

Conserving "Unprotected" Protected Areas - Communities Can And Do Conserve Areas Of All Sorts

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1. *Introduction - Hundreds of Thousands of Community-Conserved Areas Across the Globe*

During the last century, state designation and protection has been the main "official" tool for the conservation of biodiversity. Formally recognized Protected Areas (PA) have been broadly successful in conserving biodiversity but have also led to social inequity, as those who declare PAs are rarely impacted by the restrictions imposed, whereas those who are impacted have rarely been a part of the decision-making regarding their creation or management. State constituted PAs continues to be a dominant focus for conserving biodiversity. With over 12% of the earth's surface gazetted as PAs, one would think that a representative of the planets biodiversity and ecosystems has been conserved! But, often these PAs are not large enough to be viable; or lack the ecological connectivity to other parts of the ecosystem or landscape; or are inefficiently managed because of limitations of staff and resources; or face serious conflicts with hostile surrounding human populations that have been forcefully denied their 'rightful' access. In most biodiversity rich countries, conventional PAs are ridden with internal conflicts, and are under threats from ever-expanding industry, hydro-electric projects, agricultural expansion, and growing urbanization and consumerism. Under the circumstances it seems difficult that these "pristine islands" would survive very long. As Kolmes (1999) mentions PAs are often set aside for protection without in any way questioning the manner we use our natural resources in general, or altering how people think about use of nature in a moral sense (Kolmes 1999).

In the emphasis on "official" protected areas, one aspect has been consistently overlooked, or not understood, namely that rural people conserve vast areas of land and biodiversity for their own needs, whether utilitarian, cultural or spiritual. Estimates indicate that between 400-800 million hectares of forest are owned or administered by local communities or indigenous peoples (Molnar & Scherr 2003). In 18 developing countries with the largest forest cover, over 22% of the forests are owned by or reserved for local communities and indigenous peoples (White & Martin 2002). Though not always by a large part of these lands owned are also conserved and used in a regulated manner by the communities.

Although conservation by communities or indigenous peoples is not always restricted to lands owned by them, more often than not it exists on lands owned by the state. The history of this kind of conservation or what we would be referring to as Community Conserved Areas (CCAs) is much older than government managed protected areas, or even of the notion of the nation-state (Pathak 2003). African, Asian, and Central and South American countries have a strong history of traditional systems of resource management for water, forests and rangelands. Some of these systems have existed and evolved over hundreds of years, and have their origins in traditional common property resource management regimes of pastoralists, hunter gatherers, fishing and agricultural societies. What is also common with the communities practicing conservation systems is a history of alienation from these resources by colonial rulers. Governments (pre- and post-colonial) have generally ignored CCAs until recently. Yet, these CCAs have long been central to how communities all over their world have cared for the landscapes they inhabit, and should be seen as an important element in the protected landscape approach.

The cultural, utilitarian and sacred associations with surrounding ecosystems have played a significant role in conserving large landscapes and other elements of biodiversity. Undoubtedly, a tremendous amount of biodiversity still survives in these CCAs, which are often outside of government-designated PAs, often forming important corridors for the long-term viability of species. Yet, while a lot of attention has been paid to threats faced by formal protected areas, not enough attention or

resources are being used to conserve areas outside of formal PAs. And in instances where CCAs and sacred sites fall within a PA their relationship with the local communities and local systems of management are rarely taken into consideration while formulating a management plan for the area.

With increasing population and land pressures, it is clear that a range of conservation contexts would be needed to work with, including strict preservation to sustainable use; state designated PAs to those designated by the indigenous or local communities and which have so far not been formally recognised. This wide range of conservation approaches can only be devised by taking into account the importance of cultural and spiritual values related our landscapes and biodiversity. Fortunately, many sacred and cultural values and associations have survived the increasingly utilitarian cultures, the mechanistic and scientific views of nature, and adverse laws, policies and attitudes.

Many formal religions have also ignored, or at best down played the importance of sacred natural sites and their importance for conservation of culture and biodiversity. They have tried to either substitute or subsume them and their practices into formal religion, in a manner similar to how pre-Christian sacred yew trees and groves became part of Christian Churches and graveyards across Europe. Or an increasing trend towards construction of cemented temples in the sacred groves of India, rather than celebrating the spiritual elements of nature for which these groves were constituted.

A large number of community-conserved areas are indeed small and may not conserve critical elements of biodiversity by themselves; however they do form a critical link between people, their conserved and protected landscapes, and the wider ecosystem. This inter-relationship helps in creating the ecological connectivity which also maintain local cultures and associated livelihoods. In this paper we explore how rural people view the importance of such protected or conserved areas as key components of their landscapes and how lessons from these areas could provide significant clues for effective management of PAs in general. We argue that, because of the sheer numbers of areas that communities conserve, they need to be more responsibly recognized at all levels and take their rightful place in achieving livelihood improvement, creating connectivity within the landscape, and conserving species, biodiversity and ecosystems.

2. Community Conserved Areas

In this section we define the efforts of indigenous, mobile or local communities towards conservation as *modified and natural ecosystems, whether human influenced or not, and which contain significant biodiversity values, ecological services, and cultural values, that are voluntarily conserved by communities, through customary laws and institutions* (Pathak et al. 2003). Such areas are important culturally or for livelihood sustenance and security, and can be initiated or achieved with or without outside support. The crucial criteria include that there are efforts to maintain or enhance the habitat and species therein, and that local communities are the major players in decision-making and implementation.

The primary objectives of CCAs are not necessarily for biodiversity conservation. Some communities conserve to meet subsistence livelihood needs, some to arrest degradation of environment, and as cultural sites, for example:

- Village forests and pastures are conserved to meet livelihood requirements for fuelwood, fodder, and timber. These include Joint Forest Management (JFM) and self-initiated community efforts to regenerate degraded forests or manage standing forests;
- Areas are conserved for their cultural/religious significance, such as, sacred groves, sacred ponds, and grasslands;
- Wetlands are conserved for drinking water or irrigation, though they may also shelter and protect important biodiversity, such as the traditionally protected heronries in India;
- Dry season grazing and forage reserved areas of the many pastoralists groups in Africa, for example the Loima and Loita forests (both over 300 sq.km. in size) in Kenya are critical to pastoralist dry and drought time forage refuges, as well as being important culturally;

- Traditional agricultural systems, with diverse ecological niches, conserving not only the indigenous varieties of crop but also many wild species;
- Watersheds conserved to ensure long term availability of water; and
- Coastal areas protected for traditional fishing to ensure continuous supply of fish, etc. (Pathak et al. 2003).

Livelihood Needs and Political Assertions: Reasons to Conserve

The examples illustrated below indicate that community conservation can be initiated because of a wide range of reasons and isn't necessarily a traditional practice. Some efforts may be continued traditional practices, many are either revival of broken down traditions or evolution of completely new systems given contemporary contexts. A wide range of objectives and approaches used for conservation by the communities are illustrated from the examples given below (Pathak et al. 2003):

In the 1970s, successful mobilisation by indigenous (*adivasi*) people against a dam, in the thickly forested central highlands of India, united the communities into a campaign towards tribal self-rule. Villages began to be declared as small republics within the Constitution of India. Mendha-Lekha was one such village, with about 400 *adivasis* called Gonds. The move led to their re-establishing *de facto* control over about 1800 ha. of forests that had been taken over by the government in the 1960s (for revenue through logging, charcoal making, and bamboo extraction). The crucial act was the establishment of the *Gram Sabha* (Village Assembly) including all adult residents, and other institutions including a Forest Protection Committee. Villagers declared that henceforth all major local initiatives required the permission of the Gram Sabha (GS). Decisions in the GS are taken unanimously and implemented through unwritten yet strong social rules. Informal *abhyas gats* (study circles), where villagers gather and discuss information with or without outsiders, help make informed decisions in the GS.

By adopting transparent and open decision-making processes and assuming social and ecological responsibility, Mendha-Lekha's residents have developed the capacity to deal with a range of natural resource issues. They are documenting the local biodiversity, and handling tedious financial dealings and official procedures. All logging and other commercial exploitation of forests by outside agencies have been stopped. Non timber forest produce and bamboo are currently extracted in a strictly regulated manner (after a decade long moratorium), jointly by the forest department and villagers. Most encroachment of forests by the villagers and forest fires have been stopped. Women, youth and economically weaker sections have equal status in the decision-making process. Through non-violence, strong relationships have been established with government officials, who in turn have helped the villagers at many crucial points. Livelihood security is assured through access to forest resources or employment opportunities.

In the drought-prone area of Rajasthan in India, Bhaonta-Kolyala, twin villages have 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 have revived the river Arvari which had become seasonal. As a result of improved livelihood security, villagers no longer move out in search of employment anymore (Shresth and Devidas 2001). Bhaonta-Kolyala are not the only villages in this region to have done so. Tens of villages along the catchment of River Arvari have conserved their forests, regulating its internal use thorough social sanctions and protecting it from outsiders.

A few years ago about 70 such villages met and decided to form Arvari Sansad or a people's parliament to look over the matters related to the river and its catchment. The sansad meets every year and takes decisions related to forest conservation, prohibition on hunting,

regulated use of water and so on. This is an excellent example of a river landscape and associated biodiversity being managed and conserved by the local people.

The Tagbanwa people of the Philippines inhabit a stunningly beautiful limestone island called Coron Island, for which they have established strict use regulations. The forest resources are to be used for domestic purposes only. All the freshwater lakes but one are sacred and entry there is strictly restricted, except for religious and cultural purposes. The only lake accessible for tourism is Lake Kayangan, albeit with strict regulations concerning garbage disposal, resource use, etc.

Until recently, the Tagbanwas' territorial rights were not legally recognised, leading to encroachment by migrant fishers, tourism operators, politicians seeking land deals and government agencies. This caused a number of problems, in particular the impoverishment of the marine resources, essential for the local livelihood. In the mid-1980s, the islanders organized themselves into the Tagbanwas Foundation of Coron Island (TFCI) and applied for a Community Forest Stewardship Agreement (CFSA). In 1990, the stewardship agreement was granted over the 7748 hectares of Coron island and a neighboring island called Delian, but not over the marine areas. In 1998 the islanders managed to get a Certificate of Ancestral Domain Claim (CADC) for 22,284 hectares of land and marine waters, and in 2001, with the help of a high quality map and an Ancestral Land Management Plan (ALMP), obtained a Certificate of Ancestral Domain Title (CADT), which grants collective right to land.

Despite successful community management, in 2001 the Tagbanwa CADT was put under review, as the national policies and systems were being restructured. A governmental proposal was also advanced to add Coron Island into the National Integrated Protected Area System (NIPAS). The Tagbanwas resent these moves, as they fear that they would engender losing control of their natural resources. From being owners and protectors of their territories, they would become only *one* of the management actors.

The Alto Fragua-Indiwasi National Park was created in February 2002, after negotiations amongst the Colombian government, the Association of Indigenous Ingano Councils and the Amazon Conservation Team, an environmental NGO. The Park is located on the piedmont of the Colombian Amazon, part of a region that has the highest biodiversity in the country and is one of the top hotspots of the world. The site protects various ecosystems of the tropical Andes including highly endangered humid sub-Andean forests, endemic species such as the spectacled bear (*Tremarctos ornatus*), and sacred sites of unique cultural value.

Under the terms of the decree that created the Park, the Ingano are the principal actors in the design and management of the park. The area, whose name means 'House of the Sun' in the Ingano language, is a sacred place for the indigenous peoples.

The creation of Indiwasi National Park is a part of the Ingano Life Plan (Plan de Vida), or long-term vision for the entirety of their territory and the region. In addition, the creation of the Park represents an historic precedent for the indigenous people of Colombia, as for the first time an indigenous community is the principal actor in the design and management of a PA fully recognised by the state. Similarly, the indigenous peoples of Australia are negotiating and constituting Indigenous PAs which would both conserve the biodiversity and indigenous cultures.

In the highlands of Peru, six communities of the Quechua peoples have established a Potato Park (el Parque de la Papa) in a unique initiative to conserve domesticated and wild biodiversity. Over 8,500 hectares of titled communal land are being jointly managed to conserve about 1200 potato varieties (cultivated and wild) as well as the natural ecosystems of the Andes. Since this region is the one of origin of the potato, the effort is of global significance.

The above examples indicate that livelihood needs and political assertions have been important reasons for land and seascape management and conservation by the local communities.

Sacred Groves: Connecting The Natural, Social And Spiritual

Another important reason that has led to the conservation and protection of landscapes, seascapes, freshwater systems and a wide range of flora and fauna across many cultures has been the spiritual association of human communities with nature. Natures engender positive feelings toward the environment, and where they give such harmony, trees and forest groves have often been conserved as part of the landscape. For example the placement of groves of trees with relation to wind direction or water source protection has given rise to spiritual landscapes in China (Hamilton 1998). This formed one of the bases for "Feng" (wind) "Shui" (water) in China, where, in many places such Feng Shui groves are the only samples of the original native vegetation (Hamilton 1998). There are many examples all over the world concerning the religious and spiritual importance of natural resources, which survive despite, or in spite of the dominance of mechanistic and scientific views of nature (Table 2). Trees and forests play a particularly important role, due to their relative longevity. Where natural resources play an important role, there is often a strong culture, detailed knowledge, and institutional base relating to the spiritual values of flora and fauna.

Table 2: Indication Of The Scale Of Numbers Of Sacred Groves

Country or area	Number of sacred groves	Source of information
Ghana	2,000 +	(Ntiamoa-Baidu 1995)
Xishunghu region of S.W. China	400	(Shengji 1999)
Nepal	100's	(Ingles 1995)
Kenya (Kayas, sacred groves in Mt. Kenya, Loita, Loima)	20+	(Barrow 1996; Brokensha & Castro 1987; Loita Naimina Enkiyia Conservation Trust Company 1994a; Robertson 1987)
Zigna Group in Tanzania	660	(Mwihomeke et al. 1997)
Coorg district of Karnatake State in India	600+ (totaling over 4,000 ha)	(Chandrakanth & Romm 1991)
India	100,000 to 150,000	(Jeanrenaud 2001)

Sacred forest groves range from being completely "no use" zones to areas contributing towards local livelihoods, though such use is strictly regulated by local customs (Boxes 2 & 3). For example in many sacred groves in the Western Ghats in India, many of which are over 200 years old, people are allowed to collect fallen dry wood, fruit from the forest floor, honey and other products. In some areas cattle grazing is allowed (Bharucha 1999). For fifteen groves which have been studied in detail, 223 species of trees and shrubs have been identified, and the species richness varied between 10 and 86 per grove. These groves represent the least disturbed islands of old growth in the region. The felling of trees is not allowed unless with the express permission of the deity (Jeanrenaud 2001). In two sacred groves in Kerala, India, four threatened tree species were found (Nair & Mohanan 1981). In Nepal, in one valley alone sacred groves are storehouses of useful plants (up to 150 species), which are otherwise absent or rare in the rest of the valley (Mansberger 1988). However, use may also be determined by the relative power of the deity. For example in Nanhini village in Ghana no one is allowed to enter the sacred grove of the Goddess Numafoa, or ignore her taboos. But in the same village there is a lesser deity, and that deity's taboos are less strictly adhered to (Jeanrenaud 2001). In Venezuela, Maria Lionza is the forest Goddess, and depicted astride a tapir. The forest home of the forest Goddess Maria Lionza is a 40,000 Ha tropical rainforest that has not been used for slash and burn agriculture, because of the dire misfortunes that befall any person who cuts or burns her trees. The forest was officially gazetted in 1960 as the Maria Lionza National Monument and is one of the best protected areas in Venezuela (Hamilton 1998).

The Mbeere people of South Eastern Mt. Kenya have numerous sacred groves or "*matiiiri*" in the forests. In the 1930's there were over 200 such groves, mainly on hill tops or along ridges, varying in size between 0.1 to 1.5 Ha. and comprised of large spreading trees. No cutting, clearing or cultivation was allowed, except of branches to propagate new sacred trees. The cultural significance of these practices is being eroded by new religious practices and privatization of land tenure (Brokensha & Castro 1987). The Loita Forest (300 sq.km.) in South West Kenya is considered sacred by the Loita and Purko Masai, as the spiritual centre for their lives. Not only is the forest important for sacred

rituals, it is also a source of medicines and dry season forage, and the springs and streams which emerge from the forest symbolize enduring hope (Loita Naimina Enkiyia Conservation Trust Company 1994a, b). Kipumbwi village, along the coast of Tanzania, started before the arrival of the Arabs in the 18th century. After a period of prolonged hardship, the village elders brought the spirits from their original home (Mombasa) to a sacred site in the mangrove forest, called *Kwakibibi*. Nobody may enter without the consent of the three elders (two men and one woman) responsible for the management of the site (Nurse & Kabamba 1998).

Sacred groves are controlled by the traditional authority (fetish priest, chief, or clan head), but the responsibility is vested in the entire community, with a select group having authority to enforce the rules. For example Nkodurom grove, of approximately 5 sq.km. has been preserved for at least 300 years, and is composed of primary forest. The final authority over this grove rests with the Ashanti king, though the functional authority is vested with the village chief. Taboos governing the grove include the prohibition of:

- All forms of use, including farming, hunting and collection of any plant material;
- Access, except to traditional authorities for the performance of customary rites or other authorized persons;
- Access to all persons on Thursdays (as the spirits are believed to be resting on that day); and
- Access to menstruating women.

There are traditional guards patrolling the grove who will arrest intruders. The grove has not been demarcated. There are no written rules, and the grove has no legal basis. But the rules are strictly observed, and the traditional guards receive no payment. The sacred groves have survived because of the strong traditional beliefs, and the spiritual, religious and cultural attachments to the groves. The sacred groves in Ghana form a matrix of biotic islands with the potential for conservation of remnant communities of flora and fauna. In many areas sacred forests constitute the only remnant forest amidst severely degraded forest and farm lands. The survival of sacred groves is threatened by the erosion of traditional beliefs that have sustained the systems. The number of sacred groves has gradually shrunk in size due to encroachment by surrounding farms, and a number have been lost to development projects. As a result, a possible management strategy for the sacred groves of Ghana could include:

- A national inventory of the groves and the biological resources in them;
- Legislation to reinforce the traditional regulations regarding use and access; and
- Provision of resources to improve local people's capability to manage their groves.

Source: (Ntiama-Baidu 1995)

Box 1: The Holy Hills of the Dai in South West China

The Dai are an indigenous group in South West China in Xishuangbanna region in Yunnan Province with a long tradition of biodiversity conservation. This is characterized by the management of the Holy Hills, which they believe are the cradle of mankind. The holy hills or "*Nong*" are forested hills where the Gods reside. The spirits of great and revered chieftains go to the holy hill to live. Holy hills can be found wherever one encounters a hill of virgin forest near a Dai village, and they are a major component of traditional Dai land management.

In Xishuangbanna region there are approximately 400 hills of between 30 and 40,000 Ha. There are two types of Holy Hill. '*Nong Man*' are naturally forested hills of between 10-100

Ha. and are worshipped by inhabitants of one village. While '*Nong merg*' occur where several villagers form a larger community and such areas maybe many 100's of Ha in size. The Dai keep the sanctity of these hills, and also present regular offerings to please the Gods. Near the village of Mar-yuang-kwang, the holy hill covers an area of 53 Ha. There are 311 plant species in this small area which makes a significant contribute to the conservation of biodiversity, and a large number of endemic or relic species of local flora have been conserved including 100 species of medicinal plants, and more than 150 economically useful plants.

Traditionally holy hills were natural conservation areas, and founded with the help of the Gods. Gathering, hunting, wood chopping and cultivation were strictly prohibited. The trees on the '*Nong*' mountains cannot be cut. You cannot build houses on '*Nong*' hills, and you must not antagonize the spirits and the Gods - Buddha. Such a large number of forested Holy Hills form hundreds of green islands, and could provide the basis for creating connectivity through improved landscape management.

Source: (Shengji 1999)

There is a great diversity of sacred forest groves, and they survive in spite of land and population pressures that would have resulted, under normal circumstances, in their conversion. This is testament to their resilience, and also to their cultural and spiritual importance to local villages, communities and people. At an individual sacred grove level, they may not be extensive in conservation terms, though some are quite large (Box 1). More importantly is the sheer number of sacred groves in many different countries, in different ecosystems and managed under different conditions (Table 2). Many of these sacred groves contain a wide variety of biodiversity, some of which may be endemic, or are relic populations of more ancient forest types. As such, they are important forest conservation assets, even though the underlying rationale is their sacrality, for the following reasons:

- The sheer age and longevity of some of the groves, for instance the sacred Yew groves in Europe, very old sacred trees and groves in India, and the redwood or bristle cone pine groves in the USA;
- Some groves are managed so that they conserve important biodiversity as a direct by-product of their spiritual and religious values, for example the Boabeng-Fiema sacred grove in Ghana;
- Many sacred groves are examples of remnant communities of flora and fauna, and are important in a historical ecological sense. Such remnants may only be found surrounded by large areas of converted, or worse, degraded lands, as is found outside monastic forests in Ethiopia;
- The traditional and religious management systems (institutions and organizations), while being important from the management of the sacred sites in a religious sense, are also important from the context of conservation;
- While usually not large in size, the number of sacred groves can create connectivity and could be a focus for natural forest and landscape restoration, as well as landscape management;
- The sheer number (and by implication area) of the sacred sites found across the world is important of itself. They are all protected areas, though few have formal recognition; and
- As a key point of entry for linking rural livelihoods to conservation.

Conserving against development threats

There are numerous examples of indigenous and local communities from Malaysia, India, Latin America, North America and Europe fighting and even laying down their lives to protect their land and seascapes from destructive logging, mining, and damming industries. These examples clearly indicate that there is a much greater threat to biodiversity from external commercial and developmental pressures than from local communities themselves, as is the common belief among policy-makers. Local communities, in effect, have often been responsible for saving such habitat from being engulfed by the ever-increasing developmental thirst of nations!

Protected area authorities are often powerless to fight strong commercial and political forces. In India, for example, such threats have resulted in the degazettment of parts of Narayan Sarovar Wildlife Sanctuary in Gujarat, Melghat Wildlife Sanctuary in Maharashtra and Darlaghat Sanctuary in Himachal Pradesh. While in Kenya and many other parts of Africa; In Malaysia and other South East Asian countries, important areas of indigenous forests have been encroached, converted and degazetted for other forms of land use, such as logging, mining, hydro-electric power, and so on.

On the other hand a strong local people's movement against such forces has been responsible for saving areas like Sariska National Park in India from sandstone mining. In Nagarhole National Park in India the local tribal groups fought against a five star hotel being built adjacent to National Park, and many villagers in Kshipur district in Orissa, India have lost their lives opposing the extensive mining in their forests and lands. Fisherfolk all along the coast of India are fighting against destructive trawling and violations of Coastal Zone Regulations all along the coast of India. Such movements have and continue to play important role in the conservation of areas of biodiversity significance.

3. *Communities Conserving - Achieving The Ecosystem Approach And Improving Livelihoods*

In the above sections we have tried to present evidence to support the argument that CCAs need a greater attention and support as a conservation strategy and approach. However we also realize that not all communities conserve their natural resources or would be interested in doing so. Similarly, there are many successful official PA efforts that have responsibly integrated local needs. The point is, where local communities have been mobilized and responsibly involved, this has often helped save a PA, or other wildlife habitat much more effectively than if the governments were to do it alone. Communities in turn have benefited from the protection offered to natural resources by PA authorities. Conservation efforts have often resulted into saving of traditional cultures and economies of sensitive communities from being swamped by external forces. For example the tribal communities inside Melghat Wildlife Sanctuary in India enjoy a better health and nutritional status than the same communities residing outside the Sanctuary or urbanized areas. But many incidental, yet important social benefits of PAs are often masked by negative attitudes towards communities and the conflicts thus generated.

Unfortunately, little emphasis has so far been given to the importance of sacred groves and CCAs as repositories of important biodiversity that is fast being lost from the surrounding landscapes. However, it is clear that CCAs are a vital, but often hidden, component of biodiversity conservation and landscape management across the globe. The sheer number of CCAs are testament to this. Yet what makes for the success of CCAs, especially since they have received little formal recognition? There are a range of attributes required which contribute to their success. Each on its own may not be enough, but together the social, institutional and conservation basis for such CCAs becomes stronger. This is not to say that all CCAs or sacred landscapes are perfect and can be replicated as it is in other PAs. Situations on ground are often more complex then can be explained in this paper. What we do want to say is that lessons learnt from what works and what does not work in these areas conserved by communities and indigenous peoples; and a better understanding and appreciation of the variety of social institutions, rules and regulations, reasons and objectives, could provide important lessons for socially accepted and just yet ecologically sound landscape conservation strategies. Some of these lessons as emerging from the discussions above could include the following:

1. Who bears the costs and why? Whether community based conservation is cheaper or more expensive than conventional conservation is debatable. Initially, it may be more expensive, but once the community has taken on its responsibilities, it would be cheaper as many costs are internalised by the communities. However this may not be the case for communities who border gazetted PAs, as they may bear significant costs related to wildlife and curtailed access. Experience in CCAs shows that people are ready to pay this price for conversation for the benefits that they envisage, such as, long term livelihood security; fulfillment of religious, traditional, social, cultural sentiments; and ecosystem functions. More importantly these efforts can be expressions of their political identity and

give them a sense of empowerment and belonging. True decision-making and implementing powers, social equity and wider recognition would help communities gain some of their objectives thus creating a greater support for conservation.

2. Whose rights and how secure? An understanding of CCAs clearly indicates that a sense of belonging or stewardship is crucial for a community to feel empowered to manage an area. This sense develops through the consumptive, economic, cultural and spiritual associations and interactions people have within the wider landscape. Therefore security of tenure and access are key to ensuring responsible local management. Most successful CCAs occur where there is secure legal ownership over the area, or *de facto* control over the resources. Tenurial security will not necessarily lead to conservation, but such security makes conservation more feasible.

3. Who manages – decentralization? Uniform models of development and conservation are not sustainable given the increasingly complex interactions between people and nature. Community initiatives are decentralised, site specific and vary in their objectives and approaches. Building greater flexibility into the protected area management would be to more formally recognize the management categories which promote community involvement (Table 1). It is encouraging to note that, in India, two new categories, Community Reserves (managed by local communities), and Conservation Reserves (for sustainable harvesting of certain resources) have been included in the revised Indian Wild Life (Protection) Act 2003. Although here again the mistake is being made to bring a whole range of community conservation efforts under a single institution that has been prescribed by the Act, ignoring the diversity of already existing institutions. In Tanzania, Community Wildlife Management Areas and Village Forest Reserves are formally recognized in law.

A typology of CCAs indicates that depending on the sites they could fit within a wide range of IUCN categories of PAs (see table 1), although they are neither recognized or designated as these.

Table 1: Community Conserved Areas and the IUCN Protected Area Categories – the Fit

Category and Description	CCA types	Some examples
Strict Nature Reserve and Wilderness area – managed for science and wilderness protection (Category I)	Sacred or “no-use” groves, lakes, springs, mountains, islands etc. Main reason for protection may cultural or spiritual	<ul style="list-style-type: none"> • Forole sacred mountain in northern Kenya • Hundreds (thousands) of sacred forest groves and wetlands in India • Sacred beaches and marine areas – Coron Island, Philippines • Life Reserve of Awa people in Ecuador
National Park – managed mainly for ecosystem protected and recreation (Category II)	Watershed forests above villages, community declared conservation areas	<ul style="list-style-type: none"> • Safey forests, Mizoram, India • Forest catchment in Tinangol, Sabah, Malaysia • Isidoro-Secure National Park, Bolivia
National Monument – managed mainly for conservation of specific natural features (Category III)	Natural monuments which are protected by communities for spiritual, cultural and other reasons	<ul style="list-style-type: none"> • Limestone Caves – Kanger Ghati National Park, India • Sites of Ancestor graves in Madagascar • Mapu Lahual Network of Indigenous protected areas in coastal range temperate rainforests, Chile
Habitat/Species Management Area – for conservation through management (Category IV)	Areas which community protected for cultural, spiritual and other reasons	<ul style="list-style-type: none"> • Kokkare Bellur, India (heronry)
Protected Landscape or Seascape managed mainly for landscape and seascape conservation and recreation (Category V)	Traditional grounds of mobile and pastoralist peoples – including rangelands, water points and forests patches, and dry and drought time forage reserves	<ul style="list-style-type: none"> • Migration territory of Kuhu nomads (Iran), including a community protected wetland • Maasai, Turkana and other pastoralist territories in Kenya (including important Loima and Loita forests) • Borana pastoral territory in Ethiopia

		<ul style="list-style-type: none"> • Potato Park, Peru • Coron Island, Philippines • Island of Eigg, United Kingdom
Managed Resource Protected Areas – for the sustainable use of natural ecosystems (Category VI)	Resource reserves (forests, grasslands, water ways under restrict use (with rule and regulations) to assure use is sustainable	<ul style="list-style-type: none"> • Jardhargaon, Mendha-Lekha, Arvari and hundreds of others in India (fodder, fuel, water, medicinals and other non timber forest products • Community forests in Val de Fiemme, Italy • Takieta forest, Niger • Mangrove

Source: (Pathak et al. 2003)

4. Role of outsiders: In many CCAs in India, the people see a very important role being played by government or other outside agencies, but as guides and supporters rather than their rulers. They do realize that often internal and external complexities make it difficult for them to conserve resources entirely on their own. Communities also feel the need for impartial and objective information to help them take informed decisions. They often remain physically disconnected from the larger society and feel to create a link. In the all the above a supportive role is needed by many communities.

5. Whose objectives and decisions counts? Communities may have deferring objectives for conserving an area from those of a conservation authority. These may be utilitarian, cultural or spiritual, albeit conservation may be an obvious outcome. Such objectives need to be recognized in national laws and policies, so that the responsible role communities play in conservation is integrated into land use, landscape and livelihood planning. If the decisions about conservation are taken by elites without consulting those who may be more dependent on the resources or affected by lost access, then such sections of society may suffer disproportionately. For example, Kailadevi wildlife sanctuary in India, men took a decision not to cut green trees, and regulate grass cutting. The women, in principle, agreed but complained about the hardships that they had to face (Das 1997). This was especially serious for women-headed households who had to leave small children and other family responsibilities to collect natural resources they would have otherwise harvested from the sanctuary (Pathak 2000).

6. How does conservation benefit? There is a lot of biodiversity outside official PAs. If taken into account CCAs can become an important aspect of landscape level conservation planning as they often form important corridors between two areas of biodiversity significance. With increased land use and population densities it is increasingly difficult to formally reserve PAs, in these situations CCAs can play a significant role. CCAs can thus provide the key link between benefits to the community and conservation of important biodiversity. By adopting collaborative management approaches, PA authorities have been able to reduce their law enforcement costs, for instance in Kibale and Mt. Elgon National Parks in Uganda (Chhetri et al. 2004). The diversity of conserved area types creates improved ecological connectivity, which increases the biodiversity value of a small official or community reserve within a much larger human used and protected landscape.

7. CCAs do face many challenges: CCAs do still face serious challenges to their continued existence and growth. Many CCAs are disappearing because of inappropriate financial or developmental interventions, inappropriate educational models, intrusions of dominant and fundamentalist religions, and changing socio-economic and value systems. Often traditional institutions for managing CCAs have been undermined by centralised political systems, where governments or their representatives have taken over most of the relevant powers. Even decentralised policies and participatory schemes may end up sabotaging well functioning community action by imposing new and uniform institutional structures and unfamiliar rules, rather than building on existing systems and knowledge. CCAs are often encroached or threatened by commercial users or community members under the influence of market forces. As in many countries CCAs remain unrecognized, it hampers their struggle against powerful opponents and sometimes even neighbouring communities, often they have little support from the government or the law.

Community-conserved Areas: An International Recognition

The conservation of biodiversity can no longer be the sole purview of governments. CCAs are increasingly being recognized at national and international levels for a number of reasons including:

1. CCAs allow for multiple approaches to conservation where "official" protected or reserved areas are now seen as components of much wider human used and protected landscapes;
2. CCAs acknowledges the importance of how people manage and conserve their land, and areas of conservation value;
3. CCAs help in larger land- and waterscape level planning by providing corridors, ecological connectivity and linkages for animal and gene movement, and the synergistic links between agricultural biodiversity and wildlife;
4. CCAs ensures that rural people are central to such integrated landscape management;
5. CCAs make conservation meaningful at the livelihood level - either through direct use or through other cultural values; and, ultimately;
6. CCAs raise the importance of conservation to one of being critical to livelihood security and poverty reduction.

This understanding has led to the recognizing of CCAs into:

- The key outputs of the 2003 World Parks Congress (Box 2);
- The CBD programme of work as part of the COP7 deliberations in Kuala Lumpur (Box 2); and
- In the evolution of the IUCN protected area categories (Table 1).

Box 2: Community Based Conservation - The International Context

Two key international events in 2003-04 established the role of community based approaches to protected area management and to conservation in general.

Amongst the major outputs of the 5th World Parks Congress (Durban, September 2003), were the Durban Accord and Action Plan, the Message to the CBD, and over 30 Recommendations on specific topics. These outputs strongly stressed the need to move towards collaborative management of government-managed PAs, with a central role for indigenous and local communities (including mobile and nomadic peoples). This includes the recognition of customary and territorial rights, and the right to a central role in decision-making. The biggest break-through, however, was the recognition of CCAs as a valid and important form of conservation. The Durban Action Plan and a specific recommendation on CCAs highlighted the need to incorporate and support CCAs as part of national PA systems (see www.iucn.org).

The 7th Conference of Parties to the CBD (Kuala Lumpur, February 2004) had, as one of its main outputs, a detailed and ambitious Programme of Work on Protected Areas. A crucial element of the Programme of Work relates to "Governance, Participation, Equity, and Benefit-sharing", under which actions explicitly urge countries to move towards participatory conservation with the recognition of indigenous and local community rights. As in the case of the World Parks Congress, the Programme of Work also makes a major breakthrough in committing countries to identify, recognise, and support CCAs (see www.biodiv.org).

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Models of, and approaches towards conservation have had to adapt to contemporary local and national needs. Contemporary approaches to landscape management argue for a range of land use types to create the necessary balance between human use of, and ensuring the goods and services from, the landscape so that improved conservation connectivity can exist with human use. Protected and

conserved areas have a significant role to play in this. But managing the goods and services which conservation can supply requires a more people-based approach to increase the area under conservation, ensure that connectivity is maintained or improved, and that people living on such landscapes are part of the solution, not the problem.

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