources, any regulation of use can only bring social discord, often militancy in many regions which is eroding the authority of the State.

The tolerance level of local people for wildlife depredation is taking a beating. Resource scarcity is only one of the reasons. The other is a rise in expectations, fuelled by exposure to the knowledge of consumption levels in the West and richer Asian countries. These trends give a handle to commercial and industrial interests, aided by government planners to cut up Protected Areas reserved for conservation of wild flora and fauna. These are officially stated to be three per cent of India's land mass. In reality, perhaps less than half of that is in pristine condition.

Livestock population pressure : The population of livestock was last recorded at half that of the human population. The five hundred million mouths grazing the biomass, place an unacceptable pressure on shrinking commons, forests, sanctuaries and National Parks. When village commons become too sparse for cattle grazing, goats and sheep can still survive. The close cropping by them prevents regeneration and this is followed by desertification. Nomadic herders who had traditionally moved long distances with large herds of

livestock find increasing resistance from local people to the influx. In times of drought, millions of cattle are forced into wildlife lands. Livestock is clearly the most intractable problem of all, because in rural India livestock represents wealth, and a monetary return for very little input. A ten year old boy or girl can tend a large herd. The input, of course is degradation of common resources.

Shrinking water resources : India is blessed with one of the highest water resources in any country. Profligate use in agriculture, increase in both the human and livestock population has already exerted tremendous pressure on water resources in large parts of the country. By the year 2020, the demand for water will match its availability. Regional water shortages are already evident in many parts of the country. Water disputes are set to intensify. The role of natural forests as water catchments and regulators of lean season flow is not understood by many government planners.

Threats from poaching and trade : The threat to bio-diversity from unregulated trade is often placed at a level lower than habitat destruction. This is so in most instances. What is overlooked is that habitat loss is a slow process, imperceptible over a short period, whereas poaching and trade causes rapid decline of many target species. International trade in Tiger parts is a prime example in India. In numerous forest areas outside Tiger reserves, populations are declining rapidly in deteriorating but adequate habitats. The 1993 Tiger Census had documented that over half of India's Tiger population was located outside the Protected Areas network (Table 1).

The few well protected reserves are able to hold on to their Tiger numbers but

other forests who have traditionally held a larger number of Tigers and other wildlife are fast losing out as the following figures of Uttar Pradesh show (Table 2).

Heavy losses have been suffered by many other species owing to demand by international trade. Seizures of Leopard skins have been recorded at 1,028 over the last nine years, since 1991. A very substantial number of Leopards were also lost due to conflict with humans resulting from loss of natural prey species. Even the lowly Jackal is no longer ubiquitous. Seizure of Jackal skins to feed the fur trade were 3,332 since 1991. Equally large is the trade in skins of lesser cats. Recorded seizures need to be multiplied by a factor (customs uses a multiplication factor of ten) to gauge the true extent of the illegal trade.

The increase in poaching levels of tuskers in India is given below :

1986	22
1987	11
1988	17
1989	16
1990	28
1991	49
1992	43
1993	40
1994	83
1995	88
1996	76
1997	107
1998	91
1999	78
2000	14
(till may 2000)	

1997 was the worst year for the Elephant in India. A recorded loss of over a hundred tuskers, multiplied by a factor of two or three for unrecorded cases would mean that a good part of the population of

Table 1
Tiger population in India

Year	Within Tiger Reserves	Outside Tiger Reserves	Total
1989	1327 (31%)	3007 (69%)	4334
1993	1266 (34%)	2484 (66%)	3750

Table 2
Tiger population in Uttar Pradesh

Year	1989	1993	1995
National Parks	189	172	205
Sanctuaries	83	28	49
Other forests	463	265	170
Total	735	465	424

tuskers in breeding age was decimated, and now the estimate is 1,000 tuskers in breeding age in the entire country. Mudumalai National Park in Tamil Nadu lost 18 tuskers in 1998.

Prey species are dwindling everywhere except in a few better managed National Parks and Sanctuaries causing local extinction of these species and the carnivores dependent upon them. This isolates gene flow. Discrete populations are not often large enough to prevent homozygosity.

Threat to flora ; Unregulated extraction of floral species is rampant, and has already led to commercial extinction of at least one species, Agarwood (*Aquilaria malaccensis*). There is unfortunately inadequate study of medicinal plants trade, and therefore many more species are believed to be endangered. Barring medicinal plants, of which there is substantial consumption with the country, the great bulk of faunal products are meant

for smuggling to destinations outside India. Exports of 29 species of medicinal plants has been banned. There is so far no slackening of international demand for wildlife and its derivatives. On the contrary, the trend of the Tenth Conference of Parties to the CITES Convention held in Zimbabwe in June 1996 was to encourage international trade in wildlife. This can only accelerate the pressure on wildlife in India. However, the Eleventh Conference of Parties held in Kenya in April, 2000 provided better relief to many species including Elephants. Consumptive use of wildlife and its products in Asian countries and many Western countries (with affluent Asian communities) has not declined, and now a trade derived facile argument is being put forward that consumptive use is meant to provide resources to the Third World for conservation of species. There is sufficient documentation to show that the bulk of the profit from wildlife trade accrues to the rich, city based traders who do not invest a rupee in species conservation. The local hunters and gathers earn far too little to plough it back into conservation. India therefore rightly discourages commercialisation of its wildlife wealth.

Ensuring wildlife survival in the new millennium

Confronted with these harsh realities what shall we do to ensure survival of wildlife in this millennium ? The broad resolve of the Indian people to conserve Indian wildlife is not lost. Certainly not in the hearts and minds of even those people who live in close proximity to wild animals. Interaction with them still yields the response that wildlife must not be exterminated but ways must be found to protect the people and their property. This is where science and technology can help.

At first there is a need for India to restore governance. Political, administrative and fiscal systems are severely stressed. Many emergency measures need to be taken. These are well chronicled in a number of recent *recommendations made to the Government*. Two of these are significant : The Ahmed Committee report of February 1996 titled "Recommendations of the committee appointed by the Hon'ble High Court of Delhi on Wildlife Preservations, Protection and Laws" and the Subramanian Committee report of August 1994 titled "Report of the Committee on Prevention of Illegal Trade in Wildlife and Wildlife Products".

They deal with the whole gamut of initiatives ranging from people's participation in management of wildlife, administrative structure, legislation, habitat protection and control of illegal trade in wildlife and its products. Partial implementation of some of these recommendations has begun, but these are feeble beginnings which will not solve the problem. Fortright and decisive measures backed by strong political will translated into *structural changes and allocation of new resources* is what is needed.

The battle is by no means lost, and here we will do well to recall Geoffrey Ward, "There is no reason to suppose Tigers will all be gone by the turn of the century - or anytime soon after that - provided governments intensify their efforts to protect them, good science is applied to their conservation, and well-meaning alarmists don't convince the public that their rescue is a lost cause." (*National Geographic*, December, 1997). Yet we cannot overlook that each passing day of inaction compounds the problems.

SUMMARY

India is a high bio-diversity country blessed with a vast array of wild species of flora and fauna. This large bio-diversity has survived for long the pressures of time so far but new challenges have merged in the new millennium. The greatest challenge is the explosion of human and cattle population exerting an unacceptable pressure on natural resources, principally fuelwood and fodder, which is poised to undermine all the natural systems and therefore wildlife also. The population explosion places an equally large and growing demand on water resources as well as arable land. Specific threats to conservation of wildlife come from habitat destruction, man-animal conflict and organised trade in products of wild species. Amelioration strategies which have worked so far, need a substantial change in strategy. The solution finally lies in the political will and a translation of that into new institutional mechanisms. It is not yet too late for that to happen but each passing day of inaction compounds the problem.

भारत के वन्य प्राणि – नई सहस्राब्दि की चुनौतियां

अशोक कुमार

सारांश

भारतवर्ष अत्यधिक जैवविविधता सम्पन्न देश है जिसे पेड़-पौधों और पशुपक्षियों की बहुत सारी जातियों का वरदान मिला हुआ है। यह विशाल जैवविविधता काफी लम्बे समय से अब तक समय के दबावों को झेलते-झेलते जीवित बची रही है किन्तु नई सहस्राब्दि में इसके सामने नई चुनौतियां आ खड़ी हुई हैं। इन चुनौतियों में सबसे बड़ी चुनौती मानवों और पशुओं की संख्या में हुआ विस्फोट है जिसका प्राकृतिक संसाधनों पर असह्य बोझ पड़ रहा है विशेषतः ईंधन काष्ठों और चारे पर जो ऐसी स्थिति में पहुंच चुका है कि उससे प्राकृतिक प्रणाली ही गड़बड़ा जाएगी और उसी कारण से वन्य प्राणि भी। जनसंख्या विस्फोट ने कृषि योग्य भूमि के साथ जल संसाधनों पर भी उतनी ही बड़ी और निरन्तर बढ़ती जा रही मांग डालकर रख दी है। वन्य प्राणियों के संरक्षण के लिए खासतौर से खतरा उनके प्राकृतावास विनाश, मानव और पशु संघर्ष और पशु उत्पादों का संगठित व्यापार किया जाने से उपस्थित हो रहा है। जिन सुधारात्मक रणनीतियों ने अभी तक ठीक-ठीक तरह से काम दिया है उनमें काफी परिवर्तन लाना आवश्यक हो गया है। इसका अन्तिम समाधान राजनैतिक इच्छाशक्ति और उसे नई संस्थागत यांत्रिकताओं में बदलने में ही निहित है। अभी बहुत ज्यादा देर नहीं हुई है कि वैसा किया जाए परन्तु क्रियाहीनता में बिताया जा रहा एक-एक दिन इस समस्या को निरन्तर गुरुतर बनाता जा रहा है।