

Managing parks across geography



A distinguished forest officer from the Rajasthan cadre of the Indian Forest Service, **G.V. Reddy** has served in many posts, including that of Deputy Field Director, Ranthambhore Tiger Reserve. He has been working as manager of the Gunung Leuser Ecosystem, Indonesia, with the Leuser Foundation. G.V. Reddy has also completed his field work for a doctoral thesis in conservation biology and wildlife ecology. His genteel manner does little to detract from and much to enhance his rich insights into the issues of conservation in contrasting conditions, brought out in an interview conducted by **Mahesh Rangarajan** and **M.D. Madhusudan**.

You served in Ranthambhore, a world famous tiger reserve at an important time. What was your biggest challenge in managing 'park-people relations' at this time?

When I took over as Deputy Conservator of Forests, Ranthambhore Tiger Reserve, the conditions were pretty tough. Every monsoon season, around 500-600 villagers would camp inside the core area with 6000-7000 cattle and graze their animals for 4-5 months. Any attempt by the forest department to evict them was resisted with stone throwing and violent attacks. Forest guards had to abandon their posts when the situation aggravated so as to avoid violent confrontations. I too was told to look the other way and ignore illegal grazing. It was considered a 'wise' way to survive in these forests.

The first challenge was to deal with the problem of grazing inside the core of the national park: convince villagers not to graze their livestock in the park and to respect national park rules. This involved motivating our staff to stay inside the park to face the belligerent villagers and protect it from illegal grazing. I stayed with them to face the villagers; together we defended the 'integrity' of the park. To convince the government and bureaucracy that the illegal grazing in the tiger reserve was not merely a law and order problem, but also a socio-economic and political one, was the next step. We had to move to a situation where villagers accepted the park as their own, and not as a burden on the local community.

The second challenge to save the park came from excessive pressure from tourism and associated commercial interests. There was little compliance of the guidelines on the number of vehicles to be allowed inside the park to accommodate tourists. The vehicle drivers would go to any extent to please clients. Tourism soon degraded to the levels of a guaranteed tiger show, instead of a unique natural experience. Money became an overriding factor, almost guiding every aspect of tourism. Hoteliers, tour operators, and a few selected nature guides were the main beneficiaries of the system. This led to villagers questioning the very purpose of the national park. This demanded a great deal of effort to establish a credible and truly ecofriendly tiger park for tourism.

By contrast, how was the park-people equation in Gunung Leuser (Indonesia) during your tenure there? Are the differences simply due to scale? I understand Gunung Leuser is one of Asia's largest parks while Ranthambhore is one of the smaller tiger reserves in India.

The issues facing the two parks are entirely different. The Leuser National Park is very large, with different zones requiring different levels of protection. The national park has a strict conservation zone (*chagar alam*) mainly to protect flora and fauna, whereas the jungle zone is an asylum for wild animals. A utilization zone is earmarked mainly for ecotourism and non-extractive uses. Then there is a buffer zone, usually outside the national park region, which supports interaction between society and the national park. There is no direct pressure on the core areas meant for wildlife. The biggest threat results from inadequate commitment by province and district level political institutions. It arises from the 'structure of governance'. As the Government of Indonesia administers conservation areas, local governments do not show much interest. Regional autonomy has vested local governments with adequate power for local development, and often they use 'development' as an instrument to change the land use.

The parks in India are generally too small to offer sustainable conservation of biodiversity, with inadequate rules about resource use. They are under severe biotic pressure, having to 'accommodate' local use in most cases. Whether resource use is scientifically feasible or not is rarely discussed. In Indonesia, on the contrary, there is little pressure on resources from local people; the problem is one of inadequate management.

Did the very different ecologies, thorn and dry scrub in Rajasthan and wet evergreen in Indonesia

give rise to a very different set of ecological management issues? Likewise, how do you think the contrast in demography, society and culture of the two regions help or hinder conservation management.

Of course, everything depends on ecological conditions which determine productivity. The deciduous scrub forests of Rajasthan are very different from the tropical evergreen forests of Indonesia. Combined with low productivity, Indian parks face challenges of high biotic pressure. India has an average of 248 persons/km² compared to 177 persons/km² in Indonesia. The productivity in tropical forests is three times that of savanna forests.

Culture also plays a dominant role in conservation. The communities living in the vicinity of Ranthambhore tiger reserve are mainly vegetarians; hence poaching of prey is not a major challenge. In contrast, South East Asian countries, including Indonesia, have a meat eating culture, and it would not raise eyebrows if a wild deer is hunted. The customary laws (*adat*) are widely practiced in the local society; encroachment on forest lands is not considered an offence. The concessions and transmigration permits are rarely challenged.

You faced a daunting and often difficult set of challenges in a reserve in India, and doubtless do so in Indonesia. In summary, what did you take to the table when you went to Indonesia? And what do you bring back to India?

I was fascinated by the sheer size of the Leuser landscape: 3.25 million ha, a tropical forest ecosystem, unspoiled primary forests with low human population density. Leading conservation organizations – WWF, WCS and the Smithsonian institute – assessed it as one of the potential Tiger Conservation Landscapes (TCL). It, however, fell short of being recognized as *the landscape for tiger conservation* because the population status of the tigers is not known. The landscape is also home to the two-horned Sumatran rhinoceros, orangutans and elephants. It is one of the world's foremost biodiversity hotspots.

I joined Leuser International Foundation which has the Presidential decree to manage the Leuser Ecosystem, to work with various government partners, communities, and NGOs to bring in scientific management of landscape. Working with two provincial governments, 16 autonomous governments, many international NGOs, local NGOs, private entrepreneurs, conducting scientific surveys in 3.25 million ha has been a great learning experience. I am excited about bringing my landscape level management experience to India. Some prime areas for initiating landscape level

management in India could be the Western Ghats, the Eastern Ghats, central highlands, the Terai landscape and the North East.

Local NGOs participated in an island-wide large mammal survey. Experts from various NGOs designed the study and in a period of two years all the forest areas in the Sumatra island were surveyed. A similar kind of all India tiger census is conducted once in four years by government agencies or through the Wildlife Institute of India. However, most conservation NGOs are not fully involved. The NGOs could take on this task of conducting independent surveys, which would result in an independent evaluation of management effectiveness.

Is the tiger crisis in Indonesia anything like the one in India? Is it better or worse and why?

The tiger crisis in Indonesia is much worse than in India. It is cryptic and mostly unreported. In India, the media is very active and activity in tiger reserves is closely observed. Indonesia has no specially constituted exclusive authority for tiger conservation, nor is there a 'tiger focused' national programme. Hence, conservation agencies show little concern if some tigers are caught or killed by the villagers. During 2007-2009, around 19 tigers were caught or eliminated from the Leuser National Park region, but not even one person was arrested. In fact, many a times the local conservation authority seemingly helped the villagers to catch tigers, considering them as 'problem' tigers. During 2008 one of the captive tigers was radio-collared and released into the park, but three months later the tiger stopped 'showing' any movement. After investigation, the police recovered the GPS fitted radio-collar from a villager. No action was taken. This kind of situation does not exist in India. There is a crisis in India, but I feel that all institutions, including government and civil society organizations, responded to the crisis despite a few failures.

In many ways Indonesia and India are matched in their diversity and complexity. How is the state-federal (or centre-state) equation in Indonesia different from India and how does it impact park management?

Both Indonesia and India are biodiversity rich countries. Both are developing countries, with high human population densities. The forests and protected areas are a state subject in India; hence the management authority is clear. In Indonesia, the federal government administers national parks and protected forests. Provincial governments control the production forests and

other miscellaneous forest areas. The forests are managed through an elaborate process of licensing. The district governments are autonomous and share power with provincial governments in controlling production forests and miscellaneous forests. They show little interest regarding national parks. As a result, the park authorities have much less support from local governments. This mismatch between the administrative arrangements is the main cause for poor management and under-protection of protected areas. The Indian system of providing a broad legal framework and managing through a policy of fiscal incentives appears to work better.

Is resettlement an issue at all in Gunung Leuser, or are the issues very different?

Resettlement is a serious issue in Gunung Leuser, but unlike in India, it is not from within the park to outside – it is a problem of transmigration. The Government of Indonesia and local governments have various resettlement programmes to rehabilitate the poor and landless from high human density islands like Java to Leuser areas. The government has allocated two hectares of land per family and provided incentives for housing and agriculture. This government-induced settlement is a big issue, leading to further road development, loss of forest and fragmentation. There are certain enclaves situated deep inside the protected areas, where providing minimum infrastructure is much more expensive than relocating them to nearby areas.

The tiger was a flagship species for vanishing ecologies in India. Is there a similar picture in Indonesia?

The picture is no better than the one in India. With 1.6 million ha of deforestation per year, Indonesia is losing species much faster than India, exacerbated by the fact that its biodiversity is not so well documented. The low lands, in particular, are under severe threat. Peat lands are fast getting converted into palm oil plantations. Primary forests are exploited for timber. It is predicted that all peat lands will vanish by 2020.

There are often issues in drawing on research for management in India. Is the situation in Indonesia very different and how?

Indonesia is the most friendly country for foreign universities to conduct research in protected areas. The policy is fairly simple and far less bureaucratic than in India. National Institution for Research (LIPI) is the central coordinating agency for technically evaluating all research proposals. The foreign universities have collaboration agreements with local academic institutions like universities or NGOs, and have a memorandum of understanding with the forest department to conduct research. I have met students from Austria and America doing research. Research by foreign universities in Indian protected areas is unthinkable. Local NGOs cannot undertake research smoothly either. I myself experienced difficulty while conducting fieldwork for my thesis. Our policy for research in protected areas needs a re-look.

Having been both a manager and a researcher, what has science brought into your management worldview? And where do you think the conservation scientist needs to learn from the field manager?

Managing protected areas, in India, is mostly about resolving conflicts with local communities. I trained as a forest officer, with a greater emphasis on management aspects. Often, management is based on available information on hand. Hence, most decisions in management are *ad hoc*. The immediate managerial solutions we find, most of the time, are temporary and short-term oriented. Sometimes they end up being counterproductive. My research has given me a scientific perspective to conservation related issues and a greater understanding of adaptive management principles. The conservation scientist should aid park management by identifying long-term solutions, recognizing that science is a tool for the manager to use rather than just abstract academic study. Conservation is as much about people as about animals.

How has Indonesia dealt with the rights issue with the orang asli (indigenous communities)? What is your view of the Indian Forest Rights Act 2006? What aspects of it, if any, do you support, and what aspects do you disagree on?

Parks are managed according to government regulations on conservation and protected areas (68/1998) Special directive on the management of national parks (Decree 129/kpts/D-Vi/1996). These acts do not explicitly recognize traditional (*adat*) rights. However, under zoning directives in national parks, traditional activities and limited use of plants and animals by local residents, who are depended on forests, are allowed. No animals protected by national law may

be hunted, and only extraction of non-timber forest products is allowed. One of the defining criteria for traditional activities allowed in a national park is the mandatory use of traditional tools like fishing rod and net, bow and arrow or blow pipes and spear. Extraction or collection of forest resources should be exclusively for subsistence purposes or ceremonial *adat* needs. Only local people living within that area are allowed permits. As per decree (number No. 677/Kpts-II/1998), local people can establish community cooperatives for exploitation of natural resources in ways and modes compatible with the main functions of nature conservation; hunting in parks with traditional methods, such as dogs, arrows, spears or knives; harvest of only non-timber forest products (natural latex, birds' nests, traditional medicines, algae, honey, fruit, vegetable or edible roots, rattans).

Management of ecotourism, natural resources and hunting by local people is only permitted in the utilization zone of the park. The management of rights given to organized groups of local people or cooperatives is for a definite period of 30 years. The government maintains full jurisdiction over the area.

The Indian Forest Rights Act 2006 is considered to be a landmark law aimed at rectifying a historical injustice that has been perpetuated for centuries on our indigenous (tribal) communities. I support the spirit of the act. However, I have strong reservations about the mechanism of implementation. Given the notoriety of our political system and, vested interests at the local level, there are more chances of exploitation for wrong purposes. The act and its implementation should be viewed as a comprehensive package. The act should be able to secure inviolate habitats for landscape, species, and simultaneously provide land rights to the deprived and genuine tribes. It cannot be selectively implemented such that it suits only one party.

The best of our forest areas, protected areas, and areas rich in mineral wealth are mostly inhabited by indigenous people. It is no secret that the biggest exploitation is done through mining of these areas. The tribal unrest we see is mostly because their traditional lands are being exploited and they get no share of the royalty. The state governments get the royalty, but not the tribal communities. The government should consider them as partners in the mineral wealth and share the income with them. The Samata judgment of 1997, a landmark judgment by the Supreme Court, which is about sharing of profits from mineral exploitation, is yet to be fully implemented. As long as these historical exploitations continue, positive change and development is unlikely; unless problems of land alienation are addressed, the Forest Rights Act cannot be a solution.

You have a track record of being a highly capable manager, team leader, a forester open to critical enquiry, as well as a researcher. How has one experience been different from the other and why?

Being a professional forester and park manager exposed me to ground realities about conservation in India. The challenge of conservation is the poverty that surrounds islands of protected areas, conflicts over resource use, the limitations of our current approach, and above all a general apathy towards conservation.

My research has, I think, imbued me with the 'spirit of science', adding to my understanding of forest management. Good conservation is long lasting only if it is backed by good conservation science. Without science, the management successes are individual-centric, and can never be institutionalized. Research has given me a chance to examine management closely, yet dispassionately.

If conservation is the outcome of collective action, how can we make such collective action more effective and enduring in India? What changes would it demand in the way the legislative, executive and judicial arms of the state engage with each other, and with civil society at large?

If we really want to conserve rich biodiversity in our country, we need some key changes, which will have a cascading effect on outcomes. The first important aspect is to bring all acts, statutes, guidelines connected with biodiversity, wildlife protection, environmental protection, national conservation strategies, etc. under one umbrella act. The concept of protected areas should have a holistic vision, that is to manage adjacent forest areas as one 'landscape', with various 'zones'. Conducting 'gap analyses' and making a comprehensive and systematic conservation plan for the 'zones' would be the next step.

Making the local community a partner in 'benefit sharing', drawing local NGOs and institutions to be part of management, the challenge is to strike the right balance in optimizing the long-term conservation strategy with short-term development needs of the community; ensuring governance while seeking and securing a consensus; accepting and understanding that mainstreaming environmental concerns into developmental process is possible. Ensuring regular social audits must be part of current management practice, besides bringing in greater openness as a matter of policy, should be our endeavour.

In nutshell, I think, we must have affection for all things, living and non-living, while realizing

that human needs are important. But conserve we must, for we do not yet understand the complexity of life, how our well-being is interlinked with everything else.

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