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SALVAGING NATURE
INDIGENOUS PEOPLES,
PROTECTED AREAS AND
BIODIVERSITY CONSERVATION

by **Marcus Colchester**

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WWF-World Wide Fund For Nature is one of the world's largest independent conservation organizations with a network of National Organizations and Associates around the world and over 5.2 million regular supporters. WWF aims to conserve nature and ecological processes by preserving genetic, species and ecosystem diversity; by ensuring that the use of renewable natural resources is sustainable both now and in the longer term; and by promoting actions to reduce pollution and the wasteful exploitation and consumption of resources and energy. WWF continues to be known as the World Wildlife Fund in Canada and the United States of America.

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PREFACE

Under its programme on Environment, Sustainable Development and Social Change, the Institute is currently focusing on the social dimensions of policies and initiatives for environmental protection. The purpose of the research is to analyse the implications for livelihood and conditions of life, especially of the low-income groups, of a wide variety of projects to rehabilitate degraded resources and protect wild animals and plant species in national parks and reserves. The majority of the research costs under the project are covered by a grant from the Biodiversity Unit of WWF-International. This paper forms part of the work being undertaken under this research project.

Concepts of wilderness and biodiversity conservation have evolved within a traditional view which sets mankind apart from nature, and sees nature both as a threat to the social order and as a refuge from the stresses of civilized life. Within this world view, quite different from that of most indigenous peoples, wilderness preservation seeks to institutionalize this dichotomy, by establishing protected areas free from human occupation but available for recreation. However, most protected areas are inhabited, many by indigenous peoples. International law recognizes the collective rights of indigenous peoples to land, natural resources and self-government and establishes strict conditions under which they can be resettled in the national interest.

The author argues that conservation, which has emerged as a powerful global force dominated by Northern technical institutions, increasingly seeks to limit human activities in biodiversity-rich areas, especially in the South. Mainstream conservationists have sought to impose their culturally-bound vision of natural resource management on indigenous peoples without taking into account their rights under international law or their different priorities and perceptions. Forced relocation, impoverishment, cultural destruction and the undermining of traditional systems of natural resource management have been common results. Conflicts between indigenous peoples and conservation agencies have resulted, making protected areas unmanageable and inoperative. Mainstream conservationists are exercising a political choice to secure the power of the state over local resources at the expense of indigenous political institutions. However, states often lack both the capacity and the political interest to effectively control and manage protected areas. Repressive state agencies often abuse their power in the name of conservation and human rights violations are widespread.

The extent to which indigenous societies are 'conservationist' is contentious. Many indigenous peoples live in relatively undegraded environments, they have extensive knowledge of their environment, they have complex practices for regulating resource use and strong ties with their lands. Internally and externally generated changes, most obviously the intrusion of the market, threaten to undermine these relatively stable societies. Maintaining balance requires secure land rights and functioning of indigenous political institutions as much as the preservation of their knowledge. Recognising these problems, conservationists have experimented widely, by creating buffer zones, implementing profit-sharing and joint management schemes, and recognizing indigenous territorial rights. The main problems have related to the locus of power, between conservationists and the local people, as well as in choosing which local institutions are

representative. Coercive systems have rarely been effective, but the power of the state can and needs to be recruited to secure indigenous management.

Outside of protected areas, conservationist impositions have also generated problems, due to inadequate priority being given to indigenous land rights and control over decision-making. The paper argues that the Biodiversity Convention and the Global Environment Facility reinforce these top-down tendencies, strengthening the power of states and intergovernmental institutions at the expense of indigenous peoples. New areas of conflict are now emerging over the assertion of intellectual property rights over indigenous knowledge and biotechnologies, including indigenous peoples' own genes.

Though conservationists have become keenly aware of the need to accommodate indigenous interests, they increasingly act as consultants and agents for international development agencies and this is affecting their management style. The author argues that conservation agencies need to be made much more accountable to indigenous peoples if they are to become more socially sensitive and to cede power to local communities. This is most likely to be achieved by effective indigenous mobilization. The paper brings out encouraging examples which suggest that conservationists and indigenous peoples can reconcile their interests.

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September 1994

Dharam Ghai
Director

Map 1
Where Indigenous Peoples Are

(Map not available in this version of the report)

Source: International Working Group for Indigenous Affairs (IWGIA), Copenhagen

WILDERNESS AND PRESERVATION

And in future what a splendid contemplation... when one... imagines them as they **might** be seen, by some great protecting policy of government preserved in their pristine beauty and wildness, in a **magnificent park**, where the world could see for ages to come, the native Indian in his classic attire, galloping his wild horse, with sinewy bow, and shield and lance, amid the fleeting herds of elks and buffaloes... A **nation's Park**, containing man and beast, in all the wild and freshness of their nature's beauty! (Catlin, 1841, reprinted 1989:vii).

The idea that humankind, or to be more accurate mankind, is apart from nature seems to be one that is deeply rooted in Western civilization. In contrast to the “animistic” religions of many indigenous peoples, which, to use our terms, see culture in nature and nature in culture (Hultkrantz, 1967; Lowie, 1970; Eliade, 1972; Colchester, 1981; 1982c), Judaeo-Christian traditions tell of an origin in which man was given dominion over the beasts. Indeed, even the most ancient of the world's epics, the Tale of Gilgamesh, recounts the primordial struggle between kingly civilizations and the forests, the source of all evil and brutishness (Sinclair, 1991).

In ancient Greece, untamed nature was perceived as the domain of wild, irrational, female forces that contrasted with the rational culture ordered by males. In this world view, not only was nature a dangerous threat to the city state, but the wilderness beyond was peopled by barbarians, the epitome of whom were the Amazons — long haired, naked, female savages who represented the antithesis of Greek civilization.

These precepts endure to this day. In the Middle Ages in Europe, the image was sustained of an ordered world of culture managed by civilized men, bounded by a chaotic wilderness peopled with savages, the abode of pagan warlocks and witches who drew their power from the dangerous, evil forces of nature, the realm of Beelzebub himself (Duerr, 1985). Similar images continue to sustain the views of fundamentalist Christian missionaries who perceive the shamanism of indigenous peoples as “devil worship”, and believe that as “Commandos for Christ” they have a God-given role to “reach the lost until they have reached the last”, in “Satan's last stronghold” (Stoll, 1982; Colchester, 1982a:386 ff; Hvalkof and Aaby, 1981; Jank, 1977; Lewis, 1990).

Pioneering Christian fundamentalists brought these same views of nature to the New World where they found them strongly reinforced. Beset from the first by naked, long haired “salvages”¹ who knew nothing of Christ or modesty, their precarious frontier world depended on a taming of nature as they sought to wrest a living from a hostile wilderness. As one local poet wrote in 1662, the forests of the New World were:

¹ The word, which is cognate with the French *sauvage* and Spanish *selvaje*, means, literally forest-dweller. Its pejorative notion derives entirely from the prejudice against such people.

A waste and howling wilderness,
Where none inhabited
But hellish fiends and brutish men
That devils worshipped (cited in Sinclair, 1991:50).

The notion that their society had a “manifest destiny” to tame the wilds became a fundamental truth and political imperative (DiSilvestro, 1993).

Dissenters from this society, alienated by its crassness and greed, sought refuge in its antithesis. For romantics such as the artist George Catlin, the noble Indians whose guiltless lives were being undermined by disease, firewater and land-grabbing, were perceived as a part of wild nature itself — not evil, but unstained, part of an ancient world as yet untainted by the white man (Catlin, 1841, reprinted 1989). The ascetic recluse Thoreau likewise found that “In wildness is the preservation of the world” (cited in DiSilvestro, 1993:25). These views echo an equally long counter-tradition, that sees human civilization as flawed and unfulfilling. Just as Gilgamesh, epic king of the first city of Mesopotamia, lamented “in the city man dies with despair in his heart” (Sinclair 1991:6), so Thoreau was to write nearly four millennia later “Our lives need the relief of [the wilderness] where the pine flourishes and the jay still screams... little oases in the desert of our civilization” (cited in Ussher, no date).

There thus emerged in late nineteenth century America, as a counterpoint to a view of the wilds as evil and opposed to society, a new tradition of wilderness as a refuge from the ills of civilization, as something to be preserved for the recreation of the human spirit. John Muir, one of the main forces in the national parks movement in the United States, argued vehemently and successfully that wilderness areas should be set aside for recreation to fulfil an emotional need for wild places. In the view of these conservationists, as they have come to be known, wilderness is “primitive and natural” (DiSilvestro, 1993) a resource that is not for use but to be preserved untouched (Redford and Stearman, 1993b:428).

As well as laying the basis for the national parks programme in the United States, these views of nature powerfully shaped the global pattern of conservation. In the United States, this view of conservation and nature remains as deeply embedded as ever. Wilderness is still revered by Americans as a place to rediscover the purpose of life, while for many “wildness” is biodiversity (DiSilvestro, 1993:xvii). The notion that nature and human society are inherently antagonistic and incompatible rationalizes the intense sense of alienation that underlies many American versions of “deep ecology” and motivates many members of groups such as Earth First! (Taylor, 1991). For such “deep ecologists”, “wilderness means extensive areas of native vegetation in various successional stages, off limits to human exploitation”. They justify such exclusion on the grounds that “most of the Earth has been colonized by humans only in the last several thousand years” (Wild Earth, 1992:4).

The Yosemite State Park and the Yellowstone National Park were the first results of this approach, and the philosophy of national parks as excluding humankind was eventually given a basis in law. As Gomez-Pompa and Andrea Kaus (1992:271) have noted, according to the 1964 United States Wilderness Act, wilderness is a place “where man himself is a visitor who does not remain”.

Since the concept of a “national park” was born, it has spread throughout the world — and with it the basic premise that nature must be preserved free from human interference. Bernard Grzimek, whose campaigns to conserve wildlife in East Africa made the Serengeti Plains into one of the most well-known protected areas on the planet, was single-mindedly dedicated to excluding the indigenous Maasai cattle herders from their lands. “A National Park” he argued “must remain a primordial wilderness to be effective. No men, not even native ones, should live inside its borders” (cited in Adams and McShane, 1992:xvi). By the 1970s, this vision of protected area management had come to dominate the conservation movement. According to the World Conservation Union (IUCN), a national park was narrowly defined as a large area:

- (1) where one or several ecosystems are not materially altered by human exploitation and occupation, where plant and animal species, geomorphological sites and habitats are of special scientific, educative and recreative interest or which contains a natural landscape of great beauty; and
- (2) where the highest competent authority of the country has taken steps to prevent or eliminate as soon as possible exploitation or occupation of the whole area and to enforce effectively the aspect of ecological, geomorphological or aesthetic features that have led to its establishment (cited in West, 1991:xvii).

One curious aspect of this view of nature is that even where such lands are inhabited by indigenous people, they are sometimes still considered to be wilderness. The contradiction can be sustained because of a common perception that indigenous people are “of nature” — wild, natural, primitive and innocent. When Europeans contacted indigenous people in North America, the long haired Indians fitted perfectly the European notion of wildness, as unruly, uncontrolled, feminine forces in league with the devil (Amselle, 1979). The image, though modified, was maintained in the era of “romanticism”, where indigenous peoples were considered natural and blameless “savages”, lost to civilization in the wild woods — *sans dieu, sans loi et sans roi* (godless, lawless and kingless) (Hemming, 1978). To some extent these images are retained to this day and lie behind conservationist policies of “enforced primitivism”, whereby indigenous people are accommodated in protected areas so long as they conform to the stereotype and do not adopt modern practices (Goodland, 1982).

In the Old World, the roots of the protected area movement have rather different origins. Game reserves for royal hunts first appear in recorded history in Assyria in 700 BC (Dixon and Sherman, 1991:9). By 400 BC, royal hunts were established in India under Ashoka (Gadgil and Guha, 1993). The Moguls reinforced this tradition in India where the idea gained a wider currency among the ruling élite. The Normans introduced the same idea to England in the eleventh century and enforced the concept of royal forests with such enthusiasm that by the reign of Henry II nearly 25 per cent of England was classified as royal hunts. Local people bitterly objected to the restrictions on their rights that these royal forests imposed (Westoby, 1987) and it is presumed by many that the myth of Robin Hood has its roots in popular resistance by Saxon yeomen to the impositions of Norman rulers.

However, while the definition of areas as royal forest served to reinforce social inequities, it did not imply either the wholesale extinction of local ownership or other rights (Rackham, 1989). On the contrary, these traditional rights were too long recognized and deeply vested for the conquerors to be able to ignore, and the royal forests were thus defined as yet another layer of special rights that did not completely extinguish the complex web of prior rights of use, access, transit and ownership.

The way national parks have been established in Britain owes much to this long tradition of overlapping rights. What has emerged in Britain is a practice of landscape conservation rather than wilderness preservation, which respects the long-established order of land tenure (Harmon, 1991). Recognizing that landscapes are not only overlain with existing rights but are also a joint creation of natural growth and human cultivation, British conservationists accepted a vision of nature as part of a process of “continuity and gradual change, with man at the centre and integral to the rural landscape” (Blacksell cited in Harmon, 1991:34). National parks in Britain thus not only fully recognize existing rights but also seek to maintain the established farming system. Moreover, in their management, British national parks formally involve local government bodies and have special mechanisms to ensure that local residents have a direct influence over decision-making.

Conservation notions spread overseas with the extension of the colonies, but brought with them little of this respect for traditional rights and uses. Though partly to counter the excesses of colonialism, the colonial state sought ever greater control of natural resources. As early as the eighteenth century, the French began experiments to regulate forest use in Mauritius and the English began similar initiatives in Tobago. Environmental concerns also played their part in the push to create forest reserves in India, when it was recognized that excessive forest loss, largely resulting from forest clearance for cash cropping, was not only leading to the silting up of Malabar but was also responsible for local climate change (Grove, 1992; Haeuber, 1993). Other less noble sentiments also lay behind the annexation of land for forest reserves. The need to secure supplies of timber for imperial infrastructure — railway sleepers and navies — (Guha, 1989; Fernandes and Kulkarni, 1982; Shiva, 1987), resulted in huge areas of India and later other colonial territories being set aside as Reserved and Protected Forests under the control of the colonial Forests Department. Restrictions were progressively tightened so that by 1900 local people were even denied access to these areas to hunt unless they could obtain a hunting license (Tucker, 1991).

The establishment of protected areas for wildlife conservation in India was founded on the forest department’s experience, reinforced by the concerns of colonial sportsmen and native aristocrats who wished to preserve game for hunting. The model for wildlife conservation that was adopted in India was based on the experience of the United States, treating the local people as “poachers” and “encroachers” rather than as local owners with prior rights to the areas. The tribal residents of many of the areas favoured for wildlife preservation were held responsible for the decline in local fauna, particularly as some were by then involved in a lucrative trade in game birds and feathers and shifting cultivation was held in opprobrium (Tucker, 1991). As one textbook for trainee foresters argued:

Forest dwelling communities are invariably inveterate hunters and have in most areas practically annihilated game animals and birds by indiscriminate hunting and snaring. It is surely time to instil in the tribal mind a respect for the basic game laws of the country (Stracey cited in Tucker, 1991:50).

It thus transpired that despite the very different historical trajectories of the conservation movement, the needs and rights of indigenous peoples were to receive short shrift. National parks and other protected areas have imposed élite visions of land use which have resulted in the alienation of common lands to the state. What is equally clear is that the Western conservationist's concept of wilderness is a cultural construct not necessarily shared by other peoples and civilizations which have quite different views of their relationship with what we call nature.

Indigenous peoples are thus perplexed by Western views of what conservation means (Alcorn, 1993:425). For example, Ruby Dunstan of the NI'aka'pamux people of the Stein Valley in Alberta, Canada, who have been fighting to prevent the logging of their ancestral lands, has remarked:

I never thought of the Stein Valley as a wilderness. My Dad used to say 'that's our pantry'. We knew about all the plants and animals, when to pick, when to hunt. We knew because we were taught every day. It's like we were pruning everyday... But some of the white environmentalists seemed to think if something was declared a wilderness, no-one was allowed inside because it was so fragile. So they have put a fence around it, or maybe around themselves (cited in Ussher, no date).

INDIGENOUS PEOPLES AND THEIR RIGHTS

There are no commonly accepted definitions of who indigenous peoples are. In its most literal sense the term "indigenous" only implies long-term residence in a given area. Yet in international law the term has begun to be used in a more precise way to apply to culturally distinct ethnic groups that have a different identity from the national society, draw existence from local resources and are politically non-dominant (ICHI, 1987). In a like vein, the World Bank identifies as indigenous peoples "social groups with a social and cultural identity distinct from the dominant society that makes them vulnerable to being disadvantaged by the development process" (World Bank, 1990). The International Labour Organisation (ILO), whose Conventions treat both indigenous and tribal peoples, places more emphasis on the notion of prior residence in an area, before conquest, colonization or the establishment of present state boundaries. However, the ILO notes clearly that:

self-identification as indigenous or tribal shall be regarded as a fundamental criterion for determining the groups to which the provisions of this Convention shall apply (ILO, 1989: Article 1).

For their part, many ethnically distinct and marginal peoples are increasingly adopting the term “indigenous” to describe themselves because of the rights that they believe are associated with such a term — rights to their lands and territories; to maintain their cultural traditions, religions, languages and practices; to exercise their customary law; to govern themselves through their own institutions; to represent themselves through their own organizations; to control their own natural resources; to self-determination; and the recognition of their right to be different.

Estimates of the number of people classified as “indigenous” vary widely, not only because definitions vary but because census data are often poor or absent in the remote areas such people inhabit. Figures from organizations such as the ILO, Survival International and the International Working Group on Indigenous Affairs range between 300 and 500 million worldwide. More importantly, “indigenous” people speak the vast majority of the world’s languages and represent the majority of cultural diversity (see map 1).

Box 1
Articles 40-44 of the
Charter of the Indigenous-Tribal Peoples of the Tropical Forests
Penang, Malaysia (February 1992)

Biodiversity and Conservation

40. *Programmes related to biodiversity must respect the collective rights of our peoples to cultural and intellectual property, genetic resources, gene banks, biotechnology and knowledge of biological diversity; this should include our participation in the management of any such project in our territories, as well as control of any benefits that derive from them.*
41. *Conservation programmes must respect our rights to the use and ownership of the lands and natural resources that we depend on. No programmes to conserve biodiversity shall be promoted on our lands without our free and informed consent.*
42. *The best guarantee of the conservation of biodiversity is that those who promote it should uphold our rights to the use, administration, management and control of our territories. We assert that guardianship of the different ecosystems should be entrusted to us, indigenous peoples, given that, we have inhabited them for thousands of years and our very survival depends on them.*
43. *Environmental policies and legislation should recognize indigenous territories as effective “protected areas”, and give priority to their legal establishment as indigenous territories.*

Intellectual Property

44. *Since we highly value our traditional technologies and believe that our biotechnologies can make important contributions to humanity, including “developed” countries, we demand guaranteed rights to our intellectual property, and control over the development and manipulation of this knowledge.*

Source: International Alliance, 1992.

Government policies towards indigenous peoples vary widely. On the one hand, many state policies seek to eradicate indigenous lifestyles and cultures and integrate them into the national mainstream. On the other hand, other policies seek to isolate indigenous people and keep them apart from the national majority. In both cases the underlying prejudice is that indigenous peoples are inferior and must either be elevated to a more modern cultural level or kept apart from their superiors (Bodley, 1982). Policies of integration received the sanction of international law in 1957, with the promulgation of the ILO's Convention 107 on Tribal and Indigenous Populations. More recently, however, such policies have been rejected by the ILO as inappropriate and current policies stress the need to respect "the aspiration of these peoples to exercise control over their own institutions, ways of life and economic development and to maintain and develop their identities, languages, religions, within the framework of the States in which they live" (ILO, 1989).

What most indigenous people themselves demand is the right to self-determination in accordance with the International Covenants on Civil and Political Rights and on Social, Cultural and Economic Rights. Whereas the ILO's Convention specifically avoids deciding whether or not indigenous peoples have such rights (Convention 169, Article 1.3), the latest draft of the Universal Declaration on the Rights of Indigenous Peoples, being developed by the United Nations Commission on Human Rights, notes in Article 3:

Indigenous Peoples have the right to self-determination. By virtue of that right, they freely determine their political status and freely pursue their economic, social and cultural development.

International law also clearly accepts the right of indigenous peoples to the use and ownership of their traditional lands. Article 11 of ILO Convention 107 of 1957 states:

The right of ownership, collective or individual, of the members of the populations concerned over the lands which these populations traditionally occupy shall be recognized.

The law established the principle that "aboriginal title" is to be derived from immemorial possession and does not depend on any act of the state. Moreover, as Gordon Bennett's (1978) study of the preparatory work leading to the Convention shows, the Convention considers land to be generic and to include the woods and waters upon it. The law has important implications for conservationists. Indigenous peoples have established ownership rights to their lands and resources. Although this convention may not be recognized by all national governments, it sets clear standards that intergovernmental and international agencies cannot reasonably ignore.

Convention 107 also established firm principles regarding the forced relocation of indigenous and tribal peoples. Under Article 12, indigenous people cannot be relocated except according to national law for reasons of national security, economic development and their own health. If they are relocated, "as an exceptional measure", they shall be "provided with lands of quality equal to that of the lands previously occupied by them, suitable to provide for their present needs and future development... Persons thus

removed shall be fully compensated for any resulting loss or injury”. As noted below, these are conditions which conservationists have repeatedly breached since these laws were promulgated.

In 1989, the ILO developed a revised convention which further elaborates indigenous rights to land and territories and natural resources. In addition to recognizing indigenous peoples’ rights to land ownership, Article 14 of the revised convention states that “measures shall be taken in appropriate cases to safeguard the right of the peoples concerned to use lands not exclusively occupied by them, but to which they have traditionally had access for their subsistence and traditional activities. Particular attention shall be paid to the situation of nomadic peoples and shifting cultivators in this respect”. Article 15 of the Convention also notes:

The rights of these peoples concerned to the natural resources pertaining to their lands shall be specifically safeguarded. These rights include the right of these people to participate in the use, management and conservation of these resources.

The 1993 draft of the Universal Declaration on the Rights of Indigenous Peoples is also forthright about indigenous peoples’ rights to land. Article 26 states:

Indigenous peoples have the right to own, develop, control and use the lands and territories, including the total environment of the lands, air, waters, coastal seas, sea-ice, flora and fauna and other resources which they have traditionally owned or otherwise occupied or used. This includes the right to the full recognition of their laws, traditions and customs, land-tenure systems and institutions for the development and management of resources, and the right to effective measures by States to prevent any interference with, alienation of or encroachment upon these rights (United Nations, 1993).

International law goes some way towards defining how states and outside institutions should go about interactions with indigenous peoples. ILO Convention 169 notes in Articles 2 and 4 the need to respect and safeguard indigenous peoples’ customs and institutions, while Article 6 obliges states to:

- (a) consult the peoples concerned, through appropriate procedures and in particular through their representative institutions, whenever consideration is being given to legislative or administrative measures which may affect them directly; and
- (c) establish means for the full development of the peoples’ own institutions and initiatives, and in appropriate cases provide the necessary resources for this purpose.

International law regarding indigenous people is unique in a number of respects, perhaps the most important being that it recognizes **collective** rights. It thus asserts the authority of the indigenous **group** to own land and other resources, enter into negotiations and regulate the affairs of its members in line with customary laws which may be quite different to national laws. Indigenous peoples are thus, to some extent,

recognized as autonomous seats of power within the state. Outsiders dealing with indigenous peoples need to recognize the political nature of their interaction with them.

The examination of the relationship between conservationists and indigenous peoples, summarized below, takes these internationally agreed legal norms as its starting point. Unfortunately, conservationists have in the past had a very different starting point and, in general, still have a long way to go before a respect for these rights is incorporated into their programmes.

Indigenous people are particularly indignant of the fact that it is exactly because the areas that they inhabit have not been degraded by their traditional resource use practices that they are now coveted by conservationists who seek to limit their activities or expel them altogether from their customary lands. As one Karen facing eviction from the Thung Yai wildlife sanctuary in Thailand noted:

When we moved into these forests over two centuries ago, Bangkok was just a small village surrounded by lush vegetation. Over these many years, we Karen have protected our forest lands out of respect for our ancestors and our children. Maybe if we had cut down the forests, destroyed the land, and built a great city like Bangkok, we would not now be faced with possible eviction (cited in Thongmak and Hulse, 1993:167).

PROTECTING BIODIVERSITY

The notion of conservation through the establishment of protected areas has, as we have seen, a long pedigree. From royal forests and hunting reserves, through game reserves and wildlife sanctuaries, to national parks, the practice has a history almost as long as civilization. Yet in recent decades, the establishment of protected areas has become a global business (Abramovitz, 1991) and the types of protected areas have become much more sophisticated. To a large extent, the refinement of these types of reserves is a response to problems that conservationists have encountered in their management and reflects attempts to accommodate the different degrees of human activity that should be permitted within their boundaries (see box 2). The proliferation of ideal types has, however, kept far ahead of legislative changes. For this reason national parks remain the most common type of protected area, especially in developing countries.

Scientific advances have seen a commensurate sophistication in concepts of biodiversity conservation — only one objective among many that underlie the definition of protected areas. Whereas the first parks in Yosemite and Yellowstone were established to preserve the scenic beauty and unusual geology of the areas, other protected areas have been established as much to secure certain ecological values — local climate, soil conservation and regulating hydrology. Conservation of flora and fauna began with efforts to conserve prized game animals and, later, other larger forms of wildlife that had typically been the prey of the hunter. As wildlife has increasingly been perceived by

urban people as *choses à penser* rather than *choses à manger*,² the focus of much conservation has been on what have come to be known as the “charismatic megafauna” — big, spectacular animals of widespread popular appeal. Conservation of these species has absorbed the lion’s share of the conservation budget.

It is only relatively recently, however, that the conservation of biological diversity — shortened as “biodiversity” — has become a popular intent. Ironically, this has come about largely as a result of a growing perception that genetic material and genetic diversity are not just a mechanisms of inheritance and evolution, but part of humankind’s heritage, potentially lucrative resources.

As ecological awareness has grown, the focus has also shifted from the conservation of species (so-called alpha conservation) to the conservation of habitat (so-called beta conservation), a shift reflected in the change of name of one the largest conservation organizations, the World Wildlife Fund, to the WorldWide Fund for Nature (WWF). Special measures to protect areas of intense species endemism have led to the development of a third kind of conservation (referred to as gamma conservation) (Huber, 1993).

Identifying priority areas for biodiversity conservation has also become a highly technical business. Although big mammals are still major targets, mainly to satisfy the expectations of public supporters, conservationists have broadened their concerns to embrace the full range of biodiversity. In order to capture the greatest number of species, they have thus focused much of their attention on the tropics, where over half the world’s species are found in only 12 per cent of its surface area. The result is that conservation practice has a tendency to be articulated along a North-South axis, with conservation institutions in the industrial world, funded by their members or the northern aid agencies, seeking to protect the resources of the developing world from the depredations of their own populations (Bonner, 1993). This has had the unfortunate result of sharpening conservation’s often top-down style of operation.

With biodiversity now vanishing at an unprecedented rate (Wilson, 1988; Reid and Miller, 1989), conservationists have realized that attempts to save all biodiversity are futile and that they must concentrate their scarce resources on key areas. The result is a policy of global “triage”³ — attempts to salvage areas of maximum diversity and least vulnerability, while writing off other areas as doomed or of lower priority (McNeely et al., 1990). An unintended result of this approach is that protected areas tend to be selected according to technical criteria while giving only secondary consideration to social and political issues. This also reinforces conservation’s technocratic tendency, with the effect of marginalizing indigenous people.

² “Things to think about” rather than “things to eat”.

³ The practice instituted during the First World War whereby French nurses separated the casualties into those which were not worth treating, those needing emergency surgery and those which could wait a while for treatment.

Box 2
Protected Areas* Management Categories

Category I	Strict Nature Reserve/Wilderness Area: protected area managed mainly for science or wilderness protection
Category Ia Definition	Strict Nature Reserve: protected area managed mainly for science <i>Area of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features and/or species, available primarily for scientific research and/or environmental monitoring.</i>
Category Ib Definition	Wilderness Area: protected area managed mainly for wilderness protection <i>Large area of unmodified or slightly modified land and/or sea, retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to reserve its natural condition.</i>
Category II Definition	National Park: protected area managed mainly for ecosystem protection and recreation <i>Natural area of land and/or sea, designated to (a) protect the ecological integrity of one or more ecosystems for present and future generations; (b) exclude exploitation or occupation inimical to the purposes of designation of the area; and (c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.</i>
Category III Definition	Natural Monument: protected area managed mainly for conservation of specific natural features <i>Area containing one, or more, specific natural or natural/cultural feature which is of outstanding or unique value because of its inherent rarity, representative or aesthetic qualities or cultural significance.</i>
Category IV Definition	Habitat/Species Management Area: protected area managed mainly for conservation through management intervention <i>Area of land and/or sea subject to active intervention for management purposes so as to ensure the maintenance of habitats and/or to meet the requirements of specific species.</i>
Category V Definition	Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation <i>Area of land, with coast and sea as appropriate, where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological and/or cultural value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area.</i>
Category VI Definition	Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems <i>Area containing predominantly unmodified natural systems, managed to ensure long-term protection and maintenance of biological diversity, while providing at the same time a sustainable flow of natural products and services to meet community needs.</i>

A protected area is defined in the new **Guidelines for Protected Area Management Categories as: An area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other means.
Source: IUCN, 1985.*

It is important to realize that few conservation agencies continue to believe that the establishment of protected areas will by itself assure the preservation of biological diversity, because, while protected areas attempt to isolate threatened areas from the forces destroying surrounding zones, they do not address the root causes of this destruction (cf Wells and Brandon, 1992:xi). On the one hand, this appreciation has led to attempts to institute captive breeding programmes to maintain gene pools of threatened species even after their natural populations or habitats are destroyed; *ex situ* conservation by putting germ plasm into cold storage is another approach. On the other hand, as dealt with briefly below, conservationists advocate a broader planning approach as a means of changing the direction of development strategies. Nevertheless, the creation and extension of protected areas absorbs most of the funds of non-governmental conservation bodies. Protected areas also remain a priority for many international funding agencies, like the World Bank and Global Environment Facility, as the most practical way of conserving the greatest amount of biodiversity (World Bank, 1993b:110).

The ethic underlying the conservation of biological diversity is that it is for the global good and the needs and rights of future generations. Nevertheless, profit motives have never been far away. Indeed, the first parks at Yosemite and Yellowstone in the United States were created largely as a result of pressure from the railway building lobby, which sought to increase the numbers of fare paying passengers by routing their tracks near to scenic sights for what today we have reinvented as “ecotourism” (DiSilvestro, 1993).

Conservation is thus plagued by an uncomfortable internal contradiction. On the one hand it seeks to preserve wilderness free of human contamination, yet on the other hand it has to make conservation pay by promoting non-damaging forms of use. This raises the question, never far from the forefront of indigenous people’s minds when they learn that their lands are to be developed for conservation, conservation for whom? Like most development efforts, much conservation that excludes local people is justified in terms of a conventional trade off between global or national interests and local interests (Dixon and Sherman, 1991).

THE SOCIAL IMPACTS OF WILDERNESS PRESERVATION

We were chased out on the first day. I didn’t know anything was happening until the police ran into my compound. They all had guns. They shouted at me, told me to run. I had no chance to say anything. They came at us and we ran, they came so violently. I was frightened for the children — I had eight children with me — but we just ran off in all directions. I took my way and the children took theirs. Other people were running, panicking, even picking up the wrong children in the confusion. I lost everything. I had 31 cows and some goats and hens. They were killed — 20 cows were killed and the rest taken. They burned everything, even the bed and furniture and the kitchen. We’re poor now (Joy Ngoboka, evicted from the Kibale Game Corridor, Uganda, 1 April 1992, cited in Feeney, 1993:2).

An unhappy truth which conservationists have only recently come to admit is that the establishment of most national parks and protected areas has had negative effects on their prior inhabitants. So powerful has been the notion that conservation is about preserving wilderness that conservationists have been intensely reluctant to admit that indigenous peoples and other local residents have any rights in protected areas. The facts are, however, that — like it or not — most protected areas are inhabited. Recent figures for Latin America suggest that 86 per cent of protected areas in Latin America are inhabited (Kemf, 1993a; Amend and Amend, 1992). Some 80 per cent of the protected areas of South America have indigenous peoples living inside them. In Central America, the figure is 85 per cent (Alcorn, forthcoming). Worldwide, according to the IUCN's figures for 1985, some 70 per cent of protected areas are inhabited (Dixon and Sherman, 1991).

The world's first national park at Yellowstone had first been conceived by the romantic artist George Catlin as a preserve for both nature and Indians (see opening quote). At the time the park was created in 1872, however, Indians were widely viewed as “sneaking red devils”. The resident Shoshone of Yellowstone were thus expelled, not altogether “willingly”, and subsequent records suggest that there were violent conflicts between the park's authorities and the Shoshone: as many as 300 people were killed in clashes in 1877 and nine years later administration of the park was turned over to the United States Army (Kemf, 1993a:5-6).

As it had commenced so it was to go on. Relocation, often forced, of indigenous peoples has been a recurring necessity in order to establish protected areas in the image chosen for them. One of the most grotesque examples of this process was documented by Colin Turnbull in his book **The Mountain People**, which described the consequences for the hunting and gathering Ik of their expulsion from their traditional hunting grounds by the establishment of the Kidepo National Park, in colonial Uganda. Obligated to adopt subsistence agriculture in the barren highlands neighbouring the park, the Ik suffered prolonged famine leading to a total collapse of their society and the disappearance of all mores except naked self-interest. The tradition of food sharing vanished as the Ik slowly died of hunger while seeking to delay the inevitable through “poaching”, begging and prostitution (Turnbull, 1972).

Forced relocation to make way for national parks has been a particularly severe problem for indigenous people in watershed forests, areas which are often afforded strong protection to conserve soils — and thus prevent the siltation of downstream engineering projects. Thus the Dumoga-Bone National Park in Sulawesi, Indonesia, while noted as a successful example of buffer zone management⁴ by the IUCN (Sayer, 1991:44), in fact required the expulsion of the indigenous Mongondow people, who had been forced up the hillsides by the agricultural settlement and irrigation projects in the lowlands (**Down to Earth**, No. 5, 1989).

The last remnants of Sri Lanka's aboriginal people, the Vedda, were likewise expelled from the Madura Oya National Park in the catchment of the controversial Mahaweli Development Programme. Although they had been demanding rights to their lands since at least 1970, the Vedda were obliged to leave their lands with the gazettment of the park in 1983. Brought down out of the hill forests to small settlements

⁴ See also p. 30.

where they were provided houses and small irrigated rice paddies, the Vedda — traditionally hunters and gatherers supplementing their subsistence by shifting cultivation — had trouble adapting to a sedentary life. Subsequent surveys showed they resented the lack of access to forest produce, game and land for shifting cultivation and were fast losing their own language. Only one small group insisted on remaining in the forests where they were persistently harassed by officials. International protests in support of the Vedda led to presidential promises that some land would be set aside for them: a promise which, to date, remains unfulfilled (Chandrasena, 1993).

National parks established to protect mountain gorillas in Zaire, Uganda and Rwanda have also entailed the expulsion of Batwa “pygmies”, whose extremely marginal position in the local political economies has resulted in them being apparently entirely ignored by subsequent attitudinal surveys of affected people (Hannah, 1992:34; Wells and Brandon, 1992:76). Nevertheless, the Batwa achieved international notoriety in the film **Gorillas in the Mist**, where they are explicitly blamed for the murder of the conservationist Diane Fossey thus perpetuating the myth that conservation in Africa can only be achieved through violent confrontation with indigenous peoples (Adams and McShane, 1992).

Forced relocations are not a thing of the past. In Uganda, for example, mass expulsions of forest dwellers and peasant settlers were recently carried out under a project funded jointly by the World Bank, European Community, DANIDA and NORAD to create a wildlife corridor between the Kibale Forest Reserve and the Queen Elizabeth National Park. Completely contrary to the World Bank’s and the Development Assistance Committee’s norms on relocation under development projects, some 30,000 indigenous people in the Kibale Forest Reserve and Game Corridor were expelled without warning, leading to serious human rights violations, mass impoverishment, burning, looting, the killing of livestock, and deaths of indigenous people (Feeney, 1993). Shortly after the evictions, the chief technical adviser from the European Community reported that:

This successful operation... has opened up the possibility of the frustrated elephant population of Kibale once more being free to migrate between the Queen Elizabeth National Park and the forest... (cited in Feeney, 1993:4)

According to the World Bank, which itself ascribes to the wildlands approach to conservation, “resettlement is particularly important when the local people’s activities are fundamentally incompatible with the preservation objectives of Wildland Management Areas” (Ledec and Goodland, 1988:97). Yet it is far from clear whether the social, political and environmental problems incurred by transplanting people out of protected areas are justified even in strictly environmental terms. Not only do they create a difficult political environment for the protected area to function within, but they also disrupt neighbouring environments into which the people have been displaced.

The study of forced resettlement has become something of a science due to its increasing frequency as an adjunct of “development” programmes — the World Bank, for example, expects to forcibly relocate at least 3.1 million people in the years from 1986 to 1996 (World Bank, 1993b)). As one World Bank study has noted, forced

relocation can “be expected to cause multidimensional stress” (World Bank, 1982). This stress includes “psychological stress” including the “grieving-for-a-lost-home syndrome”, “anxiety for the future” and “feelings of impotence associated with the inability to protect one’s home and community from disruption”. These stresses may become so great as to cause problems under the second category of stress: “physiological”, discernible as an actual increase in health disorders. While such conditions may be reversible, the stress factors that come under the rubric of “socio-cultural stress” may not be. The “cessation of a range of familiar and satisfying economic, social and religious activities which are tied to the oustee’s old home” are related to an overall breakdown in society, particularly political structures (Scudder and Colson, 1982; Partridge et al., 1982). The leaders of the oustee communities find themselves in a “no-win situation”, since they lose legitimacy if they approve the removal of their people against the will of the majority, but also if they oppose the removal, because ultimately they are proved powerless (World Bank, 1982). Societies that are removed from their lands not only lose the economic basis for their survival, but also experience “a major reduction in their cultural inventory due to a temporary or permanent loss of behavioural patterns, economic practices, institutions and symbols” (Scudder and Colson, 1982:271).

Materially, most oustees are substantially worse off following removal from their original areas. The fact that compensation is usually inadequate (Scudder and Colson, 1982:270) is compounded by the fact that cash compensation is often squandered improvidently by people unused to land markets. Indigenous people, unaccustomed to dealing with land as a saleable commodity, frequently fall prey to the unscrupulous. Summarizing the experience of years of work trying to mitigate the impact of forced resettlement programmes, Thayer Scudder of the University of California has noted that “forced resettlement is about the worst thing that you can do to a person short of killing him” (cited in Claxton, 1986).

The environment too often suffers as a result of forced relocations. Traditional balances between humans and their environments are disrupted. People are confined to small and inappropriate land areas; traditional social institutions and patterns of land management and tenure, which previously regulated access to resources, are undermined. Short-term problem solving behaviours replace long-term planning. The net result is environmental degradation (Colchester, 1987a).

Although resettlement has been and continues to be one of the most common means of dealing with indigenous people in protected areas, alternatives have long been tried. Continued residence by indigenous peoples has sometimes been tolerated, often to encourage tourism, on condition that the people maintain a “traditional” lifestyle and do not change the way they hunt or farm. Such policies, referred to as “enforced primitivism” by the World Bank (Goodland, 1982), which rejects them, were quite vigorously applied by the apartheid-based régimes of southern Africa. As Robert Gordon (1985) has documented, the policies were based on racist concepts which advocated that “we must treat the Bushman as fauna and realize that he is incapable of assimilating European ideas”. Accordingly, the last group of Bushmen in South Africa was allowed to live by the Gemsbok National Park where they were expected to survive on government handouts and by “traditional” hunting. The experiment in preserving the Bushman “race” was not a success, as the Bushmen not only sought to change their way of life — they

wanted clothes, improved housing and hunting dogs — but also intermarried with other local Africans. After some years, one of the park wardens noted with disgust that “their desirability as a tourist attraction is under serious doubt, as is the desirability of letting them stay for an indefinite period in the park. They have disqualified themselves...” (cited in Gordon, 1985:32).

In Botswana, the Central Kalahari Game Reserve was originally established as a reserve area to protect the San “Bushmen” and other traditional desert dwelling groups and their habitat. Within the reserve, the San and other hunter-gatherers are allowed to hunt without licences as long as they use their traditional weapons (Hitchcock and Holm, 1993:326). The reserve thus protects them, at the cost of setting limits on how they can develop their economies. However, conservationists have grown increasingly concerned at the changes in the Bushmen’s ways of life — they have adopted small herds of cattle, have concentrated at the tube-wells where limited government services are provided, and some have begun hunting with non-traditional weapons — and have called for bans on hunting and even the expulsion of indigenous people from the area (Hitchcock, 1990). The government gave in to the pressure and set about developing plans to resettle the groups inhabiting the reserve. The move prompted an international outcry from human rights groups, which pointed out that the Reserve was suffering much worse damage from diamond mining, ranching and tourism (**Survival International News**, No. 22, 1988). The government subsequently backed down and the resettlement plan was dropped (Hitchcock and Holm, 1993).

Conservationists now face another problem. As a result of their success in generalizing a conservation model that excludes people, national parks legislation in many countries necessarily requires the removal of residents — such laws are the norm in South America for example (Amend and Amend, 1992). As a result, conservationists may find that they are legally obliged to resettle people from national parks even though there is no evidence that their presence poses a threat to the local ecosystem or biodiversity.

A case in point is the Korup National Park in Cameroon, a 126,000-hectare forest inhabited by about 1,000 people and used by several thousand more. According to the legal decree under which the park was established, these villagers would have to be resettled (Sayer, 1991:36). But researchers developing a management and resettlement programme for the park have been sharply divided about both the necessity and advisability of the resettlement. Early surveys suggested that — with the exception of one community in the very south of the proposed park, which was engaged in a vigorous trade in bushmeat across the border to Nigeria — the levels of hunting, farming and gathering were probably sustainable. Subsequent, more detailed research did not disprove this, although levels of hunting were found to be higher than previously thought (Infield, 1988:45). On the other hand, these studies revealed that hunting was the single most important source of cash for the majority of villagers, representing more than half of their meagre income, yet the restrictions imposed by parks regulations meant that development of alternative means of generating a cash income would also be illegal (Infield, 1988). The WorldWide Fund for Nature thus felt obliged to argue that “the presence of villages within the park whose inhabitants are involved in hunting, trapping and agriculture is incompatible with the operation of the park”, and they advised a voluntary resettlement programme based on creating incentives to relocate to neighbouring forest areas with

better soils, where roads, community development initiatives and improved services would be provided (Republic of Cameroon, 1989). It remains unclear whether this programme will be successful (Sayer, 1991:38), especially as the government has been unwilling to pay compensation to villagers for the abandonment of homes, crops and fruit trees.

At the same time, the imposition of restrictive legislation and the threat of relocation, which has now hung over these people's heads since 1981, has created a hostile attitude towards the park (Infield, 1988). Surveys showed that "many, perhaps all, of the thirty villages within the Park and three kilometres from its boundary claim traditional rights to land and natural resources within the Park itself" (Devitt, 1988). One specialist looking into the managerial aspects of the park advised against resettlement, arguing that the local political disruptions would foment greater antagonism to the park and make management and policing untenable or very costly. The specialist also pointed out that the same laws that made resettlement from the park necessary would also apply in the buffer zones to which populations were relocated, making their presence there equally illegal (Ruitenbeek, 1988).

The world over, conservationists are now beginning to realize that the strategy of locking up biodiversity in small parks, while ignoring wider social and political realities, has been an ineffective strategy. As long as polluting and unsustainable land use patterns prevail outside, the future of the parks is in jeopardy (DiSilvestro, 1993). At the same time, the establishment of protected areas without taking into account the needs, aspirations and rights of local peoples may create ultimately insoluble social problems, threatening the long-term viability of the parks quite as much as the perceived threats which caused them to be established in the first place.

As Jeffrey Sayer of IUCN has noted:

Legal protection is rarely sufficient to guarantee the continuing integrity of conservation areas. Local people, often with good reason, frequently see parks as government-imposed restrictions on their legitimate rights. Patrolling by guards, demarcation of boundaries and provision of tourist facilities will therefore not deter them from agricultural encroachment. Illegal hunting and gathering of forest products will be difficult to control. Laws which are resented by the majority of the population are difficult to enforce. In these situations, protected areas lose support and credibility, and their condition rapidly deteriorates (1991:1).

Box 3

Animal Rights and Indigenous Peoples: The Fur Wars in the Arctic

Today it is possible to distinguish between two schools of environmentalism. On the one hand, there are those who argue for adjustments in human interactions with the biological environment in order to ensure the sound functioning of ecosystems and the conservation of species diversity, because ultimately human survival will depend on them. Such “utilitarian” groups favour a pragmatic acceptance of humankind’s use of nature, accepting “culls”, “sustainable cuts” and “allowable annual yields” without sentimentality. On the other hand, other environmentalists argue for a new respect for nature based on a rejection not only of “anthropocentrism” and “speciesism”, but also on a respect for “animal rights”. For these groups, the killing of warm-blooded animals and other beings — even the cutting of forest tree — are immoral acts in themselves and constitute a violation of the individual rights of other forms of life. Like the wilderness preservationists before them, these environmentalists advocate putting nature off limits to human beings as a means of protecting it.

Yet, in practice, the distinction between these “utilitarian” and “deep ecology” approaches has always been blurred. Most environmental and conservation groups that rely on public support in the Western industrial countries for fund raising and popular campaigns have pegged their work on the appeal of large furry animals — so-called “charismatic megafauna” — and on sensational photographs of harpooned whales, battered baby seals and butchered elephants. Since they rely on a culturally generated sense of outrage in the general public, they have consciously and unconsciously set their agenda to suit these cultural perceptions.

Indigenous peoples have suffered badly from the effects of these cultural blinders. In the Arctic, in particular, where temperatures are too low for agriculture, the hunting, killing and butchering of animals has been basic to indigenous peoples’ ways of life. Interaction with the outside world has inevitably drawn these peoples into the international market and they have thus come to depend to a large extent on a commerce in skins and furs to maintain their livelihoods. But conservationists and later animal rights activists have successfully campaigned to end this trade. Beginning with species that were classed as threatened, but then expanding their campaigns to embrace all furs, environmentalists have succeeded in substantially reducing the trade and as a result have all but undermined these peoples’ ways of life. The result has been quantified in a massive increase in welfare dependency, family breakdown, alcoholism, divorce, truancy, suicides and emigration among peoples whose views of nature have not accorded with Western ones, even though their deeply held religious beliefs resonate with a respect for animal spirits.

Source: Lyng, 1992.

For example, resentment among Sherpas at the imposition of the Sagarmartha National Park (Mt. Everest) and the undermining of traditional commons management practices led to an acceleration of forest loss. Local elders estimated that more forest was lost in the first four years after the Park’s creation than in the previous two decades (Sherpa, 1993:49). In India, resentment by local people to national parks legislation and enforcement agencies has caused increasing problems. In some cases, as Gadgil and Guha note, villagers have responded by setting fire to large areas of national parks, such as the Kanha National Park of Madhya Pradesh. This kind of “incendiarism” has occurred in areas as far apart as the Ho areas of Bihar and the Nagarhole National Park in southern India, which displaced the Bette Kurumbas and Jen Kurumbas peoples to establish a tiger sanctuary, where some 20 square kilometres of forest were recently burned after wildlife guards were accused of killing a poacher (Fürer-Haimendorf, 1986; Roy and Jackson, 1993).

One of the major problems with the protected areas approach has been that the national agencies charged with administering these areas are, generally speaking, small, politically marginal and under-resourced. In Africa, for example, one study found that most countries spend less than a fifth of the minimum amount of money considered adequate for parks management. The world famous Amboseli National Park in Kenya had a budget in 1988 of only US\$ 25,000. In 1987, the budget for all Madagascar's protected areas was under US\$ 1,000 (Hannah, 1992:3). The same parlous situation has been documented in Central America, where of the 21 protected areas which existed in 1989, only 13 had regular personnel. Only 9 per cent of the 84 people who did work in these areas had professional training (Utting, 1993:93). In Brazil, according to local conservationists, the agencies are not so much underfunded as politically unstable, inefficient and lacking in well-qualified staff. The result, of course, is that national parks become open access areas, where local peoples' rights are denied but state protection is unenforced. The limited personnel is spread out over vast areas, has inadequate transport and other resources and spends most of its energy trying to supplement its meagre income by legal and often illegal means. This leads to an acceleration of social impoverishment and environmental destruction. Without the support of local communities, protected areas may be self-defeating.

As Janis Alcorn has noted, classical conservation initiatives have:

...focused on supporting protected-area strategies implemented through state governments. Park departments, with staff trained by academic centres that teach strategies based on protected areas, still espouse the conservationists' goals and agenda... But, despite the confluence of those two agendas, park departments and other state agencies have failed miserably at conserving biodiversity, globally and in Amazonia. Instead, paper parks abound, and deforestation rates have increased. While states have pleased conservationists by announcing the creation of parks, a careful look at state performance shows a general pattern whereby state-linked élites are continuing to log and mine in protected and reserved areas (1993:424).

In Africa, over a million square kilometres of land have been set aside as national parks and game reserves (Hitchcock, 1990), yet they have been remarkably unsuccessful at protecting wildlife. Commenting on the problems confronting national parks in Central Africa in his book titled **The Imperial Lion**, Stuart Marks argues:

Materialistic Northerners have sought to preserve African landscapes in the only way they could, by separating them from daily human activities and setting them aside as national parks where humans enter on holiday... Wildlife protection, like other imposed policies, has always carried with it the implications of force, of quasimilitary operations, and of sanctions. It is my contention that for the West to persist in its support of preservationist policies that hold vast acreages of land hostage to its myths is to ensure their certain destruction through African needs and perspectives (cited in West, 1991:xviii).

More recently, WWF authors Jonathan Adams and Thomas McShane have reached similar conclusions:

As long as conservation operates on the notion that saving wild animals means keeping them as far away as possible from human beings, it will become less and less relevant to modern Africans. Parks and other protected areas will eventually be overrun by people's need for land unless the parks serve, or at least are not completely inimical to, the needs of the local population... Conservation will either contribute to solving the problems of the rural poor who live day to day with wild animals, or those animals will disappear (1992:xv, xvii).'

A study on southern India by Madhav Gadgil found that the assertion of state control over natural resources had led to "severe conflicts with the local populations attempting to maintain their customary rights to resources. In the process, the local traditions of resource conservation have been increasingly disrupted or have broken down altogether "(1992:268). In a like vein, Sanjoy Deb Roy of the Indian Forest Service and Peter Jackson of IUCN note that:

All of India's nearly 500 protected areas are virtual islands surrounded by villages and agriculture land, where people are desperately short of the basic resources of life, such as firewood, building materials and grazing areas for their livestock. Inevitably they invade the reserves and come into conflict with the authorities. Poaching of animals, timber and other forest produce is rife, and cattle and goats are found in most reserves. Resentment at the wildlife authorities' attempts to control the situation has exploded in violence against officials and guards (1993:160).

These protected areas have already displaced some 600,000 tribal people and forest-dwellers and affected many more. According to some social activists in India, the Ministry of Environment and Forests plans to establish a further 650 Wildlife Sanctuaries and 150 National parks in the next few years, displacing as many people again (PRIA, 1993). Indeed, many Third World environmentalists, in countries such as Ecuador, Venezuela, Indonesia and the Philippines, believe that national parks are often purposefully established as a means of denying local peoples' rights and reserving the areas for future exploitation. In India, conservation groups have realized that protected areas from which tribal peoples have been expelled are unusually vulnerable, deprived as they are of their first line of defence.

Conservationists have fought shy of admitting the underlying reason that the classical approach to protected area management has failed. For the choice that they have made is to impose their vision, their priorities and their values of landscape, nature and society on other peoples, securing their endeavours through the power of the state and its right of eminent domain. Almost by definition, therefore, conventional protected areas have been at odds with indigenous peoples' rights to self-determination and territorial control.

THE POLITICS OF PARKS

Action can be initiated only at a political level, conservation being more a social matter than a scientific or technological one (Schaller, 1993:xiii).

Conservationists have begun to realize that plans to protect species and habitats most often go awry if social dimensions are ignored or local communities are marginalized. Yet the very politics of conservation tends to militate against an adequate involvement of local people. Since classical conservation is so often a policy that is introduced either by outsiders to a region or foreigners to a country, it seeks legitimacy and authority by making alliances with government. For obvious reasons, since they lack local constituencies or power bases, conservationists tend to see “policy makers” as their target group (Reid and Miller, 1989:vi) and hope that, by winning them over to their point of view, they can assure real changes on the ground by changing the legal status of land and obliging local players to change their economic activities. The result is that classical conservation approaches tend to reinforce existing divisions between local people and government, thereby increasing alienation and conflict rather than resolving them.

This is made most starkly apparent with regard to rights to land. Especially in developing countries and in contrast to the practice in Britain, national parks legislation alienates protected areas to the state, thereby annulling, limiting or restricting local rights of tenure and use. This act alone makes collaboration between indigenous peoples and conservationists nigh impossible. For land rights are not just dry legal concepts, they express the deep connections between peoples and their environment, they establish the framework that regulates community use of the environment and are vested in local **political** institutions that provide the alternative to direct state management of resources. The denial of indigenous peoples’ land rights is thus not just contrary to both customary and international law, it tears at the fabric of indigenous society and its relation to the environment. Yet conservationists continue to be shocked and affronted by the vehemence with which local people respond to the imposition of protected areas, and tend to assume that this hides an intention to deplete or destroy natural resources.

One example is the Loagan Bunut National Park in Sarawak, which was designed to protect Sarawak’s only natural lake (Sayer, 1991:56). The lake is the customary property of the Berawan people of Long Teru who have complex regulations governing who has rights to fish the lake and its rivers (Colchester, 1987b). Correctly noting that agricultural development, road-building and logging seriously menaced the Berawan’s lands, government officials moved precipitately to define the area as a national park. The fact that their lands were increasingly under threat was not news to the Berawan — Iban and Malaysian Chinese settlers had been taking over their lands for many years and logging, too, had taken its toll, with soil pollution causing a decline in fish stocks, leaving the Berawan with a seriously reduced resource base on which to survive.

Despite being fully aware that the area was important to the Berawan for fishing, and despite proposals that it would be better to develop the area as a biosphere reserve, where the people could retain certain rights, instead of as a national park, which would extinguish them (WWF, 1985:23), in late 1986, the government’s National Parks and Wildlife Office went hurriedly ahead with their plans to define the area as a national

park. The Berawan found themselves served with a notice that they should file claims for compensation for the extinction of their customary rights by May 1987. At the same time, a proclamation was circulated, noting that erecting buildings, hunting, cutting vegetation and clearing land were all to be prohibited in the park, and made punishable with a fine of M\$ 2,000 (US\$ 570) and up to one year in jail. With a stroke of a government pen, the Berawan were to become poachers and squatters on their own lands. Predictably, the people reacted strongly against the proposal. They asserted that they could not and would not relinquish control of their traditional territory. “No amount of money can compensate these losses because we depend on the land and the lake for our survival” (cited in Colchester, 1989:64).

In 1993, the Berawan were once again in the news. Like the Berawan of Long Teru, those at Long Terawan had their land rights extinguished by the establishment of a national park, this time at Gunung Mulu, but with their agreement in exchange for legislation which recognized their rights to continue to hunt, fish and collect building materials inside the park. In the years between these two episodes, the Berawan experienced a progressive encroachment on their remaining lands just outside the park as tourist lodges were established to service the increasing flow of visitors. More recently, the government gave the go ahead for Japanese developers, allegedly with the involvement of the family of Sarawak’s Chief Minister, to clear land within and on the margins of the park for creating a luxury hotel, with airport, roads, a tourism complex and golf course. The Berawan have protested the project, which deprives them of further land, stating “this is not development, but theft of our land, our culture and our dignity as human beings”.

Intentionally or not, conservation efforts which ignore or deny local rights and concerns often serve to bolster state interests which have little or nothing to do with conservation. A well-documented example of this process is the WWF’s flagship programme in China to preserve the panda (Schaller, 1993). The programme commenced in a very unfavourable political context shortly after the Cultural Revolution, a time when adherence to state doctrine was a matter of life or death for the Chinese and when bold and innovative thinking was intolerable. Bowing to this reality and in exchange for the right to carry out field research on pandas and jointly develop a management plan to protect panda habitats, the WWF parted with over a million dollars for a prestigious but virtually useless high-tech captive breeding and veterinary study programme carried out in a huge, ugly concrete research centre in the Wolong Nature Reserve. No effort was put into studying the relations of local communities — which included both Han and ethnic minorities — with their local environment, much less were they involved or consulted in decision-making. The main destroyer of panda habitat, logging, has largely continued unchecked, while poachers have been dealt with unpredictably, with negligent *laissez-faire* alternating with extreme severity (Schaller, 1993). A number of ethnic minority communities were threatened with forced resettlement (**Survival International News**, No. 4, 1986), though the ill-planned efforts came to nothing (Ghimire, 1994).

The full irony of the panda conservation programme is that by making the panda into such a potent symbol both of conservation and Chinese nationalism it actually increased pressure on the species in the wild. In the first place, pandas became prestige gifts from the Chinese government to visiting dignitaries. They were also coveted by zoos which wanted pandas as star attractions to increase revenue from visitors — though

they soon learned to disguise their cupidity behind the rhetoric of captive breeding. This increased demand for live pandas to be removed from their habitat. Panda skins also became extremely valuable in the illegal fur trade, leading to an increase in poaching. The overall result was that, by focusing international attention on the animal as a conservation icon, panda populations declined. At the same time, the main cause of panda decline — habitat destruction — went essentially unaddressed (Schaller, 1993:251).

The Chinese government has clearly not been the most comfortable partner for the conservation groups to deal with, and the fiercely authoritarian practices of the government partly explain why a more socially sensitive approach was not adopted. However, the WWF's latest habitat management plan for the panda still fails to deal adequately with social issues (Schaller, 1993:231; Ghimire, 1994).

The Save the Tiger programme in India, another of WWF's most publicized initiatives, has been just as controversial. Launched in 1973, the project has expanded to include more than 2,500 square kilometres of forest. Most of the reserves have followed India's typical pattern of denying or heavily circumscribing local peoples' rights, and this by itself has led to much hardship and resentment. But the increase in tiger numbers as a result of the programme has also caused more direct problems to the local residents. According to Gadgil and Guha, nearly a thousand human lives have been taken by tigers in the past twenty years in the Sunderbans alone (1992:234).

A similar problem has been faced by the Chenchus, one of the few surviving foraging communities in southern India. Living in the forests that clothe the Nallamalai Hills on both sides of the Krishna River in Andhra Pradesh, they lead a semi-nomadic existence as hunters, food gatherers, and collectors of forest products such as honey, gum, soapnuts and medicinal plants. In the 1940s, around 40,000 hectares of the Nallamai Hills were set aside as a Chenchu reserve allowing the Chenchu to maintain their way of life relatively undisturbed. However, in 1979, as part of the Save the Tiger programme, the entire area was declared a tiger sanctuary and the Chenchu were prohibited access to the core area, causing them serious hardship (Fürer-Haimendorf, 1986; **Survival International News**, No. 15, 1987; Morris, 1987).

Resentment of the local people to the impositions of the tiger programme has increased their susceptibility to various insurgencies. In the south of Madhya Pradesh, for example, 52 villages of Maria tribals were evicted from their lands in 1984 to make way for the Kutru Tiger and Buffalo Reserve (Fürer-Haimendorf, 1986). As a consequence, the Maria are alleged to have sided with Naxalite insurgents, who have long championed tribal rights (Banerjee, 1984), having commenced as a revolutionary land reform movement among the Santal tribal people of West Bengal (Duyker, 1987).

One of the earliest reserves established by the Save the Tiger programme was the Manas Tiger Reserve in Assam, an area that enclosed part of the traditional homeland of the Bodo tribal people (Roy and Jackson, 1993). The Bodo, who once predominated in the area, have seen their homeland progressively taken over by migrants brought in by the British who opened the state to logging and tea-plantations. Political instability and landlessness in Bangladesh have also led to successive waves of Hindu and Bengali migration into the area (Tucker, 1988), squeezing the Bodo off of their ancestral lands

and turning them into an ethnic minority in their own state. The Bodo have reacted by beginning to demand the establishment of an independent Bodo state. Some have even taken up arms to achieve this. Using the remoteness of the Manas area and the resentment of local Bodo who have lost lands to the reserve to their advantage, the insurgents took over the area and have driven out the park's guards (Roy and Jackson, 1993). Reports also suggest that the Bodo insurgents have been killing wildlife to provide funds to arm their movement — three-quarters of the rhinos from the Manas park have reportedly been killed for their horns since 1989 (Kumar, 1993).

The Ju/Wasi “Bushman” of Eastern Bushmanland in Namibia have not reacted to the impositions of conservation laws in the same way, but the problems they face are similar (Gordon, 1985). In 1990, the Ju/Wasi had a total of 376 cattle at a dozen water points, in an area that was also home to some 400 lions. The conservation laws prevented the Ju/Wasi from killing the lions, even if they took livestock. As Robert Hitchcock notes, the irony was that hunters from the United States, Europe and Japan were allowed to shoot lions, which prompted an angry reaction from the Ju/Wasi. “Lions are the dogs of Western conservation” one said (cited in Hitchcock, 1990:228).

Conflict between local people and park authorities is widespread in Africa and has been exacerbated by the annexation of further areas as reserves for trophy hunting. Indignation at the hypocrisy of state interventions which prohibit local hunting but allow foreigners to hunt the same areas — all in the name of conservation — is keenly felt. One survey of local African attitudes to protected areas in northern Cameroon found vociferous objections to restrictions which prohibited hunting, fishing, gathering of medicinal plants and the killing of animal pests. One elder interviewee enquired:

When Fritzo was moving around this country carried on human shoulders to choose where to create national parks, I was a lot younger than now. Why did he choose our land? Was it not because there were many animals there? Were we not hunting? Are you telling us that we can't hunt because some animals will 'finish', as you said? When the white men come and hunt every year, why don't the animals get finished? Does it mean that it is only we who can make the animals finish? (cited in Njiforti and Tchamba, 1993:175).

The imposition of state controls on indigenous peoples not only leads to tensions between state agencies and local communities but it also serves to undermine indigenous systems of resource control and management. Indeed, this may be the explicit purpose of the protected area legislation. For example, the law establishing the National Integrated Protected Area System in the Philippines, while it claims to have the “preservation of ancestral domain and customary rights within protected areas as a management objective”, aims to put protected areas under “close management, control and study” so that “experts” can decide the location, timing and quantity of natural resources extraction by local communities (DENR, 1992:14). The result is the erosion of local systems of decision-making and the substitution of indigenous institutions with those of what Robert Hitchcock and John Holm call the “bureaucratic State”. In Botswana, “it is foreign aid organizations, their academic advisers, NGO leaders and top ranking civil servants who are actually deciding the substance and rate of social change among the San”. These

pressures, as much as land loss and economic problems, are undermining San culture and identity (Hitchcock and Holm, 1993:331).

The denial of local political control of areas annexed by the state may thus increase pressure on resources. As one community leader in northern Cameroon explained:

I don't know why people think that creating a national park and making people suffer is a good thing. We had always lived with these animals, and there were no problems until your national parks came. Do you know that what is now the Benoue National Park used to be the private hunting grounds of the *lamido* [local ruler] of Ray-Bouba? When it was still under the control of the *lamido*, we had to make sure that people didn't hunt there without his permission. He had to give approval for anybody to hunt there, and defaulters were punished by our traditional laws. People were not allowed to hunt certain species because they were reserved for the chief. When anyone did, the carcass was taken immediately to the palace. Since the national park came, who knows what is happening? (cited in Njiforti and Tchamba, 1993:177).

As Nancy Peluso has noted, the conventional conservation approach, which alienates lands to the state, builds on the assumption that

...each nation-state, including those which have only recently emerged from colonialism, has the capacity, the internal legitimacy, and the will to manage all resources falling within its territorial boundaries. The implication is that the nation-state should be able to control behaviour of all users of all resources located within the state's (self-)declared jurisdiction, whatever the origin of the state's claim, whatever the nature of competition for those resources, and whatever the nature or origins of resistance to the state's resource control (1992:47).

As Peluso points out, the state may go on to legitimize serious human rights abuses against those who resist state control in the name of an internationally sanctioned conservation ethic. It is alleged that since 1989, the Kenya Wildlife Service under its recent director Richard Leakey has declared a virtual "war" on ivory "poachers" and has summarily killed, without charge or trial, literally hundreds of indigenous people. Likewise in the Central African Republic, French soldiers have admitted to a "take no prisoners" policy in eliminating poaching, even killing off wounded poachers brought down by their guns. Mainstream conservationists pay little attention to these social costs and indeed help to finance some of the agencies which perpetrate such human rights abuses. At the same time, they apparently perceive the state and the armed forces as neutral mediators in conflicts over natural resources and advocate the "systematic" involvement of national security forces in conservation programmes (Peluso, 1992:66-67).

It is very doubtful if such a hard-line approach to nature conservation achieves its objectives, in the long term. More usually, as Peluso argues, the result is to intensify social and political conflict "which causes environmental degradation and ultimately fails to achieve the goals of international conservation interests. Nevertheless, the state may

not 'lose'. Even if conservation goals are not achieved, the state may succeed in strengthening its capacity to govern via the use of force" (Peluso, 1992:52).

SOCIETY AND BIODIVERSITY

The concept of wilderness as the untouched or untamed land is mostly an urban perception, the view of people who are far removed from the natural environment they depend on for raw resources. The inhabitants of rural areas have different views of the areas that urbanites designate as wilderness, and they base their land-use and resource management practices on these alternative visions. Indigenous groups in the tropics, for example, do not consider the tropical forest environment to be wild; it is their home (Gomez-Pompa and Kaus, 1992:273).

If the track record of the state indicates that it cannot be relied on to defend biological diversity, the question that then occurs to conservationists is whether any other institutions, such as indigenous ones, can. There are many who have argued that indigenous societies do live in harmony with their natural environment and are thus its best guardians, and this is an argument that many indigenous peoples themselves have used to bolster their demands for a recognition of their rights to their lands. Indeed, much of the support that indigenous peoples have been able to recruit in the industrialized North results from this belief that indigenous peoples are both closer to nature and motivated by a conservation ethic.

There are strong reasons for believing that many indigenous systems of resource use are relatively benign. In general, indigenous communities have developed ways of life remarkably attuned to their local environments. Many indigenous peoples' environments are less modified and degraded than surrounding areas. Since indigenous people are often orientated primarily towards self-sufficiency, and only secondarily to the generation of surplus for trade, their traditional economies and technologies are often environmentally appropriate. Their long association with their territories has resulted in indigenous peoples developing both strong ties to their lands, expressed both in customary law and in complex religious and symbolic schemes, and an extremely detailed knowledge of their resources. Such knowledge may be coded within traditional lore handed down and refined from generation to generation so that the practical justification for certain customs may not be immediately apparent either to researchers or the local people themselves (Alcorn, 1989; forthcoming). Crucially, many indigenous people see clearly that their long-term survival depends on them caring for their land for the sake of future generations. As Victor King remarks of the indigenous peoples of Borneo, "the traditional view of Borneo natives is that natural resources are held in trust for future generations" (King, 1993:167).

This combination of a long, past association with their environment and a commitment to remaining there in the future equips indigenous peoples very well for prudent management in the present. However, almost everywhere, indigenous societies are undergoing rapid change and it is not clear whether the balance that these societies have, in general, maintained with their environments can endure under changing

circumstances. In the first place, many indigenous peoples have lost much of their ancestral territory to outsiders and this had led to too many people being concentrated on too little land, upsetting traditional patterns of land ownership, management and use. Rising indigenous populations have likewise increased local pressure on the environment. Increasing demands for cash, some externally imposed and some internally generated, also place a heavier burden on local economies and environments to produce a marketable surplus. New technologies, like steel tools in place of stone ones, chainsaws, shotguns, agricultural machinery and transportation, new crops and agrochemicals, may radically change land use patterns. At the same time, traditional value systems, social organizations and decision-making processes may be transformed — and not just as a result of outside impositions. All these forces tend to upset indigenous peoples' relations with their environments and may result in over-intensive land use and environmental degradation.

Ever since ecology became a fashionable science, it has been argued not just that indigenous societies have traditionally maintained relatively stable relations with their environments — an observable reality — but that this balance is a condition that indigenous peoples consciously strive for and maintain. For example, the Colombian anthropologist Reichel-Dolmatoff (1976) interprets the Tukano Indians' concepts of vital energy and the dangers attendant to the excess consumption of foods or indulgence in sex as analogous to ecologists' concepts of energetics and negative feedback. Similarly, McDonald (1977) has argued that the system of food taboos found in many Amazonian societies is a kind of “primitive environmental protection agency” (cf. Ross, 1978). It has even become commonplace in some circles to accept that indigenous peoples are, in their own way, fully cognizant of the dangers of environmental exploitation and ultimately it has even been claimed that they have their own “conservationist cosmivision” (Seijas and Arvelo-Jimenez, 1979).

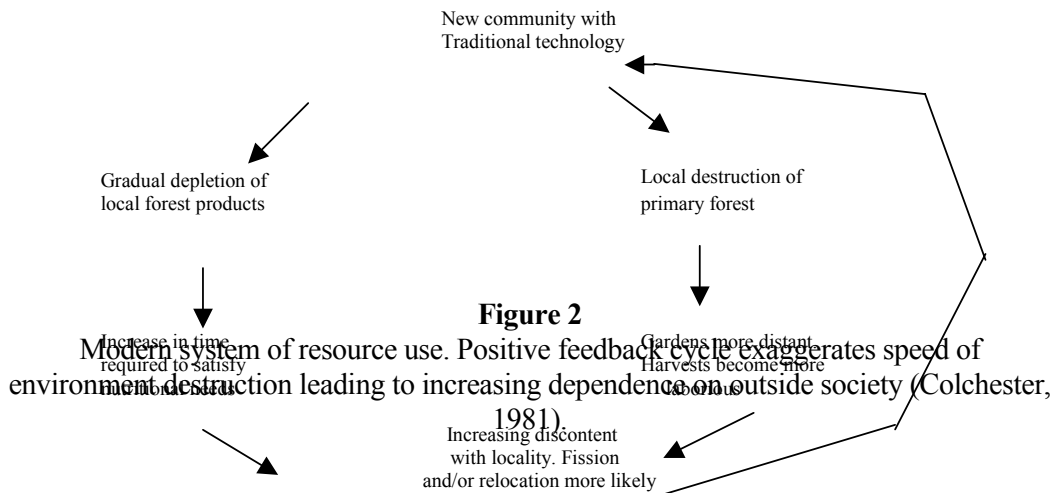
This may overstate the case. As the Kuna Indian, Nicanor Gonzalez, points out:

What I have understood in talking with indigenous authorities, indigenous groups and individuals is that they are familiar with the laws of nature. They are not conservationists; rather, they know how to interrelate humans and nature... In this sense, then, I don't believe that you can say that indigenous people are conservationists, as defined by ecologists. We aren't nature lovers. At no time have indigenous groups included the concepts of conservation and ecology in their traditional vocabulary. We speak, rather, of Mother Nature. Other organizations need to be clear about this before jumping in to solve some problem with the indigenous population (cited in Redford and Stearman, 1993b:427)

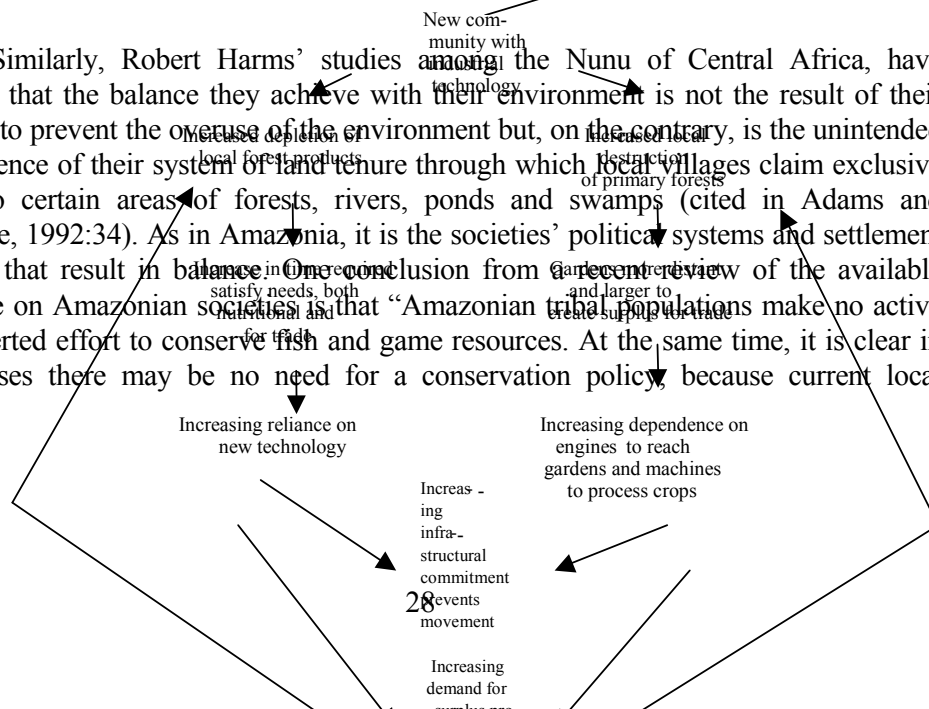
Claims that indigenous peoples consciously moderate their populations and use of resources in response to environmental depletion have never been empirically demonstrated. On the contrary, detailed field research to establish the links between indigenous belief systems and actual patterns of resource use have shown how tenuous the connections really are. Reading a conservation ethic into religious symbolism or indigenous belief systems is highly subjective, and many studies show little correlation between beliefs prescribing certain practices and actual behaviour. Typically, in Amazonia, prohibitions on eating certain foods are honoured in the breach. Lacking

centralized processes of decision-making, neither do these egalitarian societies succumb to the “tyranny of custom” (Colchester, 1981; Hames, 1991). Many Amazonian Indians, it has been found, have an opportunist rather than conservationist attitude to the environment and achieve ecological balance because their traditional political systems and settlement patterns encourage mobility. Indians thus move their villages, fields and hunting expeditions to fresh areas once localities are exhausted because it requires less effort than does obtaining diminishing returns from their present locations. Balance is thus achieved unintentionally by negative feedback rather than through a conscious concern with excessive use. Market demands and other pressures that sedentarize and enlarge these communities, thus disrupting traditional residence and settlement patterns, coupled with new technologies such as outboard engines that cut travel times and machines to process crops, may upset these negative feedback cycles and cause Indian communities to overexploit their locale (Colchester, 1981; see also figures 1 and 2).

Figure 1
Traditional system of resource use. Negative feedback cycle prevents excessive long-term use of local environment
 (Colchester, 1981).



Similarly, Robert Harms' studies among the Nunu of Central Africa, have revealed that the balance they achieve with their environment is not the result of their concern to prevent the overuse of the environment but, on the contrary, is the unintended consequence of their system of land tenure through which local villages claim exclusive rights to certain areas of forests, rivers, ponds and swamps (cited in Adams and McShane, 1992:34). As in Amazonia, it is the societies' political systems and settlement patterns that result in balance. One conclusion from a recent review of the available literature on Amazonian societies is that "Amazonian tribal populations make no active or concerted effort to conserve fish and game resources. At the same time, it is clear in most cases there may be no need for a conservation policy, because current local



subsistence demands on resources have not led to severe resource shortages” (Hames 1991:182).⁵

Unfortunately, there seems to be a lack of comparably detailed studies of indigenous systems of resource use in other areas. In general, it can be observed that, in contrast to the very scattered and acephalous peoples of Amazonia, more densely settled indigenous peoples have increasingly strict rules regulating access to and use of natural resources. Common lands may be subject to clan or household ownership and access controlled by the authority of community elders, chiefs or other political authorities. In these circumstances, conscious management of resources to avoid over-exploitation may be explicit and highly effective (Lohmann, in Shiva et al., 1991). Conservationists who worry that indigenous conservation systems will break down with the failure of belief systems (Redford and Stearman, 1993a:252) may be focusing on the wrong risk. The main threats will come from the breakdown of community political systems, systems of land tenure and rights allocations. Certainly such systems cannot be divorced from the people’s belief and value systems but many societies, notably those in Africa, show a remarkable continuity in their political and land management systems after undergoing fundamental religious conversions.

These conclusions may likewise be relevant to progressive conservationists and community development specialists who have begun to step up their efforts to secure indigenous resource management systems in changed circumstances. These attempts have, in general, focused principally on technical innovations — agroforestry systems, non-timber forest product exploitation, etc. — or have focused on the documentation of indigenous knowledge systems. Their efforts would be better directed towards understanding the politics of community resource management.

There are those purists who will nevertheless object that any human interference in ecosystems will cause a depletion of biodiversity (Redford and Stearman, 1993a:252) and thus argue for the protection of virgin areas as wilderness. Leaving aside for the moment the ethical and cultural shortcomings of such an approach, these arguments are suspect for a number of technical reasons. In the first place, it is now increasingly realized that climax systems⁶ are not the norm — “nature is increasingly perceived as being in a state of continuous change” (Gomez-Pompa and Kaus, 1992:272). Indeed, under certain circumstances, human interaction with ecosystems may enhance biological diversity. Conservationists are beginning to realize that the Serengeti’s grassland ecosystem, for example, is in part maintained by the presence of the Maasai and their cattle. With the Maasai’s expulsion from their lands, the Serengeti is increasingly being taken over by scrub and woodland, meaning less grazing for antelopes (Adams and McShane, 1992; Monbiot, forthcoming).

It can also be argued that conservationists have been no less selective about what biodiversity to prioritize for conservation than indigenous peoples. Big mammals are

⁵ It may be objected that it is unfair and irrelevant to suggest that many indigenous systems of resource use management are unintentionally and indirectly conservationist rather than expressly so, if their effect is to balance society with the environment. The point of labelling this distinction between what anthropologists call manifest and latent function is that under circumstances of rapid social and economic change, people are less likely to consciously modify their practices and knowledge to improve resource management if they do not perceive the connections between them.

⁶ In traditional ecological thinking, climax ecosystems represented the stable and “normal” type which was restored through successional stages following disturbance.

prized by conservationists and indigenous peoples alike, for rather different reasons, but indigenous peoples may be more concerned to preserve crop diversity and the quality of their watershed forests.

The reality that conservationists have been reluctant to face is that the choices are not between pristine wilderness and human use but between different kinds of use and between different kinds of political control. Conservationists are increasingly realizing that the exclusion of local communities from decision-making and control is against everyone's best interests. The challenge is to find new models of involving local people in management.

PARKS FOR PEOPLE: MANAGEMENT ALTERNATIVES

Conservation cannot be imposed from above. Any conservation effort must involve the local people, based on their interests, skills, self-reliance, and traditions, and it must initiate programs that offer them spiritual and economic benefits. Innovative programs of this kind have been developed worldwide in and around various reserves, some based on tourism, some on sustained use of critical resources (Schaller, 1993:231).

It would be most unfair to suggest, however, either that the conservation community has had a monolithic approach to protected area management or that all members of that community have been insensitive to the needs and rights of indigenous peoples. As early as 1975, IUCN passed a resolution at its Twelfth General Assembly in Kinshasa, Zaire, recognizing the value and importance of "traditional ways of life and the skills of the people which enable them to live in harmony with their environment". The resolution recommended that governments "maintain and encourage traditional methods of living" and "devise means by which indigenous people may bring their lands into conservation areas without relinquishing their ownership, use or tenure rights". The same resolution also recommended against displacement and stated "nor should such reserves anywhere be proclaimed without adequate consultation".

The same resolution was recalled in 1982 at the World National Parks Congress in Bali, Indonesia, which affirmed the rights of traditional societies to "social, economic, cultural and spiritual [but, significantly, not political] self-determination" and "to participate in decisions affecting the land and natural resources on which they depend". While explicitly avoiding endorsing indigenous peoples right to full self-determination or recognizing their rights to own and control their territories, the resolution advocated "the implementation of joint management arrangements between societies which have traditionally managed resources and protected area authorities".

At the same time, owing to the work of UNESCO's "Man and Biosphere" programme, the notion of biosphere reserves was developed. The basic strategy of these biosphere reserves is one of containment through zoning, whereby a fully protected "core zone" which excludes human occupation or use is cushioned from the outside world by a "buffer zone", defined as:

...a zone, peripheral to a national park or equivalent reserve, where restrictions are placed upon resource use or special development measures are undertaken to enhance the conservation value of the area (Sayer, 1991:2).

One of the early examples of a national parks management project which sought to assure compensatory benefits for local people in a buffer zone is the Amboseli National Park in Kenya. Created on lands traditionally used by Maasai pastoralists, the park denied the local Maasai access to dry season grazing lands and watering points, though this was essential to their cattle-based livelihood. The result was a series of conflicts, and the Maasai began to show their resentment by spearing rhinos, lions and other wildlife (Talbot and Olindo, 1990:70). Under a project funded by the World Bank, the core conservation zone remained off limits to Maasai but a surrounding buffer zone was developed where watering points were established outside the park. Benefits were also promised through the payment of a compensation fee for loss of access, tourism development outside the park and a share of lodge royalties to the local district council for a school and a dispensary. As Hannah notes (1992), the project has been widely cited as a successful example of “integrated parks management”, notably by the World Bank (Ledec and Goodland, 1988).

However, the project has not been without serious problems, as the World Bank has subsequently admitted (Talbot and Olindo, 1990; Wells and Brandon, 1992:70). As Lee Hannah notes, the system began to break down in 1981 (Hannah, 1992:25). The water supply system began to deteriorate. Compensation fees went unpaid. The school was inappropriately located. Little tourism developed outside the park. Royalties accrued to central government and the local district council but failed to trickle back down to the local level (Peluso, 1992; Hannah, 1992; Talbot and Olindo, 1990). Consequently, in contrast to the relatively smoother acceptance of conservation management in the Maasai Mara Reserve further west, at Amboseli conflicts between parks management and the Maasai endure. Maasai continue to enter the park to water their cattle. The difference, according to Talbot and Olindo (1990:73), is that in the Mara reserve, the Maasai have been more effectively involved in decision-making processes that have accorded more respect to traditional authorities. In Amboseli, by contrast, the management process “received considerably more attention from development agencies so that a new social and political order had significantly disrupted the traditional authority system”. In Amboseli, decision-making took place at district council level and implementation bypassed the local elders. “Therefore, the Maasai actually living in the areas adjacent to the reserve were not really represented in negotiations and their co-operation was not secured. When it came to the distribution of benefits, the Mara region Maasai knew what they were owed and were in a position to demand it, unlike those in Amboseli” (Talbot and Olindo, 1990:74).⁷

In a useful review of buffer zone experiences in tropical moist forests, Jeffrey Sayer of IUCN (1991:4) has concluded that the results of buffer zone “projects” have been largely disappointing. Most have been initiated and directed by outsiders, have been of short duration, and have focused on ambitious but untried technologies to secure

⁷ By contrast, Hannah (1992:29) believes that the Amboseli project “dealt with traditional leadership in an effective way”.

increased economic benefits for local people from buffer zone areas, in the hope that they would not then impinge on the core zones, which were off limits. These “ecodevelopment projects” have “frequently pursued objectives which were inconsistent with the aspirations of the very people they were trying to help” (Sayer, 1991:24). The projects suffered from paying too little attention to social and political constraints faced by both local communities and national conservation agencies. A severe limitation on many buffer zone projects is that government conservation authorities rarely have jurisdiction over the lands outside the parks boundaries.

Sayer (1991:4) observes that the best buffer zone projects “have not been short-term aid projects but initiatives taken by local community groups or resource managers who have made creative attempts to solve the day-to-day problems which they faced”. One favoured approach, partly pursued in the Amboseli experiment, has been to share benefits and profits from the parks with local residents. For example, in Malawi local people have been “allowed back into protected areas — the lands of their ancestors — on a controlled basis” and have been assisted by the introduction of far more productive and environmentally benign apiculture methods. Honey, given its high value-for-weight ratio, has been exported in large quantities and has begun to provide a significant cash income to villagers, with the result that “relations have improved between villagers and the parks department” (Banda and de Boerr, 1993). A somewhat similar approach has been adopted to placate people whose rights were extinguished by the creation of the Royal Chitwan National Park. For fifteen days each year villagers are allowed to enter the park to collect tall grass for thatching materials. Each year some 100,000 villagers harvest between 50,000 to 100,000 tons of grass from the park. “This management device has markedly increased local acceptance and appreciation of the park” argue George Ledec and Robert Goodland (1988:99) of the World Bank. A more recent study by Krishna Ghimire (1992) is much more critical of the park’s social impact.

Creating employment in national parks as guides, trackers, porters and through other tourism services has been another means by which conservationists have sought to defuse local opposition and reconcile conflicts of interest. In the south-western corner of the Central African Republic, for example, WWF (USA) has been seeking to establish a complex of two protected areas, the Dzangha-Sangha Dense Forest Special Reserve and the Dzangha-Ndoki National Park. The area contains numerous rare mammals — notably elephants, primates and forest antelopes — is inhabited by both Aka “pygmies” and various Bantu and Oubangian peoples, and has been subjected to low intensity logging and serious over-hunting. According to the assessment of WWF, “if an effective wildlife management programme is not initiated, the wildlife populations will be exterminated in the Dzangha-Sangha region within 5 years as a result of poaching” (Carroll, 1992:69).

Starting from a recognition that “in all projects dealing with the management of natural resources, it is absolutely necessary to gain the support of the local population” (Hunsicker and Ngambesso, 1993:231), the aim of the project in the Central African Republic is to curb the logging and “poaching” and promote an alternative local economy based on ecotourism. This should generate revenue for local community-based development groups as well as employment for individuals. Accordingly, the project has helped set up the *Association Communautaire de Yobe-Sangha* (ACYS), a local legally incorporated non-governmental organization run by local leaders and villagers, which receives 40 per cent of tourist takings and advises the management of the parks. At the

same time, in an attempt to break the Aka's dependency on low wages in the timber industry and demoralization in the sedentarized communities promoted by Catholic missionaries, the project is trying to encourage "pygmies" to act as guards, guides and lodge staff. Aka women take tourists on collecting tours while "pygmy" hunters use their tracking skills to help tourists spot animals (Carroll, 1992).

The project faces an uphill struggle. The central government continues to permit foreign companies to log in the area (Colchester, 1994). Local political leaders and government officials maintain their illegal but highly lucrative trade in ivory, skins and bushmeat, through traditional patron-client networks. Since the protected areas threaten their business interests, political paramountcy and control of the local villagers and client "pygmy" groups, they have worked hard to undermine the project and corrupt the personnel of the parks. At the same time, it is not yet clear whether the attempts of WWF to break the Aka's dependency on villagers, loggers, wildlife traders and missionaries will actually liberate them or only create an alternative dependency on ex-patriate conservationists (Sarno, 1993). Neither the Aka nor the ACYS has decision-making authority in the running of the reserves, though the latter does decide for itself how its revenues will be spent.

Ecotourism has now become big business and profit-sharing with local people has been a popular way by which conservationists have hoped to reconcile indigenous people with protected areas. However, the process has proved more difficult than might have been expected. In his study of national parks in Nepal, Michael Wells suggests that not only is most of the profit from ecotourism in Nepali parks enjoyed by trekking and tourism ventures based in the capital and overseas, but even the national parks agency recoups only a quarter of its management costs in visitors fees. Local people certainly benefit from tourists, but much less than expected, while the social and environmental costs are far from negligible in terms of pollution and littering, overgrazing by pack animals, fuelwood depletion from heating water and cooking, and the introduction of Western mores and values (Wells 1993). Indigenous people are far from unaware of the potential social costs of increased dependency on tourism and are not all prepared to abandon their customary rights and ways in exchange for a temporary gain in cash income. As one Maasai told the author George Monbiot, when informed that the Director of the Kenya Wildlife Services had recommended that they keep less cattle and make money from tourism instead:

We know there is money to be made from tourism. We already have tourists staying on our lands in tented camps. And, yes, they bring us an income. We don't need the Kenya Wildlife Service to tell us that. But you can tell Dr. Leakey this. We don't want to be dependent on these tourists. We are Maasai and we want to herd cattle. If we stopped keeping cattle and depended on tourists, we would be ruined when the tourists stopped coming (cited in Monbiot, forthcoming).

Giving people a share of the profits that can be made from conservation in exchange for extinguishing their rights and their local political autonomy, and transforming their way of life, may not seem like a very fair deal to many indigenous people. A number of conservationists are beginning to realize that the short-term

problems of them relinquishing to indigenous peoples their control of decision-making in protected areas may be worth it in the long term. Lee Hannah reports that:

...a strong consensus is emerging that African parks **must involve local people in management decisions**, that local people must benefit from parks, and that support of local people is essential to the long-term existence of protected areas in Africa. But these are only ideas. Few parks in Africa actually apply these new methods. Retraining staff, rewriting management plans, and developing community benefits are all expensive. In the difficult economic setting of Africa, no government parks authority has had the resources to revamp its entire park system in line with the new theory (1992:1, emphasis added).

Likewise, the World Bank advises that in establishing protected areas, ‘the local people who are likely to be affected should be kept fully informed and should be invited to participate meaningfully in decisions about siting and management. Such participation can prevent many conflicts and can increase the flow of economic benefits to the local people’ (Ledec and Goodland, 1988:98).

Adopting an approach of “conflict management”, joint-management programmes seek a compromise between indigenous and conservation interests. Elizabeth Kemf, who carried out a review of indigenous peoples in protected areas for WWF and IUCN, suggests that such an approach must start from an assessment of the basis for these conflicts and then establish procedures, first, for communication between local peoples and parks managers and, second, for ensuring that benefits or compensation accrue to the local people (Kemf, 1993a,b).

In fact, “joint management” conservation initiatives have proven very difficult to implement as they have to bridge very wide cultural divides, as well as accommodate both the divergent priorities of the various players and local political and economic realities. The majority of joint management schemes are actually “joint” in name only. Lack of political power and financial resources means that local communities are more usually very junior partners in decision-making.

Conservationists aiming for local participation, like all outsiders engaged in rural development, face hard choices in defining the most culturally appropriate structures. The facile advice that conservationists should respect local systems of decision-making may obscure the fact that traditional decision-making is sometimes vested in leadership structures which marginalize women and lower castes or classes, or lower status ethnic groups. Top down projects which work through the local élites may sometimes be very successful in conservation terms (Ntshalintshali and McGurk, 1991) but may reinforce and even exacerbate class and gender inequities (Hannah, 1992).

A widespread problem facing conservationists and aid agencies alike is that local political élites strongly object to their client groups, with whom they have long established and profitable ties, benefiting from targeted development initiatives. This is the fundamental problem facing the Dzangha-Sangha project noted above. Since they do not recognize the prior rights of indigenous communities to their own resources,

measures adopted to compensate a loss or secure a people's livelihood may be interpreted as positive discrimination or even racism. As one Cameroonian academic has insisted:

It would not be advisable to allow the pygmies to continue to hunt in reserves and national parks on the grounds that they are not sufficiently numerous to cause a significant loss of protected species. For in any case, if the pygmies are authorized to hunt in the reserves, this right should be extended to all other 'Cameroonian nationals', as there is not apartheid in the Cameroons (and besides it is hard to distinguish by sight between a pygmy and a non-pygmy) (Loung, 1992:21).

Lee Hannah, after reviewing protected area management experiences in Africa, concluded that:

Effective project design will explicitly address situations of social inequity. This requires defining project policy towards social inequity and creating a framework for implementation which strikes a balance between cultural sensitivity and respect for human rights. Project goals and implementing agency policies will be important determinants of an appropriate balance. These are some of the most difficult and critical issues of project design, and they must be addressed on a site by site basis. It is the responsibility of project designers to understand local political structures and to create project structures and operations which are responsive to these local social situations (Hannah, 1992:54).

Encouraging though such statements are, they nevertheless reveal the extent to which Western conservationists remain wedded to the idea that conservation is something that outsiders do to local environments. It reveals their reluctance to relinquish their controlling role in making management decisions. However, in recognition that they also need to deal with local people, the onus is now placed on them of also being omniscient social engineers as well as natural resource managers. It is unlikely that many expatriates can measure up to such exacting demands.

An example of how local pressure can oblige conservationists to change their management approach is offered by the Khunjerab National Park in north Pakistan. The area was declared a national park on paper many years ago, in line with conservation agency recommendations, in recognition of the fact that it is one the last areas containing a broad range of Himalayan fauna, including blue sheep, snow leopards, Marco Polo sheep and Tibetan asses. The government of Pakistan wanted to establish the park on the Yellowstone model, by phasing out all grazing and banning human occupation. However, local Shimshali and nearby Gojali herders totally rejected the proposal, leading to a stand off. Essentially self-sufficient, the indigenous people depend on the area both to cultivate their crops and graze their livestock. Hunting provides a significant part of their diet and they kill snow leopards and wolves which carry off their sheep and goats. Clumsy moves to prohibit grazing led to organized local actions. "First they can kill us, then they can come and make a national park" said Dulat Amin, President of the Shimshal village organization (cited in Slavin, 1993:145). Mistrust of the government's intentions underlies local opposition. As Qurban Mohammed, a Gojali herder, noted:

We are interested in developing the Khunjerab National Park, but the management of the park should be in local hands. The government will take the profit without involving the people. They just want to take all this beautiful land away and leave us empty-handed (cited in Slavin, 1993:143).

To accommodate such demands, conservationists have now come up with a compromise management plan, which some of the communities have agreed to, which would allow controlled grazing, would authorize local villagers to take charge of patrolling the park to halt hunting, and would provide 80 per cent of the employment opportunities arising out of the park's establishment to local people. Even limited hunting would be contemplated once wildlife populations had recovered and 70 per cent of profits from hunting licenses would go to the local people. The plan is still a long way from being implemented successfully, but it demonstrates how involvement of local people in management decisions may often come about as a result of popular opposition and insistence (Slavin, 1993).

Speaking from a long experience in joint-management initiatives with indigenous peoples in Canada, Sheila Davey emphasizes:

There are no blueprints for comanagement schemes. Each scheme will vary according to the kind of protected area being managed and the aspirations and needs of the people (1993:201).

In 1989, Canadian conservationists and indigenous people had rallied around a Canadian Wilderness Charter, which brought activists together to push for both native rights and protected areas. However, tensions soon emerged within the movement because of the very different perspectives of participants on what constituted wilderness and what priority should be given to native livelihoods (Morrison, 1993). Experience in British Columbia has resulted in a number of guidelines for joint management projects which include training in management skills of the indigenous personnel elected to act as equal partners, the establishment of unambiguous written contracts, consensus decision-making to avoid caucusing and polarization, mechanisms for further community input, and consultation and joint research programmes (Davey, 1993:204). Davey further stresses that local people should be involved right from the start to avoid unnecessary conflict and misunderstanding; social impact assessments should be carried out; attention should be paid to cultural preservation strategies; and — most radically — “wherever possible, territorial rights should be respected. Local people should be allowed to remain inside protected areas and make use of natural resources on a sustainable yield basis” (Davey, 1993:203).

Recognition of Territorial Rights

One of the most loudly heralded steps towards a conservation approach that starts with a recognition of indigenous land rights was taken in Australia in 1985, when the federal government, which also legislates for the Northern Territory, agreed to recognize Aboriginal ownership of Ayers Rock if they would immediately lease the rock back to

the government as a national park. As John Cordell has noted somewhat caustically of this deal:

After decades of struggle, the Anangu actually held the title for about thirty-five seconds before relinquishing their ancestral rights to the state for the next ninety-nine years (1993b:105).

Uluru, as the Anangu refer to Ayers Rock, is one of four Aboriginal areas to which they have gained title in exchange for allowing the areas to be designated as national parks, the others being Kakadu, Gurig on the Cobourg Peninsula and Nitmiluk (Katherine Gorge). Under the agreements setting up the parks, Aborigines not only legally own the areas, but also share power on the governing boards or participate in the day-to-day management of the parks.

A number of observers have questioned the reality of the equal partnership aspired to in the setting up of these parks. Cultural and political differences have meant that the Aborigines have effectively been relegated to the level of junior partners in management. Aboriginal grievances about the excesses of tourism in Uluru are growing as they find themselves forced to participate in the commoditization of their culture. Comments Cordell,

...judging from Kakadu and Uluru, Aboriginal involvement in protected area management is on the verge of degenerating into Smokey Bear-style ranger training, in which the role of traditional owners is simply to add an interpretive and marketable ethnic element to running the parks (1993b:110).

Detailed research carried out by Sally Weaver (1991) in the Gurig and Kakadu National Parks modifies this impression. In these cases, she found that, in the first place, recognition of ownership had been made conditional on the definition of the areas as national parks. Effective involvement of Aboriginal owners in management was neither achieved nor sought. Whereas Aborigines actually sought control of overall planning and policy decisions — rather than day-to-day management — they were more often cast in the role of rangers, which they resented. Aboriginal authority, she found, was continually squeezed by a tendency for government and parks agencies to extend their political-bureaucratic power base. Despite this, relations between parks field personnel and Aborigines was good owing to a genuine interest in and respect for the Aborigines among the staff. Weaver's study usefully stresses "the inherently political nature of the relationship between parks and indigenous peoples" and she found that "there was much less power-sharing between parks agencies and Aboriginal owners than government rhetoric and legislation suggested..." (Weaver, 1991:331). Nevertheless, she noted a discernible trend of improving relations between Aborigines and parks agencies, with a gradual increase in Aboriginal control as more formal and structured interactions were instituted.

Recognition of indigenous peoples' ownership rights is hard for the old school that fears "conceding too much control to local communities" (Sayer, 1991:10). Thus, whereas IUCN now recommends that, as far as buffer zones are concerned "land rights of local people should take precedence over those of distant resource users [and] laws

should guarantee access to forest resources for forest people, whilst placing restrictions upon over-exploitation of these resources or clearance of the land” (Sayer, 1991:17), it remains sceptical that land rights should be recognized within protected areas themselves. Jeffrey Sayer cites experiences in Costa Rica which

...highlight the danger of trying to manage conservation areas under local, private ownership. People may readily accept the principle of restrictions on use in order to get title to land. However, in the longer term, and especially as new land use options become available to them, it will be very difficult to enforce land-use restrictions. This problem will occur in privately-owned buffer zones and is potentially a serious flaw in the concept of ‘indigenous’ and ‘extractive’ reserves (1991:15).

In sum, it is clear that there remains an inherent reluctance of conservationists to relinquish or even share power over protected areas. Stung by the criticisms of their socially insensitive and politically blind approach, conservationists have been readily persuaded to admit that the needs of local people should be taken into account. They have been far more reluctant to recognize indigenous assertions, backed by international law, of their rights to own and control land and exercise their authority over their own domains. As one reviewer has noted:

One suspects that with the conservation movement on the defensive, it has sought to take the moral high ground with the rhetoric of ‘ecodevelopment’ as its watchword, and let the details work themselves out later. Whereas, in the past, resident peoples’ concerns were swept under the rug as being irrelevant, today they are frequently swept under the rug in glowing praise of ecological compatibility, still coupled with rigorous, exclusionary preservation (West, 1991:xvi).

Another review, carried out by the World Bank, of 23 protected areas where there had been attempts to reconcile development and conservation objectives reached the conclusion that it was questionable whether the projects had reduced pressure on the parks or reserves they were aiming to protect. The study also showed that attempts to involve local people in the processes of change and development were largely rhetorical and most treated local people as “passive beneficiaries” (Wells and Brandon, 1992:x).

In their review of the status of resident peoples and national parks, Patrick West and Steven Brechin found that, although new models for involving local people in protected area management had begun to be advocated and experimented with, there were in fact few convincing examples of how it has worked out in practice. They concluded:

What we suspect is that the international conservation movement is in for a second major revolution based on shock therapy in the face of harsh reality. It is not quite so easy to harmonize natural area protection, cultural preservation, and true rural development for resident peoples. The gap between rhetoric and reality is not so easily closed. Tragic dilemmas and hard wrenching choices will not go away (West and Brechin, 1991:xxiii).

However, despite these bleak prognostications, conservationists are claiming some real successes in creating conservation zones which enjoy the full support of indigenous peoples. Two notable examples have been developed in the unlikely context of West Papua, a Dutch colony annexed with brutal violence by Indonesia in the 1960s. In stark contrast to the inhabitants of neighbouring Papua New Guinea, land rights are not effectively recognized in West Papua (Barber and Churchill, 1987) and national parks legislation similarly denies land ownership rights to residents. Despite these formidable legal obstacles, WWF — through a 10-year long conservation programme — has been able to develop two protected areas which, with local and now national government approval, secure local peoples' rights over their resources.

The first such project established a management plan for the Hatam people, part of whose lands had been designated the Arfak Mountains Strict Nature Reserve. The plan is based on a recognition that while Indonesian law and conservation practice does not recognize the land rights of local people, such recognition is absolutely necessary for the conservation project to be successful and have local acceptance. The WWF field staff thus developed a management plan which involved the local communities in demarcation of the reserve, expressly permitted traditional hunting (without modern weapons), and divided the reserve and surrounding areas into 16 “nature reserve management areas” run by village committees which are authorized by the local government to enforce the reserve's regulations within their areas (Craven and Craven, 1990; Mandosir and Stark, 1993). In addition, the WWF team has initiated a butterfly ranching scheme to provide a cash income to the villagers. The project presently relies on outside technicians to advise on the ranching practices and to label, price, package and market the butterflies. Export is achieved through the parastatal company PT Inhutani II, which has a very questionable record in dealing with indigenous people. Attempts to stabilize shifting cultivation have not been so successful. The WWF is certainly not complacent about the long-term viability of the scheme (Mandosir and Stark, 1993).

WWF has documented a similar experience with the 13 villages inside the Wasur National Park in the forests and savannas in the south of the province. An initial mapping exercise demonstrated that the local tribespeople have claims to the whole of the 413,810 hectare park and have well established concepts of zoning and management. Overcoming initial local suspicions with the help of local non-governmental agencies, the parks team reports that it has been able to secure the local peoples' approval for the park by gaining formal, written recognition by central government of their continued rights of residence and land use. Controlled deer hunting for sale in the local market has been encouraged, while parks teams and local people have collaborated in excluding outside poachers coming with rifles and motorized transport from the local urban centres. Since the park provides land security in a way which national laws do not, neighbouring communities now envy the residents. “Why are our village and land outside the park boundary?” one villager complained at a recent workshop (cited in Craven and Wardoyo, 1993).

Another encouraging example, where indigenous land management and customary tenure systems have been revived despite the fact that they are technically illegal, has been documented in India (Sjobohm and Singh, 1993). When the Sariska National Park was created by law in 1984, it made some 24 tribal villages technically illegal residents. Ill-prepared attempts to resettle the people were ineffective. More

recently, with funding from the Swedish International Development Authority (SIDA), a local NGO has encouraged nearly half these villages to revive their traditional land management systems within the park and claims this has improved the people's livelihoods as well as reduced pressure on the natural forest (Sjobohm and Singh, 1993).

Of course, the other option, well documented elsewhere and thus not reviewed in this paper, is not to define indigenous territories as protected areas at all, but rather to seek their designation as indigenous lands or territories under whatever national legislation is most appropriate. In the Amazon, for example, most famously in Colombia, but also in Brazil, Ecuador, Peru and Bolivia, far more lands have now been recognized as indigenous lands than as protected areas. As in Colombia, governments have expressly recognized that securing indigenous land ownership is the best means of ensuring conservation.

Indigenous people may also accept protected areas as being the most appropriate legal status for areas of their traditional territories that they do not use or even visit, but nevertheless consider to be sacred. Many of the high *tepui*s of the Guiana highlands in Venezuela, for example — rich centres of species endemism and unique ecosystems — have been designated as national monuments and national parks (Huber, 1993). Serious problems have only arisen when inadequately controlled tourism has been allowed in these areas (contrary to the law) or where the parks have reached down into areas that are used by neighbouring communities for agriculture, hunting and gathering. Joint management options are now being developed for these areas with some local acceptance (INPARQUES, 1993).

For all that, the “hard-wrenching choices” cannot be wished away. Legalized indigenous control of their commons will not by itself ensure either the sanctity of these areas from invasions and disruptions or that indigenous economies do not overwhelm their environmental base. Effective management requires procedures to enforce agreed regulations (Hannah, 1992:55). The challenge is to find means by which indigenous peoples' own institutions can agree to or develop for themselves such controls (cf. Sherpa, 1993). Moreover, only in a few situations is it likely that indigenous institutions can effectively secure their areas from outside pressures, without outside assistance. This implies the continuing need to define a role for the state in securing indigenous territories as conservation areas. The point has been forcefully argued by Janis Alcorn who, while arguing the case for the need to recognize indigenous lands as an effective way of preserving biodiversity, emphasizes the need to take account of wider political and economic pressures:

Strong partnerships with the state will be necessary for continued conservation of indigenous groups' forests. Building appropriate partnerships between states and indigenous communities may require new legislation, policies, institutional linkages and processes. It requires creating communication networks and research linkages (Alcorn, 1993; 426; cf. Hannah, 1992:56).

Box 4
A Biosphere Reserve for the Yanomami

The Yanomami Indians inhabit the upland forests in the south of the Guiana highlands. Numbering some 23,000 and scattered into 360 communities on both sides of the Venezuelan-Brazilian border, they are spread out over an area of some 190,000 square kilometres in the headwaters of the Orinoco and Rio Branco rivers (Colchester, 1985a). They are one of the least acculturated and contacted peoples of Amazonia and entered into sustained contacts with non-Indians only in the 1950s, when the last groups gave up the use of stone tools (Migliazza, 1972; Colchester, 1982a).

Since the 1960s, persistent invasions of Yanomami lands on the Brazilian side of the border, mainly by miners and road construction crews, have caused massive mortalities and a long campaign has been fought, led by non-governmental organizations, to have the Yanomami's lands demarcated and protected (Ramos and Taylor, 1979; Survival International, 1990). The result has been the legal recognition of some 93,000 square kilometres as an 'indigenous park' — a term which refers, in Brazil, to a very large indigenous reserve under state ownership set aside for the exclusive use of a number of ethnic groups. However, owing to the inability of both the state and the Yanomami to prevent incursions, the Yanomami's lands continue to be occupied by a fluctuating number of illegal miners, some of whom cross the frontier into Venezuela.

The Yanomami's situation in Venezuela has been quite different from that in Brazil. In the early 1970s, state policy towards what was then the Amazon Territory consisted of a 'developmentalist' programme that copied the Brazilian military model of road building and colonization, under a programme rudely titled 'La Conquista del Sur' (CODESUR). However, since real pressure to open up the interior of Venezuela is slight — both population and capital being drawn to the oil rich coast — the CODESUR programme was never more than a political foible and soon lapsed. The lack of real pressure to develop the interior resulting from the oil boom and the growing awareness of the problems caused by the model of development in Brazilian Amazonia provided room for the emergence of a different policy emphasizing environmental concerns and scientific research. The result was that by the mid 1980s the Ministry of the Environment (MARNR) had become the strongest Ministry in the Territory (Colchester, 1982b). This situation, however, is changing. On the one hand, MARNR has gradually strengthened its presence by defining large areas of Amazonas as 'Areas Bajo Regimen de Administracion Especial' (ABRAE). On the other hand, the worsening economic condition of Venezuela's poor has seen the resurgence of populist policies that promise a rapid opening up of the interior to development. Road building, mining and plantations schemes are now once again being advocated by parastatals and politicians, a process sharpened since 1991 when the Territory was redefined as a state and opened to local electoral politics. The present governor of the state openly supports illegal enterprises such as mining in national parks and tourism in indigenous areas.

Efforts to protect the Yanomami in Venezuela commenced in 1978 with an idea of creating a binational Yanomami Park on the Venezuelan-Brazilian watershed (Colchester, 1982b). Given the lack of precedent for state recognition of indigenous land rights, a biosphere reserve enclosing some 88,000 square kilometres was proposed in Venezuela in 1979, which would have divided the Yanomami area into a core zone made up of three existing and uninhabited national parks, a protected area enclosing the majority of Yanomami villages and a buffer zone including both Yanomami and Yekuana Indians where controlled development would be permitted (Colchester 1980). By 1982, owing to increasing support for the proposal from the Agrarian Reform Institute

which wanted to establish a legal precedent of titling large indigenous areas, a revised proposal was circulated for an indigenous reserve. The proposal very nearly gained presidential approval (Colchester and Fuentes, 1983), only to be diverted by the emergence of a second biosphere reserve proposal that same year (Arvelo-Jimenez, 1983). A resurgence of anti-Indian rhetoric in 1984, after a violent conflict between Piaroa Indians and ranchers, buried both proposals (Colchester, 1985b; Arvelo-Jimenez and Cousins, 1992) and the idea lapsed until repeated invasions of the Upper Orinoco by Brazilian miners caused a revival of interest in protecting the area in some way in 1989. That year, North American anthropologist Napoleon Chagnon and Venezuelan ex-Minister of youth Charles Brewer-Carias proposed a national park or anthropological preserve for the most isolated Upper Siapa region. This triggered a flurry of counter-proposals, as well as an international conference on the 'Culture and Habitat of the Yanomami' (Caballero, 1991; Colchester, 1991b), and led eventually to the Ministry of the Environment pushing through the Presidential decree of 1991 creating the 83,000-square kilometre Biosphere Reserve and the Parima-Tapirapeco National Park within it.

The Biosphere Reserve, placed under the control of MARNR, is to be administered by its special autonomous Secretariat for Development of the Amazon state and directed by an interministerial commission that will include seven ministries, three parastatals, academic institutions and Catholic missionaries, as well as indigenous representatives. Although the legislation setting up the Biosphere Reserve indirectly acknowledges Indian rights to own land, explicitly recognizes their right to continue their "traditional livelihoods" and prohibits colonization or development by outside interests, it is not at all clear by what means the Indians will in fact have a say on what happens in the area.

The decree, which was issued in July 1991, established a period of two years for the elaboration of a management plan for the reserve. This has been slow in coming. Funds of US\$ 8 million to begin the elaboration of such a plan have recently been approved by the European Commission. The project plans activities relating to remote sensing and mapping, physical boundary demarcation and the establishment of an improved communications network throughout the reserve. It also plans a detailed assistance programme in the fields of community economic development, tourism, education, health and nutrition, and environmental education.

The main deficiency with the EC project, as it stands on paper, is the minimal attention that it pays to the involvement of local people in decision-making. The proposed management structure does not offer any roles for indigenous involvement in the project as paid staff and, with the exception of a token representation on the interministerial committee, options for interaction appear to be limited to the local and sub-programme level.

Imperfect though they are, the Biosphere Reserve and its associated EC-funded project may yet be of benefit for the Yanomami and Yekuana Indians insofar as they strengthen the hand of MARNR against the "developmentalist" pressures from the north of the country. Legalized land rights and indigenous control of the Upper Orinoco are not politically achievable in Venezuela at the moment and the reality is that the Yanomami are not yet politically co-ordinated enough to effectively defend and control their lands against outside pressures without state support.

CONSERVATION OUTSIDE PROTECTED AREAS

These small island parks and reserves will not be enough to conserve all the values of tropical forests. In particular, large wide-ranging animals, and those tree species that exist at very low densities, will be very much at risk in small protected areas (Sayer, 1991:1).

Conservationists have long realized that the establishment of protected areas will not by itself maintain all biodiversity. Conservation values, it is argued, must be integrated into all aspects of human activity if balance is to be achieved. To this end, conservationists and environmentalists led by IUCN developed the World Conservation Strategy, which defines conservation of the environment in terms of human use rather than the preservation of wilderness (IUCN, 1980). It seeks:

...the management of human use of organisms and ecosystems to ensure such use is sustainable. Besides sustainable use, conservation includes protection, maintenance, rehabilitation, restoration and enhancement of populations and ecosystems (IUCN, 1991).

The strategy advocates the evolution of national and more local level policies and programmes for the effective management of natural resources, taking full account of existing and future populations, their needs and other social realities. Some of these national strategies have been written up and borne fruit, but their main outcome to date has been to promote the creation of yet more protected areas. The strategy has been weak in pushing for changes in land tenure legislation and agrarian reform and more generally has not adopted a political economy approach to identify the causes of environmental degradation. These are serious drawbacks and have meant that the Strategy has little chance of diverting the path of development into more sustainable ways (Blaikie and Brookfield, 1987; Colchester and Lohmann, 1993).

As far as indigenous people are concerned, the lack of focus on land tenure issues is one worry, but the main uncertainty raised by the World Conservation Strategy is **who** are the managers going to be? National conservation strategies essentially aim to develop government policies towards the environment and, since they are founded on the same political assumptions as protected area planning, tend to assume that the management of resources is something that is carried out through the development of national legislation to regulate natural resource use and government institutions to enforce such legislation. It thus tends to under-emphasize the possibility of long-term management being achieved according to locally derived regulations and enforced by local peoples' own institutions, which is what indigenous people advocate.

The main effect of the World Conservation Strategy has been to spawn a number of very similar initiatives (McNeely et al., 1990:109), such as the Tropical Forestry Action Plan (TFAP) of the World Bank, UNDP, FAO and World Resources Institute; the National Environment Action Plans (NEAP) of the World Bank; the Biodiversity Conservation Strategy (McNeely et al., 1990) and a host of others (Tunstall and van der Wansem, 1992). The main problems with all of these planning processes stem from the issues that they have left out and from their systematic reluctance to confront awkward political realities.

Early criticism of the TFAP, for example, focused on the Plan's lack of attention to indigenous peoples (Shiva, 1987). Survival International, a human rights organization, in particular objected to the way the TFAP promoted the monocrop *Eucalyptus* plantations of Aracruz Florestal as a model of good forestry (WRI, 1985), given that the company was notorious for having established its tree crops on the lands of the Tupiniquim and Guarani Indians of Maranhão state in Brazil who had been imprisoned

and tortured when they had protested (Antonil, 1979). TFAP proponents promised to remove the example from later TFAP promotional literature — a promise that was not kept (FAO, 1987) — and established a process for developing guidelines for indigenous peoples' participation in TFAP, but these were never actually adopted. Numerous reviews of the national forestry action plans that resulted from the TFAP showed that the interests of indigenous peoples were persistently side-lined or marginalized (Colchester and Lohmann, 1993; Winterbottom, 1990; Lynch, 1990).

Very similar to the Tropical Forestry Action Plan, though broader in overall intent, the National Environment Action Plans of the World Bank have evolved as another mechanism for establishing new policy directions in government, ostensibly with the involvement of non-governmental organizations to try to ensure that the concerns of civil society are more adequately introduced into planning. These planning exercises have focused on Africa and appear to have given very little attention to indigenous peoples, tenure or government policy regarding ethnic identity (Falloux and Talbot, 1993).

Sustainable Logging and the Rainforest Harvest

Conservationists have also put considerable efforts into identifying other lucrative and environmentally benign systems of land use which could be promoted in order to achieve conservation objectives. For example, in order to conserve tropical forests, IUCN and other organizations such as the International Institute for Environment and Development (IIED) have actually **promoted** tropical forest logging. As Sayer explains:

The basic IUCN philosophy on tropical forest conservation is, to put it in a nutshell, that you might reasonably expect to protect perhaps 10-15 per cent of all the moist forests of the tropics but, in the context of the population growth that one can expect and the development of economic activities in these regions, it is probably not realistic to expect to protect totally a very much larger area. This means that many tropical forest species and many of the ecological functions that come from forests will only be maintained in the future uses of land outside totally protected areas, which involve the retention of large areas of natural or near natural forest. One of the best uses of forest that can in theory retain **most** species of animals and plants is natural forest management for timber production (HMSO, 1990:78).

The IIED has gone even further, arguing that “it is a fact that sustainable management is technically feasible” and that “the sustainable management of natural tropical forest for timber production is one of the keys to forest conservation and to the timber trade” (Poore, 1989:213, 226). These are dangerous arguments for conservationists to make. As Poore's own studies have demonstrated, the amount of tropical forest under sustainable management is negligible and there are many who doubt if it is possible at all (for reviews see Anderson, 1989; Colchester, 1990a; 1990b; Johnson and Cabarle, 1993). Indeed, most tropical forest logging has been very destructive. As Jack Westoby, former director of forestry at the FAO, has noted:

Over the last two decades, massive tracts of virgin tropical forests have come under exploitation, in all three under-developed regions. That exploitation, with a few honourable exceptions, has been reckless, wasteful, even devastating. Nearly all the operations have been enclavistic, that is to say they have had no profound or durable impact on the social and economic life of the countries where they have taken place... Local needs are not being met; the employment opportunities are trifling. A significant part of the exports, as logs or as primary processed timber, is exported 'within the firm', and transfer values are fixed to facilitate the accumulation of profits outside the country, ...the contribution of forestry to improving the lot of the common people has been negligible so far (Westoby, 1987:264-265).

For indigenous peoples, the impact of logging has been especially severe. Like the establishment of protected areas, conventional forestry advocates the setting aside of forest reserves, usually under state ownership, for timber production. More often than not, the definition of these so-called permanent forest estates entails the alienation of indigenous peoples' lands to the state and the limitation or restriction of their rights of use of and access to the forest resources basic to their traditional livelihoods (Colchester, 1989; 1990a; 1992a). To this loss of land and power is then added the ruination of the forests on which indigenous populations have always depended. On top of the direct damage done by logging, indigenous people also find their lands invaded by settlers who flood in along the logging roads. Not surprisingly, conflict between loggers and indigenous peoples is very widespread. Despite the enormous literature on these and other problems facing tropical forestry, many conservationists continue to promote tropical forest logging as a potentially benign technology at international policy-making levels. Moreover, in doing so they persist in marginalizing indigenous peoples and in ignoring the wider social, economic and political obstacles to good forest management (Colchester, 1990b; FOE/WRM, 1992). Happily, many other conservationists have recognized the risks of promoting large-scale logging as a means of achieving conservation and have put considerable effort into supporting small-scale community-based forest management for timber production. There is now an extensive body of literature on such initiatives (see, for example, Richards, 1993).

Other techniques of extracting profit from standing forests have also been hailed by conservationists as means for conserving them. Indeed, asserting the potential of forests to yield valuable non-timber forest products has become something of a fad and has triggered a flood of publications about the potential of "harvesting" the forests (Plotkin and Famolare, 1992; Counsell and Rice, 1992; Anderson, 1990; Panayotou and Ashton, 1992; Scoones et al., 1992; WWF, 1993a). The thinking behind this approach has been neatly summed up by Maclin:

There is no quick fix for the forest. Market forces have driven tropical forests to the edge of extinction. Only market forces can drive their rehabilitation and conservation. The only way to save the forest is to make the trees we want to save, more productive, more attractive and more available (cited in Gray, 1991:73).

Attracted by this “win-win scenario” by which increased resource use and consumption can supposedly save forests, commercial companies have begun to invest in and market forest products, advertising that this will help indigenous peoples (Corry, 1993). They, and human rights enterprises which promote this approach, argue that the “rainforest harvest” will help achieve the goal “of integrating indigenous peoples into larger economic and political systems” (Cultural Survival cited in IWGIA, 1993:8).

For indigenous peoples, the implications are, obviously, worrying. Some human rights groups are arguing for their “integration”, an approach they reject in favour of “self-determination”. Conservationists are advocating an intensification of exploitation of the forests and ecosystems that underpin their ways of life, forests which more often than not lie on their lands. As for all the other solutions to biodiversity loss that have been advocated, the potential harm or benefit that local people might derive from such proposals will depend far more on the political process by which the trade is controlled — from extraction through to retailing — than on the actual techniques of harvest. The issue is one of control. If the marketing of forest products is imposed on indigenous peoples, they will most likely suffer. But if the harvest and marketing of products remains under their control, they may be able to manage the process to their benefit. As Andrew Gray notes, however, marketing goods entails risks (1991:65). Especially if the outside demand is great, it may begin to determine production and take priority over subsistence, with the result that the community effectively ends up as “wage-labour” to service Northern consumer demands.

Stephen Corry, of the human rights group Survival International — which has been extremely critical of the “harvest” approach — warns of the dangers of linking forest communities to international fad markets for forest products:

The ‘harvest’ will not empower the rainforest community. By making it dependent on a foreigner who must pay more than any local buyer, the real effect is to tie the people into exactly the same relationship of dependence and patronage as any of the traditional forms of exploitation... (Corry, 1993:6).

Similarly, a policy statement of the International Working Group on Indigenous Affairs (IWGIA) of Copenhagen argues that:

...the attempt to encourage indigenous peoples to integrate into the national and international society is clearly mischievous and perhaps the most dangerous aspect of the [‘harvest’] philosophy (running counter to attempts at setting standards for indigenous rights taking place at the United Nations). No indigenous peoples who wish to preserve their ways of life actively seek out ethnocide. Perhaps, for this reason, the response at the moment from indigenous peoples is an overwhelming lack of interest. Let’s hope it stays that way (IWGIA, 1993:9).

There should be no doubt that the harvest approach can entail such risks. The principal one is that outside interests will move to take over the extraction process itself, which may mean the usurpation of indigenous lands. This is certainly the lesson that history teaches us. Lucrative trades in forest products in the past have not only led to the

annexation of indigenous territories but also the enslavement of indigenous labour and the overexploitation of natural resources. Even without such direct impacts, the involvement of indigenous societies in the marketing of forest products can also bring about more subtle changes in social organization and cultural coherence. For example, rubber tapping in Amazonia led to the atomization of the Munduruku society as individual Indians developed personal ties with outside patrons. The result was that the people adopted more dispersed residence patterns, and social cohesion and cultural ties lost their significance. Eventually, both the political and village structures were shattered (Murphy and Steward, 1956).

Some indigenous organizations have been very outspoken in their opposition to the harvest, which they refer to as a “green swindle”. A publication of the Organization of Indian Nations of Colombia has noted critically:

In Europe and North America people believe that only by buying certain products they are helping to protect tropical forests and indigenous peoples, this is called the ‘rainforest harvest’. This is weakening the international campaigns in support of indigenous peoples’ struggles... People think that by consuming some product they are guaranteeing our protection. Our communities’ independence is also weakened as our well-being is made dependent on Western markets. There are many outsiders who are interested in profiting from our resources, manipulating environmental and indigenous issues for their own gain (cited in Corry, 1993:12).

But indigenous groups do not reject the idea of marketing produce from their lands, it is just that they have both different perspectives and different priorities to advocates of the harvest. As neatly summarized in Articles 29 and 34 of the **Charter of the Indigenous-Tribal Peoples of the Tropical Forests**, what indigenous people advocate is

...a redirection of the development process away from large-scale projects towards the promotion of small-scale initiatives controlled by our peoples. The priority for such initiatives is to secure control over our territories and resources on which our survival depends... Our policy of development is based, first, on guaranteeing our self-sufficiency and material welfare, as well as that of our neighbours; a full social and cultural development based on the values of equity, justice, solidarity and reciprocity, and a balance with nature. Thereafter, the generation of a surplus for the market must come from a rational and creative use of natural resources developing our own traditional technologies and selecting appropriate new ones (International Alliance, 1992).

A rapprochement between harvest advocates and indigenous peoples will depend on the former following these priorities. With secure rights to land, control over decision-making, and respect for the authority of their own representative institutions, indigenous peoples are better placed to undertake the always risky business of trading in a global marketplace.

FROM NATIONAL PARKS TO GLOBAL BENEFITS: CONSERVATION OF THE GLOBAL COMMONS

Growing concern about environmental pollution and degradation has lifted debates about biological diversity and poverty to unprecedented international levels. The issues were highlighted by the report of the World Commission on Environment and Development, entitled **Our Common Future**, which made popular the notion that these are “global” issues of “common” concern (WCED, 1987) — both controversial points which have the damaging effect of masking the considerable differences of interest and power among the various groups that make up the “global community” (The Ecologist, 1993). The major achievement of the Commission was to lay the foundation for the United Nations Conference on Environment and Development (UNCED), held in Rio de Janeiro in 1992, and to begin the formulation of an International Convention on Biodiversity, which was signed at the Conference.

Indigenous peoples made some notable gains through the UNCED process. They were accepted as one the “major groups” that should be involved in the implementation of Agenda 21, the loosely framed plan of action deriving from the Conference. They were also permitted to speak to the plenary session of the Conference, a notable achievement though of largely symbolic significance. However, in the view of the author, the overall effects of the UNCED debates on indigenous peoples and other politically marginal social groups have been decidedly unhelpful. The hidden, and often not so hidden, agenda of UNCED was the redefinition of North-South economic relations, whereas the main struggle of indigenous peoples was to redefine their relations with states. States thus used the UNCED process to reaffirm and strengthen their control of natural resources both vis-à-vis other states and vis-à-vis their own peoples.

Under international law existing prior to UNCED, “peoples” had well recognized — if ill defined — rights, including rights to their natural environment. These principles are fundamental to the work of the United Nations and, indeed, provide the authority for its operations. However, they were purposefully ignored in the UNCED process. This is clear if we compare the language of the United Nations of the 1960s with that of UNCED. For example, Article 1 of both the International Covenant on Economic, Social and Cultural Rights and International Covenant on Civil and Political Rights, agreed in 1966, states:

- (1) All **peoples** have the right to self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development.
- (2) All peoples may, for their own ends, freely dispose of their natural wealth and resources without prejudice to any obligations arising out of international economic co-operation, based on the principle of mutual benefit, and international law. In no case may a people be deprived of its means of subsistence.
- (3) The State Parties to the present Covenant, including those having responsibility for the administration on Non-Self-Governing and Trust Territories, shall promote the realization of the right to self-

determination, and shall respect that right, in conformity with the provisions of the Charter of the United Nations (emphasis added).

Furthermore, as General Assembly Resolution 1803 (XVII) of 14 December 1962 on permanent sovereignty over natural resources makes clear, the notion of “peoples” is not to be confused with the notion of “nations”, in turn distinguished from “states”. A review of the notion of the rights of peoples carried out by UNESCO in 1989 notes that the very “authority of the Charter of the United Nations is founded not upon states, as such, but upon peoples”. Indeed, the United Nations Charter itself commences with the words: “We the peoples of the United Nations...” and, as the UNESCO study also emphasizes, the second stated purpose of the United Nations is “to develop friendly relations among nations based on respect for the principle of equal rights and self-determination of peoples”.

The UNESCO review concludes:

The concept of peoples’ rights is now established by universally recognized international law. Its existence cannot now validly be controverted. [Accordingly] ‘peoples’ are not to be confused with ‘States’ and peoples’ rights are not State rights (UNESCO SHS-89/CONF.602/7).

The work of UNCED, however, was dominated by language of quite a different kind. UNCED accepted without argument Principle 21 of the Stockholm Declaration which, in dramatic contrast, noted that:

States have, in accordance with the Charter of the United Nations and the principles of international law (sic.), the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment or of areas beyond the limits of national jurisdiction (emphasis added).

Thus, far from examining means by which the rights of peoples to their environment can be secured, the UNCED process avoided addressing them. Discussions at UNCED were dominated by the concern of governments to secure national sovereignty and the exclusive right of states to exploit natural resources, while issues of popular rights to resources were deemed to be internal matters of concern to states and not the United Nations. This would appear to be a violation of both the spirit and the letter of the Charter of the United Nations.

The Biodiversity Convention followed this same approach and affirms, “States have sovereign rights over their own biological resources”. Article 3 of the Convention restates Article 21 of the Stockholm Declaration verbatim. Specifically, with regard to indigenous peoples, the Convention made the state’s recognition of indigenous rights “subject to its national legislation” thus placing no new obligations on states (Article 8(j)). As Vandana Shiva of the Third World Network notes, “the convention is too strong on patents and too weak on the intellectual and ecological rights of indigenous peoples and local communities” (Shiva, 1993:152). However, despite these unhelpful and even

damaging limitations, some indigenous groups have taken heart that the Biodiversity Convention offers grounds for a more collaborative relationship with states (Barsh, 1993). Article 8(j) obliges states “as far as possible and as appropriate”:

Subject to its national legislation, [to] respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices.

Similarly, Article 10(c) obliges states, “as far as possible and as appropriate” to:

...protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements.

A good faith interpretation of these obligations, coupled with the commitments of states under Agenda 21 to work in partnership with indigenous communities in managing resources and achieving sustainable development, may offer some scope for indigenous peoples to gain control of their territories and resources. Much will depend, however, on the mechanisms developed for financing activities undertaken under the Convention.

According to the Convention itself, the costs for its implementation are to be borne by the northern industrial nations, which are obliged to fund the full **incremental** costs (Article 20(2)). The Convention makes explicitly clear that developing countries have no obligations to implement it, without such outside financing (Article 20(4)). The UNCED negotiations also established that in the interim, the Global Environment Facility (GEF) should be accepted as the funding channel, subject to modifications in its governance structures.

The GEF and the Problem of Incremental Costs⁸

The whole notion of incremental costs is one that may have major implications for indigenous peoples and the way the Biodiversity Convention and the GEF relates to them. The concept, which was evolved in the context of the negotiations of the Montreal Protocol for regulating ozone depleting chemicals, is fundamental to the GEF. As affirmed by the Participants Assembly of the GEF in April 1992:

The GEF’s basic mission is to provide additional grants and concessional funding to cover agreed incremental costs that a developing country

⁸ Under the GEF, “incremental” costs refers to the costs of achieving global benefits over and above national ones. Under the Biodiversity Convention, however, “incremental costs” refers to the additional burdens placed on developing countries in achieving the goals of the Convention, whether the benefits are national or global.

incurs in order to achieve agreed global environmental benefits (GEF, 1992b,c).

As presently interpreted, the notion basically means that, as far as the “donor” countries are concerned, **the GEF will not fund local or national benefits** but only the incremental costs of global benefit. As Britain’s Chancellor of the Exchequer explained:

The central feature of the GEF is that it exists to meet the incremental costs of global environmental benefits. **It would not therefore be appropriate for it to be the funding mechanism for other conventions that are designed to achieve national or regional benefits** (Dalyell, 1993:49, emphasis added).

There are huge theoretical problems in defining which costs of any actions are defined as of local and national benefit and which are only of global benefit and therefore fundable under the Biodiversity Convention and the GEF. Indeed, NGOs have been pointing out the flaws in the whole approach since the GEF was started (WRM, 1991; Greenpeace International, 1992). Their views have finally been brought home to those running the GEF by its Independent Review Panel, which concluded in late 1993 that:

The attempt in the absence of a clearly defined strategic framework to draw distinctions between global and national environmental concerns and benefits has led to conceptual and, more important, practical problems in program applications and operations (GEF, 1993: paragraph 2.14).

Despite these expressions of concern, the GEF continues to disburse funds for projects and is receiving further pledges of financing. Many of these projects of “global benefit” have very worrying implications for indigenous peoples. Since GEF-funded projects or project components are, by definition, not in the national interest, the projects have the effect of marginalizing indigenous peoples’ concerns. These are far from theoretical objections.

For example, a GEF-funded project to establish timber estates in Ecuador, justified in terms of biodiversity conservation (as it would supposedly eventually reduce demand for tropical timber from natural forests), turned out to pose a major threat to indigenous people — as revealed by an investigative mission, carried out after protests had been raised by non-governmental organizations. The project entailed establishing a mill to process tropical timber. The mill would rely on supplies of timber from natural forests over seventeen years while the timber estates became productive enough to satisfy the mill’s demand. In all, some 50,000 hectares of natural forest — including most of the last primary growth forest in western Ecuador — all on the lands of the indigenous Chachi people, would have been destroyed in the name of biodiversity conservation for global benefit. The investigative mission found that the implementing agency (the World Bank) had not followed its own policy on indigenous peoples in setting up the project (Umana, 1993; D.T.M. Cia S.A. et al., 1992; DeWalt, 1992; GEF, 1992a; Arnold, 1992).

Another example is a project in Laos being financed by a loan from the World Bank, a grant from the GEF and a technical assistance package from FINNIDA. The so-

called “Forest Management and Conservation Project” aims at restructuring the forestry sector in Laos and was made palatable to the government of Laos by the generous addition of a US\$ 6 million grant from the GEF for biodiversity conservation. Justified by the World Bank as an environmental project, the project was originally appraised without an “environmental analysis” being carried out as required under the Bank’s own environmental policies. The Bank also chose not to apply its policies on indigenous peoples, even though the project intended completely reformulating the laws and regulations regarding community access to forests. In all, some 5,000 indigenous communities stand to be affected by the project, with potentially serious consequences. Conservationists from IUCN, who had collaborated with the World Bank in setting up the project and elaborating the conservation laws, had argued that the GEF funds should be spent on integrating conservation values into logging regulations and community forestry. However, the World Bank insisted that these uses of GEF funds would not be allowable under the “incremental costs” criterion and chose instead to allocate the funds to the creation of protected areas, where indigenous communities would have severely restricted access to forests (World Bank, 1992; Colchester, 1993a; IUCN, 1993b). Indeed, a condition of the project is the adoption of new legislation which grants local communities conditional access to and use of forests, subject to their elaboration of management plans with externally defined objectives. In effect, the project seeks to introduce the same pattern of state control of forest-based communities as British colonial law imposed in India, which granted tribal peoples’ **privileges** in forests rather than recognizing their **rights** (Gadgil and Guha, 1992:123ff).

More recently, the GEF has been working with the World Bank’s private sector arm, the International Finance Corporation (IFC), to develop means of promoting the exploitation of tropical forests and indigenous knowledge. This follows the trend among many conservationists to commercialize non-timber forest products, as a way of giving value to forests and thereby supposedly enhancing government interest in their sustainable use and protection rather than conversion to agriculture or plantations. The GEF is thus looking for ways to increase investments in developing new pharmaceuticals based on natural products. Investigating the chemical content of indigenous peoples’ poisons, drugs and medicines is believed to offer a short cut to isolating these compounds. At a recent meeting, IFC and GEF officials met with a number of private foundations to explore the possibilities of investing venture capital funds to “exploit the knowledge stock” of traditional communities (Chatterjee, 1993).

Map 2
Conflicting Land Claims:
The Iwokrama Rainforest Programme

(Map not available in this version of the report)

Source: NRI, 1993

In 1966, the Makushi of the northern Rupununi submitted a territorial claim to the Amerindian Lands Commission for an area bounded by the Siparuni river on the north, the Essequibo on the east and the Rupununi and Benoni on the west. Some of these communities were granted small titled areas, while others did not receive any. Recently, the north-east corner of this territorial claim has been taken over by the Iwokrama Rainforest Programme. As well as overlapping part of the Annai-Surama land title, the area is used by Amerindians of a number of nearby communities for hunting, fishing, shifting cultivation and small-scale mining.

Box 5

The Iwokrama Rainforest Project in Guyana

Another GEF project which will affect indigenous peoples is the Iwokrama Rainforest Programme, which encompasses a 360,000-hectare area of forest in Central Guyana between the Rupununi savannas and the Essequibo. The project concept was to set aside half the area for experimental logging to establish the criteria for sustainable forestry, while the other half would be more carefully protected and “combed” as a study area for new pharmaceuticals derived from plants. The project was initially criticized by international and local NGOs for failing to take account of the needs and rights of the Amerindians who live in and use the resources of the area. Concerns were also expressed over whether the project could be said to respond to the environmental priorities of the country and whether it might absorb the country’s limited institutional capacity to deal with the environment, thereby diverting attention away from more crucial problems facing the country such as effectively regulating logging and mining, carrying out a social and environmental impact study of the proposed road from Brazil, securing Amerindian lands, and combating the epidemics of malaria and cholera. Concern was also expressed that the project, which envisaged a vigorous “biotechnologies and biofutures” programme based on detailed documentation of Amerindian plant lore, made no provisions to secure Amerindian intellectual property rights (Colchester, 1991a). The project’s international sponsors gave very serious consideration to these concerns and the revised project now proposes some measures to deal with all of them — though how adequately remains to be seen (Commonwealth Secretariat, 1993; NRI, 1993).

The forest set aside for the Iwokrama project is relatively sparsely populated even by Guyana’s standards, but the whole area falls within the territory which was claimed by the Makushi people in 1966 (Amerindian Lands Commission, 1969). Although this claim was not upheld by the Lands Commission — on the grounds that the area was too large for the Amerindians to develop and administer — and, instead, smaller areas were recognized in 1976, some Makushi and other Amerindians do continue to make use of the wider area for farming, hunting, fishing, small-scale mining and community logging.

Since the Commonwealth Secretariat and other sponsors were alerted by NGO protests to the social implications of the project, there have been a number of missions to the area to consult with the local people. However, whereas the local communities now feel that their concerns have been understood and that the project will be modified accordingly, the official position seems to be that the project “will need to pay particular attention to the participation of local people in future development” and “local suggestions... will need to be evaluated” (NRI, 1993:7).

The Amerindians of the area expect the project, on balance, to bring them some real benefits. In the short term, they expect that the project will provide them jobs as tree spotters and as informants in herbal lore. The project should also stimulate the trade in handicrafts. In the longer term, they expect younger community members to benefit from direct training from the visiting scientists, which should allow them, once trained, to take over the management of the area. This, they believe, will help them to become fully recognized members of Guyanese society, while at the same time the attention to the traditional forest use and herbal lore will help ensure cultural continuity by encouraging respect for traditional knowledge of the elders among the younger generation.

For the project to work well, the Amerindians note that certain conditions would need to be met. The project would first have to help clarify the boundaries of indigenous areas and demarcate them effectively. In addition, the Amerindians would need clear rights to be able to continue non-commercial hunting within the reserve area. Effective guard posts, co-ordinated by radios, would need to be established at the entrances to the reserve to control access. An adequate area of forest within the reserve should be set aside to provide timber, on a long-term basis, to a community sawmill. A proportion of any profits made on drugs and medicines developed from the ethno-botanical research would need to be put into a development fund for the benefit of the communities. These and other matters should be established in the form of a written contract to ensure that the Amerindians interests are properly protected (Interviews with Makushi in Toka, Annai and Kwatamang, 19-20 October 1993).

INDIGENOUS “INTELLECTUAL PROPERTY RIGHTS”

The development of medicines and drugs based on traditional remedies has a very long history, with some estimates suggesting that up to half of all existing drugs on the market are derived from traditional medicines. To date, the peoples who originally identified these natural medicines have seen none of the profits. The increasing interest in exploiting indigenous knowledge, now intensified by the suspect notion that this will somehow promote “conservation”, has alerted indigenous peoples to the potential risks. History teaches, moreover, that the commercialization of indigenous biotechnologies has in the past led to an erosion of biodiversity — as, for example, diverse food crops and livestock have been replaced by a more limited range of artificially bred livestock, seeds and plant varieties (Juma, 1989; Hobbelink, 1991; Shiva et al., 1991).

To their credit, many anthropologists and conservationists have been vigorously searching for ways of protecting both indigenous interests and biodiversity from these potential problems (Posey, 1990a,b; WWF, 1993a; Axt et al., 1993; WRI 1993; Zerner, 1993). At the same time, indigenous peoples have spoken out, demanding control of their knowledge and biotechnologies. For example, Article 44 of the Charter of the Indigenous-Tribal Peoples of the Tropical Forests states:

Since we highly value our traditional technologies and believe that our biotechnologies can make important contributions to humanity, including ‘developed’ countries, we demand guaranteed rights to our intellectual property, and control over the development and manipulation of this knowledge (International Alliance, 1992).

International law is beginning to respond to such demands. Article 29 of the latest draft of the proposed United Nations Declaration on the Rights of Indigenous Peoples states:

Indigenous peoples are entitled to the recognition of the full ownership, control and protection of their cultural and intellectual property. ...They have the right to special measures to control, develop and protect their sciences, technologies and cultural manifestations, including human and other genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literature, designs and visual and performing arts (United Nations, 1993).

However, some indigenous peoples have expressed concerns about this trend to legally protect and thereby commoditize knowledge and natural resources. Such groups “view the whole notion of intellectual property rights as a sophisticated form of theft of their resources and knowledge, and not as a basis for co-operation”. Accordingly, tribal peoples and peasant groups in March 1993 held mass rallies in New Delhi opposing the imposition of norms regarding “trade related intellectual property rights” by the Uruguay round of the General Agreement on Tariffs and Trade (TWN, 1993). Divergent though these two strategies appear, they both aim to protect indigenous peoples from exploitation by commercial interests (Colchester, 1993b). The real problem is that, at present, legal protection of indigenous cultural heritage is weak or absent, while laws

protecting the inventions and developments of individuals and commercial interests are elaborate and nearly universal (Shelton, no date).

Human Diversity

One final “resource” which has not gone unremarked by gene hunters is the diversity of the human genome itself. As part of the project to map the Human Genome (HUGO), anthropologists and geneticists have developed a little remarked programme to preserve, *ex situ*, the variety of indigenous humanity. Working on the assumption that endangered peoples are vanishing from the face of the earth, these scientists have taken it on themselves to mount an urgent programme, akin to the “salvage ethnography”⁹ advocated in the 1970s, to collect samples of their DNA for cold storage and study (RAFI, 1993). The preliminary programme has a projected budget of around US\$ 35 million and will aim to collect some 10,000-15,000 human specimens from 722 identified human populations — referred to as “Isolates of Historic Interest” (TWN, 1993).

Consulting anthropologists have thus set about identifying peoples threatened with extinction and sending teams out to make collections of hair follicles and squamous tissue from inside people’s cheeks. Once these collections are made and viable cell lines are established, the peoples are referred to as having been “immortalized”. Needless to say, indigenous groups that have become aware of this practice have been indignant in their denunciations. Victoria Tauli-Corpuz of the Asia Indigenous Women’s Network asks:

Why don’t they address the cause of our being endangered, instead of spending US\$ 20 million to collect and keep us in cold storage?
(**Survival International News**, No. 12, 1993).

The offence stems as much from the priorities of those involved who, hiding behind a supposed scientific objectivity, feel justified in collecting human samples in the name of human welfare, while doing nothing to counter the forces that are driving these peoples to extinction. Underlying these priorities are unrecognized prejudices that consider indigenous peoples to be “our contemporary ancestors”, natural curiosities that have survived beyond their time and which are doomed to disappear once the modern world catches up with them. The idea that indigenous societies are vital, viable and no less modern alternative ways of living is implicitly foreign to salvage ethnographers and geneticists.

The programme also highlights another problem. Who owns the cell lines once they have been collected and established? Who will profit from their use? These serious ethical issues have been brought into focus by a legal claim by the Guaymi Indians of Panama who have protested at the action of two scientists from the United States, who filed for a patent on a Human T-Lymphotropic Virus Type 2 derived from samples of their blood. The Guaymi have demanded the withdrawal of the application on the

⁹ “Salvage ethnography” proposed urgent anthropological investigations to record the cultures of vanishing peoples and was criticized by indigenous peoples as an attempt to wrest their heritage from them while doing nothing to defend their interests.

grounds that it was made “without consultation with our community, its traditional organizations, or its corresponding administrative authorities” (Letter from Guaymi General Congress to the United States Patent and Trademark Office, 5 October 1993). In response to this case and other expressions of concern, the Human Genome Diversity Project has now established an ethics committee and says it has decided that it will not profit financially from the samples it collects, will protect the intellectual property of the sampled populations and will “work to guarantee that, in the unlikely event those samples lead to products, financial benefits will flow back to the sampled populations” (Letter from Henry T. Greely, Stanford Law School, to RAFI, 1 November 1993)

CONCLUSIONS

Unless property rights (land tenure) of long-term residential peoples are respected and economic benefits from the creation of protected areas accrue in part directly to the communities living in and near them, it is unlikely that nature reserves will endure. Local communities must also be involved in the planning and boundary marking of reserves. Most important, their traditions must be respected (Kemf, 1993a:xviii).

As this review has attempted to make clear, indigenous peoples face four major problems inherent in the classical conservationist approach. In the first place, mainstream conservationists have put the preservation of nature above the interests of human beings. Secondly, their view of nature has been shaped by a cultural notion of wilderness sharply at odds with the cosmovision of most indigenous peoples. Thirdly, conservationists have sought authority for their regulation of human interactions with nature in the power of the state. And last but by no means least, conservationists’ perceptions of indigenous peoples have been tinged with the same prejudices that confront indigenous peoples everywhere. The result, as we have seen, is that indigenous peoples have suffered a four-fold marginalization due to conservationist impositions.

The evidence is also clear that these impositions have violated internationally agreed norms, particularly those regarding indigenous rights to land and to just compensation in the case of forced removal in the national interest. Evolving norms regarding indigenous control of land use and self-determination have also been regularly broken.

The realization by the conservation community that respect for indigenous peoples rights is not just a matter of pragmatism but is also a matter of principle, has been long in coming. However, it is becoming clear that, with the protected area model of conservation anyway proving unviable, more radical approaches to nature conservation based on bottom-up processes of decision-making should be given more serious attention.

It is time that conservationists began to start their work in areas inhabited by indigenous peoples from the assumption that they are dealing with local people with legitimate rights to the ownership and control of their natural resources. The creation of protected areas may not be the most appropriate option in such circumstances, as in most

cases indigenous ownership rights are denied by protected area legislation. However, there will be cases, especially in countries which do not respect indigenous tenure or traditions, where the creation of protected areas may offer the only legally available means of securing indigenous occupancy and use rights, if not ownership.

However, there is a risk that the pendulum could swing too sharply the other way, towards an assumption that once an area is under indigenous ownership and control the problem is solved and that all indigenous systems of land use are inherently sustainable. This is patently not the case. Indeed, many indigenous communities are fully aware of the fact that, as pressure on their lands from outside intensifies and as their own economies and social organization change to accommodate their increasing involvement in the market economy, they need to elaborate new mechanisms to control and use their resources. Ecologists, social scientists, lawyers and development advisers may have relevant knowledge to contribute to such indigenous communities to help them achieve this transition. Their role, however, is to act as advisers to indigenous managers rather than as directors of indigenous ventures (see Colchester, 1982d).

In Amazonia, for example, the practice of recruiting technical advisers to indigenous organizations already has a 20-year history and has led to some notable successes in securing lands against outside intrusions. They have had somewhat less success in promoting verifiably “sustainable” systems of resource management while generating a surplus for the market.

Probably the most difficult aspect of working with indigenous peoples has been in identifying the appropriate indigenous institutions through which to mediate with outsiders. Many indigenous peoples have confronted similar problems in deciding in which institutions to vest authority for governing their own novel activities, be they oriented to conservation or the market. Especially among relatively acephalous societies such as Amazonian Indians and “pygmy” groups in Central Africa, the lack of central authorities creates tricky problems in the reaching of binding agreements both amongst themselves and with outsiders. On the other hand, the risk with more centralized and hierarchical societies is of vesting undue authority in their leadership and thus exaggerating conflicts of interest within the communities. There are no generalizations that can be made about how to solve these problems, except that the decisions should be made by the people themselves.

The trouble is that the mainstream conservation organizations are simultaneously being drawn in two conflicting directions. On the one hand, their field experience is persuading them that vesting control of land and natural resources in indigenous peoples’ institutions makes conservation sense. On other hand, the current fashion of treating environment issues as global problems is encouraging state and international interventions. As conservation becomes a global concern, substantial funds have become available for conservation organizations to implement and manage protected area projects in Third World countries and to act as consultants for the development agencies that have assumed responsibility for managing the global environment. The main risk in all this for indigenous peoples is the reinforcement of conservation’s top-down tendencies. Conservation organizations have traditionally derived their funding from the establishment and have sought to impose their visions through the power of the state. Globalizing conservation only strengthens this tendency. Highly motivated

conservationist consultants come to occupy the political space within the state that indigenous representatives have been striving to enter themselves, while at the same time the conservation institutions, bidding for lucrative consultancies and protected area “projects”, adjust their management style to the exigencies of the international agencies that fund them rather than the indigenous communities whose territories they are seeking to conserve. While substantial conservation budgets are lavished on satellite mapping systems, helicopters, jeeps, offices and official salaries, indigenous peoples are increasingly marginalized from decision-making.

The challenge is to find a means of making conservation organizations accountable to what is for them an unfamiliar constituency — indigenous peoples — so that they are obliged to treat indigenous peoples’ concerns with the seriousness they deserve. The experience in Canada, Australia and Amazonia already suggests that this will only come about through the mobilization of indigenous peoples themselves. These cases also suggest that there are grounds for guarded optimism about the outcome. Reconciling indigenous self-determination with conservation objectives is possible if conservation agencies cede power to those who are presently marginalized by current development and conservation models.

If there is one lesson that it seems to the author that conservationists need to learn, it is that decisions about conserving nature are by definition political — they are about the exercise of power in the making of decisions about the use of scarce natural resources with alternative ends. For whose benefit are resources to be used or conserved? Who has authority to make such decisions? Who has the power to contest them? In whom should authority over natural resources be vested to ensure that they are prudently managed for the good of future generations?

I know of no safe depository of the ultimate powers of the society but the people themselves, and if we think them not enlightened enough to exercise that control with a wholesome discretion, the remedy is not to take it from them, but to inform their discretion (Thomas Jefferson, 1820 cited in **The Economist**, 18 December 1993).

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