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Conservation as if People Also Mattered: Policy and Practice of Community-based Conservation

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Abstract

Community-based conservation is being increasingly recognised as a major global force in the protection and sustainable management of ecosystems and species. Yet documentation of its main achievements and shortcomings, and the key issues it faces, is still at a nascent stage. This paper introduces the concept and experience of two forms of community-based conservation: Collaborative Management of Protected Areas (CMPA), and Indigenous Peoples' and Local Community Conserved Territories and Areas (ICCAs). It explores the emergence of these approaches in the context of global international conservation policy. Reviewing four case studies that were presented at a symposium convened at the Bowdoin College (Maine, USA, in November 2008), and drawing from the discussion during that session, it identifies some key lessons and principles that are likely to be applicable to community-based conservation across the world.

Keywords: conservation, communities, governance, ICCAs

INTRODUCTION: INTERNATIONAL CONSERVATION POLICY SHIFTS

As the winds of change sweep through international conservation policy, towards more inclusive and participatory processes, it is necessary to assess how these trends are impacting actual practice on the ground. Community-based conservation is now a central part of the prescriptions emanating from global institutions or forums such as the Convention on Biological Diversity (CBD) and the International Union for Conservation of Nature (IUCN), but is this helping to more effectively conserve biodiversity and wildlife, and deliver benefits to local communities?

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The imperative of moving towards participatory conservation has been underlined by a series of recent international events: the V[th] World Parks Congress (Durban, 2003), the 7[th] Conference of Parties to the Convention on Biological Diversity (Kuala Lumpur, 2004), the 3[rd] World Conservation Congress (Bangkok, 2004), and the 4[th] World Conservation Congress (Barcelona, 2008). Also, during this period, in September 2007, the UN General Assembly finally adopted the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), which provides a strong basis for the involvement of such peoples in all forms of conservation and development.

With support from the Andrew Mellon Foundation, Bowdoin College (Brunswick, Maine, USA) hosted a symposium in November 2008, *Conservation as if People Mattered: Indigenous and Community Conserved Areas Around the Globe and Here at Home*, bringing together distinguished scholars and practitioners examining issues central to community-based conservation.[1] This special issue showcases the work of four of the conference speakers, representing a diversity of geographical and cultural contexts. Case studies from Nepal,

Costa Rica, and USA illustrate how ICCAs or co-management arrangements are being established or recognised in several ecosystems, including alpine communities, temperate forests, tropical forests, and cool-temperate coastal marine habitats. This symposium was divided into two parts: the first focused on the local (specifically the New England region of the USA, comprised of its six northeastern-most states), and the second focused on the global (which included Nepal and Costa Rica, as well as experiences from India and other countries in an overview presentation). This comparative approach allowed for some tentative generalisations to be made (see *Community-based conservation: emerging lessons and principles* below).

Here, we provide a synthesis of the research presented in this special issue. We begin with an overview of the state of co-management and indigenous and community conserved areas. Next, we highlight the main points from each case study. We conclude with a list of generalised principles of community-based conservation emerging from this research and discussion among scholars and practitioners at the symposium.

BACKGROUND: POLICY CHANGES FOR CO-MANAGEMENT AND COMMUNITY CONSERVED AREAS

The Vth World Parks Congress (WPC), convened by IUCN's World Commission on Protected Areas (Durban, South Africa in September 2003) was, up to that point, the largest ever gathering of conservationists, bringing together over 5,000 participants from all over the world. Amongst its major outputs were the Durban Accord and Action Plan, the Message to the Convention on Biological Diversity, and over 30 recommendations on specific topics. These outputs strongly stressed the need to centrally involve indigenous peoples and local communities in conservation, including respecting their customary and territorial rights, and their right to a central role in decision-making (see http://www.iucn.org/themes/wcpa/wpc2003).

Two crucial paradigm shifts in conservation were evident at the WPC: 1) moving government-designated and -managed protected areas towards collaborative management, involving, as equal decision-makers, indigenous peoples and local communities that are resident in or using these areas; and 2) recognising and supporting conservation practices of indigenous peoples and local communities in their own right, in the form of Community Conserved Areas (CCAs) or in other forms.

The Durban Action Plan and a specific recommendation on CCAs highlighted the need to incorporate and support CCAs (now referred to as Indigenous Peoples' and Local Community Conserved Territories and Areas or ICCAs) as part of national protected area (PA) systems[2]. A strong message on this was also conveyed to the Convention on Biological Diversity (CBD), which was to meet just a few months later. The 7th Conference of Parties to the Convention on Biological Diversity (CBD), held in Kuala Lumpur, Malaysia, in February 2004, had 'protected areas' as one of its main topics. Since the CBD is a legally binding instrument, its prescriptions are of great significance for all countries. One of its main outputs was a detailed and ambitious Programme of Work (POW) on Protected Areas (http://www.cbd.int/protected/). A crucial element of the POW relates to 'Governance, Participation, Equity, and Benefit-sharing', which explicitly urges countries to move towards participatory conservation with recognition of indigenous/local community rights. As in the case of the Vth World Parks Congress, the POW also made a major breakthrough in committing countries to identify, recognise, and support ICCAs.[3]

Due to these and other processes, all countries that are party to the Biodiversity Convention, are now committed to:

- Conserving a fully representative set of wildlife habitats;
- Ensuring community participation at all stages of PA planning, establishment, governance, and management;
- Giving full recognition to rights and responsibilities of communities;
- Promoting various PA governance types including ICCAs and CMPAs;
- Developing policies with the full participation of communities; and
- Ensuring prior informed consent before any relocation.

The emphasis placed on governance at both the WPC and the CBD COP7 represents a crucial step in the direction of making conservation more inclusive and more publicly accessible. Rather than letting the policy and practice of conservation remain the monopoly of bureaucrats and/or formal sector scientists, it acknowledges the vital role of all citizens, and in particular of those communities that live closest to the biodiversity sought to be conserved. It brings back into centre-stage the knowledge, practices, and skills of these communities, creating the possibilities of meaningful partnerships with organisations and individuals from the formal sectors.

All these principles and practices were endorsed, and taken further, by the resolutions and recommendations coming out of the 2004 and 2008 World Conservation Congresses (https://cmsdata.iucn.org/downloads/wcc_res_rec_eng.pdf; https://cmsdata.iucn.org/downloads/wcc_4th_005_english.pdf). A significant output of the 2008 Congress was that IUCN issued a new set of guidelines for protected area management categories, updating the guidelines first published in 1994 (IUCN/WCMC 1994) and recognised as the standard across the world. The new version of the IUCN guidelines was produced following vigorous debate in the year leading up to the Congress (see collection of papers in Dudley and Stolton 2008). Like the earlier version, the revised guidelines classify PAs into six categories according to their management objectives (from strict protection to managed resource extraction); however, in a significant conceptual development, they incorporate the element of *governance type* (Borrini-Feyerabend 2008; Dudley 2008). The new guidelines underscore the important point that all six categories of PAs can be managed or governed not only by government agencies, as has been assumed by most

conservation agencies for over a century, but also by indigenous peoples and local communities, or by private parties, or in various kinds of collaborative arrangements amongst these actors. In this new conceptual development, a framework for understanding protected areas can be seen as a matrix, with the four principal governance types overlaying the six IUCN protected area management categories (Table 1). Countries are now encouraged to enhance and expand their national PA systems by incorporating the full range of governance types.

The outputs of these four international meetings (and the background processes that went into them) represent a powerful and clear mandate for all countries to move ahead on community-based conservation with elements of decentralised governance, rights, and conservation effectiveness. Combined with the increasing focus on landscape-and seascape-level governance and conservation, there is a strong potential to achieve the integration of several desired objectives: conservation of ecosystems, wildlife, and agricultural biodiversity, enhancement of food and livelihood security, sustaining diverse cultures, and achieving equity within and across generations.

Co-management

The concept and principles of co-management of protected areas (CMPAs) are by now well established, though actual practice is not anywhere near ideal in many parts of the world. While co-management (or shared governance) can exist between any two kinds of partners, for the purpose of this paper, our focus is on arrangements between indigenous peoples or local communities, and other agencies such as government bodies or NGOs (Brown et al. 2002; Borrini-Feyerabend et al. 2004; Kothari 2006a). The crucial advantage of co-management is in the synergies that can be achieved by combining the strengths (and overcoming the weaknesses) of each partner. Co-management arrangements typically involve institutional structures where the powers, roles, and responsibilities of each partner are clearly delineated. It is important to note that in many countries, what goes in the name of co-management (or joint management) may actually only involve communities in a consultative role, with the predominant decision-making powers being retained by the government. Effective co-management will necessarily involve an equitable sharing of powers, functions, and benefits; it should also incorporate traditional knowledge systems and resource management practices. Examples of CMPAs (or other forms of co-management for conservation), can be found in many countries, including the following (for other examples, see the references cited above):

- In France, regional nature parks (RNPs), varying from 25,000 ha to 300,000 ha in size, are jointly managed by an elected body of local officials, community representatives, and political leaders (Federation des Parcs Naturels Regionaux 2006). As of 2004, there were 44 RNPs covering 7 million ha (about 12% of France).
- Parks Canada (the country's official PA agency) and

Table 1

"The IUCN protected area matrix": a classification system for protected areas comprising both management category and governance type

Governance types / Protected area categories	A. Governance by government			B. Shared governance			C. Private governance			D. Governance by indigenous peoples and local communities	
	Federal or national ministry or agency in charge of management	Sub-national ministry or agency in charge of management	Government-delegated management (e.g., to an NGO)	Transboundary management	Collaborative management (various forms of pluralist influence)	Joint management (pluralist governance bodies)	Declared and run by individual land-owner	By non-profit organisations (e.g., NGOs, universities, co-operatives)	By for profit organisations (e.g., individual or corporate land-owners)	Indigenous territories and conserved areas—declared and run by indigenous peoples	Community conserved areas—declared and run by local communities
I a. Strict Nature Reserve											
Ib. Wilderness Area											
II. National Park											
III. Natural Monument											
IV. Habitat/ Species Management											
V. Protected Landscape/ Seascape											
VI. Managed Resource Protected Area											

Aboriginal peoples have established formal agreements to co-manage PAs, since the 1970s. As of 2006, 13 national parks spread over18 million ha of land covering all the country's ecoregions are under such arrangements (Johnston 2006).

- The Kaa-Iya del Gran Chaco National Park in Bolivia, covering 3.44 million ha, was established at the initiative of the Isoseno-Guarani indigenous people, and was till recently co-managed by Capitanía del Alto y Bajo Izozog (CABI), an indigenous organisation, along with the national park service Servicio Nacional de Áreas Protegidas (SERNAP) (Castillo and Noss 2006).[4]
- In South Africa, the drive to restitute lands taken away during the apartheid era to their original native owners has included handing back 20,000 ha of the iconic Kruger National Park. An agreement between the Makuleke people and the country's PA agency, SANParks, mandates joint management with primary benefits (e.g., tourism revenue) going to the local people (Fabricius 2006).

Though there is impressive progress on this front in several countries, in most, the conventional style of PA (with primary control in the hands of the government) remains dominant. The bureaucracy has been rather reluctant to share power with local people, or the communities have not yet built the capacity to use the powers they may be entitled to. Changes in policy and laws are slow in coming, and implementation is even slower. There is a long way to go before co-management becomes the norm in most countries. A survey in 2008–2009 by the Forest People's Programme, spread over eight countries, found "that while a number of international development and conservation agencies have adopted revised policies aimed at ensuring respect for rights in protected areas, and despite some important pilot projects where rights and livelihoods have been secured, overall national laws remain unamended, and exclusionary models predominate. Least progress has been made in restituting those communities whose lands have been taken without their consent when protected areas were first set up. It is this legacy of past dispossessions which makes conservationists most reluctant to adopt a new approach" (Colchester et al. 2009; Maurizio Farhan Ferrari pers. comm. 2009).

Indigenous peoples' and local community conserved territories and areas

Much less recognised and documented than CMPAs, are indigenous peoples' and local community conserved territories and areas (ICCAs). In a way this is strange, for these are in fact the world's oldest 'protected areas', far more ancient than modern PAs. But this is perhaps not surprising, for the modern conservation movement has its roots in ethical and aesthetic pre-occupations that were far removed from ecosystem-dependent communities, and it has been only relatively recently that some in the mainstream conservation movement have begun to acknowledge the myriad values and practices by which these communities conserved nature.

ICCAs are of many kinds:

- indigenous peoples' territories managed for sustainable use, cultural values, or explicit conservation objectives;
- territories (terrestrial or marine) over which mobile or nomadic communities have traditionally roamed, managing the resources through customary regulations and practices;
- sacred spaces, ranging from tiny forest groves and wetlands to entire landscapes and seascapes, often (but not necessarily) left completely or largely untouched by humans;
- resource catchment areas, from which communities derive their livelihoods or key ecosystem benefits, managed such that these benefits are sustained over time;
- nesting or roosting sites, or other critical habitats of wild animals, conserved for ethical or other reasons explicitly oriented towards protecting these animals; and
- landscapes with mosaics of natural and agricultural ecosystems, containing considerable cultural and biodiversity value, managed by farming communities or mixed rural-urban communities.

Though extremely different from each other, all of these exhibit three common characteristics: they are closely linked to the lives of one or more indigenous peoples or local communities, these peoples or communities exercise predominant control over what happens in/to them, and the way they are governed helps achieve the conservation of their biodiversity or wildlife. From this derives a working definition that has been in use in international circles: "ICCAs are natural and/or modified ecosystems containing significant biodiversity values, ecological services and cultural values, voluntarily conserved by indigenous peoples and local communities (sedentary or mobile), through customary laws or other effective means." (for more background on this definition and related aspects, see Borrini-Feyerabend et al. 2010b; Corrigan and Granziera 2010; Kothari 2010; www.iccaforum.org).

Documentation on ICCAs is limited, though now rapidly increasing due to the international attention given to them (see IUCN/CEESP 2010; Pathak 2010; Bassi and Tache 2011; Martin et al. 2011). No one can therefore say what their spread and impacts would be. One of us has previously conjectured that they may cover, or have the potential to cover, as much area as is currently under government-designated PAs (roughly 12% of the Earth's surface), *and therefore their recognition could double the area under some form of conservation* (Kothari 2006b). This may not be too far off the mark, given the extent of some key examples that are documented (for more details on these and other reviews/case studies, see www.iccaforum.org).

Several examples of ICCAs have been identified in the literature:

- In southwest China, a region recognised as a global biodiversity hotspot, several indigenous peoples (such as the Khampa Tibetan community) have conserved forests and other ecosystems for cultural and livelihood reasons;

available case studies describe these as ranging from 30 ha to several thousand ha in size (Bo et al. 2008).

- Many indigenous peoples' territories in Colombia have been managed in ways that retain considerable biodiversity, e.g., 150,000 ha of tropical Amazonian forest in the territory of Yapu (ASATRIZY and Riascos de la Pena 2008). In neighbouring Peru, the Shipibo Konibo people govern 35,000 ha of forest as a Communal Reserve, which includes parts where no extraction of resources is allowed at all (Juan Chavez pers. comm. 2008, in Borrini-Feyerabend and Kothari 2008). One-fifth of the Amazon is covered by indigenous protected areas (IPAs) and territories that are effective against external threats and deforestation, which is five times more than formal protected areas (Oviedo 2006). Some of these IPAs are several million hectares in size.
- Several hundred marine areas in the South Pacific are managed by local communities, in ways that optimise livelihood and conservation objectives. Many of these are managed with a combination of traditional customs and modern rules, and are part of a Locally Managed Marine Areas Network spread across Fiji, Samoa, Vanuatu, and other countries of the region (Govan et al. 2009). At least 1,000 community managed marine areas are estimated from Japan, many of them using traditional practices now being termed *satoumi* (Shinichiro Kakuma pers. comm. 2010; Yagi 2010).
- Australian aboriginal peoples have reclaimed major parts of their former territories, and have voluntarily declared many of them as Indigenous Protected Areas (IPAs). Starting with the first one (Nantawarrina in South Australia) in 1998, almost two-thirds of the new protected areas declared in the country have been IPAs, which now constitute over 20% of the full PA network. (Smyth 2006; Dermot Smyth pers. comm. 2008; http://www.environment.gov.au/indigenous/ipa/declared/index.html).
- In Italy, communities have managed forests and pastures for sustained use and protection for centuries (Merlo et al. 1989; Jeanrenaud 2001; Stefano Lorenzi pers. comm. 2009). For instance, the Regole d'Ampezzo in the Ampezzo valley, has a recorded history of landscape-level conservation for over 1,000 years. This includes a designated regional protected area.
- In India, thousands of forests, pastures, wetlands, and coastal stretches are conserved by communities through either traditional or new norms, for a variety of reasons: livelihood security, ethical concerns, cultural continuity, or political security (Pathak et al. 2007; Pathak 2009).

Apart from their enormous biodiversity and livelihood value, their importance for securing the territories and rights and cultures of indigenous peoples and local communities, and the crucial ecosystem benefits they confer, ICCAs can also be essential elements in the attempt to conserve large landscapes. This links to yet another paradigm shift that has taken place in modern conservation: the need to move away from an 'island' mentality (zealously protecting a few isolated PAs within a degrading landscape), to conservation at the scale of landscapes, in which multiple strategies of protection and sustainable use are employed in an integrated manner to ensure ecological connectivity.

A related concept is the "protected landscape (and seascape) approach" (Brown et al. 2005), which recognises that the cultural and natural values of landscapes are inextricably linked and that communities play a vital role in their stewardship. ICCAs linked to protected areas of other governance types can form mosaics that offer enhanced gene flow, migration routes, and other crucial benefits for wildlife; and in so doing, can also be crucial for both mitigating and adapting to the impacts of climate change, though that is by no means their primary objective (Kothari 2008). Finally, and as important, ICCAs in many places help to link 'wild' and 'domesticated' biodiversity, also referred to as agro-biodiversity, providing benefits to agriculture, pastoralism, and fisheries across landscapes and seascapes, and maintaining crucial diversity values of crops, livestock, poultry, and wild relatives (Brown and Kothari 2011).

However, ICCAs also face multiple threats, which are compounded by the lack of recognition and support from wider society. These include inappropriate 'development' processes such as extractive industries. It is interesting for instance that the resolution of the global mining industry not to undertake operations in protected areas of category I to IV (in the IUCN classification) (ICMM 2003), would not apply to most ICCAs, even though many of these would qualify to be considered in the same categories, simply because they are not recognised by governments. In most cases, ICCAs are not on anyone's conservation map (other than the relevant communities themselves!), though this is beginning to change as the ICCA phenomenon gets more widely noticed. But threats also include the rapid cultural changes taking place within communities faced with 'modernisation', growing demands from global markets, inappropriate tourism, and lack of livelihoods linked to conservation that the younger generation could benefit from. For these and other reasons, it is crucial for governments and civil society to recognise ICCAs and offer them support. Incorporation into appropriate legal and policy regimes is also vital in situations where communities desire this (for a survey of ICCA-related legal systems of several countries, see http://www.iccaforum.org/index.php?option=com_content&view=article&id=84&Itemid=100). Most countries either do not yet have any legal backing of ICCAs, or have laws that are inappropriate to the diverse requirements of ICCAs. It is crucial that measures towards recognition (legal and other), are sensitive to the local situation, for often top-down forms of recognition and monetary support can end up undermining local initiatives (Borrini-Feyerabend and Kothari 2008; Borrini-Feyerabend et al. 2010a,b).

Two additional developments in the last couple of years have added to the global recognition of ICCAs. First, the UNEP - World Conservation Monitoring Centre (WCMC), in response to suggestions from IUCN's Strategic Direction on Governance, Equity and Livelihoods Related to Protected

Areas (formerly Theme on Indigenous and Local Communities, Equity and Protected Areas; TILCEPA) and other networks, has started a pilot database on ICCAs (www.iccaregistry.org). The Global ICCA Registry aims to provide information on ICCAs equivalent to the WCMC database on protected areas through a process of voluntary inscription of sites by indigenous and local communities (Corrigan and Granziera 2010). Thus far, the Global ICCA registry has completed a pilot phase involving development of an interactive website and safe-guarded ICCA registration system. Since, however, there are sensitivities involved in making information on ICCAs public, various procedures for free prior informed consent of the concerned communities are being developed and tested, and discussion on the pros and cons of such a database is underway with communities and others.

Second, after a few years of informal networking, various organisations and individuals from ICCAs or working on ICCAs have formed the ICCA Consortium (http://www.iccaforum.org). The aim of this global network is to provide more collective support to ICCAs, to promote their recognition in national, regional, and global forums, to exchange experiences on legal, policy, and other aspects of ICCAs, and in other ways strengthen such initiatives.

LESSONS FROM THE CASE STUDIES

Case study 1: forest conservation in Costa Rica

In the article 'Bureaucratic barriers limit local participatory governance in protected areas in Costa Rica', Xavier Basurto uses a comparative framework to describe how community conservation emerged as an alternative to decades of centralised governance approaches. He notes that although the IUCN has modified its protected area concept to recognise the importance of ICCAs, very little is known about whether ICCAs will emerge as a viable mechanism of local participation in biodiversity governance. Using Costa Rica as a case study, he investigates how incentive structures within government bureaucracy can pose a formidable barrier to the implementation of ICCAs.

Since the 1969 Forestry Law and subsequent creation of the national park system in 1977, Costa Rica became the pre-eminent model of conservation in the Neotropics, with protected areas encompassing 25% of the national land area. Land acquisition for the parks came at a cost to rural people, however, who often lost agricultural land or access to natural resources or participation in park governance without just compensation, thereby creating significant tension between the government and the rural poor. Faced with increasing economic pressures in the early 1980s from rising oil costs and declining coffee prices, combined with demonstrations by the rural poor and high annual rates of deforestation (2.9%), the federal government under then-President Oscar Arias sought reforms to natural resource management. The government set into motion a series of reorganisations to decentralise the parks into a national system of 11 conserved areas known as the National Conservation Area System (Sistema Nacional de Areas de Conservacion; SINAC). According to Basurto, decentralisation was intended to create a participatory governance system sharing a common set of features: a coordinating central office in San Jose, a regional director in each of the conservation areas responsible for developing and implementing policy, and middle management personnel in charge of smaller units of each conservation area in which on-the-ground activities, such as protection, biological monitoring, education, and firefighting, took place.

The divergent developmental trajectories occurring in these conserved areas provided a unique opportunity for understanding how conservation planning is intricately tied to interactions between prevailing systems of governance and social class hierarchy. Specifically, Basurto considered two examples: 1) the default, government-driven system of decentralisation, where he draws insights from three of the 10 regions of SINAC: *Área de Conservación Osa* (Osa Conservation Area or ACOSA), *Área de Conservación Tortugero* (Tortugero Conservation Area or ACTo), and *Área de Conservación Arenal-Tempisque* (Arenal-Tempisque Conservation Area or ACAT); and 2) an alternative model of bottom-up, participatory control by the local, rural poor in the *Área de Conservación Guanacaste* (Guanacaste Conservation Area or ACG).

In the first set of examples (ACOSA, ACTo, ACAT), Basurto discovered that decentralisation essentially meant transferring power to employees of the existing park and forestry systems, who disproportionately represented well educated, urban administrators from middle and upper classes. Many administrators did not come from the local populations with whom they interacted. Basurto argues that this structure maintained not only the centralised governmental approach to conservation but also the social hierarchy of people involved in the planning process. Park administrators did not develop new social networks or invite participation by the rural poor in decision-making processes. Part of this approach stems from the legacy of not hiring people from the surrounding communities to work in the national parks for fear of corruption and illegal land use. It was thought that the ability to maintain strict boundaries—not only around the park but also between the park staff and local people—would enhance the ability to enforce logging and hunting laws. Summarising this example, Basurto concludes, "the conformation of SINAC's bureaucratic structure and the locus of decision-making power, made it very difficult for local participation to influence SINAC's bureaucratic agenda and practices."

In the second example (ACG), Basurto shows us how decentralisation can achieve significant acceptance from local communities. The idea for ACG was initiated by scientists Daniel Janzen and Winnie Hallwachs, who proposed buying degraded farmland and protecting it from fires in order to re-establish dry seasonal tropical forest. Winning support, but no funding, for the project from Costa Rica's President Arias, the development of this conservation area would be supported by USD 50 million in international fundraising,

USD 12 million of which would go towards the establishment of an endowment to hire employees and to fund activities. The resulting enterprise was called the Guanacaste National Park Project (GNPP).

From the very start, Janzen and Hallwachs sought to create a community-based governance system accountable to the local communities in the region. They were able to wrestle away jurisdiction of GNPP from the National Park, Forestry and Wildlife Service directors. They created a board of directors consisting of local citizens to help guide management decisions. As Basurto points out, one of the most important factors was the way that this group carried out the land purchases to ensure local community involvement and payment at a fair price through negotiation. By guaranteeing good salaries and benefits through the endowment, the GNPP and ACG were able to gain administrative autonomy from the central government, even replacing civil service positions with local staff and returning several park service civil servant positions back to the federal government. This allowed for greater local engagement and control of resources, and for greater quality control in personnel by making hiring and termination procedures more strongly tied to job performance. Importantly, local residents made up the bulk of the staff and were trained in jobs such as firefighting, policing, teaching, and parataxonomy, thereby creating a loyal, proud constituency, the byproducts of which, Basurto argues, were exported to the local communities: "[S]ome of them had gained enough self-confidence to take on leadership roles in their home communities (i.e., local school board associations or as part of the local governance council), serving as role models for other community members who were exposed to an alternative model of rural lifestyle."

How might the Costa Rican example inform how ICCAs are incorporated into established conservation area systems? First, enacting laws to encourage local participation are insufficient if they ignore "class-based relationships within the protected area bureaucracy that create incentives (or not) to link with the local rural citizenry affected by these areas." Second, "central government support is a necessary but not sufficient condition for the eventual emergence of local rural citizenry participation in protected area governance." Third, protected areas benefit from "strong demand for local participatory governance, which [come] from biologists—non-destructive users of 'biodiversity'—who [have] a clear stake in the benefits that local governance of biodiversity conservation could bring." Finally, initiating a board of directors is key for providing the institutional support for local participatory governance.

Case study 2: ICCAs in the Nepal Himalayas

Stan Stevens offers a political ecology perspective on ICCAs in the Himalayan regions of Nepal, where government-declared protected areas have been established in pre-existing indigenous territories with customary stewardship practices. His article, 'National Parks and ICCAs in the Nepal Himalaya: Challenges and Opportunities', focuses on the ICCA experience within Nepal's four large high Himalayan national parks: Sagarmatha (Mount Everest/Chomolungma), Makalu-Barun, Langtang, and Shey-Phoksundo. These national parks, which constitute nearly three-quarters of the area in national parks in Nepal, are the traditional territories of the Sharwa, Dolpo-pa, Yolmo, Tamang, and Rai[5] peoples, all of whom, Stevens writes, continue to maintain permanent settlements, seasonal transhumance patterns, and ICCAs within them. Drawing on ethnographic, interview-based fieldwork in villages, as well as participation in meetings and discussions with a wide array of rights-holders and stakeholders over three decades, Stevens focuses especially on the case study of Sagarmatha National Park and World Heritage Site. The Nepal Himalayas are described as a cultural landscape—one that has been shaped by centuries of indigenous peoples' settlement, land use, expressions of faith and care for sacred sites, and conservation stewardship through ICCAs. The four national parks discussed in this article were created within the customary territories and continuing homelands of indigenous peoples and, as Stevens points out, superimposed on existing ICCAs. All lie within or contain *beyuls,* sacred Himalayan hidden valleys and Buddhist sanctuaries of tremendous importance, which can be considered 'sacred natural sites'.[6]

Stevens notes that while the conservation importance of ICCAs is increasingly being recognised in international conservation circles, it continues to be denied by many states. This failure to acknowledge ICCAs, and the rights of the indigenous peoples associated with them, weakens or destroys the conservation stewardship practices of those who create and maintain these landscapes and ecological characteristics. It ignores the vital contributions that indigenous peoples and other local communities make to conservation through their knowledge, values, institutions, and practices. At the same time, it represents a missed opportunity for collaborative conservation, and—more broadly—for recognition and affirmation of indigenous rights, knowledge, and practices. As Stevens observes, ICCAs are a key form of rights-based conservation approaches "by recognising that 1) indigenous peoples and local communities are "rights-holders" and not merely "stakeholders" in their customary territories, with rights recognised in UNDRIP, ILO 169, and international human rights treaties; 2) states and NGOs associated with protected areas are "rights duty-bearers"; 3) indigenous rights and human rights must be honoured in protected areas; 4) rights establish parameters for state and NGO conservation interventions in indigenous peoples' lands and lives; 5) rights-based conservation requires adoption of protected area governance and management approaches which foster the realisation of rights, particularly through governance of protected areas by indigenous peoples and local communities or through their participation in appropriate shared governance; and 6) appropriate recognition and respect for ICCAs."

However, moving towards recognition of ICCAs at the national level is a challenge in many countries, and in his article, Stevens explores why this has been the case in Nepal, beginning with a review of how the country's national park system was established. Stevens argues that early policy

development in Nepal favoured an exclusionary approach to protected area establishment, in which indigenous peoples and other local communities were either physically or economically displaced. This approach continued with creation of the Himalayan national parks during 1976–1991, which, Stevens writes, were designated without meaningful participation by indigenous peoples and other local communities living in these areas. In the case of Sagarmatha, Makalu-Barun, Langtang, and Shey-Phoksundo national parks, Stevens notes that, while communities were not physically displaced, indigenous peoples lost governance and management authority over their territories and collectively managed lands, and their ICCAs were superseded by state policies, regulations, and enforcement mechanisms. He writes: "The imposition of national parks has undermined their control of their territory and lives; their customary relationships with their lands, each other, and their spirits and gods; and their use and management of their forests, pastures, and cultural sites."

The Himalayan National Park Regulations of 1979 allowed local inhabitants to continue certain uses of natural resources within the national park (e.g., cutting of wild grass for fodder and collection of deadwood for fuel), which is remarkable, given the social context in which these rules were written. However, Stevens reminds us that there is an important distinction between the granting of permissions for specific uses, and the recognition of inalienable rights. Conditional privileges are bestowed by an agency at its discretion; in contrast, human and indigenous rights are understood to be inherent and universal, and thus are honoured and affirmed (rather than bestowed) by the state and state agencies. In practical terms, while certain uses are routinely granted based on permission from the authorities, indigenous peoples living in these national parks do not have the right to continue traditional management and use of forests, grasslands, lakes, and other resources, nor to care for their sacred natural sites. Traditional stewardship practices are not recognised in the legal framework and, as a result, ICCAs are not integrated into management planning and policies. According to Stevens, the extent to which a given ICCA is respected varies with the warden of the national park where it is located—clearly not a sustainable situation in the long run.

In the case of Sagarmatha National Park (an area known as Khumbu by the indigenous Sharwas living there), Stevens discusses the rich diversity of Sharwa conservation practices and prohibitions that have ensured stewardship of this vast cultural landscape. Khumbu is one of a small number of sacred hidden valleys (*beyul*) in the Himalayas. Sharwa belief systems and practices, in particular the principle against killing any form of life, have served to protect the biodiversity of this landscape. Observing that the Sharwa people have, in effect, maintained the area as a regional wildlife reserve for generations, Stevens describes how Sharwa spiritual and cultural leaders have successfully persuaded Sharwa herders not to kill snow leopards and other predators affecting local livestock, in keeping with the tenets of non-violence in a *beyul*. Villages practice customary management of forests and grazing lands, including seasonal restrictions, quotas, and rotational zoning systems to manage grazing, wild grass cutting, and collection of deadwood for fuel. In addition, Stevens points out that communities continue to establish new ICCAs within the Khumbu area, including the Lakyok Bird Conservation Area created in 2008 to prevent disturbance of ground-nesting bird species. The challenges to supporting the traditional conservation practices of the Sharwas are many, and they parallel those facing indigenous communities in other parts of the world. Stevens discusses the impact of national assimilation and globalisation pressures, as well as cultural, social, and economic change, and the efforts of Sharwa communities to counter these forces through new initiatives to reaffirm Sharwa identity and conservation stewardship.

At the national level, many challenges remain to achieving greater recognition of ICCAs in Nepal. Among the barriers identified by Stevens are: lack of appreciation of indigenous knowledge systems, the marginalised status of indigenous peoples, and states' lack of legal recognition of indigenous rights. There is resistance to recognition of ICCAs within national parks in Nepal. According to Stevens, one possible scenario would be, ironically, the recognition of ICCAs everywhere except in national parks, as is currently the case with sacred forests. Another scenario would be the recognition of ICCAs only as a government-designed protected area, such as a buffer zone. Here the question is raised as to whether such standardised designations and institutions could be flexible enough to support the customary practices, values systems, and institutions that have created the ICCA in the first place.

On the other hand, greater awareness in Nepal of the existence and value of ICCAs may lead to recognition both within and beyond the boundaries of existing national parks and protected areas. Stevens points out that a number of developments in Nepal and globally raise new prospects for the recognition of ICCAs in the future. From a political ecology perspective, a shift in the relationship between the state and indigenous peoples would create new opportunities for recognition of ICCAs. Such would be the case if the new constitution for Nepal, which is being written now, includes strong indigenous rights provisions, and if new national laws are adopted to meet the requirements of ILO 169, to which Nepal is a signatory. New laws and policies might explicitly recognise ICCAs or they might strengthen the conditions supporting ICCAs, for example, by recognising Indigenous peoples' land tenure and customary governance and by requiring collaborative management or indigenous management of all protected areas established in the customary territories of indigenous peoples.

Case study 3: forest conservation in New England, USA

In the article, 'Comparing New England's Community Forests to ICCAs', Martha Lyman, Cecilia Danks, and Maureen McDonough present the community forests of northern New England, USA (within the northern Appalachian ecosystem) as an example of how the ICCA model is being applied in a rural region of North America. Drawing on experience from

five case study sites in Maine and New Hampshire, the article explores how the region's community forests build on historic land use practices, while adapting these practices to respond to contemporary challenges such as competing uses of forest land, changes in land ownership, and habitat fragmentation. Further, these community forests can play a role in helping to build social capital and support self-determination in rural communities. The authors' analysis of this case study experience reveals congruence of the New England community forest model with key characteristics of ICCAs related to community governance, inclusive participation, equity in decision-making, sharing and distribution of benefits, and conservation effectiveness.

There is a long history of town ownership of forested areas in New England, going back to early European settlement in the 1600s. Town forests were initially created for purposes such as watershed protection and timber production, while over time, recreational, educational, ecological, and aesthetic benefits became increasingly important considerations. As the authors note, perhaps one of the most important contributions of the town forest movement was to encourage communities to set aside land in their communities for public use. The extent of town ownership of forest in northern New England is significant: the article estimates that 120 towns in the state of Vermont own some 32,375 hectares, 188 towns in New Hampshire own 41,683 hectares and 170 towns in Maine own 60,703 hectares.

Beginning in the 1980s, globalisation of the forest products industry resulted in a large-scale transfer of forested land in northern New England to increasingly distant ownership, whether to timber investors or, in the case of recently conserved land, national and international conservation NGOs. According to Lyman et al., the result has been a disconnection of the traditionally close relationship between the forest products industry, local people, and communities.

The Community Forest Collaborative, a consortium of four regional and national NGOs working in the region, analysed the current and potential role of community forests across New England in contributing to landscape-scale conservation, community development, and economic development. The Collaborative described a Community Forest Model based on historic practices in New England, such as the town forests and town commons, while incorporating international experience with community-based natural resource management. Key attributes of this model relate to ensuring the following: access and rights to forest resources at the community level, community participation in management decisions, that values and benefits from the land meet community objectives, and permanent protection of the conservation values of forestland. The Collaborative studied five sites from the region that illustrate different approaches to acquisition, management objectives, and values. In their paper, Lyman et al. review the experience of these case studies as they relate to the key attributes of the Community Forest Model and of ICCAs generally: community governance, inclusive participation, equity in decision-making, sharing and distribution of benefits, and conservation effectiveness.

With respect to community governance, the authors describe how several communities have developed capacity to acquire and manage forestland, through the establishment of mechanisms within the local planning bodies and/or by the creation of new local NGOs. Equity in decision-making is supported by the tradition of town meetings in communities of New England, as well as by rules related to Town Forest statutes and publicly funded programmes. Lyman et al. explore the role that community forests can play in civic life, expanding community capacity and participation. This is illustrated by the case study of the Farm Cove Community Forest, in which the local government in Grand Lake Stream, Maine, initially lacked the capacity to acquire, own or manage forestland. With the creation of a local conservation land trust (an NGO with the mission of protecting and managing land), local capacity was increased and members of the community became increasingly engaged in the project. The authors quote one of the residents:

> "….Before, there was a whole lot of scepticism around the idea. We can't do this…What will they do?…Now that it has been done, [there is] a complete change…complete support…pride [in] ownership in land."

In their discussion of sharing and distribution of benefits, Lyman et al. identify several areas in which community forest projects are having an influence on community life in New England. These include environmental services important to human activity (water supplies, energy, recreation), as well as economic benefits (timber revenues, local jobs), and educational benefits. One interesting aspect is shared values. The authors explore the importance of the community forest model in helping to sustain the character, culture, and tradition of the community. Rural communities of New England place a high value on maintaining local control and self-determination. Noting that the massive changes in forestland ownership and in the forest products industry have caused communities to lose control over key aspects of their future and to become more fearful of change, the authors observe that:

> Community Forests secure the rights to an important access at the local level so that decisions about how the land will be managed can be made within the community. As one individual commented "It was going to change one way or another….this way we got to choose".

Considering the question of economic vitality, the article makes the point that while the contribution of individual community forests may be modest in the context of the regional economy, these areas play an important role in creating jobs and reinforcing efforts to redevelop the forest-based economy. Many community forests produce revenues from timber harvesting operations and non-timber forest products. In addition, community forests contribute to economic vitality in broader ways, for example by providing environmental services, a stable water supply, and recreational options.

Finally, based on the examples studied by the Community

Forest Collaborative, the authors identify a number of ways that community forests contribute to conservation across the forested landscape. Beyond their contribution at the local level is the important role community forests play in larger landscape-scale conservation, by buffering and linking existing protected areas. The Randolph (New Hampshire) Community Forest is one example; it links two sections of the White Mountain National Forest, a federally protected area. The Farm Cove Community Forest is presented as an example of a community forest that is a significant component in a mosaic of land protection, in this case a 404,686-hectare conserved landscape of contiguous forestland extending from eastern Maine (United States) to western New Brunswick (Canada). Other contributions related to local capacity for conservation are also explored, including the role of community forests in leveraging partnerships, expanding funding for conservation, and promoting stewardship and monitoring of conservation lands.

In their review of experience with the Community Forest Model in northern New England, the authors make the case that by increasing local equity in forestland, community ownership of forestland offers the potential to achieve conservation goals and at the same time advance economic and social objectives in rural communities of the region.

Case study 4: lobster fishery conservation in Maine, USA

In the article 'Co-management in the Maine Lobster Industry: A Study in Factional Politics', James Acheson describes the implementation of co-management as a strategy to conserve the Maine lobster fishery. Co-management, as Acheson describes it, is a middle-course conservation model between conventional top-down fisheries management and the commons, in which rules are developed both by resource users and the government. What kinds of negotiations are involved in the creation of effective co-management rules, and how might they inform community-based conservation efforts in other regions?

The Maine lobster co-management system was established in 1995 under the Zone Management Law, which created, among other things, trap limits, eligibility criteria to qualify for a license, a system of shared management between users and the State of Maine, and seven management zones, each overseen by an elected council of license holders. The zone councils were the source of rule development, such as trap limits (not to exceed the state-imposed limit of 1,200 traps/individual), the timing of the lobster season, and the ability to suggest limited entry rules. Proposals approved by each council were submitted to the state for final approval, whereby they became enforceable law. Acheson argues that the shift to this new conservation system was a matter of necessity for fisherpeople, who reacted to decades of failed management policy arising from both the state and federal level. Specifically, conventional management policy had been, since the 1950s, unable to arrive at a consensus for trap limits, in part because the legislature wanted to mandate a statewide limit rather than relying on fisherpeople's experience with geographic idiosyncrasies of trap setting. Although co-management democratises conservation management, Acheson points out that it also introduces several conflicts. First, setting trap limits, even if through the zone management council, has distributional outcomes, which in this case created power struggles between groups of fisherpeople. Larger-scale lobster operations found themselves limited by the cap, whereas small-scale operations and "part timers" falling under the cap benefitted from the decreased competition. Second, zone boundary disputes arose within two years. One problem occurred at the boundaries of different zones with different trap limits, where lobstermen in the zone with lower limits were incentivised to locate more traps in the adjacent zone with the higher trap limit. Another problem arose in response to how individual lobstermen were allowed to allocate traps across boundaries. The past decade has been spent reconciling these challenges within each zone. Using data from a series of surveys in 2009, Acheson assessed the efficacy of co-management. His results indicate strong support (62–96%) for conservation rules, including prohibiting the take of minimum and maximum size lobsters and gravid females, harvesting using traps only, and allowing escape vents in traps for smaller lobsters. The majority was supportive of rule structures developed in each zone, including trap limits (61.8%), limited entry ratio (69.8%), maintaining the number of traps on a line (76%), and fishing season duration (75.9%).

Despite the bottom-up support for zone-based co-management, Acheson argues that problems remain and that several crises are poised to emerge in the near future. Rather than limiting the number of traps, the trap limits and limited entry rules have actually increased the number of trap tags sold, creating what many fisherpeople perceive to be congestion. Moreover, he describes the "price squeeze" faced by many fisherpeople as baitfish, fuel costs, and boat purchase costs rise at the same time that per-pound lobster price is declining sharply, forcing many fisherpeople to pull traps in late 2008 because expenses exceeded revenues. Price declines of 50% or more have been caused by increased harvests and basic supply-demand relationships of the lobster market. The economic situation is exacerbated by ongoing legal battles to protect right whales migrating through the Gulf of Maine, which get entangled in the floating lines connecting traps. The expense of adding sinking lines as part of new regulation will be USD 8,000 per individual fisherperson. The situation in Maine is serious; more than half of the lobstermen surveyed in 2009 said that it would be difficult to remain in the business, and 8% are making plans to leave the industry. Although not considered by Acheson, it is not clear what kinds of distributional effects the loss of these fisherpeople will have on coastal communities and lobster conservation efforts.

What is the solution to these socioeconomic challenges? Acheson suggests that it might be revisiting the issue of trap limits, with fewer traps reducing the costs of fuel, boat size, baitfish, and the associated problems with trap congestion and price collapses caused by oversupply. However, lobstermen are ambivalent about this option, with roughly as many supporting it (47%) as opposing it (44%). These opinions directly conflict

with fisherpeople perceptions of whether there are too many traps in the water (63% believe so). Thus, although most agree that there are too many traps in the water, there is no consensus on what should be done about it.

Acheson suggests that co-management systems offer many benefits while facing ongoing challenges: "Co-management in Maine works well only when a powerful coalition of fishermen and government agencies coordinate their efforts. If this does not happen, then gridlock occurs." He notes that when proposed rules are not supported by governance at multiple levels, they almost always fail. He concludes: "What this means is that if we wish to understand the production of rules for the lobster industry, we must focus not only on the actions of different industry factions, but also on the byzantine relationships between lower levels of management (i.e., the zone councils and the Lobster Advisory Council) and state-level institutions."

COMMUNITY-BASED CONSERVATION: EMERGING LESSONS AND PRINCIPLES

Although these case studies represent diverse geographies, cultures, and conservation contexts, and describe a tiny fraction of community-based conservation initiatives across the world, several lessons and principles can be drawn from the four papers presented here. These substantially mirror the learnings from other experiences (see case studies and documents available at www.iccaforum.org, and in Kothari 2006a,b; Borrini-Feyerabend et al. 2010a,b; Pathak 2009) and include the following:

Community-based conservation confers substantial conservation benefits

This is especially true of ICCAs. These include long-term security to important ecosystems and species, corridors and connectivity across large landscapes and seascapes, the maintenance of ecosystem benefits and functions, revival of threatened populations of wildlife, and others. While the conserving communities and linked NGOs or government agencies often do understand and articulate these benefits, much of the outside world, including many in the formal conservation movement, has yet to fully acknowledge them. However, it is also important to note that ICCAs are not a panacea for all conservation needs, and that other governance arrangements may be more valid in certain situations.

Community-based conservation confers substantial social, cultural, economic, and political benefits, both tangible and intangible

Access to livelihood resources (fuel, fodder, herbs, and so on) is one of the most common; others include incomes (from activities such as ecotourism or sustainable forestry), security or revival of cultural and political identity, buffer against external threats and disasters, and the strengthening of community level solidarity and cooperation. For example, the experience with community forests in New England described by Lyman et al. illustrates the benefits to local communities of their ownership and management of forestland in terms of a complex suite of both monetary and non-monetary benefits, including timber revenues, non-timber forest products, water supply and quality, recreation, wildlife habitat, and open space. Further, these community forests provide support for other community priorities, including social services, education, and processes that help build community capacity and social capital.

Community-based conservation faces numerous threats

Despite such clear benefits, sites with community-based conservation face immense threats to their survival, not least because most of them remain unrecognised and consequently unsupported against external threats or internal weaknesses. They are also not without their fair share of limitations, such as internal conflicts over rules, objectives, and benefits (e.g., Maine lobster fisheries). They may have inadequate capacity to deal with rapid changes due to external forces, including the cultural transitions caused by modernisation (e.g., Sagarmatha, Nepal) or the impacts of climate change. Some traditional factors too can be bottlenecks, such as inequities arising from class or social stratification (e.g., in some of the SINAC regions, Costa Rica).

Democratic, equitable governance must be core principles in conservation policy and practice

Conservation, as conventionally practiced by governments or large conservation NGOs, is not viable in the long run. There needs to be a broader input on who decides how biodiversity is conserved, especially considering that most areas of wildlife and biodiversity significance are inhabited by people. ICCAs and CMPAs work best when all primary rights-holders and stakeholders have similar degrees of power. Acheson's account of the division of power between Maine state environmental protection agencies and lobstermen makes this point clear. Indigenous peoples and local communities need to have a voice in decision-making, as partners with others or on their own. The equitable sharing of powers, costs, and benefits of conservation must be ensured, which will enhance public support. Local citizens must hold or share authority in management. However, a major uncertainty is the degree to which provincial/state or national governments will relinquish control, or from whom communities will be able to wrest control. Basurto notes: "[L]ocal participation offers better prospects of adequate or long-term use of biodiversity and other natural resources because local resource users 1) have higher stakes in the sustainable use of resources than do the state or distant corporate managers; 2) have more and better information about the intricacies of local ecological processes; and 3) can develop more effective means to manage available resources through local or traditionally accepted practices. Communities need to own the process of self organisation and utilisation of natural resources. As the paper by Lyman et al. notes, it is challenging but important to measure the extent to which residents feel they have the opportunity to participate in decisions, and the extent to which benefits and responsibilities are shared. As this sense of ownership increases, it is likely that communities will feel that the community forest is an asset

and take responsibility for its stewardship from generation to generation.

Multiple scales of governance, building from the smallest level, is the most effective way to manage conserved areas

Small, homogeneous groups are often better positioned to self-regulate resources, though there are also examples of heterogeneous communities being able to do so. Management decisions should be made at the lowest level possible, whereby local groups need to take over control from state and federal governments. However, partnerships between the state and local levels are important, especially at larger geographical scales, involving coordination amongst various agencies. Acheson notes: "[R]ules are not forthcoming when they do not have the support of two different governance units at two different scales. When industry attempted to get rules without the support of any state or federal agency, they failed." Basurto echoes this sentiment from the Costa Rican example: "The ACG would not have been able to develop without decisive political support from the central government, nor without the capacity to locally organise and implement change." However, government or NGO interventions can also be disruptive, undermining robust local processes through insensitive imposition of rules or institutions, or introduction of power and financial factors that upset the local equilibrium. The imposition of national park systems onto ICCAs in Nepal's Himalayan areas is an example.

Treating protected areas as islands does not work

Such sites do not and cannot exist in isolation, as they affect and are affected by their surroundings. There is therefore a need to look at the entire landscape (or seascape), and the linkages between conservation at particular sites and the broader landscape. Increasingly, a mosaic approach, in which various governance types and categories of conservation are intricately linked up (such as in the case of community forests and formal PAs in New England, USA), would likely be much more sustainable than stand-alone protected areas. Community-based conservation can force us to bridge the 'western' divide between nature and culture, as also the artificial rift between 'wild' and 'domesticated' biodiversity, and look at the landscape/seascape in a holistic way.

Traditional or local knowledge is important but in many cases may need to be supplemented

There is a tremendous body of ecological knowledge residing in indigenous peoples and local communities, born out of generations of interaction with nature. Western or modern natural and social scientists must recognise that these peoples and communities are often (but of course not always) the best or only sources of information relevant to conservation decisions. Stevens provides an example from Nepal, where a regional forest plan has been developed and carried out by Sharwa communities, though it is not recognised by the government. However, it should also be recognised that local ecological knowledge may not be adequate in today's rapidly changing times, e.g., to cope with climate change impacts. There is therefore an urgent need for a mutually respectful, synergistic relationship amongst various knowledge systems.

Community-based conservation fosters greater management flexibility and creativity

The diversity of skills, expertise, and knowledge that communities bring to conservation initiatives, alongside those brought by external actors, makes for greater innovation and adaptability. One key reason for this is that the feedback loops (the impacts of successful or unsuccessful initiatives) are felt much more quickly and strongly by communities, and on their own or with help from outsiders they can devise adaptive responses.

Community level processes and spirit are critical to conservation

The ability to nurture community support for conservation facilitates successful, sustainable programmes. Community-based conservation relies on the ability of communities to do collective thinking and work, transcending individual weaknesses and limitations; but it simultaneously also helps to build it. The examples of community forests in northern New England discussed by Lyman et al. illustrate the role of these initiatives in building community capacity (including new institutions and partnerships), encouraging community-level governance, and building social capital.

Clear land tenure, resource and human rights, self governance, and self determination are prerequisites for conservation

People invest in conservation when they have a strong and clear stake in the outcome. For instance, community-based conservation can be spurred by political recognition of indigenous rights. Stevens points out that social and political change is on the verge of altering the political ecology of Nepal, especially if the new constitution addresses indigenous rights in protected areas.

Leadership in local communities is crucial and self-reinforcing

Leadership needs to be cultivated and strengthened in local communities, creating catalysts for community involvement. Basurto suggests that the self confidence gained by taking on leadership roles may empower others to explore alternate models of rural lifestyles.

Tackling inequities is important

Given that many traditional communities contain inequities of class, ethnicity, gender, caste, and so on, it is crucial for community-based conservation to confront these for long-term sustainability. Simultaneously, however, respect to diverse ways of living is also a fulcrum of conservation. Taking a political ecology perspective, Stevens observes that the potential for ICCAs to be recognised and supported by the state encounters significant challenges in countries where there is a legacy of inter-ethnic discrimination and indigenous peoples historically have been marginalised.

However, conflicts, including potential backlash, arise when empowering the traditionally marginalised sections, as entrenched interests of the powerful are hard to dislodge. Basurto reminds us that enacting laws to encourage local participation are insufficient if they ignore "class-based relationships within the protected area bureaucracy that create incentives (or not) to link with the local rural citizenry affected by these areas."

Community-based conservation is a long-term process

Communities do not typically initiate conservation related practices as a 'project'; where such practices have been going on through generations, they are part of life itself, not necessarily distinguished from other activities. However, where introduced as an external intervention, e.g., by an NGO or a government agency, there has to be an understanding that this is a process and not a project. Time is required to develop trust with local communities. External groups can collaborate with communities to strengthen pro-conservation traditions, or to help resolve ongoing conflicts (as in the case of the Maine lobster fisheries). Flexibility in coping with initial failures must be built into the process.

Respect of local cultures, and the culture-nature link, is necessary, but negotiation for changes may also be necessary

Most landscapes or seascapes are not 'wildernesses' with no human presence, but rather are at least partly shaped by human activity. In this sense, they are also cultural landscapes, encompassing an array of important cultural values that are tangible as well as intangible, such as spiritual values. As Stevens points out, the high mountain regions of Nepal are a cultural landscape, shaped by the interactions of people and nature over time. Conservation of these landscapes must take into account the rich array of cultural values. On the other hand, there may also be many situations in which local cultures have adversely impacted the local ecosystem or particular species, and this knowledge needs to be brought to their attention, followed by negotiations on resource use changes that could help remove the threats.

Pride in place is a powerful force for conservation

Sites of conservation importance are often also 'home' to indigenous peoples and local communities, providing a crucial sense of 'place' and identity. But forces of modernisation and demographic changes can cause such a sense to change in new generations. Environmental and cultural education attuned to specific places and peoples can play an important role in reviving or cultivating this sense of pride in 'place', as also the new relationship of the local with the global. Basurto gives us the image of the local people involved in monitoring who became "the eyes and the ears of this landscape", and better understood their place as global citizens.

External agencies can play an important role

Communities do not necessarily have all the answers or resources, especially in the rapidly changing environment we live in today. External agents, from government or civil society, can play a crucial role in facilitating adaptation to such changes, helping in better understanding of policy issues, providing forums for community voices to reach policy-making forums, sharing with local people insights from modern science, introducing technologies that may be appropriate for particular problems, helping to stave off threats, facilitating resolution of local conflicts and inequities, and so on.

CONCLUSION

This review paper has attempted to draw some key lessons and principles relating to community-based conservation, emerging from the case studies presented in this volume. These cases cannot be said to be representative of the range of experiences available throughout the world, but nevertheless raise a number of issues that are relevant to a much larger number of situations. There is an urgent need to identify and document more such initiatives, acknowledge their contribution to conservation and social objectives, and recognise and support them in particular against the threats they face. Key lessons and principles highlighted are those of tenurial security, respect for cultural and institutional diversity, integration of traditional and modern knowledge, sensitive recognition that does not undermine local institutions, dealing with local inequities, sharing, and devolution of decision-making authority, generating appropriate and sustainable livelihoods, maintaining or reviving community values in the face of cultural and economic changes, encouraging a facilitating role for external agents, the importance of a *process* vs. a *project* approach, and the need to focus on community-based conservation within large landscapes/seascapes.

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Notes

1. http://www.bowdoin.edu/environmental-studies/symposia/indigenous-community-conserved-areas-2008/index.shtml.
2. The term has been evolving since it was introduced as "Community Conserved Areas" (CCAs) in international forums. It was subsequently modified to "Indigenous Peoples' and Community Conserved Areas" (ICCAs), to recognise the fact that indigenous peoples may have their own specific kinds of territories and sites distinct from those of many non-indigenous local communities. An even fuller form that is now in use is "Indigenous Peoples' Conserved Territories and Areas Conserved by Indigenous Peoples and Local Communities", a mouthful that is still acronymed as ICCAs. We will use the term ICCAs in the rest of the paper.

3 In both the above processes, a key role was played by indigenous peoples' organisations (coordinated by the International Indigenous Forum on Biodiversity), their support groups, and by the Strategic Direction on Governance, Equity and Livelihoods in Relation to Protected Areas (formerly called the Theme on Indigenous and Local Communities, Equity, and Protected Areas or TILCEPA; see www.tilcepa.org). TILCEPA is a working group of two commissions of the IUCN, the World Commission on Protected Areas (WCPA) and the Commission on Environmental, Economic and Social Policy (CEESP). TILCEPA coordinated the Communities and Equity cross-cut theme at the World Parks Congress, which included several case studies and analytical inputs on co-management and ICCAs. Of great significance was its role in facilitating the participation of community representatives from ICCA sites from different parts of the world. TILCEPA members were also a part of an expert group set up by the CBD Secretariat, to make inputs to the draft Programme of Work on Protected Areas for discussion at the Kuala Lumpur COP, and they facilitated the inclusion of a section on "Governance, Participation, Equity, and Benefit-sharing". This section includes specific action points on co-management and ICCAs. TILCEPA and its sister network, CEESP's Theme on Governance, Equity, and Rights (TGER; www.tger.org), have continued to advocate participatory methods, including the recognition of ICCAs, at international forums and at national levels. They currently coordinate a global ICCA Consortium, and manage a website dedicated to ICCAs (www.iccaforum.org).

4 The co-management agreement has reportedly been rescinded by the current government, and CABI is trying to regain administration rights (Mirtenbaum 2011). This also points to the susceptibility of co-management arrangements to swings in governmental policy.

5 'Rai' is an ethnic category given by the Nepal government to as many as 20 peoples in eastern Nepal who seek recognition as separate indigenous peoples.

6 Langtang, Makalu-Barun, and Shey-Phoksundo contain *beyuls*, which do not constitute all of the national park area. All of Sagarmatha National Park is a *beyul*, which extends also to the adjacent southern area of the SNP Buffer Zone.

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