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INSIDE SANCTUARY

ASIA: THE COMPLETE ECOLOGY & WILDLIFE QUARTERLY

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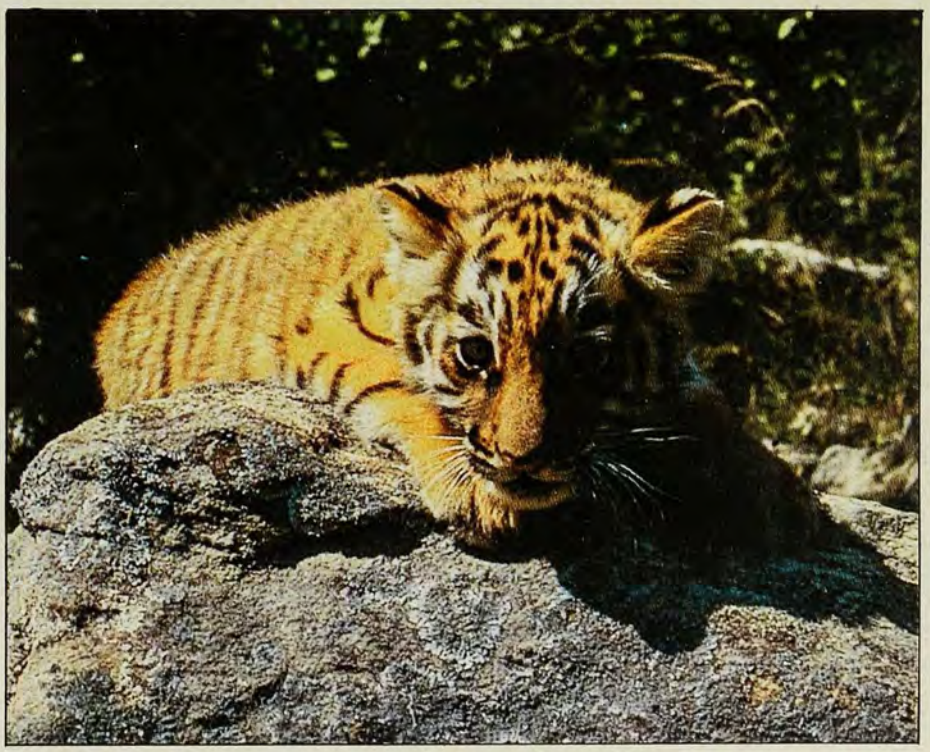

The birth of Project Tiger in 1973 heralded the arrival of a new conservation ethos into Indian life. With the tiger as its symbol, vast portions of wild habitat were preserved for posterity and countless other life forms saved from extinction under the Project. And India's fast-dwindling tiger population made a dramatic come-back from 2,000 animals in 1972 to 4,000 in 1988. As a result of the protection received, once-dry streams and lakes began to carry water for long periods, palatable grass, roots and shrubs sprung up and herbivore populations increased, providing carnivores with easy access to prey. Project Tiger's prime objective—to save all constituents of the eco-system—was slowly achieved and even to the inexperienced eye it became obvious that paradise had been regained. This issue of *Sanctuary* is devoted entirely to Project Tiger, the world's most successful conservation saga.

Project Tiger

M.Y. Ghorpade

Sponsored by Hindustan Lever Limited and produced by Sanctuary Films, a series of 16 documentaries brought home to millions of Indians the true value of nature conservation. Here, Tejbir Singh, Valmik Thapar and Bittu Sahgal are seen 'on location' with one of the 'stars' of the serial, at the Ranthambhor Tiger Reserve.

At the turn of the century, India's jungles were crawling with tigers. A lethal combination of senseless shikar and thoughtless habitat destruction, however, led to a sharp decline in the numbers of the striped carnivores, and by 1972 a stage had arrived when the great cats seemed fated for extinction. From an anticipated 40,000 animals at the turn of the century, there were now less than 2,000 tigers left alive. Yet, shikaris were still prepared to pay upto Rs. 50,000 for the privilege of shooting a single animal. Simultaneously, habitat destruction by way of conversion of land from natural grasslands and jungles to agriculture, timber concessions and industrial plots, conspired to reduce 'tigerland' to a shadow of its previous prime. Just when naturalists had given up all hope, an international campaign, initiated by the World-Wide Fund for Nature (the World Wildlife Fund) resulted in the collection of over one million dollars from children from all over the world. These funds were placed at the disposal of the Government of India to save the great cats from extinction. Tiger shikar was banned as a first step to saving the species, and saving the tiger's jungle home became the second objective. At this stage few people realised the connection between degraded environments and human misery. Fewer people believed that the deforestation of India would eventually result in crippling droughts and floods. As a consequence, Project Tiger had little public support and the determined group of conservationists backing the Project had an uphill task on hand.

Recognising the import of what was being proposed, however, the late Prime Minister, Mrs. Indira Gandhi, enthusiastically threw the weight and authority of her position behind the Project and virtually steamrolled the action plan through her various ministries. The birth of Project Tiger heralded the arrival of a new conservation ethos into Indian life and served to preserve for posterity, vast portions of wild habitats which would otherwise have fallen victim to the plough and axe. But the Project, of course, had more than its fair share of detractors; some foreign experts felt that Indians did not possess the requisite 'technology' for saving tigers—they wanted to come here and save them for us! They had radio-telemetry, habitat manipulation and the like in mind. Some Indians, particularly those who wanted to continue shooting tigers, said that fears of extinction were exaggerated. The first director of the Project, Kailash Sankhala, scoffed at such opinions and made many enemies in the process. "Do nothing to tiger habitats," he said, "and allow nothing to be done to them." Fortunately for conservation, he enjoyed the confidence of the Prime Minister and he was therefore able to fight off opposition and implement several straightforward ideas which had the approval of a specially constituted 'Tiger Task Force'.

At this stage, Project Tiger worked closely with several authorities, Indian and foreign, and the money donated by the WWF was used to acquire equipment such as wireless sets, vehicles and even weapons to fight off poachers. However, the basic premise, that nature would itself repair man-inflicted wounds, given time and protection, was proved correct. A decade later, when a review was done, each of the Project Tiger reserves was found to be in a far better state of health than even the most optimistic estimate. Once-dry streams, lakes and rivulets began to carry water for extended periods of time. Palatable grasses, roots and shrubs sprang up. Herbivore populations increased, thus allowing carnivores to sustain themselves without straying out of the jungles. Even to the inexperienced eye it became obvious that paradise had been regained. Today, in 1988, the estimated number of tigers has gone up to 4,000. Many of these animals occupy pride of position at the apex of their food chains in 16 large tiger reserves (Dudhwa in U.P. was the latest entrant and there are plans afoot to declare a 17th reserve in the Kalakad and Mundanthurai jungles of Tamil Nadu). But counting tigers was never the Project's gauge for success. In the process of saving tigers an untold number of other life forms were also returned from the brink of extinction. The Asian elephant in Periyar, the hard-ground barasingha of Kanha, the one-horned rhino in Manas and the wild buffalo in Indravati being four such beneficiaries. This was the Project's prime objective—to save all constituents of the eco-system. The tiger was merely a symbol of the health of the jungle.

INDIA'S PROJECT TIGER RESERVES

The environment for conservation

Given all the constraints, it would be difficult enough for us, as a united people, to execute a vital national priority such as the saving of our forests; but our forest officers were, and still are, being asked to do this job in an environment of hostility, with little or no public or political backing. As of today, almost every protected area is ringed by a hostile, hard-pressed people whose simple needs have not been catered to by our government. As a result they look towards the forest for their sustenance and come into conflict with forest guards and officials whose instructions are to protect the few jungles that we have, at all costs.

It would be quite accurate to say that one of the main problems in implementing conservation action plans in India has been the lack of widespread public support for nature conservation. For years, in fact, it was only a tiny segment of the educated élite who concerned themselves with conservation. And their objectives were really not understood. Most people thought conservationists were involved in an esoteric exercise in saving obscure animal or plant species, and that such attempts were a waste of time in a country where the priority should be saving people, not wildlife.

Only very recently have social organisations and people's representatives taken up cudgels against the exploitation of our forest resources by industry and political bigwigs. Essentially, the apathy of early days stemmed from a lack of appreciation of the value, and limited quantum, of our natural resources. For years, our planners have presumed, and our people have believed, that the only good land is cultivated land, or developed land. As a result we have witnessed the systematic deforestation of India for over 40 years, and today we are reaping the bitter harvest of that folly in the form of crippling droughts and floods.

To those who know the connections, there is hardly any need to explain the rationale for the existence of Project Tiger. It is enough to state that the reserves, having been chosen for their biological diversity, are irreplaceable gene banks. But to the majority of Indians, however, communicating the worth of Project Tiger becomes a prerequisite to its long-term success. This is why Sanctuary *magazine decided to venture into the arena of film production, to communicate to Indians the value of their threatened heritage. A total of 16 films on Project Tiger are being shown on our National Network every Sunday morning for four months starting February 28, 1988. Whether or not* these *films will make any major difference in our people's thinking is a secondary matter. What is important is that a first step has been taken in trying to convey the rationale behind conservation. With sustained efforts such as these (hopefully other film-makers will join in the effort to produce conservation films* designed *for Indians) it will become increasingly difficult for unscrupulous people to exploit our people's ignorance of the connection between ravaged environments and their own ravaged lives.* □

The Sunderbans Tiger Reserve

The sounds of splashing feet merge with the singing voices of the honey-gatherers. Smoke from their grass torches billows upwards, swirling amidst the thick mangrove undergrowth. As their fathers and forefathers had before them, these hardy, courageous men were braving the uncertainties of one of the world's most forbidding forests, in search of the golden nectar produced by the uncounted millions of honeybees in the Sunderbans. Like their brothers, the fishermen and wood-collectors who depended on the Sunderbans for their livelihood, these men knew the risks they were taking. Snakes, salt-water crocodiles and of course, the tiger could prove their undoing. But they accepted such risks in much the same way as a city-dweller might accept the risk of a road accident or a mugging. Years of experience have taught them to take all possible precautions. No one strayed from the group. No one tarried any longer than was absolutely necessary in the jungles. No sooner did they collect their day's quota of honey than they returned to the relative security of the country boats by which they came.

In the northern tip of the cone-shaped Bay of Bengal, three great rivers—the Ganga, Brahmaputra and the Meghna—meet to create a delta of over 80,000 sq.km. Fringing this delta is arguably the largest continuous tract of mangroves in the world. Located in the 24 Parganas civil district, the Sunderbans ranges slightly over 10,000 sq. km.— 4,262 sq. km. in Bangladesh, the rest in India. A 2,585 sq. km. chunk of this estuarine forest was afforded the protection of Project Tiger in 1973, a step which has probably saved the eco-system from annihilation.

Just one word sums up the Sunderbans—unique. Here the melting snows of the Himalaya and the monsoon run-off, flowing through rivers and streams, meet the sea. It is an incredible mix of sea and swamp. Two-thirds of the land is flooded each day. As the tides rise, tigers, deer, crocodiles, pigs, snakes and monkeys retreat to the available dry land, and sharks, salt-water crocodiles, crabs and other sea-living predators move inward. A strange eco-system indeed. Significantly, there are more tigers in the Sunderbans than in any one other location in the world. And all life forms, having adjusted to the increased salinity, have discovered a safe niche in this seemingly inhospitable, swampy jungle.

The health of the mangrove swamps is vital to the well-being of the people who live inland. Mangroves act as buffers to reduce the impact of incoming tides, which would otherwise erode fertile shore land. In the event of a cyclone, the mangroves will greatly reduce the impact of wind and water. Those countries which have destroyed these vital barriers have paid a terrible price in human lives as a result of their folly. The nutrients fed back into the water by decaying mangrove plants serve to feed a rich planktonic life, on which crabs and fish thrive. These in turn are harvested by man. Through a complicated system of capillary action and chemical exchange, mangroves also serve to reduce the salinity of ground water. Apart from fish and honey-tapping, this is probably the most easily recognised benefit accruing to man because of the mangroves. In short, we *need* the mangroves—it makes commercial sense to save them.

Tides govern the lives of all creatures in the Sunderbans. When the waters recede, many mammals come out into the swamps and estuarine mud-flats. Herons and storks also make their appearance now, hunting for fish and crustaceans. On the waterfront and in the ooze, colourful crabs of every description scuttle about, while mudskippers–the fish that walk on land–cling to the aerial roots, feeding on insects and other land-living creatures they have

learned to exploit. A myriad other crustaceans and insects thrive in this luxuriant, humid eco-zone.

Estuaries are areas of tremendous productivity, where tidal forces and organic detritus matter combine to give rise to an extremely fertile habitat. Troops of macaques now carefully move about on the slimy mud to feed on crabs! Chital are out too, feeding on the *keora* fruit and leaves that the receding tide has deposited so conveniently. Sounders of wild pig, some of enormous size, feast on the mangrove roots and bark. In the shadows, the silent fishing cat snatches fish and frogs from tidal pools. Reptiles abound. Who rules supreme here, one wonders? The tiger? Or perhaps the shark, or the salt-water crocodile which could easily make a meal of the tiger if the cat were unfortunate enough to be caught unawares in the water.

Few people have actually seen a tiger in the wild in the Sunderbans—the forests are simply too dense and inaccessible. But the tigers are, nevertheless, always in the news. Every year, people are killed by tigers in the tangled world of the mangroves. The highly elusive nature of the tiger here has resulted in mysterious powers being ascribed to the cat. For the simple god-fearing people of the Sunderbans, the tiger is an all-powerful entity and the tiger god (Dakshin Ray) is worshipped prior to entering the jungles. His mantle of protection gives men the courage to enter the jungle.

The Sunderbans tiger is an excellent swimmer, and many of its attacks are reported to have taken place in water. The cat has learned to include fish in its diet and probably is attracted to small boats loaded with fish, in which the fishermen sleep, just off-shore, on long fishing trips. When a hungry cat meets a frightened man, the tragic outcome is predictable. But the fishermen have nowhere safer to sleep. And the cat comes not to hunt man, but in search of fish. Often the offending cat, having mauled the unfortunate man to death, escapes into the night; then another tiger coming upon the body of the victim, feeds on it—tigers are known scavengers. Here lies the problem. Such cases of accidental deaths are many, but they are invariably clubbed together with genuine incidents of man-eating and the image of the tiger as a blood-thirsty beast is thus perpetuated. Too add to this, cases have been reported where one person killed another to whom he owed some money, and then blamed the death on a tiger!

One of Project Tiger's main tasks in the Sunderbans, therefore, is to expose the half-truths that surround the great cat. And to ensure that guilty animals are summarily executed by Project Tiger staff. A great deal has already been achieved towards reducing the man-animal conflict in the Sunderbans. The first step, taken years ago, was to bar the entry of all humans into the core of the Reserve. Initially, this met with great resistance from the local population who saw it as an infringement on their right to exploit the forest's resources. But the authorities remained firm. To reduce the killings they had, somehow, to separate man and animal, particularly when both were confined to the same reduced land area when the tides inundated two-thirds of all the land. Today, as a result of this vital step, the killings have come down dramatically. What is also very heartening is the fact that by leaving the core area untouched, the number of bee-hives has gone up many-fold and the spawning beds of fish have proliferated. This productivity has spilled over into the core and has greatly benefited the people whose fish catch and honey-collection has registered an increase of nearly 300 per cent over the past 15 years.

Knowing only too well that completely banning people from entering the Sunderbans was not only socially unjust but also impractical, the Project Tiger authorities have instituted a new action plan to *condition* the tiger to shun and fear man. The idea was first put into practice in 1981, when electrified human dummies were set up at strategic points. Skilfully-crafted clay dummies, clothed in actual villagers' clothes to give off an authentic smell, were designed to resemble wood-cutters, fishermen and honey-collectors. These were positioned in the forest and subsequently, several dummies were found attacked. Signs indicate that the errant cats reacted with pain and surprise on receiving the jolt. It is reasonable to hope that such cats

Kunal Verma

Kunal Verma

Tides govern the lives of all creatures in the Sunderbans. Forming an incredible planktonic 'soup' of sea and swamp, waters flood two-thirds of the land each day! As the tides recede, a number of sea-living creatures are revealed, one being this hermit crab **(left)** which feeds among the exposed mangrove roots. In the ooze below, colourful crabs of every description, mudskippers and a host of other organisms provide a number of birds like herons and egrets **(right)** with sustenance.

would think twice before attacking a human being again.

It may be no more than coincidence, but in the last few years, the number of people killed by tigers has fallen to an all-time low. The efforts of Project Tiger have thus been greatly appreciated by the locals, for whom action, like the setting-up of electrified dummies, has proved to be a great morale booster.

As in the case of so many other tiger reserves, several creatures have benefited thanks to the habitat protection drive undertaken by Project Tiger. Ridley turtles, for instance, have found secure nesting sites here, and hatcheries have successfully released young ones back into the Bay of Bengal. This remains one of the Project's major achievements. By any measure, the Sunderbans forests are a priceless asset, the world's finest stronghold of the tiger. Saving the Sunderbans, therefore, becomes a bounden duty. □

The Manas Tiger Reserve

Manas is believed to house more species of endangered animals than any other reserve in India. A mixture of thick vegetation and open glades, though ideal for wildlife, does make spotting animals very challenging in Manas. One unique and characteristic feature of this eco-system is its grasslands. Here, the 'elephant grass' can attain a height of almost three metres, sometimes even dwarfing the animals after which it is named.

A crow's incessant cawing and the sight of vultures circling lazily overhead indicate the presence of a kill. Closer, the smell of a decomposing carcass, and the buzzing of thousands of flies pervade the air. A tigress and her two sub-adult cubs have killed a large wild buffalo. Both are endangered species, both have found succour and security in the jungles of this Assamese haven.

Manas is believed to house more species of endangered animals than any other reserve in India. These include the great Indian one-horned rhino, the wild buffalo, the swamp deer, the Asian elephant, the golden langur, the clouded leopard, the tiger, the binturong, the hispid hare and the pygmy hog, among others. The last two are found exclusively in Manas. The primary attraction for naturalists in Manas is probably the gregarious troops of golden langurs which are quite easily seen in the vicinity of the forest lodge, on the Bhutanese side of the Reserve. Herds of buffaloes and elephants are also a common sight for tourists who can boat down the Manas River.

By any reckoning, Manas is a unique reserve, its resource-rich habitat a result of the combination of several inputs. Torrential mountain rivers, discharged from the outer Himalayan-Siwalik foothills, combine with climatic variations and a unique topography to create 2,840 sq. km. of pristine wilderness. The Manas Tiger Reserve also extends northwards across the border into the Bhutanese foothills, into which visitors are permitted to cross. The Manas River, along with several other south-flowing rivers, waters the Reserve, giving birth to lush *bhabar* and *terai* grasslands. In mid-stream, several pebble-studded islands provide vital micro-habitats for birds and animals alike. The forests are dense, mixed-deciduous and interspersed with grassy glades. This mixture of thick vegetation and open glades is ideal for wildlife, but it does make spotting animals somewhat difficult and challenging. By contrast, neighbouring Kaziranga, which is mainly open swamp and grassland, provides almost guaranteed wildlife viewing for tourists. But the breathtaking scenic beauty and incredible diversity of Manas has made it a major tourist draw. So much so, that it has become necessary to consider ways to reduce the number of picnickers who arrive here in packed buses every day. Many such tourists leave behind mounds of litter which pollute an otherwise pristine landscape.

It would be difficult to pick any one characteristic of Manas and suggest that it typifies the Reserve. But there is no doubt that the grasslands leave an indelible impression on most visitors. In this grass, even elephants can vanish from sight, the stalks sometimes being almost three metres high. Little wonder then that most people refer to it as 'elephant grass'.

Besides the common leopard, the elusive clouded leopard is also found in Manas, the forests also being prime habitat for a myriad birds including the famed Bengal florican. River banks nourish a more aquatic bird life—chats, redstarts, mergansers, ducks and pelicans. Plans to dam the Manas River were given up after it was pointed out that the entire habitat would have been irrevocably altered—damaged beyond redemption. That planners here are becoming increasingly sensitive to environmental consequences is a matter of great relief.

Since Manas holds a large population of animals which migrate seasonally over large distances, it was realised that linking up adjoining jungle areas was vital to its long-term survival. Protection to the forests on the Bhutan side has been intensified over the years, and recently, in the winter of 1982-'83, the 745 sq. km. Buxa forests were also brought under Project Tiger. This extension automatically created a vital link between the Bhutanese jungles to the north, Manas and the Duars of Buxa.

Naturalists can look forward to flourishing ecosystems in this part of India in the years to come. In fact, the discovery of a secure population of golden langurs, in the forest belt between Manas and Buxa, by our filming crew underscores the wisdom of the creation of forest corridors and buffers—a fact that is justifiably highlighted by the Sanctuary Films episode dealing with these two reserves. ☐

The Dudhwa Tiger Reserve

She had brought up her litter in undisturbed seclusion for over nine weeks now. With each passing day the two cubs grew more adventurous, stalking each other with mock intent, revelling in the joy of new life. The tigress would often leave them alone for two or three hours at a stretch, when she went out to hunt. At such times an instinct warned them not to get too vocal, or visible and they either rested, or slept. But at every moment they looked eagerly for the return of their mother, and to their next feed. The tigress was in the pink of health. Thus far she had been able to make a kill every two or three days, enough to sustain herself despite the additional demands being made on her body by the ever-hungry cubs.

Of late, however, she was nervous and hesitant to leave her cubs alone. There was increasing human activity near her lair. People had been gathering for the past day or two and this night their songs and loud voices were joined by drum-beats which drifted across to where she lay. She had, unfortunately, chosen a sugarcane field in which to deliver her young—by any reckoning a wise choice, for nothing had disturbed her family all these days. She was not to know that the next sunrise would change all this.

After weeks of waiting, the sugarcane was now ready for harvest. Over 30 labourers armed with sickles began working the field. As their line advanced, the tigress moved further and further, shepherding her cubs along in complete silence. At the edge of the field she hesitated, unwilling to expose her cubs to the open ground between the farm and the nearby jungle in broad daylight. Disturbed and restless, she lay down in the tall cane cover, the cubs snuggling up to her for reassurance. Hours passed without event till just before dusk.

For Ram Swaroop it was all over in a flash. He had moved away from the rest of the cane cutters to answer a call of nature and literally stumbled across one of the cubs. The tigress reacted instinctively. One powerful swipe of her fore-paw broke Ram Swaroop's neck and he sank without a sound. When darkness fell, his body still lay undiscovered by his co-workers, and untouched by the tigers. That night, the tigress tried to move her cubs to another location, but all around the voices of men, lights, and the movement of vehicles prevented her from accomplishing her task. Early in the morning, ravenous, for the first time in her life, she ate part of a human body. The next morning all hell broke loose!

Ram Swaroop's half-eaten body was discovered in the first hour after dawn. From near and far locals soon gathered; shikaris armed with guns, villagers with spears, stones and any other weapon they could lay their hands on. Before the wildlife officials could arrive, the tigress and her young cubs lay dead.

In Dudhwa, the battle between man and animal has deepened in recent years. Many humans have lost their lives and over 15 tigers have been poisoned in retaliation. Like most of the other man-killing cases, this tragedy too was avoidable. Ram Swaroop did not have to die.

The Dudhwa Tiger Reserve is the latest, the sixteenth entrant to the Project Tiger fold. Situated in the foothills of the Himalaya, in the Kheri district of Uttar Pradesh, 430 km. from Delhi, the Reserve is separated from Nepal by the Mohan River. Characterised by extensive grasslands, large lakes and swampy bogs, Dudhwa also houses some of India's finest *sal* forests. In places, exotics like eucalyptus and teak, planted by less-informed managers of yester-year, mar an otherwise pure and unspoiled wilderness. Each year, thousands of migratory birds seek refuge in and around the many water-bodies that dot the jungles. These lakes, ponds and rivers also harbour marsh crocodiles and several species of fish on which the reptiles thrive. Cobras, kraits and rat snakes are fairly common. Dudhwa is also home to several rare and endangered species such as the barasingha. The rich *terai* grasslands support a large herbivore population of wild boar, hog deer, chital and sambar, which can more than support Dudhwa's carnivore population.

One of the major problems confronting this Eden is the all-powerful sugar lobby in Uttar Pradesh. Fervent pleas to replace sugarcane with a crop less inviting to tigers, have fallen on deaf ears. As a result, tigers and other carnivores often enter sugarcane fields, which lie unattended for long periods till the cane is ripe for harvesting. Then tragedy often strikes, as it did for Ram Swaroop and his unfortunate family for whom any cash compensation is ridiculously inadequate to make up for their terrible loss.

The point is, can anyone seriously suggest that the onus of maintaining peace between man and beast lies on the beast? Can we teach tigers man's law? Was Ram Swaroop's death the fault of the tigress, or that of the sugar barons who were, and still are, willing to send innocent cane cutters to their death? In fact, was the tigress a man-eater, or man-killer? There is a difference between the two which must be recognised by all who wish to find solutions to the man-animal problems which threaten to undermine the future of nature conservation in India. Proven man-eaters are remorselessly shot by the wildlife department. With man-killers the solution lies in removing the opportunity for accidental encounters.

Such are the contentious, life-and-death issues that confront Project Tiger and, indeed, India today. More than 15 years after the Project was launched, a new threat looms large over *Panthera tigris*. Human demands on jungles have increased. Buffers, created around secure core areas, are being increasingly abused and thus degraded. To top it all, social injustices continue to marginalise simple jungle-dwellers, forcing them to depend more and more on the forest for fuel and fodder. Confrontation with forest and wildlife officials is, therefore, a foregone conclusion.

Dudhwa has been in the eye of the hurricane for many years now, its declaration as a tiger reserve having been opposed tooth and nail by those who have exploited its jungle and the simple inhabitants who live around it, for years. Project Tiger will change all this and, as a result, human lives will be saved. To begin with, additional funding will allow for better patrolling, speedy compensation for cattle kills and more jobs for locals such as the proud *Tharu* adivasis who have lived here for centuries. All this will lead to reduced animosity, a safer existence and, hopefully, improved standards of life for the people in Dudhwa's buffer zone.

Additionally, by maintaining stricter vigil over the core area, the habitat of the buffer too will improve, thus increasing its carrying capacity. Apart from the adivasis who will be able to exploit Dudhwa's buffer for 'minor' forest produce, side beneficiaries of habitat improvement will be birds like the Bengal florican, a grassland species which has been rediscovered here. The recently launched 'Operation Rhino' (*Sanctuary* Vol. IV. No. 3, 1984)—a unique attempt to reintroduce the great one-horned Indian rhino into the *terai* grasslands where it once flourished—will also get a shot in the arm. Elephants from nearby Nepal will welcome the security of undisturbed corridors now, and the nearly 3,000 barasingha will no doubt increase their numbers. As in the case of so many other reserves, in the name of the tiger an entire eco-system will bloom.

But where does this leave Ram Swaroop's bereaved family? Yes, thanks to Project Tiger, more money will be speedily available to tide them over the difficult days ahead. But the only true homage we can pay to Ram Swaroop's memory would be to resolve not to allow more such deaths to take place in Dudhwa. To do this we must, among other things, convince the government to ban the cultivation of sugarcane within a reasonable distance from the forest fringe. Villages from the core should be moved into the buffer areas *under the supervision of prominent social organisations* to ensure that the trauma of shifting is reduced. Nothing less will work, and those who argue to the contrary must first contend with the fact that they place a greater value on commerce and 'human rights' than human life itself. How the people of India perceive such issues will determine the future of our beleaguered country and its fledgling attempts to conserve its natural heritage. □