

CHAPTER IV

MANAGEMENT RECOMMENDATIONS

" Nobody makes a greater mistake than he who did nothing because he could do only a little ".

Edmund Burke

[*The Primary Source* by Norman Myers]

Biodiversity is not only restricted to large tropical forests but even occurs in managed forests, secondary forests, agroecosystems and even farmlands. Therefore, conservation of biodiversity requires a wide range of management tools ranging from complete protection to intensive management.

Technologies aimed at maintaining ecosystems are protected areas, land-use planning, zoning systems and regulations on permissible activities (Mackinnon *et al.*, 1986).

Protected areas provide excellent laboratories for studies. They are valuable sites for school classes and university students to gain practical education in the fields of biology, ecology, geology, geography and socio-economics. Such uses can extend benefits to local communities (Harmon, 1994).

There is an urgent need at the national, regional and local levels - to demonstrate the practical benefits of protected area management to local and rural communities in ways that ensure the long-term ecological integrity of PAs (Oza, 1994).

Our association with the IUCN has provided us an opportunity to have a dialogue on rural communities and their concerns with regard to population and natural resources. The project is co-ordinated by Grazia Borrini-Feyerabend (1994 c.) of IUCN, Social Policy Service. The current concepts pertaining to people and their resources lead us to the following thoughts: Primary Environmental Care should take into consideration - meeting needs of the people; protecting the environment; and empowering the community.

Normally the National Parks are accorded the highest care, though they may not be treasuring threatened or endemic plant species. Often lesser known PAs, smaller in dimensions (this can be certainly be applicable to JWLS), are more vital for endemics and threatened species (Pandya & Oza, 1994). The area of JWLS is in close proximity to the Pavagadh Hill. Both JWLS nicely isolated Pavagadh Hill come under the then Bombay Presidency. And the different floristic elements in these areas have a parallel with those of the 3 distinct elements of the Bombay flora - one from the Malayan region, another from

north-eastern and C. India and one more from N. Africa through Asia Minor (Chavan & Oza, 1966).

The very presence of such unique floristic elements in a protected area - the JWLS - does not automatically guarantee their survival. Paradoxically enough, least protection is provided to such species deserving protection. To maintain viable populations of threatened species, PAs need protection from external threats and management of the habitat.

Co-relating conservation efforts for biodiversity within PAs with the existence of common man is difficult for a layman to comprehend. It is the task of the conservationist to make even a farmer realise that what he is cultivating is also biodiversity - which is also conserved by him. That is his contribution to conserving global biodiversity (Pandya & Oza, 1994).

Based on the deliberations at the Fourth World Congress on National Parks and PAs and work described in '*The Law of the Mother*' (1993), McNeely proposes ten principles that could help demonstrate that integrating conservation with development of local human communities is both relatively painless and likely to lead to enhanced benefits to the community, the nation and the world:

1. Build on the foundation of the local cultures.
2. Give responsibility to local people.
3. Consider returning ownership of atleast some PAs to indigenous people.
4. Hire local people.
5. Link government development programmes with PAs.
6. Give priority to small-scale local development.
7. Involve local people in preparing management plans.
8. Have the courage to enforce restrictions.
9. Build conservation into the evolving new national cultures.
10. Support diversity as a value.

In India, since 1987, felling in forests has been restricted and, at places, totally banned. The foresters' attention is now focussed mainly on the rehabilitation of degraded forests or afforestation of barren sites (Maslekar, 1993). Government of India has also issued a circular dated 1st June 1990, to all the States, spelling out how to change over to the participatory approach such as Joint Forest Management - JFM (Tewari, 1993). The classic example of JFM is the Arabari experiment, initiated by Dr. Ajit Banerjee in 1970s. It forged a working collaboration between forest officials and villagers (Lurie, 1991). Fifteen States in India have passed orders for implementing the JFM programme, wherein local communities in Orissa, Bengal, Bihar, Karnataka and Gujarat have already initiated forest management efforts on their own accord (Raju, 1994).

Presently, JWLS is managed by a Range Forest Officer stationed at Jambughoda, with a force of 4 foresters (at Chalvad, Narukot, Jabban and Haveli), about 8 beat guards and around 12-15 watchmen.

We now all agree that the planning process for a management plan of a PA must involve people participation, not as an exercise in appeasement but one that promotes understanding, mutual adjustment and community self-discipline as prevalent in earlier traditional management systems (Panwar, 1994).

For the implementation and execution of the management plan at the field level, we need a 'Conservation Conscious Forest Officer' - 'CCF', who should be all-in-one - a biologist, a resource manager, an administrator and an extension worker.

We endorse the thoughts of Dr. M. K. Ranjitsinh (1992), "The criteria for selection of a PA manager should be aptitude and commitment. If these are present, knowledge will follow and provide a blend with experience gained in the field, added by formal training in management techniques. Such a PA manager should be given administrative and political support and allowed to remain in wildlife conservation as long as he wants. He would then consider conservation of wildlife and protected areas not as a job, but

as a way of life".

Therefore, by building support from local communities for the protected area, we require to provide a combination of incentives and disincentives, economic benefits, law enforcement, education and awareness, employment in the PA and employment opportunities outside, enhanced land tenure and control the new migration (especially if buffer zones around PAs are targeted for special development assistance, McNeely, 1993).

Balancing such competing demands, we propose recommendations for site-specific management of Jambughoda Wildlife Sanctuary.

Recommendations for Conservation of Biodiversity and Ecosystem Restoration:

- * We must ensure that the habitat is preserved in its present state.
- * Human activities should not shatter the rich biodiversity of the JWLS ecosystems.
- * The hilly terrain should not be subjected to any future economic exploitations.
- * Rare forest tree species be accorded priority for protection.
- * Degraded areas in JWLS should be reforested intensively with indigenous forest tree species (Figure IV. 1; Plate IV. 1. 1).
- * Avoid plantation of exotic species, like *Eucalyptus*, on forest lands (Plate IV. 1. 2).
- * Accord priority to such degraded landscapes where the area be managed according to proper land-use based on ecological principles.
- * Migrations of people into these degraded areas and over-grazing by livestock should not be permitted and tolerated.
- * Grazing in forest areas should be strictly controlled and if possible fines charged to defaulters.
- * Encourage distribution of livestock populations to avoid pressure on the same area and introduce stall feeding in a healthy manner (Plate IV. 2. 1).

Recommendations for Interactions with Local Communities:

- * The basic concept of protecting the habitat must fulfil the day-to-day needs of the local communities.

- * Involve them in the planning and execution of the management plan, so that they can be the custodians of their natural resources.
- * The management plan be so designed that it guards the cultural heritage and traditional life styles of the tribals.
- * The Forest Department should win the will of the local people and seek their support in management.
- * Responsibility of management should be co-ordinated with local panchayat, NGOs and people of the PA.
- * Management of natural resources be combined with development that gains direct returns to the residents of the PA for their share in conserving the resources due to their proximity [for building a stone wall boundary for the sanctuary, 60 labourers were brought from another district for a period of one month - Plate IV. 2. 2].
- * If climatic conditions are not conducive for productive or sustained agriculture, alternatives should be searched for the subsistence of local people.
- * Management plan should be such which can fulfil the aspirations of the tribal local communities, especially for - water; improvement of livestock and veterinary support; better medical care for their security; assistance during drought/scarcity/ lean periods; banking services or facilities to safeguard their earnings; educational opportunities to help improve their living standards; need for nearby trading centres.
- * JWLS can serve as a classic case of conservation for people - the management plan should reflect on how best rehabilitation of degraded habitat can benefit the people relating to the social and economic needs of the people.
- * Such measures shall serve as a strong stimulus to innovative, integrated, ecologically judicious efforts, to fight against environmental degradation, in a habitat inhabited by local tribal communities; which are at present in the throes of a profound social, economic and cultural transition.
- * If extra precaution is not accorded to JWLS, under the mounting pressures of animal and human population numbers and drastic land-use changes as

compared to pre-independence period, the area may run the risk of danger and it shall be too difficult to secure the future long-term biological productivity.


- * Priority be accorded to permanent energy crisis.

Recommendations for Extension Activities:

- * The area should serve as an ideal example for younger generations as an Environmental Education and Monitoring Centre.
- * Apart from the major/ minor forest products, stress should be on harvesting the medicinal plant species.

FIGURE IV. 1

Management Priorities in JWLS

 Sanctuary periphery should be accorded priority
for Reforestation

* Biodiversity-rich areas shown in Figure II.1
need more attention for protection

AREAS OF MANAGEMENT PRIORITY IN JAMBUGHODA WILDLIFE SANCTUARY

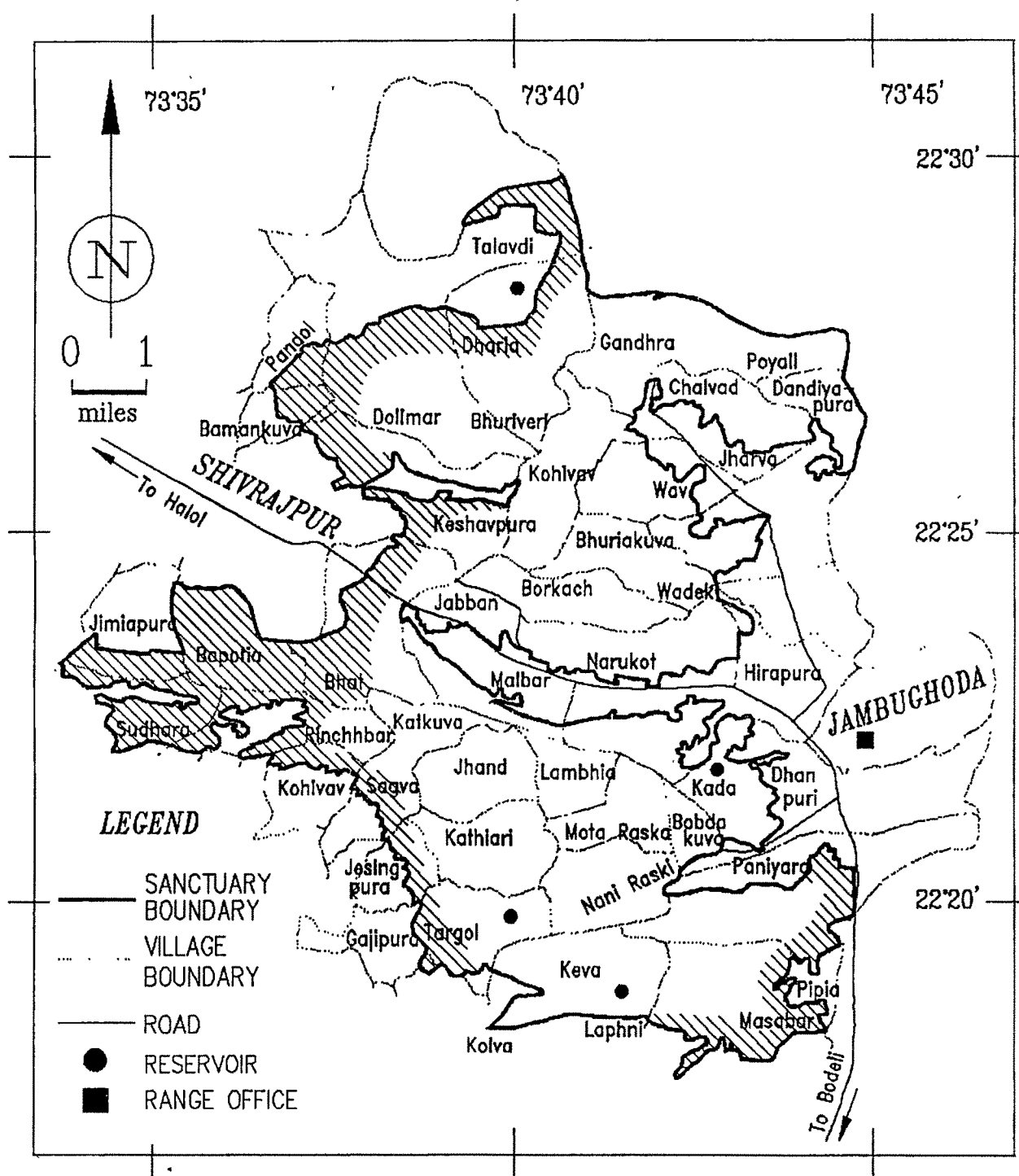


PLATE IV.1

IV.1.1 - A desirable forest plantation of mixed indigenous species - 'Panchrav'

2

IV.1.2 - An undesirable plantation of introduced species on forest lands - 'Eucalyptus'



PLATE IV.2

IV.2.1 - Can a large number of livestock improve the economic status of the local people?

Their pressure is tremendous on the limited biological resources

IV.2.2 - A boundary wall for the sanctuary - to delimit what?

Outside influences or man? -

Requirement of a well - managed sanctuary is to have a 'Conservation Conscious Forest Officer' and a conservation oriented community

