

**LESSONS LEARNT IN THE ESTABLISHMENT AND MANAGEMENT OF
PROTECTED AREAS BY INDIGENOUS AND LOCAL COMMUNITIES IN SOUTH
ASIA**

Neema Pathak¹
with inputs from
Anwarul Islam², S.U.K. Ekaratne³ and Altaf Hussain⁴

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¹ Neema is a member of Environment Research and Action Group in India called Kalpavriksh (Appt. No.5, Shri Dutta Krupa, 908 Deccan Gymkhana, Pune 411004, Maharashtra, India. Ph: 91-20-5654239. E-mail natrails@vsnl.com.)

² Anwar is a prof. At the Department of Zoology, University of Dhaka, Dhaka 1000, Bangladesh. Ph: 880-2-8618327. E-mail: mahrukh@dhaka.net.

³ Suki is Director Staff Development Centre (also Professor at the Department of Zoology), University of Colombo, Colombo -3, Sri Lanka. Ph: 94-1-75337207. E-mail: suki@eureka.lk.

⁴ Altaf works with WWF-Pakistan and IUCN- Pakistan in the North West Frontier Province of Pakistan. A-30/1, Riaz Road, Gilgit, Northern Areas of Pakistan. Ph: 92581155162. E-mail: altaf14_14000@yahoo.com.

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1. Overview of the Engagement of Local Communities in Management of Officially Protected Areas in South Asia

"Mid September 2002, 400 villagers from the surrounding areas of Ranthambhore Tiger Reserve in India invaded the National Park's core area together with 4,000 head of cattle. They have threatened to kill the tigers and destroy the park because their own cattle have no fodder or water outside the forest thanks to a severe drought. Villagers are supported by political leaders who are using the opportunity to build a vote bank for themselves. The forest staff have been attacked in a number of ranges and since they were hopelessly outnumbered and in any event they do not have adequate weapons to defend themselves or the park and its tigers"⁵

"Based on a ruling of the Supreme Court of India, the Indian Ministry of Forests and Environment passed an order to evict all encroachments from forested areas by the 30th of September 2002. While it is not clear how and whether this order has really affected the powerful and land hungry encroachers, it has created absolute havoc in the lives of the thousands of forest depended communities. Many of these people being thrown out of their houses and cultivated

⁵ Saigal, B. Editor, Sanctuary Asia Magazine, India in an e-mail correspondence on 17th September 2002.

lands are people who have no other source of revenue and are being called encroachers because of their names having not entered the official land records for no fault of theirs”⁶

“Establishment of a huge network of hydro-electric projects in Sri Lanka has seriously disrupted the migratory route of the elephants. The reservoirs thus created have submerged stretches of forests which formed the prime habitats for the elephants in the country. In order to compensate for the loss of habitat, the government created sanctuaries and national reserves which severely restricted the access of people living in and around these protected areas and also resulted into relocation of thousands of resource dependent families. In addition, the elephants and local people now having to share a much reduced area, were faced with constant (often fatal) encounters and conflicts.”⁷

The above three situations represent only the tip of a huge ice-burg that human-wildlife conflict is in India and other South Asian Countries (Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka). Barring Nepal and Bhutan, South Asian countries share a history of alienation from natural resources by colonial rulers and consequent breakdown of systems based in traditional knowledge that were in place for management of these resources. The colonial top-heavy and centralised conservation law and policies ignored the strong history of traditional and new community systems of resource management, such as water, forests, and others paving a way for the conflict scenario mentioned above. South Asia, supports amongst the densest human populations in the world, it is impossible to find large areas completely devoid of any kind of human use or presence. Thus continuation of colonial exclusionary model of conservation even in post-colonial era (sometimes becoming even more stringent) has led to further intensifying the conflicts between the local communities and the management authorities of official Protected Areas (PAs). Faced with these conflicts and constrained by limitations of financial and human resources, the government authorities have not been able to manage PAs efficiently on their own.

There are numerous examples in the region where strong commercial forces have threatened the existence of PAs. The PA management authorities in India, for example, have often been powerless in fighting strong commercial and political forces. Commercial forces have led to denotification of parts of, Narayan Sarovar Wildlife Sanctuary in Gujarat, Melghat Wildlife Sanctuary in Maharashtra and Darlaghat Sanctuary in Himanchal Pradesh in India. In 1982, 7,000 acres of land near Uda Walawe National Park (a prime elephant habitat) in Sri Lanka was given to a sugar corporation, thus cutting off an important elephant corridor between this NP and Yala NP in Sri Lanka⁸. Mangroves in Sri Lanka have been destroyed to make way for large-scale development of export-oriented prawn farming, or to be filled for use as construction land. Sunderbans Delta in Bangladesh is also faced with similar developmental threats.

Presence of a high number of endemic and threatened habitats and species in South Asia and threats faced by these demands that South Asian countries must continue and even intensify their efforts at biodiversity and wildlife conservation. These efforts must range from inviolate areas to areas with sustainable human use, from small isolated pockets to entire landscapes. However, this can only be achieved in an environment of consultation, transparency, and on the basis of comprehensive ground research, both ecological and socio-economic.

⁶ An e-mail statement issued by Kalpavriksh-Environment and Action Group, India. September 2002..

⁷ Kothari, N., Pathak, N. and Vania, F. (2000). *Where Communities Care: Community-based Wildlife and Ecosystem Management in South Asia*. Kalpavriksh, Pune and Indian Institute of Environment and Development, London.

⁸ Personal communication (1997). Ranjen Fernando, an independent researcher based in Colombo, Sri Lanka.

Mass uprisings against conventional model of conservation, increasing global debate on democratic conservation policies, and influence of donor agencies, among other reasons have in recent times contributed towards a slight shift in the attitudes of the governments. However, barring Nepal and to a certain extent Pakistan, little effort has been made towards actual decentralisation of power and establishing participatory management models for protected areas.

Among the countries in the region **Nepal** has made a significant progress. The National Parks and Wildlife Conservation Act established in 1973 recognised two main categories of PAs, National Parks and Reserves (including, Strict Nature Reserves, Wildlife Reserves and Hunting Reserves). Though most human activities were not allowed in PAs there were often exceptions made to accommodate specific local traditional needs. Creation of PAs still caused numerous conflicts with the local communities. Realising that the ultimate success of PAs depended upon the cooperation and support of local people an amendment was made in the Act in 1989. The amendment legally provided for multiple use conservation areas to accommodate the needs of the people residing in and around PAs. The amendment also legally allowed NGOs to manage protected areas. Currently the country has following categories of PAs: National Parks, Wildlife Reserves, Conservation Areas, Hunting Reserves and Buffer Zones. All of these have taken into account the local needs and aspirations and to varying degrees allowed for co-management.

One of the most useful regulations towards participatory management of PAs in Nepal has been the Conservation Area Management Regulation of 1996. Under this provision, large stretches of ecologically sensitive areas are managed as Conservation Areas with site-specific rules and regulations and with the participation of and/or by the local institutions themselves and NGOs

Box 1. Annapurna Conservation Area.

In 1985, when initial surveys were carried out in the Annapurna region of Nepal, the conventional model of PAs was found not to be appropriate. Annapurna Conservation Area (ACA) was established in 1986, and its management was entrusted to an NGO, King Mahindra Trust for nature Conservation (KMTNC) as there were widespread fears that the government would overturn traditional resource-use rights and Management.⁹

A team from this NGO developed a provisional project design and Management plan based on long-term discussions with leaders and villagers throughout the region. The plan allowed for regulated collection of forest products, allocation of visitors fees for local development, and delegation of management authority to local level. ACA was finally gazetted to in July 1992, but KMTNC had even prior to this embarked on a series of participatory conservation and livelihood generation measures. Through such measures the project is managing an area of 7629 sq.km., one of South Asia's largest PAs.

Source: Kothari, N., Pathak, N. and Vania, F. (2000). *Where Communities Care: Community-based Wildlife and Ecosystem Management in South Asia*. Kalpavriksh, Pune and Indian Institute of Environment and Development, London.

For Wildlife Preservation **Pakistan** follows various Provincial Acts and Ordinances such as the Islamabad Wildlife (Protection, Prevention, Conservation and Management) Ordinance 1979.

⁹ Wells, M.P. (1994). *A Profile and Interim Assessment of the Annapurna Conservation Project*. In Western, D., and Wright, R. M. (Eds.) (1994). *Natural Connections: Perspectives in Community Based Conservation*. Island Press, Washington D.C.

Provincial Acts are formulated under the umbrella of the National Wildlife Act 1975, which restricts hunting of wild animals is restricted. Pakistan has three major categories of PAs; the Wildlife Sanctuaries (97), National Parks (14) and Game Reserves (89). This includes 11.11% (8,939,319 square km.) of the country's land surface. The present status of protracted areas varies from II to VI of IUCN category of PAs. To speed up the environmental conservation and faced with conflicts with the local communities in and around the PAs some international agencies such as IUCN and WWF were requested by the government to establish their offices in Pakistan in early 1990s. Several efforts have subsequently been taken by these agencies in consultation with other stakeholders including the government to overcome the conflicts and improve ecosystem health. These included, establishment of three new categories of protected areas, namely: *Community owned natural forests* on community owned lands with forest department providing technical help to the community members. Communities are major beneficiaries of any revenue thus generated.

Community controlled hunting areas have been declared in nine valleys in the high altitude Northwest Frontier Provinces (NWFP).

The Community Controlled Hunting Areas (CCHA) are managed by Community Conservation Committees (CCC). Each year the government allocates harvest quota of Himalayan Ibex and Markhor to officially notified CCHAs, which in turn is given to trophy hunters by the CCC. Eighty percent (80%) of the income thus generated goes to the concerned communities and remaining 20% to the government. To facilitate this arrangement the government of Pakistan has approved a comprehensive document on trophy hunting procedures in November 2002. In addition, the villagers in these areas are granted usufruct rights on the surrounding forests.

Joint Management of National Parks is a good example of collaboration between the government and local communities in Pakistan. Under this the usufruct rights of the local and indigenous communities are recognised inside the PAs. In Khunjrab National Park (KNP) most of the PA employees are from the local communities and a major part of the park income goes to the local villagers. The local community (7 villages) received about 1.7 million rupees from the park income in 2001. This has improved the efficiency of the Park management, resulting into return of 32 Marco Polo sheep to their old habitat in the park.

Box 2: Mountain Areas Conservancy Project in Pakistan

Ministry of Environment of Pakistan is executing a seven-year biodiversity conservation project "Mountain Areas Conservancy Project" in partnership with IUCN, WWF-P, AKRSP, Himalayan Wildlife Foundation, concerned government departments and local and indigenous communities. The project implementation approach is participatory and experimental for developing community management biodiversity conservancies. The project is operational in 4 demarcated conservancies covering 16,565 square kilometer. The project is now in its third year and communities have established conservation committees, developed valley conservation plans, and valley conservation fund at the water shed level. The water shed level conservation committees are now beginning to organise themselves into clusters and conservancy level apex bodies. They have also established a trust fund to support conservation initiatives.

In **Sri Lanka** Yala Sanctuary declared in 1898 was the first PA established in Asia in the modern times. A Department of Wildlife Conservation (DWLC) was established in 1948 after the enactment of Fauna and Flora Protection Ordinance (FFPO) in 1937. The Ordinance (through a 1993 amendment), provides for the establishment of two broad categories of PAs: National Reserves (NR), and Sanctuaries (S). NR receive a higher level of protection and are established only on state land. Sanctuaries, on the other hand, may include both state and other lands. A NR can be declared to be any of the following: a strict natural reserve, a national park, nature reserve,

jungle corridor, refuge, marine reserve or a buffer zone (the difference between these types of NRs is not clear as they have not been defined in the FFPO).

The FFPO does not provide for participation of the local communities or other stakeholders in the management of protected areas or in the protection of wildlife.

The FFPO resulted in creation of a network of PAs in Sri Lanka. Though this must have meant the curtailment of traditional access to resources for many people, unlike India there is no information on public opposition and dissatisfaction.¹⁰ Although locally there have been numerous conflicts between the local communities and the wildlife protected in these PAs. One reason for the lack of public opposition may have been the fact that abrogation of traditional access had been going on since the early 1800s (resulting from the frequent conquests of the islands by the Dutch, Portuguese and the British). Under UNESCO's Man and Biosphere Reserve programme (adopted by the government in 1969), the FD has established 36 Biosphere Reserves (BRs) so far, though they do not have any legal status under existing conservation legislation.¹¹

Historically, Sri Lanka is known for a unique traditional system of construction and community management of irrigation tanks. Apart from irrigation these tanks are meant for conservation of water, forests and maintenance of agricultural biodiversity. Centralised policies affecting agricultural patterns with the objective of expanding agricultural production began in the 1930s. The government launched programmes to take-over, repair and restore the ancient irrigation systems, most of which continued under public opposition. After independence in 1949, the emphasis shifted to a series of multipurpose river valley development schemes¹². As stated earlier, many NPs were declared to compensate for the forests lost during the construction of large reservoirs. Construction of these reservoirs also meant relocation of a large number of people as well as ecological degradation.¹³

The country's largest water and land development programme, Mahaweli, announced in 1977, is spread over a prime forest and wildlife habitat of 260,000 ha. A series of NPs, sanctuaries, and jungle corridors created to compensate for this loss cover an area of 200,000 ha. Some of these new PAs were also home to the probably the only indigenous forest dependent community, the Veddhas, who vehemently resisted displacement. In 1983, the government had to finally back down and declare an area of 600ha from the Madura Oya National Park as a sanctuary, to enable the Veddhas to pursue their traditional way of life. In addition, the government created the Wannietto Trust to protect and nurture Veddha culture¹⁴. Human-elephant conflict in Sri Lanka is

¹⁰ A significant amendment was made to this Ordinance in 1970 allowing activities occurring prior to the declaration of a PA to be continued (provided they had not been discontinued for more than two consecutive years). It is not clear why these amendments were made, i.e. whether they were brought about through public/international pressure.

¹¹ *Sri Lanka Forestry Sector Master Plan* (1995). Forestry Planning Unit (FPU), Ministry of Agriculture, Lands and Forestry, Colombo.

¹² Baldwin, M. (Ed.) 1991. *Natural Resources of Sri Lanka: Conditions and Trends*. Natural Resources, Energy and Science Authority of Sri Lanka and USAID, Colombo.

¹³ Baldwin, M. (Ed.) 1991. *Natural Resources of Sri Lanka: Conditions and Trends*. Natural Resources, Energy and Science Authority of Sri Lanka and USAID, Colombo.

¹⁴ Niven, C. John, N., Forsyth, S. and Wheeler, T. (1996). *Sri Lanka: A Lonely Planet Travel Survival Kit*. Lonely Planet Publication, Hawthorn, Australia.

Uragoda, C.G. (1994). *Wildlife Conservation in Sri Lanka*. Wildlife and Nature Protection Society of Sri Lanka, Colombo.

very serious yet the internalisation of the need to decentralise and involve local people in the management of forest PAs is extremely low.

The Coast Conservation Department (CCD), has been more progressive in terms of furthering efforts towards people's participation in coastal resource management. The *Coast Conservation Act* was enacted in 1981, recognising the participatory management of coastal resources. In 1990, a Coastal Zone Management Plan was drawn up which recognised that "*community understanding and support of the management programme is essential for effective implementation*"¹⁵.

In 1992, *Coastal 2000: Recommendations for a Resource Management Strategy for Sri Lanka's Coastal Regions* was produced with the help of the CCD. One of the major steps it envisaged was the formulation of Special Area Management Plans (SAMP) for sites of ecological and economic significance. Two sites were taken up under this recommendation, Hikkaduwa and Rekawa. Management planning for these areas was done in collaboration with the Community Based Resource Management (CBRM) project of USAID. It must be said, however, that the participatory community management that took place during the lifetime of the projects have not been sustained in any of the project areas after the winding up of the projects and their funding.

In **Bangladesh**, roughly 2,200 sq km (1.5 per cent) of the country comes under protected areas including 7 national parks, 8 wildlife sanctuaries and one game reserve. None of these categories have any provision for the participation of local communities. Under the influence of international donor agencies experiments are now underway for promoting community-based fisheries management arrangements. This is as part of a project between the Department of Fisheries, several Bangladesh NGOs, International Center for Living Aquatic Resources Management (a Manila-based research organisation) and the Ford Foundation. It is hoped that this approach will contribute to poverty alleviation, social equity and fisheries conservation through partnership arrangements between the government, NGOs and communities.

Given the above scenario and excessive dependence on western models of both conventional and participatory conservation it is not surprising that even after half a century of independence in this region there is little documentation of and knowledge about local communities own efforts at conservation. If indeed there is any documentation, it is of initiatives started under government or donor programmes/projects. In most of these "projects" and "programmes" there is rarely a true effort at actual devolution of power or acknowledgement of existing local knowledge and systems. Thus with the exception of a few, these initiatives take a nosedive once the external agency pulls out.

The arguments presented here are not to say that all communities will or have opposed destructive forces or conserved their resources, nor to say that government officials everywhere have failed or that none of the externally support programmes have ever succeeded. There are significant examples to the contrary. But the point is, where local communities have been truly mobilised and involved in the matter, it has helped to save the PA or other wildlife habitat much more effectively than if the governments were to attempt it alone. In turn, communities have also indirectly benefited from the protection offered to natural resources by the PAs. In particular, such measures have saved traditional cultures and economies of sensitive communities (tribal and others) from being swamped by outside forces. For example the Soliga tribals inside the Biligiri Ranganaswamy Temple Sanctuary in Karnataka, enjoy a better health and nutritional status than

¹⁵ *Coastal Zone Management Plan*. (1990 revised in 1996). Coast Conservation Department (CCD), Colombo.

Soligas now living in deforested or urbanised areas, In Rekawa Lagoon in Sri Lanka the fish harvest has increased many fold after the conservation efforts started. The problem is that these incidental yet extremely important social benefits of PAs are masked by the direct oppression and harassment that resident communities face. Elimination of this oppression and enhancement of benefits from PAs to local communities, would go a long way in creating local stakes in conservation.

This paper is based on the findings of a small attempt by a network of individuals and organisations in South Asia, coordinated by Kalpavriksh-Environment Research and Action Group towards documentation of some initiatives of local communities at conservation of biodiversity (referred here as Community Conserved Areas or CCAs). The objective of this paper is to gain a deeper understand of efforts by local communities at conservation on their own or with help from external agencies and issues therein. To understand, where the origins of these efforts lie? How do they progress? What constraints do they face? What future do they have? And what lessons do they have for conventional PA management, if any? It is important to mention that most examples of self-initiated communities' efforts are from India, as similar efforts in other countries are yet under-documented.

2. What are Community Conserved Areas (CCAs)?

Considering the diversity of ecosystems, the involvement of a variety of social agents (actors), and the potential complexity of approaches developed and adopted, community conservation has come to be defined in different ways by different people. It is therefore important to adopt a working definition for Community Conservation Areas.

By Community Conserved Areas (CCAs) we mean, natural ecosystems (forest/marine/wetlands/grasslands/others), including those with minimum to substantial human influence, containing significant biodiversity value, being conserved by communities which depend on these resources culturally or for livelihood. Such conservation could be initiated and/or achieved with or without outside support. The crucial points being that;

- a) Effort leads towards maintenance or enhancement of a habitat and species therein.
- b) Local communities are the major players or among the major players in decision making and implementation of decisions.

Box 3: Some examples of CCAs in South Asia

- Protection of 1800 hectares of forest by Mendha (Lekha) village in Maharashtra, India, by Gond tribal community. Village has also achieved self-governance and assured income for all members through the year¹⁶;
- Regeneration and protection of 600-700 hectares of forest by Jardhargaon village in Uttaranchal state in India. Villagers have also re-discovered hundreds of varieties of indigenous crops and are successfully growing them organically. Practicing a traditional system of grassland and water management. In the recent year they have also struggled to save not only the forests in their own village but in the surrounding areas which are being destroyed by mining or hydro-electric projects¹⁷;

¹⁶ Pathak, N. and Gour-Broome, V. (2000). *Tribal Self-Rule and Natural Resource Management: Community Based Conservation at Mendha-Lekha, Maharashtra, India*. Kalpavriksh, Pune and International Institute of Environment and Development, London.

¹⁷ Suryanarayanan, J. and Malhotra, P. (1999). Community-based Conservation in Jardhargaon, Tehri Garhwal District, Uttaranchal, India. Draft. Case Study for the South Asian Regional Review of Community Involvement in Conservation as part of the Evaluating Eden Project of International Institute of Environment and Development, London.

- Protection of sea turtle eggs, hatchlings, and the nesting sites by a fisherfolk community NGO in Kolavipaalam in India. Community members continue their struggle against the sand miners which are threatening the nesting sites despite continuous physical attacks and threats¹⁸;
- Traditional conservation of Painted Stork and globally threatened Spot-billed Pelican nesting sites by villagers in Kokkare Bellur village, Karnataka¹⁹, Veerapattu and Nellapatu in Andhra Pradesh²⁰ and tens of other villages in India;
- Religious protection to the endangered Blacknecked crane in Sangti Valley, Arunachal Pradesh by Buddhist communities²¹;
- Community-based monitoring and enterprise by the Soliga tribals at the Biligiri Rangaswamy Temple Sanctuary, Karnataka in India. Vivekananda Girijan kalyan Kendra, an NGO has helped establish an enterprise for value addition of non timber forest produce and ATREE, a scientific institute, has helped villagers carry out scientific monitoring of extracted resources²²;
- Several thousand villages of Orissa State in India, are under conservation by the local villagers without any input from the forest department. The oldest example is believed to have started in 1936. Most of these villages were faced with serious resource crunch and decided to regenerate their degrading forests;
- In January 2002 the Conservation Committee of Gulkin valley in Pakistan detained a poacher of neighboring village by sizing his gun and hunted animal (ibex) in Community Controlled Hunting Area. The conservation committee brought the poachers to Gilgit town after travelling 150 km and handed them over to law enforcement agencies. Despite legal constraints the villagers produced sufficient evidence to get the offenders prosecuted. The event became an interesting news in the neighboring villages and valleys. Inspired by this incident the neighboring community Hussani initiated conscious conservation efforts in 2002 by forming a conservation committee and developing a conservation plan for their valley. Now they have applied for a formal recognition as a Community Controlled Hunting Area.
- 600 ha. of village forest in the catchment of Loktak Lake in Manipur, India, have been regenerated by the youth of Ronmei tribe from Tokpa Kabui village, Chandrapur district, Manipur. This community traditionally known for its hunting skills has also completely banned hunting of Shangai, a threatened antelope²³.
- In the drought-prone area of Rajasthan in India, Bhaonta-Kolyala is among the villages that gave revived their traditional system of water harvesting through small earthen dams and conserved catchment areas with the help of NGO, Tarun Bharat Sangh. The villagers' efforts

¹⁸ Personal communication with Suresh Babu (2001). Member, Theeram-A fisherfolk organisation for turtle conservation, Kolavipaalam, Kerala, India.

¹⁹ Manu, K. and Jolly, S., (2000). *Pelicans and People: The Two –Tier Village of Kokkare Bellur, Karnataka, India*. Kalpavriksh, Pune and International Institute of Environment and Development, London.

²⁰ Personal communication with Satya Srinivas (2001). Coordinator, Andhra Pradesh NGO network on Joint Forest Management, Hyderabad, India.

²¹ Pant, R. (2002). *Customs and Conservation: Cases of Traditional and Modern Law in India and Nepal*. Kalpavriksh, Pune and International Institute of Environment and Development, London.

²² ATREE 1999. An Integrated Approach to Management of Tropical Forests for Non-Timber Forest Products. Annual Report for Biodiversity Conservation Network. Ashoka Trust for Research in Ecology and the Environment, Bangalore, India.

²³ Rajesh, S. (2002). Shanghai Conservation in Loktak by Local Youth Groups. A questionnaire filled up for the Directory of Community Conserved Areas in India (in press). Kalpavriksh, Pune.

have revived river Arvari which had become seasonal in last few decades. Livelihood, agriculture, water ensured villagers are not moving out in search of employment anymore²⁴.

- Annapurna Conservation Area (ACA) is managed by a body represented by the members of local Users Groups residing in ACA with help from NGO, King Mahindra Trust for Nature Conservation (KMTNC). Communities carry out tourism as well as cleaning of trekking route to this popular trekking site²⁵.
- In Hushey Valley Conservation Area in Pakistan the local community organisation gets permits for annual harvest quota of Himalayan ibex from the government. 80% of the trophy-hunting fee goes to the community and in return community ensures habitat protection for the Ibex. The community also organizes winter and spring wildlife surveys by involving wildlife department officials²⁶.
- In Rekawa Lagoon in Sri Lanka, local fisherfolk have averted destruction of lagoon caused by construction of a causeway, over fishing due to mechanised fishing, coral destruction for the cement industry and so on. Such commercial activities had depleted the fish population in the lagoon thus affecting local livelihoods. A prawn re-stocking in the lagoon with help from Colombo University and control over commercial activities has improved fish catches. Fisher folk now follow regulated traditional fishing²⁷.

What is a community?

For the purpose of this paper we have considered the working definition of a community as:

A group of people, sharing a geographic area, and surrounding natural resources. A community therefore, could be a group of people geographically, culturally and traditionally linked, sharing an interest in and/or interacting with a common natural resource base (ecosystems and species).

Or

A group of people not necessarily traditionally and culturally linked but interacting with a common resource base (ecosystems and species).

The term, "community" is not necessarily to indicate a homogeneous entity.

The following preliminary criteria could be used to define a community in a given situation:

- 1) Extent of dependence on the resource for livelihood, culture, religion, etc.
- 2) Willingness and extent of efforts to conserve and/or sustainably use the resources.

²⁴Shresth, S. and Devidas, S. (2001). *Forest Revival and Water Harvesting: Community Based Conservation at Bhaonta-Kolyala, Rajasthan, India*. Kalpavriksh, Pune and International Institute of Environment and Development, London.

²⁵S, K.C., Basnet, K, and Poudel, K.P. 1999. *People's Empowerment Amidst the Peaks: Community Based Conservation at Annapurna Conservation Area, Nepal*. Case Study for South Asian Regional Review of Community Involvement in Conservation, sponsored by the International Institute of Environment and Development under its *Evaluating Eden* Project. Kalpavriksh, Pune and International Institute of Environment and Development, London.

²⁶ Raja, N. A. (1999). *From Alienation to Ownership: Conservation and Development in Hushey Valley, Pakistan*. Case Study for South Asian Regional Review of Community Involvement in Conservation, sponsored by the International Institute of Environment and Development under its *Evaluating Eden* Project. Kalpavriksh, Pune and International Institute of Environment and Development, London.

²⁷ Ekaratne, S.U.K., Jinendradasa, S.S., Abeysirigunawardana, M.D., Davenport, J., (2000). *Coastal Conservation through Enterprise at Rekawa Lagoon Sri Lanka*. Kalpavriksh, Pune and International Institute of Environment and Development, London.

- 3) Incurring costs to achieve conservation (such as human resources, financial inputs, political risks, and restricted use of resources, lost developmental opportunities, etc.)
- 4) Benefiting from results of conservation.

What are the Objectives of Community Conservation?

Communities appear to have a range of objectives for which they conserve biodiversity. The primary objective of community initiatives is not necessarily always biodiversity conservation. Some communities conserve to meet subsistence livelihood needs, some to arrest degradation of environment leading to soil erosion, land slides and other related problems, and so on. Thus based on the objectives CCAs can be categorised as:

1. Village forests and pastures are conserved **to meet livelihood requirements** such as fuelwood/fodder/timber/others (including Joint Forest management or JFM and self-initiated community efforts to regenerate degraded forests or manage good standing forests, van panchayats of Uttaranchal, betta land of Karnataka and others in India);
2. Areas conserved **for their cultural/religious significance**, such as, sacred groves, sacred ponds, grasslands, etc.;
3. Wetlands conserved **for drinking or irrigation facilities**, though often they shelter and protect many threaten species of birds, amphibians and reptiles such as the traditionally protected heronries in India;
4. **Traditional agricultural systems**, with diverse ecological niches, conserving not only the indigenous varieties of crops but also many wild species;
5. **Watersheds** conserved to ensure long term availability of water;
6. Coastal areas protected **for traditional fishing** to ensure continuous supply of fish, etc.; and so on.

What criteria can be used to call an area, a Community Conserved Area?

This may be a limitation of this study that no specific criteria have been adopted to select the community conserved areas except the two mentioned in the definition above.

Through the course of this study various criteria were considered and discussed, including that:

1. The area under community conservation must have certain biodiversity significance and a specified minimum area under natural ecosystem;
2. The area must have a minimum viable size;
3. Initiative must have been in existence for a certain number of years;
4. Initiative must be leading towards conservation of biological diversity;
5. Community must be the primary decision-making body or among the primary decision-makers;
6. There must be an equitable sharing of power and benefits within the community; and so on.

However, during various discussions with researchers and community members themselves it was realised that barring point no. 4 and 5 mentioned above, use of other criteria would be extremely restrictive for the study. This was, considering the fact that very little information exists about community efforts. Most of these efforts are not even known leave alone studied well to ascertain whether they lead towards conservation or not.

This study is being considered as a baseline information on community conservation and includes within its scope all such examples, which follow the two criteria mentioned in the definition above. It would be important here to clarify that in most instances the fact that an effort is leading towards maintenance and enhancement of habitat and species is based on perceptions and impressions and not on actual scientific research.

3. A Broad Typology for Community Conserved Areas?

Most community initiatives are site specific in their approach and varied in their origin. Methods of use and management vary depending on the local context, such as, nature of community, the resource base, and other political and economic factors affecting the two. Developing a typology for community efforts would help understand the diversity involved in these initiatives.

Following is a preliminary effort at classifying CCAs mainly based on the factor that led to the initiation of these efforts. Within each of these, such initiatives can be further classified based on the objectives with which they originated.

Self-initiated by local communities

These include community conservation efforts initiated by the communities entirely or primarily on their own. Little documentation of such initiatives exists in South Asian countries other than in India and Pakistan. These initiatives may start as a result of the following:

1. One or more members of the community is influenced by the world outside or larger social or ecological movements through direct interactions or indirectly (T.V., radio, readings, etc.). For example, Saigata in Maharashtra, Jardhargaon in Garhwal, Kudada in Bihar in India, [and Khyber, Basho, Kachura and Gulkin in Pakistan](#), and so on.
2. Communities facing serious resource crunch and realising the need to follow a system for regeneration and sustainable resource extraction. E.g. In India, sanctifying van panchayat forests in Uttaranchal, Kailadevi wildlife sanctuary in Rajasthan, Many villages in Orissa and West Bengal which subsequently became a part of the official JFM scheme, Hunsur village in Karnataka, Saigata in Maharashtra, and others. [Such examples can be found in Pakistan in Khunjerab Village Organization areas, Jutial and Haramosh valleys in Northern Areas and Korangi Creek in Sindh province.](#)
3. Communities facing ecological hardships such as reduced soil fertility because of soil erosion; reduced availability of water because of catchment degradation; frequent landslides; and so on. E.g. Hunsur village in Karnataka, revival of van panchayat systems in Uttaranchal in India.
4. Impending threats of developmental or commercial forces, or alienation from the resource/habitat on which community's livelihood depends. E.g. villages surrounding Lote Parshuram Industrial area in Maharashtra, and Chilka Lake in Orissa in India.
5. Concern for depleting biodiversity and wild habitats. E.g. Chakrashila wildlife sanctuary, and Turtle conservation by youth in Kolavipaalam village in North Kerala in India.
6. Religious and/or cultural concerns and traditional systems. E.g. Sacred landscapes and elements, Community land-use systems in the NE, Bhugials in the hills of Himanchal Pradesh, Kokare Bellur village in Karnataka, Chipko movement in Garhwal, wildlife protection by communities like the Bishnois in Rajasthan, continuation of traditional practices of protecting species, such as Langurs, Blackbucks, Ficus spp., and several others.

Box 4: Reviving tradition out of necessity.

In the Himalayan State of Uttaranchal in India, villagers have been legally in-charge of surrounding forests for over seven decades. The local Van Panchayats (Forest Councils) were

entrusted with the management of forests. With the burgeoning populations and reducing resources, Van Panchayats were increasingly finding it difficult to sustainably manage the forests. Consequently many van panchayats decided to revive the tradition of sacred groves and declared the forests under their management sacred for a specified period of time to allow its regeneration. After five and, in some cases, ten years the results are extremely encouraging.

7. In many areas the wildlife and biodiversity conservation is actually an outcome of the larger process of local empowerment through decentralised governance. For example in Mendha-Lekha efforts towards conservation and management of forests was an outcome of a movement towards achieving tribal self-rule in these villages.

Initiated with the help of NGOs

These are cases where an NGO or NGI from outside the community has directly influenced the natural resource conservation process. The association of these NGOs/NGI could be for following reasons:

1. As part of a larger natural resource conservation programme of NGOs, conservation agencies or donor agencies. E.g. Bar Valley and Hushey Valley Conservation Areas in Pakistan or Annapurna Conservation Area in Nepal.
2. To overcome resource availability crisis, to fight against social injustice, or to work for conservation of biodiversity. E.g. Chakrashila Sanctuary in India was declared on the insistence of the local youth who discovered the threatened Golden Langur in their forest. The forest department obviously has to invest little energy in the management and protection of the sanctuary, which is taken care of by the local villagers. Morjim Beach in Goa, where a turtle conservation programme was initiated by a local leader with help from forest department.
3. To revive a lost tradition. E.g. Vaiga village in Uttarakhand where grassland management was a strong traditional practice before breaking down a few decades back. Intervention of an NGO has helped the villagers revive the practice and now they generate enough grass for their own need as also to sell. Revival of river Arvari in Rajasthan (see Box 3).

As part of or rooted in struggles and movements

In several cases, even if the communities have had no role to play in management of natural resources, they have stood up and fought against strong commercial or developmental forces, causing destruction of the habitat on which their livelihood critically depended. In Sariska National Park in India the local community's fight against the mining in the area was crucial in stopping these activities when even the government failed to do so. In Nagarhole National Park in India, the local tribal groups fought against construction of a five-star hotel inside the National Park. In the hills of Garhwal local people fought against limestone mining. Many tribal villagers in Kashipur district in Orissa, India have lost their lives while opposing extensive mining in their forests and lands. Fisherfolk all along the coast of India fighting against destructive trawling and violations of Coastal Zone Regulations. Tribals in central India and elsewhere are stopping major dams. These are few of such struggles across the region. These efforts ultimately play an important role in the protection of wildlife and habitats, even if the primary objective of the community struggle may not have been biodiversity conservation.

Some of the above mentioned movements may have died down or subsided once the conflict was resolved. However, many of these have resulted into reviving the communities' faith in cohesive community efforts, consequently leading to collective efforts towards achieving a more just

society and/or a better management of natural resources. E.g. Mendha-Lekha in Maharashtra, India, where the movement towards tribal self rule and forest conservation was a result of a larger struggle against a hydro-electric project. Natural resource and traditional seed conservation in Jardhargaon was an outcome of the famous chipko movement in the hills of Garhwal. Villages around Lote-Parshuram industrial Area in Maharashtra, India have for years seen pollution of their water bodies and over extraction of their natural resources. After years of struggle in the recent years they have drafted a set of guidelines for establishment of industries in their respective areas. Unless the industry promises to follow the guidelines the villager's consent will not be received. Tawa reservoir falls partly inside the Bori sanctuary in Madhya Pradesh, India. After declaration of the sanctuary, the local traditional fisherfolk were denied the rights to fish in the reservoir. For years, local fisherfolk fought against this restriction. In 1998, they took matters into their own hands and decided to form a fisherfolk cooperative. The cooperative now harvests fish from the reservoir and protects the reservoir from overuse by the outside commercial interests.

With help from state sponsored programmes or individual government officials

Sensitive government officials in many areas have played crucial role in starting successful community conservation initiatives. In effect the credit for the Indian government adopting Joint Forest Management (JFM) Resolution goes as much to forest officials as to the local communities. Hundreds of successful JFM villages in West Bengal, Orissa, Gujarat, and other parts of the country, Botha village in Maharashtra, Harda village in Madhya Pradesh, MukkuVan Panchayat in Garhwal and so on are some examples of government programmes kicking off a successful community initiative. Even in the government schemes and programmes that adopt participatory approach in natural resource management it is the sensitive and interested implementing officials who are responsible for the extent of the success of these programmes. A very good example is from Kalakad Mundanthurai Tiger Reserve (KMTR) in India. Joint Management of Khunjerab National Park in Pakistan and Buffer Zone Regulation Areas are also good examples of this.

4. Key Issues

In order to argue that community conservation efforts need to be seen as one of the effective tools to achieve conservation it is important to know how community initiatives behave ecologically, socially, politically and economically? What factors need to be kept in mind while trying to adopt participatory mechanisms. The following lessons are important from this point of view.

4.1. Conservation benefits are not only monetary:

Personal communications with community members has indicated that receiving economic benefits are not always the priority objectives for natural resource conservation. Benefits envisaged by the communities are more in terms of livelihood security; ecological benefits such as controlled soil erosion, increased availability of water and so on; community empowerment; social recognition, and such others.

a) Long term livelihood security

Communities are party to face short-term difficulties and restricted access to resources as it would result into regeneration of surrounding resources and thus a long-term, regulated access to these resources. This is true of almost all the examples mentioned in this text. Women who face the brunt of conservation most often do follow restrictions to the extent possible in the hope of eventual gain.

Box 5: Long-term livelihood security in Bhaonta-Kolyala in India.

In Bhaonta-Kolyala twin villages in India, most young men would migrate out in search of employment till a decade ago. Conservation of surrounding forests has not only ensured a year round availability of water (in this drought-prone area) but has also increased soil fertility. Agriculture is now so beneficial that the village has almost no out migration for employment (see Box 3 Bhaonta-Kolyala).

b) Economic benefits

Economic benefits from the sale of surplus resources or other ecosystem-based activities such as eco-tourism is an important benefit for many communities.

Box 6: Some examples of economic benefits of CCAs.

Villagers in Vaiga, have regenerated their grasslands and are now generating substantial income by selling surplus grass. Baghmara village near Chitwan NP in Nepal is an excellent example of eco-tourism. Here the villagers have protected the surrounding forests, which now harbour a good population of tourism attracting large mammals. Villagers have constructed a few watchtowers and earn revenue by charging an entry fee from the tourists, just like the adjoining official National Park. In Rekawa Lagoon in Sri Lanka, livelihoods of traditional fisherfolk was seriously threatened till the conservation efforts started (see Box 3 Rekawa Lagoon, Sri Lanka). Taking conservation steps have increased the fish output and thus income for the local fisherfolk. In Mendha-Lekha villagers have worked out a system by which the village institution is now in a position to provide year-round employment to the villagers thus reducing the need to move out in search of employment. In Biligiri Rangaswami Temple local tribals with the help of an NGO and a scientific institution have started an enterprise for value addition to non-timber forest produce (NTFP). This earns higher revenues for the tribals and tribals are also involved in the ecological monitoring of the NTFP extracted.

c) Awareness and empowerment:

In tribal dominated areas in India, where livelihoods are heavily ecosystem dependent there is a move towards tribal self-rule. After more than a century old centralised rule and marginalisation by colonial and national governments, villagers are now taking control over land, water and forests, and developmental and other processes affecting their lives.

Box 7: Examples of awareness and empowerment as a benefit to the community.

In Mendha-Lekha, the movement towards self-rule started when villagers opposed unjust restrictions on forests and a process of elimination of traditional rights. The first step towards achieving self-rule was taking control over the forests and protecting, managing and using resources sustainably. Community conservation effort in Annapurna Conservation Area led to the empowerment of the local women with the active participation of mother's groups in conservation and eco-tourism. In Rekawa, the local fisherfolk's organisation gained enough empowerment to be able to participate in local policy decision-making process because of their conservation efforts.

d) Capacity building

Starting a conservation initiative often means a greater interaction with the people and processes from outside the village. Making themselves familiarised with these processes involves building of local capacities. Whenever communities have started village corpus funds, micro-credit schemes, etc. they have had to learn systems of accounting and dealing with banks. Because of a more equal interaction with the government departments and officials villagers are better informed about various government programmes and their implication on their lives. Many JFM villages in India and others have been able to participate in national policy dialogues.

Establishing local institutions and participating in their day to running as also establishing and implementing rules and regulations enhances the administration capacity of the villagers.

Box 8: Community efforts lead towards local capacities building.

In Sri Lanka, prawn farmers in the northwest have shown how successful and self-sustaining community initiatives can become when building and/or improving management capacity becomes part of the initiative. Prawn farmers who suffered heavy losses due to degraded water quality brought about by high intensity farming, came together to form community-based societies. The members already possessed management capabilities since they managed their high-value prawn farms. The more successful models, however, employed additional managerial staff to oversee and coordinate operations to ensure that no single member-farm practiced unsustainable practices that would, in turn, contribute to unacceptable levels of water pollution, disease or lowered productivity.

In Pakistan biodiversity conservation committees are formed at watershed level and are responsible towards coordinating a participatory conservation plan. This plan is reviewed by various partners and stakeholder before being approved by the District Conservation Committee (DCC) headed by a Deputy Commissioner (DC). Such a process helps build local capacity and confidence. DCC constitutes members from government authorities, conservation and development organizations and local communities and is a forum for open discussions on the progress of conservation initiatives and support required by local communities.

e) Community cohesiveness:

A more informed, organised and empowered community works towards establishing more locally appropriate development process in the village, such as systems of education, health and finance. An example of this is Hivare Bazar village in India where the village organisation takes care of the education of meticulous village youth, ensures AIDs test before marriage alliances are made outside the village, among other things.

f) Social recognition:

Under the current development paradigm the local communities, their efforts, knowledge systems and technological innovations remain unappreciated and unrecognised. Decades of lack of recognition and endorsement has instilled a feeling of inferiority among local knowledge holders and innovators. Often the conservation efforts draw attention of the national and global community towards the local communities leading to social recognition of their efforts.

Box 9: Social recognition is an important benefit to the local communities.

Villagers in Jardhargaon have been able to revive hundreds or varieties of indigenous and locally suited crops. They have maintained their own herbarium. They have also used their traditional systems to arrive at an equitable sharing of benefits resulting from conservation efforts. Recognition of their efforts has encouraged the people and made them more confident about their own systems and abilities.

g) Overcoming social inequities:

Box 10: Overcoming social inequities because of community conservation efforts.

Saigatha village in Maharashtra comprises of about seven castes and classes, many being disprivileged. Forests conservation initiated by a youth belonging to a lower caste helped in bringing various castes in the village together. An equal sharing of conservation and protection responsibilities eventually led to equitable sharing of resources thus improving the status of down

trodden in the village. In Pastapur village in Andhra Pradesh dalit (lower caste) women took over a patch of forest and regenerated it with the help of an NGO. The achievement of the women not only reduced the hardships that they were facing because of scarcity of resources but also earned them respect from the members of their own community as well as others.

h) Benefits to wildlife

Community efforts lead towards habitat regeneration and protection.

Box 11: Community conservation and benefits to wildlife

In Jardhagaon in India wild animals are now returning to the conserved village forests after decades. Kahalla Pallekele Wildlife Sanctuary in Sri Lanka was facing serious human-elephant conflicts, adoption of people friendly management approach has reduced the conflicts making the sanctuary safer for the elephants. In Hushey valley habitat conservation by the local communities with help from IUCN has led to a increased population of Ibex. Many endangered birds such as the Spotted Pelican, the Great Indian Bustard, Black Buck are survived today because of the protection given to them by the local villagers.

4.2. Security of tenure:

In all the cases mentioned in this paper it has been found that a sense of belonging or custodianship towards the resources is the most important reason for a community to start conserving their resources. This sense develops through constant consumptive, economic, cultural and religious association and interaction with these resources. Therefore a continued access to the resource and security of tenure are key to a sense of responsibility towards the resource, among local communities. It was noticed in most CCA examples that initiatives are more successful if the local communities either have a legal ownership over the area or *de facto* control over the resources. Analysis of some CCA initiatives which did not succeed, also indicates that lack of tenure was a major reason for the failure.

Box 12: Insecure tenure discourages conserving communities.

Halkar was one of nearly twenty villages in Karnataka, where forest management was handed over to the villagers by the British government. These villages managed their forests efficiently for nearly half a century when the Independent Indian government having over-extracted government controlled forests started leasing out village forests without consulting the villagers. After years of legal battle the villagers finally won against the government. Discouraged by years of legal battle and administrative hassles, today barring Halkar all other villages have given up forest protection activities²⁸.

Recommendation

This is not to imply that tenurial security will necessarily lead towards conservation, but rather that such security would make conservation more feasible. In most South Asian countries there are rarely consultations with the local villagers on any new schemes or change of policies. For communities to have a stronger sense of belonging with their resources it is important that regular dialogues are established with them. As also open and transparent public hearings or referendum on any intended new provisions or changes in policies be carried out before a final decision is taken.

²⁸ Chandran, S. (2001). Development Interventions Degrade Mangrove Agro-Ecosystem and affect Livelihoods in Halkar. A case study for IUCN Compendium on Best Practices of Natural Resource Management in South Asia (in Press). IUCN-Regional Sustainable Use Programme, Islamabad.

4.3. Site-specific, decentralised management, with varied objectives:

It is becoming increasingly clear that uniform models of development and conservation are not sustainable in today's context. As is clear from the above description community initiatives are decentralised, site specific and varied in their objectives and approaches. This is as against most government efforts that have largely been centralised, top-down and working under a uniform policy framework and guidelines, not taking site peculiarities into account. Making laws and policies flexible as well as firm and strong is a tricky question and will involve serious debates and explorations.

Recommendation

One way of building in greater flexibility into the PA system would be to expand the number of categories of protected or conservation areas, to include a range of different ecological and socio-economic situations and governance types. The site-specific planning strategy (for zoning of PAs and others) for these areas (specially the ones where human settlements exist) could be then done based on participatory research with the local communities.

To this end some conservationists have suggested categories of PAs, based on different objectives and management regimes²⁹.

In most South Asian countries there are no clear criteria to define the specific PA category. Thus causing ambiguity about the management practices to be followed for these PAs. It is therefore imperative that PAs are established after detailed ecological and socio-economic ground research and with specific objectives. Understanding and assessing various community institutional arrangements, customary or new conservation rules, and systems of natural resource management followed by different conserving communities can give important leads in formulating a flexible and locale specific policy framework.

It is mentioned in the sections above that communities conserve for a range of objectives. Not all of those are necessarily conservation objectives, but can still achieve biodiversity conservation. Management practices followed by communities vary based on the objective for which the area is being managed. Similarly, if the objectives of individual protected areas are clearly spelt out and the area is managed accordingly many conflicts can be resolved.

[In Pakistan visioning workshops of stakeholders on territorial and fresh water eco-regions, concept of biodiversity conservancies, collaborative management of national parks and notification of Community Controlled Areas are a few efforts made to conserve the ecosystems at the broader landscape level. Such arrangements also make conservation models more flexible taking into account local situations.](#)

Box 13: Unclear objectives lead towards ambiguous management practices.

Keoladeo Ghana National Park in Rajasthan, India is managed as a wetland for waterfowl. Unfortunately, a "national park" legally can not allow any grazing within its premises. Using this provision the Park authorities banned grazing in 1982, resulting into a violent clash with the traditional buffalo graziers in which seven villagers died. Subsequently, a scientific study revealed that the banning of grazing was detrimental for the wetland itself as it allowed excessive growth of grass thus making it difficult of the birds to feed or move. Park management would

²⁹ Bhatt, S. and Kothari, A. (1997). *Protected Areas in India: proposal for an Expanded System of Categories*. In Kothari, A., Vania, F., Das, P., Christopher, K. and Jha, S. (Eds.) (1997). *Building Bridges for Conservation: Towards Joint Management of Protected Areas in India*. Indian Institute of Public Administration, New Delhi.

have done better by learning from the experiences of the traditional tank management in South India and parts of Sri Lanka. These tanks are used for various activities by the local villagers yet support a large variety of important bird life.

In Khunjerab National Park management practices are based on the primary objective of protecting the threatened Marco Polo sheep. Primary research indicated that livestock grazing is not detrimental for the protected species thus grazing has been allowed in certain zones of the park. Presence of livestock in the park reduces the number of attacks on Marco Polo by Snow leopards as snow leopards also predate on the local livestock, thus helping in increasing their population in the park.

This also brings us to an important point that local communities often have their own assigned value to the ecosystems which should not be undermined. Conservation priorities should take into account these local values and priorities.

Box 14: Conservation, whose priority?

Forests in Mendha-Lekha may not be one of the areas under national priority for wildlife conservation, but for the people of Mendha-Lekha these are the highest in priority for livelihood, spiritual, cultural, and in many other ways. Therefore, while the government intends to carry out forestry operations favouring the growth of economically valuable timber, local people here oppose this policy and prefer an ecologically diverse forest which meets their consumptive and spiritual needs through out the year. Substantial biodiversity elements are conserved as a result.

Thus while designing the categories of PAs and a flexible PA policy, local people's criteria for declaring the PAs should also be kept in mind.

In terms of site-specific policy space, lessons can be learnt from Nepal where under a common national law some areas are declared conservation areas. Each conservation area has a separate set of specific rules and regulations for its management³⁰. While identifying the objectives, the ecological importance of completely inviolate zones will of course have to be considered. However, the process of identification of such zones itself will have to be participatory as also the conservation practices that will need to be followed in these zones. The importance of completely inviolate areas has been recognised for generations in community systems of management indicated by examples such as sacred groves, sacred ponds, sacred patches of rivers, debarring use of a certain area for a certain period of time, etc.

4.4. Community initiatives are multi-faceted and multi-dimensional:

Conservation of resources is a part of livelihood insurance and is linked with all other social dynamics. Initiatives towards natural resource conservation may lead to other social reforms in the village, e.g. equity, empowerment, etc. On the other hand efforts towards other social processes such as achievement of empowerment may lead to natural resource conservation. Thus leading towards an ecologically sustainable and socially just future for many villages in South Asia. Conservation, therefore, cannot be seen in isolation of other social, economic and political processes within the community. However the government and other agencies working in an area do not necessarily work with this view. Local development and conservation activities are highly compartmentalised with each line agency focusing on their own area of work sometimes conflicting with or contradicting that of the other line agencies. Therefore if the conservation

³⁰ Kothari, N., Pathak, N. and Vania, F. (2000). *Where Communities Care: Community-based Wildlife and Ecosystem Management in South Asia*. Kalpavriksh, Pune and Indian Institute of Environment and Development, London.

agency is trying to discourage goat rearing in an area, department of animal husbandry tries to promote goats to improve the economies of the people. Often same is also true of non-government agencies working in local areas.

In India most government and non-government agencies have now realised that formation of people's saving groups at village level is a useful way of mobilising communities, achieving conservation or rural development. However, there are often examples where not less than six agencies operate different saving groups in the same village, thus not only spreading the resources thin but also dividing the community to achieve their own agenda.

Box 15: Inter-agency coordination can overcome resource constraints.

In India a fine example of such holistic development is that of Mendha-Lekha village. Here conservation efforts have also meant achieving local self-rule, managing their water resources, establishment of grain bank for the villagers in the scarcity times, working towards ecologically and socially sensitive education for village youth, ensuring employment for everyone in the village, amongst other things. In order to reduce excessive dependence on forests for fire wood, villagers have managed to construct alternative sources of fuel in the village by encouraging various line agencies pool their resources.

Recommendation

In many wildlife and forest areas, authorities can overcome the problem of inadequate resources, which is often cited as an important management constraint, especially for the provision of ecologically-sensitive livelihood inputs to local communities. This can be done by pooling together of resources from all line agencies in the area and the human material resources of the communities themselves. For example in Kahalla-Pallakele sanctuary in Sri Lanka, a simple problem of paying compensation to the people affected by crop damage caused by the elephants could have been resolved with slight co-operation of the various departments to pool their resources and efforts but could not be done in absence of such co-operation. Such co-operation has been achieved by individual officers in India³¹, but without a formal institutionalised mechanism, such initiatives have remained personalised and short-lived. Community empowerment coupled with strong policy directives can help resolve this problem.

4.5. Regional planning is the need for any successful conservation effort:

Point 4., mentioned above also leads us to the fact that areas conserved for biodiversity do not exist in isolation and are impacted by various social and political forces and land-use practices in the surrounding areas. Allowing resource intensive activities in the surrounding areas could put more pressure on the resources of the area to be protected, or act in contradiction to conservation objectives.

Recommendation

It is extremely important to orient regional planning towards ecological and cultural dimensions of an area, including community conservation efforts. Communities' wish to conserve a certain area needs to be respected and reflected in the regional planning. Some community efforts have very strongly indicated the need for this kind of approach towards conservation.

Box 16: Community conservation does not exist in isolation.

³¹ Pardeshi, P. (1995). Conserving Maharashtra's Biodiversity through Ecodevelopment. In Kothari, A., Singh, N., and Suri, S. (Eds.) (1996). *People and Protected Areas: Towards Participatory Conservation in India*. Sage Publications, New Delhi.

In Lote-Parshuram Industrial Area mentioned above, many villages suffered serious impacts of pollution on their air, water and soil, as various industries were placed here without their consent or even information. Learning from the experiences of the neighbouring villagers, knowing very well that they may not be able to fight industries coming to their areas, villagers in the vicinity of Lote-Parshuram are now formulating a regional plan for their area. This will include social and ecological parameters that the industries will have to follow if they want to establish their units in and around these villages.

Another example is that of the villages located in the catchment of River Arvari in Alwar District, Rajasthan in India. These villagers have been conserving the catchment for over a decade now resulting into seasonal Arvari River turning perennial. These villagers have now formed an "Arvari Sansad" (Arvari Parliament). Arvari Sansad aims to be the primary decision making body for the entire catchment. This is based on the principle that a holistic approach will need to be taken for the conservation and use of the catchment. Members of the Sansad believe that decisions made by individual villages are often restricted to the interests of their own villages and may not adequately take care of the eco-region as a whole.

4.6. Transparent, impartial information and role of an outside agency:

One important lesson emerging from community initiatives is that a transparent and democratic process of decision-making leads towards a more successful effort and indicates long-term sustainability, than those ridden with inequities. The emphasis on equal representation of all sections of society in information sharing and subsequent decision-making is one of the unique features of such initiatives. For example in Mendha-Lekha all decisions are taken on consensus, constant discussions are carried out on all aspects of the issue till a final decision is made. Consensus decision-making is the most common system in villages heading towards self-rule in India. Consequently, even where there is discontent about certain decisions, those who are not satisfied cannot cite lack of information or participation as a reason, and are often exposed as being simply jealous or critical for the sake of criticism. Utilisation of community funds or funds coming from various external programmes are often a serious source of discontent within a community. Most community initiatives therefore have an open system of accounting and accounts are regularly disclosed to the village council (and not only to the executive) and expenditure explained.

It is very clear that often CCA initiatives have been able to provide answers to some very critical and troubling issues (e.g. encroachments, forest fires, illegal use, poaching, smuggling of valuable timber and others), which conventional wildlife habitat managers are still struggling with. To a large extent this has been possible because of transparent and open governance along with impartial information that they have managed to acquire. In many cases this has been made possible by constant interaction with outsiders and regular discussions within the village. Such interactions and information make people more conscious and aware, which in turn helps them in taking informed decisions. On the other hand, as mentioned earlier in the paper, information is often guarded like a secret by most government agencies even about the programmes and policies affecting local areas.

Box 17: Struggle for rights in Tawa Reservoir.

After years of struggle the fisherfolk around Tawa reservoir (see Box 3. above) in India finally managed to get fishing contract in the reservoir. Consequently the powerful contractors and others who were earlier involved in the trade were defeated. Scientific studies done after five years of fishing by the cooperative proved that fishing techniques used by the cooperative were sustainable and resulting into improvement of the aquatic life of the reservoir. After five years,

however, the government threatened to cancel the contract with the cooperative based on an evaluation, contents of which were never disclosed to the local fisher folk. Despite constant demands when the findings of the evaluation report were not made public, the villagers were forced to believe that this was a conspiracy by a contractor-official nexus to regain control over revenue generated from the reservoir. As it was not possible to prove that local communities' methods of fishing were depleting the resources, surreptitious means were being used to achieve their objective³².

In many community conserved areas (though definitely not all) villagers have indicated and often demanded that management of resources be a joint activity of the communities and the government officials or NGOs. Communities often do realise the difficulty of managing natural resources on their own, especially given the internal and external social dynamics and political and commercial pressures.

Recommendation

An active role of the state as a partner in the management of resources is often envisaged by local communities, but on equal terms and in the capacity of a facilitator and guide rather than a ruler or policeman. Such official intervention though desirable in many cases has to be very carefully thought out and implemented. There are numerous examples where external intervention has actually resulted in the breakdown of a well functioning community effort.

Box 18: External intervention desirable or detrimental?

In Buldhana District in Maharashtra, India, successful JFM was initiated by a forest officer in some villages, which led to the regeneration of highly degraded forests. Subsequently some parts of these jointly managed forests came under the newly established Gyanganga Wildlife Sanctuary, bringing with it the restrictive provisions of the law applicable for a PA. Local people's effort at conservation and existing local institutions were discounted and became officially defunct overnight. This created a serious conflict situation. This initiative had a potential of becoming countries first jointly managed PA if wildlife management authorities had taken advantage of the existing cordial relationship between the people and forest officials. However, an unimaginative use of Wildlife Protection Act (WLPA) has brought the initiative on the verge of break down, as the Indian does not recognise participatory management of PAs.

In Kailadevi Sanctuary in India local people had Forest Protection Committees (FPC) much before the area was declared a PA. Once Kailadevi was declared a PA, the forest department began implementing the official eco-development scheme meant for diverting human pressures from a PA. The existing FPCs were co-opted to be the eco-development committees (EC). After half a decade of eco-development the scenario is completely changed. Whereas in the past these FPCs had numerous meetings on village and forest conservation issues now many months pass by before a single meeting has taken place mainly because of unavailability of the forest official whose presence is mandatory for an EC meeting. Ecodevelopment also came with funded projects and plans, thus community participation in conservation is now more to avail the financial and other opportunities rather than a community feeling and/or concern for degrading natural resources as was the case earlier³³.

For most decentralised policies it is important that the basic unit of governance is the community council (involving all adult members, irrespective of cast, class, gender, etc.) and not any

³² Personal communication Sunil Gupta (2001). Tawa Matsya Sangathna, Kesala, India.

³³ Personal Communication with Priya Das (2001). Ph.D. scholar, School of Oriental and African Studies, London.

representative/executive body. Along with a decision-making body it is important to have open forum for discussion which will lead towards well-informed decisions by the community. External agencies could play a critical role at these discussion forums. These agencies and experts could facilitate discussions and help bring in the larger perspectives not so easily perceived by the villagers given their limited access to outside information. In turn, outsiders could learn from the detailed site-specific information that the local people have.

4.7. Role of local Leadership:

Considering that a large amount of local community's time must go into earning a livelihood, it is sometimes difficult to sustain the fervour for forest protection activities, especially if there are no immediate threats. In circumstances such as these, the role-played by a local leader or an outsider, as a constant source of motivation is absolutely essential. Often an effort itself is initiated and facilitated by one or more members within the community. Such leaders have to pay enormous personal and family price to play the required role, a phenomenon that can at times be a hurdle towards a smooth transition to second line of leadership.

4.8. Combining biodiversity and livelihoods:

The contention (often made by orthodox conservationists) that communities are not interested in protecting biodiversity is shown to be false in experiences in many community conservation initiatives. An example of this is the official Joint Forest Management (JFM) programme in India. The scheme solicits participation of local communities in forest plantation and conservation in return of a share from the proceeds sale of timber harvested from these forests. However, several communities have argued that the more important benefit of JFM would be if communities are allowed access to the forests for usufruct rights and a continuous supply of non-timber forest products³⁴. The argument, forcefully made by Mendha-Lekha villagers, translates into the conservation of biologically diverse forests rather than mere plantations of single tree species. The local community's arguments against industrial aquaculture, or commercial fisheries in other areas, or monocultural fisheries have similar grounds and implications.

Community initiatives have often also integrated the conservation of both 'wild' and 'domesticated' biodiversity. Indeed, their stress on both indicates that the conventional divide between them is somewhat artificial, and that communities tend to look at them as part of a continuum from predominantly wild to semi-wild and semi-domesticated to predominantly domesticated. Several traditional practices of optimising this range of biodiversity (such as home gardens in Southern India and Sri Lanka) continue to exist, and new ones are being tried out by many communities. In the village Jardhar (see box 3), farmers who are involved in forest conservation are also reviving a range of agro-biodiverse practices, including trying out several hundred varieties/races of rice, beans, and other crops.

Recommendation

Conservation planners and habitat managers could well build in such concerns to enable a marriage of livelihood requirements and biodiversity conservation. This is not to say that such marriage will be possible or easy to achieve in all circumstances but to suggest that efforts should be made for it to be achieved where possible.

Having said the above, it is important to mention that a continuous monitoring and evaluation of use of a resource and its impact on the conserved area needs to be an integral part of any

³⁴ Poffenberger, M. and McGean, B. (1996). *Village Voices, Forest Choices : Joint Forest Management in India*. Oxford University Press, Delhi. India.

conservation effort. This in itself will be most effective if it is participatory and transparent. The local managers could use results of such monitoring in the evolution of management strategies.

Box 19: Participatory monitoring and evaluation, an integral part of community conservation.

Jungle Abhyas Mandal (Forest Study Group) in Mendha-Lekha, constituting of villagers and outside experts, was involved in assessing the impact of NTFP harvesting on the regeneration capacity of the concerned plant. Results of this study helped the villagers take various regulatory measures for extraction of major NTFP in the village³⁵.

An initiative of the Vivekananda Girijan Kalyan Kendra (VGGKK) and Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore in Biligiri Rangaswamy Temple Sanctuary in Karnataka has helped the local tribals earn higher revenue by value addition on the NTFP harvested by them. On the other hand ATREE has devised mechanism for monitoring of resource extraction with the help of the local tribals³⁶.

In Hushey Valley Conservation Area, the local villagers have been trained by IUCN to monitor the species of Ibex, while the villagers earn revenue from regulated trophy hunting.

4.9. Commercial and developmental threats and a new definition of "development":

Many CCAs are faced with detrimental developmental and market pressures. Often the community initiative itself is a response towards such threats (see section on typology above) but many times these pressures could undermine the efforts of the conserving communities.

Box 20: Mines threaten community managed area in Kataldi.

A 30-year lease has been granted to a mining company to extract limestone from 5.26 hectares of common lands being protected by women in Kataldi. People in the area, especially women are clear that they would not allow mining to take place and for this they have launched a determined non-violent movement, including a *dharna* through December 2001, not allowing any kind of mining activity. The lease is a cause of great worry to the local people as it is likely to affect their homes, their drinking water, their agricultural lands, fodder and fuelwood availability and the biodiversity which they have struggled to conserve. Villagers are now planning to take the mining company to the apex court in the country³⁷.

In Halkar village mentioned above the government leased out the forests protected by the villagers for commercial timber extraction.

This also leads us to a much deeper debate on the prevalent concept and definition of "development". Community conservation efforts often represent, or are embedded in, a sustainable lifestyle and a worldview different from the one prevalent in the dominant society. Local communities can control their own needs and conserve local resources but the pressures on these resources will keep on mounting unless the levels of direct and indirect resource

³⁵ Pathak, N. and Gour-Broome, V. (2000). *Tribal Self-Rule and Natural Resource Management: Community Based Conservation at Mendha-Lekha, Maharashtra, India*. Kalpavriksh, Pune and International Institute of Environment and Development, London.

³⁶ ATREE 1999. An Integrated Approach to Management of Tropical Forests for Non-Timber Forest Products. Annual Report for Biodiversity Conservation Network. Ashoka Trust for Research in Ecology and the Environment, Bangalore, India.

³⁷ Personal Communication with Kanchi Kohli (2002). Member, Kalpavriksh-Environment and Action Group, New Delhi, India.

consumption are controlled elsewhere. The current model of development mandates maximum use of resources in minimum time, hence works in contradiction to the principle of sustainability that the community initiatives are propagating. Very often even the NGOs working with these communities do not understand this link between natural resource conservation, sustainable lifestyles and a need for a different model of development. The efforts at rural development rarely focus on reviving and building upon the traditional health, education, and other practices. Instead they tend to assess the status of development of these communities on the basis of consumptive patterns and economic parameters followed elsewhere. Consequently, demands for rural development remain restricted to demands for new roads, hospitals, electricity, schools and so on. In contrast, several community initiatives mentioned above, or other initiated by NGOs or official agencies, have demonstrated the effectiveness of alternative, ecologically harmonious models of irrigation, energy, education, health, and general human welfare.

4.10. Funding for CCAs:

Many successful community initiatives try to avoid receiving external funding. Many communities try to build up a corpus fund by contributions from within the community or through executing fines and punishments. Examples suggest that rather than providing large amounts of external monetary inputs, it is often more useful to mobilise local resources, as has been shown by Mendha villagers by helping to pool together official resources (Box 15). Being financially independent is empowering for a community, as they are then not dependent on external funds for community development plan. On the other hand there are numerous examples of donor driven community conservation programmes in South Asia, which collapse as soon as the donor pulls out. There are also examples where the funds coming under a certain programme become the most important incentive for the community to participate in conservation activities as has been shown in the case of Kailadevi Sanctuary (Box 18).

Recommendation

This is not to say that communities never need external funding but to emphasis the manner in which and time when financial contribution is made to a community. The community should be able to receive funds when required critically.

Box 21: Inappropriate financial intervention in Kailadevi.

In Kailadevi the Village Forest Protection Committee (FPC) was trying to construct checkdams to overcome water scarcity in the region. They could not generate enough funds to construct a lasting structure. Villagers tried to get support for the required surplus from various agencies but failed and hence could not proceed ahead with their soil and moisture conservation programmes till an NGO stepped in. On the other hand subsequently huge amounts of funds were poured into this area in the name of community development without assessing the actual needs on ground (see mentioned above in section on external intervention).

Government schemes at participatory resource management often have compulsory annual allocation made for a village for a particular activity, irrespective of whether those activities are required in the village or not. A more effective approach would be if annual evaluations and assessments were made by the local institutions and a local management plan reflected nature of conservation and development activities needed to be taken up and funds required for the same. In areas where the initial funding is from an external source, efforts should be made to create a revolving fund to sustain the initiative beyond the project period.

Box 22: How sustainable are external financial interventions?

The ecodevelopment programme in Kalakad Mundanthurai Tiger Reserve (see Box 3) in India ensured that local sources of funding were mobilised before the programme came to an end. Thus the communities now have their own micro-credit schemes and community funds to sustain the activities taken up for conservation as well as village development. Similar efforts have also been made in Annapurna Conservation Area in Nepal (see Box 1)

In Hikaduwa Lagoon in Sri Lanka, coast conservation programme came to a grinding halt as soon as the external agencies supporting the initiative financially and otherwise pulled off.

The need for financial sustainability is the basis for a series of innovative mechanisms now being evolved by governments, NGOs, and donors, such as, Trust Funds.

4.11. Overcoming financial constraints

Many PAs in South Asia face financial and human resource crunch. Fires destroy major parts of central India forests, poaching is eliminating tiger, elephant, rhino populations. When the entire village takes on the responsibility of protection, "inadequate staff or resources" do not remain a cause for ineffective management. In many CCAs the community members have taken over the responsibility of protecting the surrounding ecosystems. The government staff does not feel the need to look after the protection and conservation aspect any more. Poaching, timber smuggling, and other such activities can thus be controlled with the involvement of the local people. Economically underprivileged villagers could also benefit if the financial sources come to them for their efforts rather than going to an ever increasing yet often-ineffective bureaucracy.

Box 23: Overcoming resource constraints with people's participation.

In Nagarhole National Park in Karnataka, India local villagers who were earlier helping the poachers are now involved in eco-tourism activities and also guard the national park against poachers. In Kalakad Mudanthurai Tiger Reserve (KMTR) after the forest department started eco-development activities, the villagers have actively taken part in many management activities including extinguishing fires. This has reduced the pressure from the staff to a great extent³⁸.

4.12. Supportive legal and policy environment:

An Unfavourable legal and policy environment is invariably one of the strongest constraints faced by community initiatives. Lack of interest in the governments to work towards true decentralisation and community empowerment is clear from the fact that most South Asian countries continue to follow the colonial Acts which were established and implemented with the intention of colonising the people and resources in these countries. Specifically interesting to note are three facts mentioned below:

1. Under the Wildlife Protection in India till very recently there was no provision that could legally back community efforts or even accept community participation in resource management. Lack of any such provision has lead to numerous conflicts in India. For example Nellapatu Heronry in Andhra Pradesh, established near a traditional irrigation tank, was protected by local villagers for generations. Existence of the heronry led to the declaration of Nellapatu as a PA. Once declared a PA, villagers were told to lay-off and their access to the irrigation tank was stopped thus inviting strong local resentment. Similar was the case in Gyanganga Wildlife Sanctuary (see Box 18), where a well functioning JFM initiative broke down because of the area being declared a PA. In an amendment to this Act

³⁸ Dutta, S. (2000). *Project Tiger and Local Participation: A Unique Experiment*. A case study for IUCN Compendium on Best Practices of Natural Resource Management in South Asia (in Press). IUCN-Regional Sustainable Use Programme, Islamabad.

in January 2003, a provision for community reserves (CR) has been included but specifying that CRs can not be established on any government land (when most community conserved areas in India are on government controlled lands and over 60% of land is under government control) has ensured that this provision remains restrictive. Such half-hearted efforts also reflect the distrust of the government of its own citizens!

2. Supportive provisions in existing laws have also not been used by the governments to impart power to local institutions. For example, even the colonial Forest Acts of India, Sri Lanka, Pakistan and Bangladesh provide for, a category of Village Forests. These are patches of government controlled forests which can be hand-over to the local community for use and management. This provision, however, has rarely been used anywhere in any of these countries. In India, when villages under JFM demand legal support (hoping to ensure tenure security) the Village Forest provision is grossly underplayed, with the underlying fear that it may end up empowering communities much more than the bureaucracy would want to see.
3. An alarming trend has been that even though under public pressure devolutionary laws and policies are made, these are either not publicised or are not implemented. If at all implemented they are often curtailed, ensuring that they are not truly empowering. If felt that such provisions may improve local capacities and powers, efforts are often underway to amend the empowering provisions. The example of Halkar village in India has been mentioned above (Box 12). In Uttaranchal, India Government has passed orders to convert all Van Panchayat forests (forests controlled and managed by local institutions) to JFM thus ensuring greater government control over these forests.

Recommendation (specific to India)

Providing legal support to CCA would entail exploring the existing legal spaces available for participatory and/or community management of natural resources. In Indian context, for example, the National Forest Policy of 1988 clearly specifies meeting the livelihood of local people as one of its major objectives, placing it above the industrial and commercial needs. It also emphasises the need for devising participatory mechanisms (including participation of women) to meet the above objective.

The Environment Protection Act 1986 has a provision for declaring certain areas as Ecologically Sensitive Areas (ESA). Many community conserved areas that face threats from commercial and industrial forces can be ascribed the status of ESAs under this Act.

The proposed amendment to the Wild Life Protection Act, includes two new categories of PAs, namely Conservation Reserves and Community Reserves, in which community participation in wildlife and biodiversity conservation is envisaged. Though in their current form both are restrictive but a set of guidelines devised after wider public debate and consultations, and learning from the experiences of existing community conservation efforts could help expand the scope of these categories. The new Biological Diversity Act 2002 also emphasises participation of local communities in decisions regarding conservation and use of biodiversity. This Act provides for the declaration of Biodiversity Heritage Sites. Though community empowerment and participation is not mentioned as a component of this category, yet this category could be used by the conserving communities for their benefit.

In 1996, 73rd amendment in the Constitution was brought about in India. This Act and its extension to the Scheduled V areas of the country provide for a more decentralised system of governance by giving more decision-making powers to the rural local institutions, like the panchayats (village executive) and the gram sabhas (village assemblies). The Panchayat (Extension to Scheduled Areas) Act (PESA) confers the ownership rights and decision-making rights over forests and non-timber forest produce to local communities. In the light of this Act it

becomes imperative that the areas rich in biodiversity and being conserved and managed by local institutions are identified and encouraged. Lessons from such areas can then be used to replicate or inspire similar initiatives in other areas. This Act is yet to be implemented in its true spirit in the country.

India is a signatory to the Convention on the Biological Diversity (CBD), which clearly specifies in section 8j that indigenous communities and their knowledge and practices related to conservation need to be safeguarded and that the communities themselves need to be involved in the management practices. It also specifies that if any benefits are derived from such knowledge and practices then these should be shared equitably with the holders of the same. The section 10c of CBD states that in any forest use activity local customary sustainable practices should be encouraged and protected. However, encouragement and protection of sustainable traditional practices of the communities is only possible if they are allowed to interact (for both use and management) with the surrounding resources and circumstances are created for them to be able to continue such practices.

The above section indicates that there do exist spaces in current laws and policies to support community initiative however political will, and internalisation of the need for a more democratic conservation practices among the policy makers and implementers is lacking.

5. LIMITATIONS OF CCAs

Presented here are only a few examples of communities that are involved in natural resource conservation. This is by no means an exhaustive list of such initiatives. However, from this paper it should also not be concluded that all communities are conserving natural resources, or that for all communities it is the priority issue. Thousands of local communities are ridden with inequities and social injustices. Traditions and traditional systems have either been subsumed by orthodox blind faith or have completely eroded, including the traditions of natural resource conservation. Market forces have deeply penetrated the local economies, and often party or power politics has taken a serious toll on traditional systems of justice and conflict resolution. Human and livestock population increases have shrunk the total available resource base. It is therefore important to understand limitations of community initiatives, which must be kept in mind before adopting and propagating community conservation.

Ecological limitations:

In Jardhargaon (see Box 3) villagers are very proud of their efforts as after years they now see the return of wild animals like the Sloth bear, leopards, a variety of birds and such in their village forests. However, this has also meant increased incidents of crop and fruit depredation because of an increased population of monkeys and langurs. Such situations exist in many community conserved areas where increasing populations of birds and mammals are leading to crop damage or livestock lifting. Such conflicts particularly become serious in sites where the surrounding habitat is completely degraded so the area conserved by the communities is the only refuge for wild life. In many parts of North India, Blue Bull (a kind of antelope) is considered sacred and not harmed by the villagers but the extent of damage caused by this species to the crops is phenomenally high. Villagers in areas dominated by blue bull are in a fix, not knowing how to resolve this situation.

Box 24: Crop damage turning conserving communities hostile.

The threatened grassland birds, Great Indian Bustard survive mainly in the fields of farmers in Rajasthan in India. Traditionally the farmers do not harm the birds or do not let the birds be harmed as these birds are considered auspicious. A few years back an official protected area was declared including in a part of these lands. Declaration of a PA not only resulted in a sudden increase in other species such as the Black buck (an antelope), resulting into a direct conflict with the farmers whose crops were severely impacted upon. It was not long before many of the local people turned hostile towards the very bird that they considered sacred for generations as it represented now a harbinger of misfortune³⁹.

Conservation efforts, whether conventional or community, often lead to increase in the population of wild animals, in many cases consequently intensifying existing human wild animal conflicts. So far few models at resolving the conflicts, especially for crop depredation, livestock lifting, etc. have worked.

Box 25: Skiyo village in Pakistan manages livestock perdition.

Towards the end of 1990s, the community of Skiyo in Pakistan created livestock (goats and sheep) insurance scheme against snow leopard depredation in the village. The households registered their sheep and goats with conservation committee by providing certain insurance fee under the snow leopard insurance scheme. In case of snow leopard perdition the conservation committee pays the cost of the animal. This arrangement has reduced the retaliatory killing of snow leopards by local shepherds. In the span of four years 5 perdition cases were reported and compensated by the local conservation committee.

Barring a few examples, such as, Hushey Valley Conservation in Pakistan, Rekawa Lagoon in Sri Lanka, Jardhargaon in India and Annapurna Conservation Area in Nepal, there are few community conservation efforts that are regularly monitored or evaluated socially or ecologically, this is especially true of self-initiated and informal community efforts. Though oral histories and interviews often suggest that community efforts have led to regeneration and conservation there are rarely any scientific studies to prove these impressions. Fears are often expressed by conservationists that community conservation may not be addressing the issue of overall biodiversity conservation, as many species which are not in use by the community may not be given the needed attention. Though these concerns are true of official PAs as well as management for a certain objective doesn't always favour growth of all species, attention needs to be paid to this aspect.

While there are local communities in South Asia who are known for vegetarianism and laying their lives for saving the lives of animals, such as, the Bishnois in India, there are also hundreds of tribal communities where hunting is still deeply entrenched in their spiritual and cultural context. Under these circumstance what happens to the conservation of wild animals? A few answers have been found so far, for example World Wide Fund for Nature has persuaded a community in India to use plastic Horn Bill Beak as part of their traditional gear rather than real as this practice has severely threatened the existence of the bird. In Dalma wildlife sanctuary in Bihar, India a consultation between local people, NGOs and forest officials has resulted into local people restricting the number of individuals participating in the annual mass hunt, which was responsible for depletion of wildlife in these forests. But largely, this remains an unresolved issue even in areas conserved by the communities.

³⁹ Personal Communication with Asad Rahmani (2001). Director Bombay Natural History Society, Bombay, India.

Forest fires are a common annual phenomenon in many Indian forests. Local communities often do not consider annual forest fires detrimental for the health of the forest ecosystems, claiming that the forests have acclimatized to these fires. Ecologists may not agree but there are not enough studies to suggest the validity of either points of view, or to point to optimum levels of fire in different ecosystems.

Many a times it is claimed that the local community may be conserving a small patch of ecosystem but at the expense of added or diverted pressure to some other surrounding ecosystems. Can this then be called sustainable management of resources? A situation like this could increase the existing conflicts or create new conflicts among two neighbouring communities or with the official agency in-charge of the area to which the unregulated-use has now been diverted.

What happens in areas which are considered ecologically sensitive by the scientific community and are assigned a certain biological diversity value which may not match with the value assigned to this area by the residing communities? Where management strategies prescribed by the scientific community are in direct conflict with the strategies followed by the local communities? Can dialogues always lead to satisfactory resolutions which are both socially just and ecologically viable? What kinds of trade-off are needed for such situations and how can they be arrived at? These are some important issues which need serious deliberations and exploration keeping in mind the lessons mentioned above and with full participation of the local communities.

Social limitations:

If adequately taken into account, local communities often have greater stakes and reasons for conservation of natural resources in their vicinity than the rest of the society. While rest of the society has many options to choose from, local communities only have their local resources to depend upon. However, communities themselves are often highly stratified. Assuming that "community" is a homogenous entity and that devolving power to the "community" will necessarily lead to just and sustainable ecological and social processes can be a serious mistake. In many community initiatives this issue has been tackled carefully and efforts have been made to ensure equal participation from all sections of the society. On the other hand there are many examples where the decisions regarding the conservation and protection of the resources are taken by those sections of the society that are powerful (men, big land owners, "upper caste" communities) and do not depend heavily on the concerned resources for livelihood. This raises concerns of both social justice and sustainability of conservation initiative. Such efforts may appear successful in the short run but cannot sustain themselves in the long run under the growing dissatisfaction of the suppressed sections, such as, women, schedule castes, and so on⁴⁰.

After communities take a decision to conserve an area, people have to either manage within the limited available resources or travel much greater distances to collect required biomass. In most cases however, it is normally the women who have to bear the brunt of this situation as in most societies collection of fodder and fuelwood is essentially the responsibility of the women. If the decision about conservation is taken by dominant sections of the community without consulting

⁴⁰ For more details on social stratification and its implication on conservation efforts see Kothari, A., Vania, F., Das, P., Christopher, K., and Jha, S. (eds.). *Building Bridges for Conservation: Towards Joint Management of India's Protected Areas*. Indian Institute of Public Administration, New Delhi. And Pathak, N. (2000). *Joint Forest Management and Gender: Women's Participation and Benefit-sharing in JFM in India*. A report prepared for ADITHI-a women's organisation in Patna, Bihar.

others who may be more dependent on the resources such as the artisans, headloaders, pastoralists etc then the less dominant communities suffer the restrictions more strongly. The situation is especially serious in women-headed households where the women have to leave small children and other family responsibilities and spend major part of the day in collecting biomass. Pressure becomes very high if the major source of income for the family is sale of headloads collected from the surrounding areas⁴¹. These issues are often not given adequate attention even in CCAs. Such disparities can have serious implication on the success of the initiative itself.

Recommendation

It is in situations like this that the role of an external agency often gains significant importance as they can help resolve some of the inequities which community members may find difficult to resolve themselves. However, this must be done with extreme care, without sudden disruption of local power structures, which may cause strong resentments (also see section above on external intervention).

Limited capacity - a limitation

Although there are examples mentioned above where community members manage their own finances, manage ecosystems and even carry out ecological monitoring and evaluation, this is not always possible. In many instances, community members depend heavily on outsiders for many administrative skills. On the other hand the government officials working in an area rarely understand or are sympathetic towards the local people. For decentralised conservation efforts to succeed capacity building through intense training and reorientation programmes for actors at all stages becomes imperative.

Recommendation

Capacity building programmes need to, orient government officials to the social face of conservation, sensitising them to the needs and aspirations of the local communities, developing the capacities to play the role of sensitive co-managers and extension officers; devising mechanism for making information available to the local communities, sensitising local communities to the larger picture of conservation needs, overcoming the traditional distrust of the government agencies; sensitising NGOs to the need for a marriage of livelihood security and biodiversity conservation, opening up the debate on the model of development and conservation to be followed in the country; devising ways and means of working together in a cooperative environment; and so on.

Slow Progress:

Community conservation is a social process and has to progress taking into account various predictable and unpredictable circumstances and issues (some of which are mentioned in this paper). This limits the acceleration these efforts, in order to make CCAs a success implementing agencies need to work around this pace. In 1999 the chief minister of Orissa in India made an announcement that all villages in Orissa State in India should form Forest Protection Committees with a short span of time to manage their surrounding resources. This announcement clearly indicates a lack of understanding of the ground realities. Many communities do not anymore have a capacity to handle sudden empowerment. Such devolutionary efforts often only mean transfer of power from far away political strongholds to local political strongholds. Such short-sighted announcements only lead to officials “establishing” FPCs on paper to accomplish the target provided to them, thus reflecting a rosy picture on paper without much change on ground.

⁴¹ Pathak, N. (2000). Joint Forest Management and Gender: Women's Participation and Benefit-sharing in JFM in India. An unpublished report prepared for ADITHI, Patna, India.

Box 26: Whose control is local control?

In a village in the Son Ghariyal Sanctuary in Madhya Pradesh in India, the local panchayat has the lease for sand mining along the banks of the river (parts of which are an important habitat for Gharial and freshwater crocodile). The powerful Thakur community from the village carries out indiscriminate and often over-mining on the banks of the river (including the areas under the PA). The rest of the community, which do approve such over-exploitation of resources, or the FD have little control over the politically well connected Thakurs. The Thakurs dominate the local panchayati institute even though they are least dependent on the surrounding natural resources.⁴²

Community conservation is more likely to succeed if the entire community is empowered; has a capacity to take informed decisions; and has the legal, economic, political, and social support structure in place. Creating a conducive environment for local empowerment will often need serious social reforms and an all round capacity building and will thus be requiring patience and perseverance from all relevant actors.

6. Conclusion

It needs to be understood here that a community initiative, whether at natural resource conservation or for any other purpose, is a social process. Social processes are time consuming and complicated. There may exist many contradictions difficult to understand for an outsider, especially if the interactions are short. A question here that needs to be addressed is: can national policies relating to natural resources be built around such a pace and such contradictions? If yes, how? If the pace needs to be changed what are the factors that need urgent attention? Should a greater role as an extension officer by the government agencies be considered? Villagers often do not seem to have the time or the resources to carry the initiative out on their own, or to sustain it beyond a point. Situations are often more complex than may appear in this paper. At the same time communities must be credited for having resolved important issues, such as encroachments, destructive commercial exploitation of resources, over-exploitation of resources, and so on. Therefore it is important to stress, the fact that these efforts despite their limitations are viewed as positive processes. Obstacles faced should not be viewed as failures but as constraints, which can be solved within the concerned social and ecological context. This may take longer than normal "project or programme cycles", yet may prove more sustainable in the long run.

7. References

⁴² Personal communication with Neeraj Vaghlikar (1999). Member, Kalpavriksh, Pune, India.