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is Category V Protected Landscapes/Seascapes – the only one shaped the way of life of the people

From Asia, Prabhu Budhathoki demonstrates how the buffer zone management programme in Nepal has adopted a Protected Landscape approach to safeguard the long-term objectives of the National Parks and meet the needs of the people living in the adjoining areas.

Jessica Brown, Nora Mitchell and Jacquelyn Tuxill's article from the USA shows how Category V management objectives are providing an important opportunity in the US context as the US National Park Service increasingly looks at 'non-traditional' designations such as heritage areas, corridors and long distance routes to broaden the role of the service.

Finally, from South America, Eric Chaurrette, Fausto Sarmento and Jack Rodriguez describe the relationship in the tropical Andes between the protected areas and the highly-charged issues of open access and community property rights and argue the need for a Protected Landscape approach citing the Quijos River Valley as a case study.

This issue of



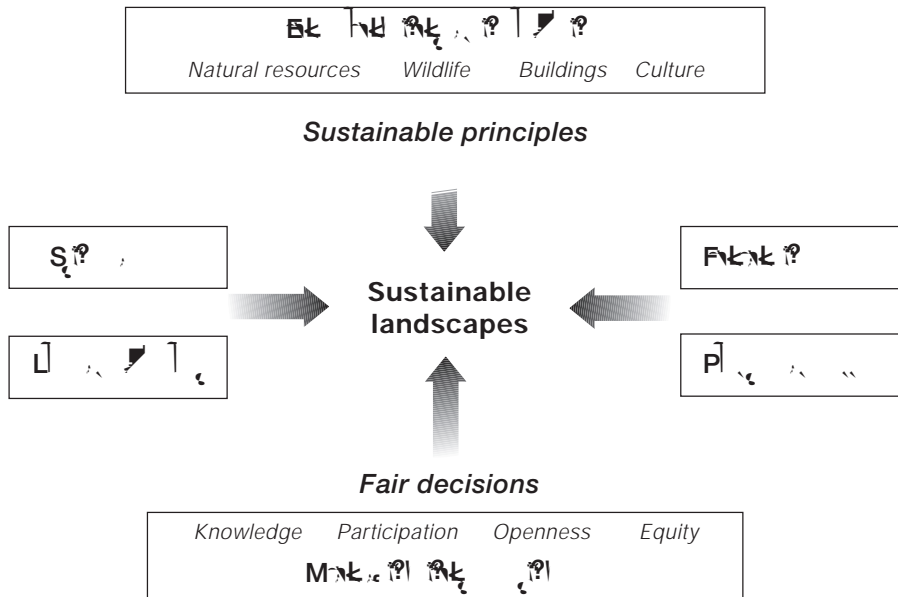
If the essence of global food production is a plastic wrapped, slightly processed slab of meat transported thousands of miles, local sustainable farming means fresh produce grown and supplied from neighbourhood farms sold at farmers' markets and in local shops. Such an approach ensures that food miles (the distance food travels from farm to plate) are kept to a minimum.

The role of Protected Landscapes in promoting change

At the forefront of the agenda for promoting the sustainable use of agricultural land are the many Protected Landscapes (Category V Protected Areas) around the world, where environmental and nature conservation practices have been combined with agricultural policies and extended into the farmland environment. Within many Protected Landscapes and in particular those in Europe, it has long been recognised that sustainable agriculture provides a realistic means of building strong and interdependent links between resource management, economic development, social welfare and environmental conservation. Of key significance, is the realisation that the Protected Landscape approach provides both a practical and economic role for farmers and an important framework around which environmental conservation can be linked to the improvement of the quality of life for local people. Protected Landscapes are increasingly demonstrating how innovative management can help reduce the sustainability gap that differentiates environmentally damaging farming practices from those which, in a European context, are considered sustainable

The benefits of a balanced approach to farming and environmental conservation are nowhere better demonstrated than in Southern Öland, an island in the southeast of Sweden. Although significant areas of Southern Öland are designated Nature Reserves or Landscape Protection Areas (Category V Protected Landscapes), the entire landscape reflects more than 5,000 years of human habitation and present farming systems have evolved to match the physical constraints and environmental values of the area. The southern part of Öland is dominated by a vast limestone pavement covering 250 km², the single largest actively-farmed limestone pavement in the world. The area's high biodiversity and historic values are conserved through well-structured, low impact traditional farming practices, which respect the land's capabilities and the area's natural ecosystems and cultural heritage. Even though most of the farmland is of nature conservation value and is under some form of protective guardianship, a legal k17 Twadst of t-y thanysvs v I

Figure 1. Management systems within Protected Landscapes.

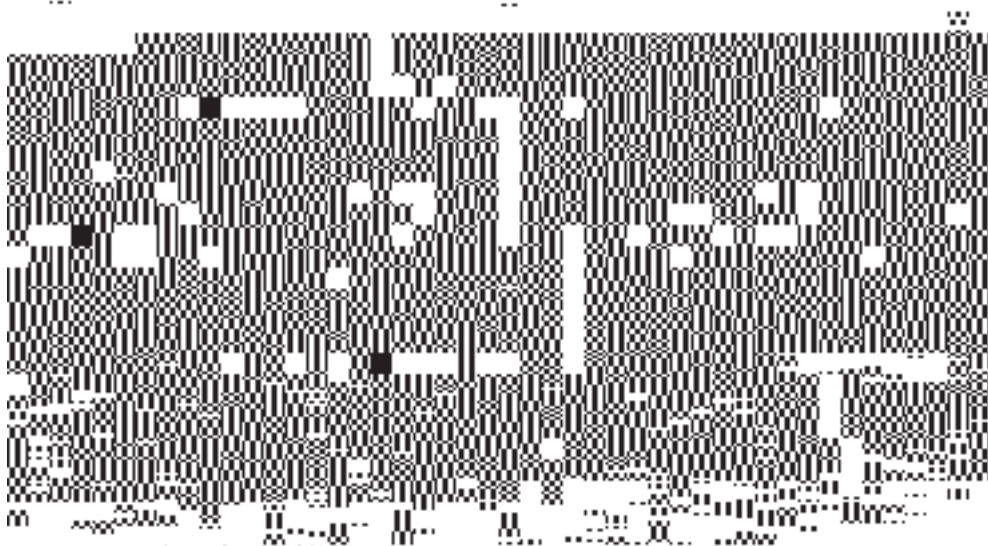
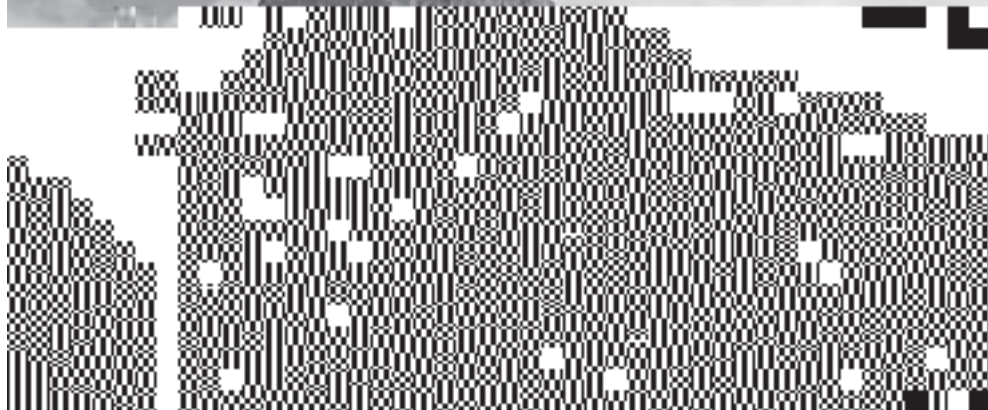


It is therefore clear that the promotion of environmentally sensitive agricultural policies at a national level, the encouragement of an enhanced environmental stewardship ethic amongst the farming community and the adoption of collaborative approaches to the management of natural resources and wildlife conservation farming which reflect the Protected Landscape approach, can succeed and make agriculture relevant to both local communities and the expanding global economy. In addition and in the case of those countries which benefit from agricultural support programmes (e.g. those in the European Union), these sustainability relationships can be strengthened still further. By ensuring that agri-environmental schemes³ are promoted as alternatives to purely production based support measures, financial support for farming can be effectively uncoupled from intensive agricultural production at the local level thereby providing a means of supporting farming communities whilst maintaining the integrity and values of the farmland environment.

The benefits of sustainable farming

Pioneering agri-environmental schemes in Protected Landscapes across Europe which reflect this fact and recognise biodiversity and the landscape as social and economic commodities, clearly illustrate how farming when undertaken sensitively not only enhances an area's natural and cultural values, but is also beneficial to the economy of those areas. These benefits are well illustrated by the "Tir Cymen⁴" and "Tir Gofal" initiatives, implemented in the Snowdonia National Park, Wales. The Snowdonia National Park (a Category V Protected Area) covers 213,100 ha of which 70% of the land area is in private ownership and supports approximately 1,400 hill/mountain sheep farms. The viability of farming is almost totally dependent on financial support from the European Union's Common Agricultural Programme, but despite

An agri-environmental stewardship in the Snowdonia National Park, Wales. Photo: Snowdonia National Park Authority



this, agriculture continues to decline. It was for this reason in 1992 the Tir Cymen Environmental Stewardship scheme was introduced, in an attempt to provide a new approach to farming.

The objective of the scheme was to combine, on a whole farm basis, good farming practice with the conservation of semi-natural habitats, landscape conservation and the protection of archaeological features whilst at the same time promoting opportunities for the public to enjoy the countryside. In return farmers sign a 10-year whole Farm legal agreement and conform to a conservation code of practice. The scheme effectively offers farmers payments to change their farming practices and recognises in monetary terms, the environmental value of the biodiversity and cultural heritage resources of farmland in the Park. By 2001, 411 whole farm agreements existed, covering 71,770 ha or 33% of the National Park area.

Since their introduction, the schemes have not only enhanced the biodiversity and landscape of the Park but also reduced environmentally damaging farming practices. In addition, new job opportunities have been created, farm diversification initiatives and the farming community's awareness of environmentally sensitive farming practices has increased. The multiplier effect of extra spending by farmers in the local economy has also created additional local employment and the demand for new services. Introducing changes of this kind that reduce the economic productivity of agricultural land (where it is practical or desirable to do so), however represent a potential loss of income for farmers, few of whom can afford to reduce their productivity without some form of compensation. Public funds are therefore important to enable these

across different regions in Europe. In the case of the

Application of the Protected Landscape Model in southern Kenya

OSOTHY E L WISHITEM, N MOSES M KONJO OKELLO

Conservation of biodiversity outside of sites protected under the Kenya Wildlife Commission's impossible to establish a network of parks, reserves, and other protected areas, which would be a step towards the establishment of a national park model. Although the aim is to establish a network of parks, reserves, and other protected areas, the current network of protected areas is a result of the population pressure on the land. The current network of protected areas is a result of the population pressure on the land. The current network of protected areas is a result of the population pressure on the land.

THE CONSERVATION OF natural resources in Kenya since the 1940s has been largely based on the National Park Model classified as Category II of IUCN network of protected areas in the world (IUCN 1986). This has been characterised by the government or local agencies identifying an area based on resource endowment criteria, displacing the local people, outlawing human settlement and designating it as a protected area. There are about 52 such protected areas in Kenya covering about 8% of total land (Nyeki 1993; Mwangi 1995). Now conservation in Kenya seems to be in crisis (Mwale 2000) partly because of this singular model approach and exclusion of local community interests. In a new study, Okello and Kiringe (2002) have looked at the relative magnitude and types of threats to the protected areas of Kenya. The aim of the study was to determine viability and current status of protected areas and thus assess the status of conservation in Kenya. At the moment, 62% of all Kenya's protected areas are threatened; 40% significantly and 22% increasingly under threat (Okello and Kiringe 2002). Further, the threat index of all protected areas is relatively high (58% to 60%), with all marine protected areas and about 88% of forest/mountainous protected areas being significantly threatened.

Unless a conservation alternative to the Category II National Park Model is explored and applied extensively, national parks and reserves will unfortunately remain the only final frontier for the conservation of biodiversity under prevailing circumstances. No conservation outside these protected areas will be possible, consequently leading to loss of great diversity of biological resources in Kenya (IUCN 1990; Mwale 2000). Given that more biodiversity and representative ecosystems are located outside the current network of protected areas in Kenya, the loss of biodiversity is likely to be very significant. It will need more than conservation policies to reverse this situation. Government and development agency roles, policies, management regimes and practices need to be pro-active and responsive to changing scenarios. The strategy should be broad, target new conservation initiatives on a landscape level in and around existing protected areas and beyond them. An application of an alternative model of conservation that goes beyond park boundaries, involves local communities and bridges the hostile gap between conservation of natural resources ideals and the aspirations of indigenous local communities is urgently needed to safeguard vast landscapes of cultural, biological and historical significance in Kenya.

The Protected Landscape versus National Park Models

IUCN (1986) has put together six categories of protected areas and their characteristics in an effort to harmonise and document global conservation strategies. A protected area is formally defined as “any clearly defined geographical space, officially designated and managed, through laws or other effective means, to conserve nature and related cultural resources, in order to ensure sustainable development”. There are now over 30,361 protected areas covering an area of about 13.25 million km² (about 10%) of global land surface (Beresford and Phillips 2000). However, as impressive as this looks, this network of protected areas does not sufficiently guarantee the conservation of biodiversity in the world (Aichison and Beresford 1998). Most countries, as well as important biomes and ecosystems, still fall below the threshold of the 10% area of protection strategy, agreed upon at the IVth World Parks Congress in Caracas, Venezuela in 1992. Even more critical is the fact that a majority (about 72%) of these protected areas are located in developed countries (Europe, Australia and North America) compared to developing countries where natural resources are increasingly under pressure due to degradation and over-utilisation to support their rising human population and fledgling economies.

While protected areas in Kenya are manifested as national parks, nature reserves, wildlife sanctuaries and community protected areas (areas endowed by natural resources and owned and managed by the communities for economic and other benefits), a majority of them fail to address some key aspects of the definition attributed to a protected area. The focus has mainly been on “conserving natural resources” and less on “ensuring sustainable development”.

The Protected Landscape character of Maasai communal lands

Given the great demand for land in Kenya, designation of more protected areas based on the

where they live and work. This lived-in working landscape of the Tsavo-Amboseli area represents one of the major remaining wildlife conservation blocks in Kenya, which is inhabited by the renowned Maasai, an indigenous people of Kenya whose adherence to their cultural practices and pastoralism have won them international fame. Further, this area is a rangeland

become of even greater concern to local communities as over 64% of community members incur

Nested National Park Model in the Protected Landscape Model: the pitfalls

The Protected Landscape Model and character has been in place in the Maasai rangelands and working well for culture and nature even without formal recognition or legitimisation. Communities had a management regime headed by its leaders and allowed regulated access rights to and use of natural resources (land, pasture, water, animal and plant resources) for all its members similar to the Hima system of Saudi Arabia (Draz 1965). Traditional systems of resource conservation can sustain societies for centuries and have both a cultural, ethical and conservation rationale. Such traditional regimes form authentic models of range and resource conservation. The emergency of the Group Ranch system in the 1960s for communal pastoral tribes enabled them to exhibit the character of Protected Landscapes with management regimes embedded in community structure and leadership rather than in central government. However, lack of formal recognition of these old regimes of range and resource management as a legitimate network of conservation by government has led to lack of support and the public incentives necessary to maintain the character of these landscapes. Instead, as with the Maasai, the Kenyan government has done the opposite: encouraging and providing incentives for agricultural practices, shift to sedentary lifestyles, lack of community empowerment in conservation and lack of incentives to the community to maintain a pastoral lifestyle. It is this that is leading to a change in the traditional landscape character and harmonious interaction of culture and nature with these landscapes.

What we now see is an evolution of community wildlife sanctuaries based on park model nested within a working lived-in Protected Landscape. This may be aiming to imitate the government-run parks and reserves and compete for the lucrative tourism income flowing into the area. However, these community wildlife sanctuaries (such as Kimana) exclude human settlement and use of resources (Okello and Adams 2002) by locals and livestock (especially when leased by tourism investors). This is contrary to and in negation of the principles of the Protected Landscape Model and character of the area. It is precisely for this reason that some community members are against the evolution of these community owned wildlife sanctuaries, or if they support their establishment, are against foreign investors leasing them for the tourism business (Okello and Nippert 2001).

in a Protected Landscape Model is unnecessary as these landscapes should be maintained and supported through the provision of economic incentives for the benefit of the local communities without changing the nature and character of the landscape either in part or as a whole. The protection of these landscapes as a whole would provide a larger area for continued interactions

to only designated suitable areas in a comprehensive land use plan would help maintain the character of these landscapes.

Conclusion

A Category V Protected Landscape Model, even without formally being regarded so, has been applied, promoted and maintained in Maasai communal rangeland landscapes of the Tsavo-Amboseli area in southern Kenya. This has helped promote the interaction of cultural and natural resources together with the biodiversity of the area. The Maasai culture and lifestyle has interacted with the physical and biological environment for years to produce a distinct landscape that has supported pastoralism lifestyle as well as conservation of biodiversity. The greatest impediment has been the lack of formal recognition by government of the cultural and biological character of these landscapes, the threat of Group Ranch sub-division into individually owned parcels of land, lack of public support and incentives to keep this landscape character intact and rapidly changing socio-economic aspects (such as land use changes). With the evolution of community wildlife sanctuaries nested within the Protected Landscape Model, conservation as well as economic benefits from ecotourism will provide for the lacking economic incentives and support to make the Protected Landscape approach truly viable in the area. This would then provide a blueprint for further protection of biodiversity of resources in working landscapes outside protected areas

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A Category V Protected Landscape approach to buffer zone management in Nepal

PA SHU SU H THOKI

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NEPAL IS A SMALL, LANDLOCKED COUNTRY in the southern lap of the Himalayas, surrounded by India and China, having extreme climatic and topographical variations. With only 0.1% of the world's total surface area, the country contributes over 2% of the flowering plants, 8% of the birds and 4% of the mammals (BPP 1995). Nepal is home to many globally endangered, vulnerable or threatened animal species, which include the tiger (*Panthera tigris*), one horned rhino (*Rhinoceros unicornis*), gaur (*Bos gaurus*), snow leopard (*Uncia uncia*), Ganges River dolphin (*Inia gangetica*), gharial (*Gharial*) and giant hornbill (*Bucconius giganteus*). In the global context of biodiversity richness Nepal is believed to be in twenty-fifth position (NBAP 1998). This exceptionally rich repository of biodiversity carries both national and international significance.

Establishing national parks and other forms of protected areas (PAs), has been adopted as a key conservation strategy to protect the rich natural heritage of the country. Impressive networks of protected areas that cover more than 18% of the total surface area of the country have been created within two decades. Strict restrictions on the use of park resources have been imposed to control resource degradation. To date, the country has 16 protected areas of different categories (Figure 1). The land mass designated as PAs in 2000 was around 27,000 km², which is more than six times the 1973 area (Figure 2). This shows the great commitment of Nepal to the conservation of biodiversity despite being one of the world's most economically underdeveloped countries.

However, the success of conservation is not always beneficial to the people of Nepal. The strict protection measures which deny traditional resource use rights have come into direct conflict with the local communities as their livelihood is threatened. Additionally, increasing livestock and crop depredation has been another main source of park/people conflicts. Due to restrictions inside the protected areas, extractive activities have been intensified in the surrounding areas causing severe damage to ecosystems (Shrestha 1999). The population and its associated demands are exerting pressure on the natural resources, which in many cases have already reached the threshold point. For example, more than 250,000 people (40,000 households) living around the Royal Chitwan National Park in the buffer zone (BZ) are turning the national park into a green island amidst the sea of people. This indicates that in the long run, an island approach to conservation seems to be self-defeating in both ecological and socio-economic terms.

Figure 1. Protected areas of Nepal.



Despite mounting efforts over the past two decades, threats to sustainable biodiversity conservation continuously exist in different forms and scales. A conservation approach based on a people-exclusive model is not sufficient to manage protected area systems and conserve the biodiversity of Nepal.

This situation has demanded an appropriate strategy that could ensure the balance between the immediate needs of the local people and the long-term objectives of the PAs. It has been generally believed that the future of national parks largely depends on the better management of the areas outside the parks and with the cooperation of local communities. The introduction of the buffer zone (BZ) concept in 1994 in protected area management has been a benchmark in linking conservation with human needs. In the case of Nepal, an area surrounding the park or reserve, encompassing forests, agricultural lands, settlements, cultural heritages, village open spaces and many other land use forms, has been considered as a buffer zone (). This means BZ expands conservation opportunities beyond boundaries where a great extent of human modification has taken place. The BZ areas will function as an ecological link between the park and the wider area as BZ forests are managed with a multiple use concept that promote conservation-friendly practices through community participation (see Box 1).

Declaration of a BZ provides opportunities for local people to use forest products on a regular basis (HMG 1996). The Buffer Zone Regulation (1994) has also opened an avenue for sharing park benefits with local people living in the BZ. Park authorities are allowed to recycle 30 to 50% of the park revenue in the development of BZ areas. To date BZs in six national parks (two in the



only to create an internal financial capital base at the local level but also to inculcate the habit of saving natural capital and to reduce the external dependency syndrome. Women have been especially mobilised to adopt saving schemes as means to empower them. UGs have been utilising Internal Capital Fund (ICF) for the provision of small credit facilities to their own members for productive use to uplift their social and economic conditions. Resources contributed

3. improving the individual efficiency of UG members carrying out or willing to undertake socio-economic activities. Equipped with the necessary knowledge and skills, the community would be able to harness the benefits of conservation and mainstream developments going on around them.

This would be instrumental in creating alternative livelihood opportunities and poverty alleviation in the BZ areas. Various support packages have been designed to strengthen existing indigenous knowledge and practices as well as to introduce appropriate technologies and new skills.

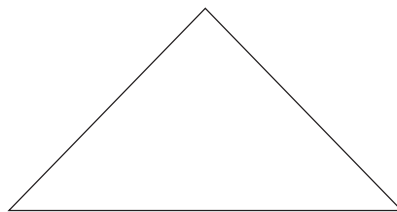
Environmental capital

The sustainable management of natural resources in the BZ is equally important for conservation of protected areas and to sustain the livelihood of BZ communities. Community empowerment is the key to better management of environmental assets in the BZ. It develops a sense of ownership of resources and secures their access, encouraging people to invest in the conservation of resources. The key approach of resource management in the BZ is conservation through sustainable utilisation of natural resources. It has therefore been required that for the sustainable management of natural resources and biodiversity conservation in the BZ, local communities need to be involved in all spheres of resource management. The community forestry practices, which put buffer zone forests under community management, have been adopted for the restoration and conservation of environmental resources outside protected areas. Community forests have been considered not only an environmental asset and resource base to derive local resource needs, but also as a valuable and long-term asset for the community for their holistic development. It will ultimately broaden conservation constituencies to expand conservation beyond boundaries, which is very important for a wider landscape level conservation.



Lessons, challenges and opportunities

The BZ initiative of Nepal has been in the forefront when appropriating a fair share of conservation benefits to BZ communities for their holistic development. The implementation strategy is based on the careful integration of conservation and development priorities for the communities living in the landscape (Figure 6). It approaches livelihood issues of the local communities not only as an environmental imperative but also as an issue of social justice. The BZ initiatives, which are integrated and holistic, have been demonstrating positive results in addressing poverty, governance and conservation issues together. It has been fairly successful in turning situations from conflict to cooperation and coexistence. Complete resolution of conflicts will take time; however, it has been observed that the



addressing decentralisation and community empowerment issues. It will take time to appreciate the empowerment approach in protected area management as Nepal has just embarked on an 'incentive based conservation approach' departing from the 'enforcement

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Mackinnon, J., Mackinnon, K., Chalmers, G. & Thorsell, J.



but one player. In these situations, the role of the federal government shifts, management responsibilities are shared and the partnerships become long-term. In the case of heritage areas and corridors, the impetus for designation often comes from local communities and non-governmental organisations. The USNPS typically plays an important supportive role, through studies that document the rationale for designation and by providing technical and financial assistance for a limited time after designation.

These partnership areas represent the majority of new designations being proposed to Congress. The recent experience with National Heritage Areas is one indication. There are currently 23 National Heritage Areas in 17 states, encompassing a total area of 158,635 sq miles, with a total population of over 45 million people. These areas were designated between 1984 and 2000. In the recent Congressional session (107th Congress), 37 bills were introduced proposing new Heritage Areas or planning studies for proposed areas. These bills comprised over half of the legislative agenda for the USNPS in the 107th Congress. There has also been an increase in proposals for Heritage Areas in western regions of the United States and new proposals include an expanding array of landscape types that encompass increasingly diverse populations. Another trend is that these areas are forming partnerships with existing national park units (Barrett 2003).

While not always fitting neatly within a particular protected area management category, these 'non-traditional' designations that rely on partnerships generally overlap closely with the management objectives of Category V Protected Landscapes/Seascapes. In this paper we review experiences from several regions of the United States where conservation objectives are being realised in lived-in landscapes through collaboration among diverse partners, including the US National Park Service and local communities. We review the findings from a recent workshop on partnership areas and discuss the growing role of partnerships in creating and managing protected areas in the United States. We also explore the idea of a national system of parks and protected areas that is currently under discussion.

Ebey's Landing National Historical Reserve

Established by Congress in 1978, Ebey's Landing National Historical Reserve encompasses 17,400 acres in the central portion of Whidbey Island in Washington State's Puget Sound. The Reserve contains a landscape rich in cultural history and natural variety. The scenic views are spectacular, whether looking west across Admiralty Inlet to the Olympic Mountains or toward the eastern horizon of the Cascade Mountains. Unlike the more traditional units of the US National Park System, people live and work within this landscape and the Reserve is managed through a partnership among the National Park Service, local and state government, and the private sector.

Whidbey Island's old glacial lakebeds contain some of the richest soils in the state and have attracted people as far back as 1300, when Native Americans cultivated these 'prairies' for growing favoured root crops. After the Donation Land Law of 1850 offered free land in the new Oregon Territory to any citizen who would homestead for four years, Colonel Isaac Ebey and other European-Americans filed claims on the prairies and shorelines of central Whidbey Island. Today, the old field patterns, fence lines and farm buildings of the early homesteaders are still visible in the landscape. While there has been some loss of farmland to development within the Reserve (indeed, it was such development that led to Reserve designation), some of the land is still farmed today by descendant families of the early homesteaders. Many long-time residents feel deep ties to the land.

But the story is much more than just farming history. Penn Cove, on Whidbey Island's protected eastern shore and the nearby abundance of tall timber in Whidbey's forests, attracted sea captains and shipbuilders. Captain Thomas Coupe claimed the shoreline acres that eventually became the town of Coupeville, the main town within the Reserve. Maritime trade along Penn

Cove, combined with farming, made Coupeville a thriving commercial centre. Once waterborne transportation gave way to land-based transportation, Coupeville was no longer a hub of

The work and the challenge of this partnership lie in guiding and managing change in a way that respects the cultural values and historic landscape.

Ebey's Landing will always represent a balancing between the needs of the people and communities within the Reserve and the goal of preserving a historically important working rural landscape. While familiar to managers of protected landscapes elsewhere in the world, these challenges are relatively new for the US National Park Service.

The John M. Chafee Blackstone River Valley National Heritage Corridor

The heritage corridor designation has three broad purposes: to enhance and protect cultural landscapes and historic sites, to improve historical understanding and heritage appreciation and to stimulate community and economic development Drost 2001a. The John M. Chafee Blackstone River Valley National Heritage Corridor encompasses nearly 400,000 acres located within central Massachusetts and northern Rhode Island, along 46 miles of the Blackstone River. The national corridor was designated by the US Congress in 1986 to preserve and interpret for present and future generations the significant value of the Blackstone Valley. The corridor area includes 24 cities, towns, villages and almost one million people.

The valley's distinctive character was shaped by the American Industrial Revolution, which transformed the Blackstone Valley's landscape. Linked by the Blackstone Canal, many historic features from this era still exist including mill villages, roads, trails, dams and millponds. The Industrial Revolution also left behind distinctive living landscapes of neighbourhoods where ethnic traditions, languages and foods are still important parts of the culture. The Blackstone River Valley Corridor's natural areas, hilltop vistas, glacial outcroppings, verdant valleys and fields, and abundant water bodies, provide habitat for indigenous and migrating wildlife species and recreational opportunities for residents and visitors (Blackstone River Valley National Heritage Corridor Commission 1998).

Typical of areas with this designation, the Blackstone River Valley National Heritage Corridor is an affiliated area of the National Park System; however the federal government does not own or manage any of the land or resources in the corridor. Instead the National Park Service, the state governments of Massachusetts and Rhode Island, dozens of local municipalities, businesses, non-profit historical and environmental organisations, educational institutions and many private citizens, all work together in partnerships to protect the Valley's special identity and prepare for its future (Creasey 2002).

When Congress, recognising the Valley's national significance, established the Blackstone River Valley National Heritage Corridor in 1986, it also created a mechanism that would enable the residents of the Valley to preserve and protect the resources that give the Blackstone Valley its uniqueness. In order to set the wheels in motion, Congress established a unifying Commission to provide a management framework to assist the states and local government in the development and implementation of integrated cultural, historical and land resource management programs.

Operating within a working landscape of strongly independent New England communities, the Commission leverages limited human and financial resources to carry out an extensive and geographically broad mission. Without authority to own land or powers to regulate land use, the Commission has had to be diligent and entrepreneurial in its outreach and ability to be responsive to opportunities. To this end it relies on a combination of public education, public-private partnerships and 'targeted' investments. The Commission feels that its strength is its ability to integrate issues related to the environment, community development and preservation, land use planning and economic development.

The Commission had to reach out to other institutions and build cooperative linkages to address management issues within the Blackstone River Heritage Corridor. A good example is the creative approaches used to bring public attention to water quality problems along the river. According to the Corridor's Superintendent, Michael Creasy, "We knew that a typical 'Save our

Proposed Champlain-Richelieu Valley International Heritage Corridor

The Champlain-Richelieu Valley (New York and Vermont, United States; Quebec, Canada) is being considered for designation as an international heritage corridor. This historic waterway, which since colonial times has formed a crucial link between the Upper Hudson River Valley and Canada's St Lawrence River, encompasses Lake Champlain, the Richelieu River and associated historical and cultural locations. The area is rich in cultural resources including sites of colonial settlements, aboriginal activity, forts, naval battle sites and industrial development dating from Samuel de Champlain's initial voyage to the area in 1603 through the Industrial Revolution. The landscapes and historical heritage of this trans-boundary region record a formative part of the history of the United States and Canada, as many of the major battles of the French and Indian War, the American Revolution and the War of 1812 were fought along this corridor. Other cultural sites reflect the relationships among early French and English explorers and settlers, First Nations peoples and the history of the impact of human activity on the natural landscape Drost 2001a.

The Champlain-Richelieu Valley, which consists of two regionally important watersheds, is rich in natural resources and impressive scenery. Its landscape has been shaped over the past two centuries by farming, forestry and transportation along its waterways. Much of the land in the Valley is still used for agriculture, with small dairy farms characterising the region in Vermont and New York and larger scale crop production more typical of farmland in Quebec. Tourism is an important part of the local economy and the area attracts visitors from the nearby urban centres of Montreal and Albany, as well as from the more distant Boston and New York City. Western European visitors are drawn to the region, due to the historical connections with England, France, Germany and the Netherlands.

The Champlain-Richelieu Valley is currently being considered for designation in the United States as a National Heritage Corridor and for a comparable designation in Canada. On the US side, the National Park Service has prepared a special resource study and has held a series of workshops and public meetings to obtain input from a wide range of local stakeholders. A parallel process is underway in Canada among the Canadian federal government, the Quebec provincial government and regional governmental stakeholders. Recently the Quebec-Labrador Foundation (QLF) held a series of public meetings on both sides of the border to facilitate broad stakeholder participation in developing guidelines for a new heritage programme within the region (Drost, 2002). Currently QLF is working under contract to the Québec government to advise on a plan to create an administrative entity and develop a course of action for the implementation of the Corridor.

There are many challenges to achieving designation and a workable management plan for a trans-boundary area of this scale, encompassing two countries, two states and one province and hundreds of local governments. Existing institutional and political structures can act as impediments, as can the need to determine jurisdiction among various entities at federal, state, provincial and local levels. The various political entities involved on either side of the border have different mandates and this presents a significant challenge in creating effective administrative structures. Further, there is the basic issue of ensuring adequate communication in both French and English. Despite these challenges, experience in the Champlain-Richelieu region demonstrates that public participation can help build local support for designation, enhance communication and foster mutual understanding among diverse communities across political boundaries.

This international heritage corridor designation process provides an important opportunity to test the Category V approach in a trans-boundary region where a Category II protected area would be likely to meet strong local resistance. In the nearby Adirondack State Park in New York, local resentment still lingers more than 100 years after its establishment in 1892. In the Champlain-Richelieu Valley, communities and residents have already begun voluntary

approaches to protect natural and cultural resources, including private land conservation (e.g., conservation easements and agricultural preservation restrictions) and public-private partnerships. This initiative is helping to protect the natural and cultural richness of the landscape, linking communities across political boundaries to their shared history and reminding local residents and visitors of the diverse cultures that have inhabited the region Drost 2001b.

Cuyahoga Valley National Park

The Cuyahoga Valley National Park (CVNP) preserves the rural landscape along twenty miles of the meandering, northward flowing Cuyahoga River and the Ohio and Erie Canal between the large urban populations of Cleveland and Akron in northeast Ohio. The historic canal allowed shipping between Lake Erie and the Ohio River, resulting in the commercial prominence of Ohio in the early 1830s and shaped the character of the region as canal-related industries and agriculture became the dominant occupations. Many of the small towns, villages and farms that made up this nineteenth century landscape still exist today. In 1974, an Act of Congress established the park to “preserve and protect for public use and enjoyment, the historic, scenic, natural and recreational values of the Cuyahoga River” and to maintain, “needed recreational open space necessary to the urban environment” (NPS 2001).

Today, the park includes a complex network of land ownership and management practices. Of the over 32,000 acres in the park, only 19,000 acres are in federal ownership. The remaining acreage is owned by other public entities (such as local park districts), private or non-profit institutions (such as ski areas and scout camps), or individual private landowners. The park also lies in two counties and includes 15 municipalities. To enhance communication and coordination of this ‘management mosaic,’ the Cuyahoga Valley Communities Council (CVCC) was formed.

The Cuyahoga Valley National Park encompasses a complex network of land ownership and management practices, including many working farms. Through a new programme called the Countryside Initiative, the park is helping to sustain the agricultural heritage of the valley. Photo NPS Photo



The Council is made up of representatives from the 15 surrounding communities, the local park and school districts and the USNPS. The not-for-profit CVCC plays an important role in maintaining communication and a positive working relationship between the USNPS and local communities.

Even though agriculture has been an important part of the of the Cuyahoga River Valley's history, preservation of 'rural landscape' character and values have only recently been recognised as a priority. At the time the park was created, small working farms still existed in the valley, but many were in a declining condition. As a result, farmsteads were being converted by private owners to other purposes, including housing subdivisions. In response, the USNPS acquired some properties to protect them from future development.

With no mechanisms in place to ensure the perpetuation of agricultural land use or traditions, CVNP has proposed a new rural landscape management programme. This new programme, the Countryside Initiative, will:

- create a partnership with a non-profit organisation with agricultural expertise, the Cuyahoga Valley Countryside Conservancy, to assist park staff with informed rural landscape management decisions;
- integrate privately supported, economically viable and environmentally advanced approaches to agricultural practices within a national park setting; and
- develop markets for locally produced products.

The goal of this initiative is to sustain the agricultural heritage of the valley in a way that is consistent with best environmental practices and USNPS rural landscape management objectives and through this value-added economic strategy, to preserve the remaining agricultural land and buildings. This Countryside Initiative represents a precedent-setting attempt to integrate rural landscape management objectives with more conventional natural and cultural resource preservation practices in national parks (Debo and McMahon 2001).

In the late 1980s, the Cuyahoga Valley National Park began discussing with interested local citizens an ambitious concept for a public/private partnership focused on preserving historic, natural and cultural resources in a 110-mile long corridor extending from Cleveland to New Philadelphia, Ohio along the route of the historic Ohio and Erie Canal. Two local non-profit organisations spearheaded public involvement in a grassroots planning process, which brought together a diverse coalition of local governments, non-profit organisations, foundations and business interests in support of this concept, culminating in federal legislation in 1996 formally creating the Ohio and Erie Canal National Heritage Corridor. Since 1996 a broad network of public and private partners have made enormous progress in implementing a Corridor Management Plan, creating an energetic new force for conservation, preservation, recreation and sustainable economic development in northeast Ohio.

A growing role for partnerships

In May 2000 our organisations, the USNPS Conservation Study Institute and QLF/Atlantic Centre for the Environment, in cooperation with the USNPS Park Planning and Special Studies Program, convened a workshop for National Park Service staff and partner organisations involved in managing partnership areas. The aims of the workshop were to explore experiences with partnerships that are outside the traditional National Park Service management model and to propose next steps for creating more effective long-term conservation partnerships. The workshop brought together 25 participants from within the USNPS and its partner organisations, with an emphasis on examples from the northeastern United States (for a full report of the workshop see Tuxill and Mitchell 2001 citation at the end of this article). A second workshop was held in March 2003 and focused on experiences with partnership areas in the western United States.

The workshop participants identified a number of ways in which the experience of working in partnership areas serves to strengthen the entire National Park System, while providing important benefits to partner organisations and communities. These benefits include:

- **Partnership areas help the National Park Service to reach new constituencies and build relationships that enhance public support for conservation**

Partnership areas can reach people who wouldn't otherwise be reached, thus building new constituencies and support. Because these areas are often found in or near communities – in people's 'backyards' – they can make conservation and the idea of a National Park System more tangible to a broader cross-section of the general public. Working cooperatively builds long-term relationships among the USNPS and conservation and preservation interests as well as officials and legislators at the local, state and federal levels. These connections can also lead to national and regional collaboration that serves to protect natural and cultural resources and helps to expand understanding of the USNPS and partnership organisations.

- **Partnership areas help to broaden the impact of the National Park Service and partners**

The mission of the USNPS is written broadly to focus on the National Park System and, through cooperation with partners, to enhance conservation. Partnership areas offer a wide range of opportunities for the USNPS to provide national leadership in conservation. As one participant noted, the National Park Service through its various collaborative arrangements has an opportunity “to embrace and extend the conservation and interpretation role of the agency and deal with the evolving sense of what constitutes an important place today” (Doherty in Tuxill and Mitchell 2001). Areas managed through partnerships enhance recreational opportunities and the protection and interpretation of nationally significant resources, both cultural and natural, often in instances where it would not otherwise happen. These areas are able to leverage other funding and private sector contributions, thus extending the investment of federal dollars.

- **Partnership areas offer valuable lessons that can be applied in other settings**

The diverse working relationships that result from managing partnership areas introduce fresh perspectives and new interpretations and conservation techniques, which can be applied in other circumstances by both the USNPS and its partners. The accumulating body

agency's traditional strengths, but extending beyond this tradition to include its extensive experience in partnerships.

At the same time, the trend of managing through partnerships presents new challenges to the National Park Service and its partners. These include the need to create a broader vision for the USNPS that encompasses the full scope of partnerships and to foster within the agency and other institutions an understanding of partnerships as a potent catalyst for stewardship of the landscape. Further, the skills that lead to successful long-term partnerships are not necessarily widely understood. Thus there is a need to both learn from the success stories and provide leadership training that will position the USNPS and its partners to be most effective in its collaborations (Tuxill and Mitchell 2001).

The importance of partnerships is increasingly being embraced by the USNPS, as demonstrated by the creation of a national Partnership Council and a senior agency position with partnerships as a key responsibility. A working group of the Partnership Council has written recently:

“By continuing collaboration and partnerships, the Service can strive to serve the public more effectively as a steward, educator, environmental leader, and advocate for a visionary nationwide system of local, state, and federal parks and conservation areas. Such a system can link parks, open space, outdoor recreation areas, communities and other special places and organise them through cooperation, consultation, and communication into a vibrant park and conservation network. Energised by this vision, NPS believes that the power of the park and conservation idea lies in its larger purpose – to create a citizenry that understands and serves as steward of our heritage and our home on earth.” (NPS 2003).

Conclusion

As models for protected areas continue to evolve in the United States, the concept of a nationwide system of parks and conservation areas is gaining attention. The idea is not new: the distinction between ‘a national system of parks,’ and the National Park System was first noted by Stephen T. Mather, the founding director of the US National Park Service (Pritchard 2000). In 2001, the National Park System Advisory Board challenged the agency to “serve as a catalyst to encourage collaboration among public and private park and recreation systems at all levels – to build a national network of parks and open spaces across America” (National Park System Advisory Board 2001).

Recently, the Director of the US National Park Service has spoken of the importance of a “seamless national network of people, property and ideas” to the future management of parks, open spaces and historic places (Mainella 2002). This seamless network is an inclusive concept, providing a national framework for conservation that encompasses wilderness as well as places close to where people live and work.

Successful experience with partnership areas will be central to the United States' evolving National Park System in the coming years and to the conservation of landscapes in communities across the country. The growing use of innovative, ‘non-traditional’ designations that rely on partnerships, such as heritage areas and corridors and long-distance trails, presents an important opportunity to test how Category V Protected Landscapes/Seascapes management objectives can be met in the US context. Further, these areas are broadening the role of the National Park Service in working with others on stewardship of the American landscape.

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A Protected Landscape candidate in the tropical Andes of Ecuador

ERIC CHAURETTE, AUSTO OSORMIENTO, NICK ROYIGUE



Although incipient in the valley, ecotourism has been identified as a development priority by the Quijos Municipality and local NGOs. Ecotourism is seen as a key activity that can diversify the local economy and encourage more sustainable land uses that complement PA goals of conservation. The multiple forms of land ownership regimes (protected areas, common and private lands) in the valley are influencing how ecotourism is evolving in the area and represents a challenge for guiding its development.

Public protected areas

In Ecuador public land management regimes, such as the North American National Park concept, are perhaps the most common approach to addressing tourism and resource management issues (Brandon *et al.* 1998). The Quijos valley has the largest expanse of protected areas in Ecuador, where approximately 94% of the territory of the basin is officially protected by three established protected areas (Ministerio del Ambiente 2001):

1. Antisana Ecological Reserve (AER);
2. Cayambe-Coca Ecological Reserve (CCER); and
3. Sumaco Napo-Galeras National Park and Biosphere Reserve (SNGBR).

However, similarly to other protected areas in the country, they are under constant threat of encroachment, poaching and development. In the study area these threats come from within the Quijos river valley (due mostly to colonisation and dairy farming) and from without, by such activities as oil exploration and water extraction. Some areas that remain inaccessible have remained untouched and are in an excellent state of conservation despite weak management and control (Sarmiento 1997).

Tourist visits to the Quijos' PAs are very few and, as Table 2 shows, are among the lowest in the country. Access to the PAs are made difficult by bureaucratic obstacles such as entrance permits that can only be bought in Quito. In Cayambe-Coca Ecological Reserve for instance, the park warden has stated that he regularly has to turn back tourists who want to enter the reserve because they have no entrance permits.

A panoramic view of the Quijos river valley. Photo by Black Rogu



Table 2.

Tourist infrastructure and services in the Quijos Valley's three state-run protected areas are also largely inadequate. There is no tourist accommodation or transportation infrastructure on site. Guiding and interpretative services are not provided either, leaving only tour companies with entrance permits to lead tours in the PAs. Therefore, independent travellers endeavouring to hike within the PAs do so at their own risk with little if any form of security or services provided by the reserves and park. In response to this there is a new conservation trend that is emerging in the Quijos river valley: private protected areas.

Private protected areas

Most public PAs in the Quijos River basin are understaffed and inadequately developed, hence opportunities for ecotourism exist outside of the public protected areas in the surrounding privately-owned ones. Indeed, not unlike other regions of the world, private PAs in Ecuador are multiplying. A national network of private reserves (Corporación Red Nacional de Bosques Privados del Ecuador) was established in 1996 and, in 1999 counted 41 members with reserves ranging in size from 10 to 19,000 ha (Brown and Mitchell 1999a; Langholz and Brandon 2001). In addition numerous other private reserves also exist, which are not part of the national network. Private reserves play an important role in protecting biodiversity and, in the Quijos river valley specifically, they have emerged as the leading providers of ecotourism products.

There are four large private reserves in Quijos river valley: Sierra Azul, Bosque Protector de Termas de Papallacta, Reserva Cumandá and Reserva de Cabañas San Isidro de Labrador. Some private reserves have been highly effective at targeting specific niche markets and attracting what local tourism businesses call 'turismo científico' or scientific tourism, such as ornithologists, entomologists and other wildlife specialists or amateur naturalists. This is the case for Cabañas San Isidro de Labrador, where professional and amateur ornithologists spend on average 3–5 days and pay \$120/night to bird-watch in the reserve's large expanses of primary and secondary cloud forest.

There is no clear pattern of ownership: some private reserves belong to cattle ranching families who have decided to diversify their income sources by offering ecotourism opportunities in the forested portions of their land. Others belong to outside business people who either have an interest in conservation, or see an opportunity to capitalise on the emerging ecotourism market, or possibly both. Three characteristics shared by all the region's private reserves are:

1. they are all dedicated to ecotourism;
2. they have the financial and managerial capabilities to provide a high quality tourism product that meets the strictest of tastes (food and accommodation, safety, guiding, interpretation and education); and
3. all the reserves abut the larger public protected areas, therefore extending habitat protection, providing an ecological buffer between PAs and human settlements and enhancing viewing opportunities for wildlife and the overall ecotourism experience for the visitor. Therefore,

is becoming increasingly scarred, less appealing to ecotourists and, increasingly, a threat to the burgeoning adventure tourism industry itself.

Common property

In the upper portions of the Quijos river valley (above 3,200 m), on the eastern flanks of the Antisana and Cayambe volcanoes exist the communities of El Tambo, Jamanco and Oyacachi. Both Comuna Jamanco and El Tambo own and use communal lands that are located within the Antisana and Cayambe-Coca ecological reserves; the Quichua community of Oyacachi is located in the heart of the Cayambe-Coca Ecological reserve, therefore disputing the rigid classification of these PAs as Category I. These are old settlements that far pre-date the establishment of any PA in Ecuador. The communities of Quichua descendants, whose livelihoods and cosmology are closely linked to the Andean environment, are very different from the newer colonist settlements found lower down in the valley. Whereas in the lower portions of the valley transplanted colonists are aggressively converting dense cloud forests into pasture, livelihoods in the colder grassy highlands (páramo) are in delicate balance with the Andean ecosystem. In fact, much of the ostensibly 'natural páramo' landscape found at these elevations is, in fact, anthropogenic in origin (Sarmiento 2002).

The absence of trees in these high altitudes was long explained by climate determinants such as the excess of cold and wind, or insufficient rainfall. New studies effectively demonstrate how human intervention, rather than climate, is the maker of this unique landscape. Over centuries, through the use of fire and more recently sheep and cattle grazing, the Quichua have effectively halted the process of ecological succession thereby maintaining the land in a state of grassy highland or páramo. This practice encourages the growth of more nutritious grasses used to support their herds and also makes the land fertile for the cultivation of potato, broad beans and other crops well adapted to the cold and high elevations (Gade 1999).

In the páramo, land is held communally; in fact, decisions regarding access to the páramo, its use and maintenance (through controlled burning and grazing) are taken by each community as a whole during assemblies that are held periodically. A duty roster is also maintained, assigning, on a rotational basis, a member of the community to care for the cattle grazing on the páramo. Mingas are also frequently held to carry out various projects that benefit the whole community and also act to reinforce reciprocal relations and ties in the communities. In this way traditional Andean beliefs and customs that have survived the hacienda rule are still very much alive in the communities of Jamanco, Oyacachi and El Tambo and are reflected in the surrounding landscape. All three of these communities are experimenting with tourism. Both Oyacachi and Comuna Jamanco have built rudimentary thermal bath resorts to attract visitors, while El Tambo offers guided horseback excursions around the base of the Antisana volcano. Similarly to cattle ranching on the páramo, tourism initiatives in these communities are built communally through mingas and decisions regarding its development are taken by the community as a whole during assemblies. This mechanism should ensure that tourism develops within the limits of acceptable change set by the communities involved. Unfortunately, their successes with tourism are mixed at best. Their lack of cash resources, access to markets, business and language training (nobody speaks English) means that tourists mostly opt for the better organised and publicised Private Reserves and eco-lodges. Moreover, the páramo on which these communities' herds depend has also come under threat with the large-scale water extraction projects that are being conducted in the area and communities have not received any compensation. The unique páramo ecosystem, its critical role as a natural water reservoir for Quito and the ways of life of derachen use and andcbe,ities also come undets nterve much of

3. accommodation of diverse management regimes, including customary laws governing resource management that can build on existing institutional responsibilities and continue traditional practices and governance within the culture (Brown and Mitchell 2000).

The designation has also been advanced as a possible administrative framework to help guide ecotourism in the area (Sarmiento et al. 2000). Lawton (2001) also argues that higher IUCN category protected areas such as the Protected Landscape have a high potential to accommodate ecotourism. The compatibility of this designation with current efforts to develop ecotourism in the Quijos valley is examined according to the Protected Landscape's three distinguishing features.

Linking culture and nature conservation

Protected Landscapes exist to protect areas that are outstanding examples of positive interactions between humans and nature over time. Their management plans are designed to accommodate local customary rights and traditions in order to support the traditional activities that help maintain these working landscapes. One of the unique features of the Quijos valley is the páramo ecosystem (above 3,200 m of elevation). These grassy highlands are a spectacular example of a biologically rich ecosystem that is the result of human intervention and, therefore, perfectly suited to the Category V designation. Moreover, although anthropogenic in origin, the páramo houses a variety of plants and animals (e.g. spectacled bear, Andean condor) that are highly attractive to ecotourism. Lower down in the valley, the landscape changes to a mosaic of remnant cloud forest, pasture and crops with small villages nestled at the valley bottom. The scenic quality of this river valley is an attractive landscape attribute in itself, where the attractions are not only the unaltered forests but also the farmed hillsides and villages. In a Protected Landscape then, ecotourists would not only seek pristine nature but also appreciate the manifestations of the interactions of culture and nature.

Benefits to community well-being

As mentioned above, the Municipality of Quijos Township has declared ecotourism a priority and is actively seeking ways to increase tourist numbers and their length of stay in the region. The lack of cash resources, business knowledge and experience, and contacts with the tourism industry however, are inhibiting its success. Designating the Quijos river valley as an IUCN Category V Protected Landscape would increase the visibility of the area as a cultural and natural tourism destination. This would attract more visitors, therefore providing more jobs and income for residents and perhaps encourage some of them to make the transition from more destructive land uses, such as logging and cattle ranching, to more sustainable ones such as ecotourism. The designation would also empower the Quijos river basin township to enforce land uses that are compatible with the conservation goals of a Protected Landscape, by encouraging residents to adopt land stewardship practices and to restore degraded lands. The international designation would also give more power to the Quijos Municipality to confront destructive projects currently underway in the valley that are a threat to local human and environmental health, are scarring the landscape and therefore are antagonistic to ecotourism.

Accommodation of diverse management regimes

Much of the tourism activity in the valley is currently occurring outside of public protected areas, in adjacent private reserves, on common-owned lands and in areas that are considered open-access. A Protected Landscape designation would provide a common framework for the region's stakeholders to guide the development of ecotourism under each of the land management regimes. Finally, since the Protected Landscape accommodates a diversity of land regimes, the model would also include the existing decisions and the decision-making mechanisms that

underlie each management regime. Therefore, under common-property regimes, the traditional ecological knowledge and local customary rights that manage access to, and uses on, these lands would be integrated into the management plan of the Protected Landscape. The same would go for the decisions and resolutions passed by Quijos Township, under the Quijos Township Strategic Sustainable Development Plan.

Conclusion

Community participation and control over tourism development is key to its sustainability (Mitchell and Reid 2001; Scheyvens 1999; Saglio 1979; Joppe 1996). However, the ability of communities to take part effectively in tourism planning, control and management is dependent on many interrelated factors such as level of awareness, interest, technical knowledge and access to markets (Tosun 2000). When examining issues of community control over ecotourism, these challenges seem even larger. This is in part because ecotourism occurs in rural areas where populations do not have access to the same political, economic, or social power and resources as urban populations. This is especially true in Ecuador where Indigenous and rural populations have traditionally been marginalised from politics and decision-making power, largely due to the majority non-aboriginal urban population that elects officials who serve urban interests (Sarmiento 2000).

Equally as important are the often ambiguous and antagonistic property regimes that underlie ecotourism destinations. Researchers examining issues of nature-based or culture-based tourism and sustainability have almost completely ignored this dimension. Property rights have a fundamental influence on how tourism develops and operates in a particular destination. In the Quijos Valley, open access conditions, where property rights are unclear or non-existent, have meant that tourism is evolving spontaneously and is in direct competition with destructive land use practices and resource extraction industries. Meanwhile, under public property regimes such as the National Park, institutional weaknesses in the Ecuadorian National System of Protected Areas (SNAP) are preventing the effective protection of PA resources and ecotourism remains an untapped opportunity.

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Les stratégies d'approche adoptées pour passer de l'écologie à l'écologie humaine sont les suivantes : l'écologie humaine est une discipline qui étudie l'impact de l'homme sur l'environnement et vise à améliorer la qualité de vie humaine. Elle est basée sur une approche holistique et multidisciplinaire qui prend en compte les aspects sociaux, économiques, culturels et politiques de l'écologie humaine. Elle vise à promouvoir une gestion durable des ressources naturelles et à réduire les impacts négatifs de l'activité humaine sur l'environnement.

Un système nord-américain de parcs et d'aires protégées en mutation

KESSIA BROWN, NOAH MITCHELL ET AQUELYN TUXILL

Le système de parcs nationaux des États-Unis est traversé par deux tendances principales : l'augmentation du nombre de parcs nationaux et la prise en compte de nouvelles formes de protection. Ces deux tendances sont liées à l'évolution des attentes de la société et à la prise en compte de nouvelles formes de protection. Le système de parcs nationaux des États-Unis est composé de plus de 100 parcs nationaux et de nombreuses autres formes de protection. Ces parcs nationaux sont gérés par le Département de l'Intérieur et le Service des Parcs Nationaux. Le système de parcs nationaux des États-Unis est en constante évolution et s'adapte aux nouvelles attentes de la société et aux nouvelles formes de protection.

Un candidat au titre de Paysage protégé dans les Andes tropicales en Ecuador

ERIC CHAUURETTE, ANASTASIO ARMIENTO ET ANICK ROYIGUE

Le paysage des Andes tropicales en Équateur est un candidat au titre de Paysage protégé. Ce paysage est caractérisé par sa diversité culturelle et biologique. Il est composé de nombreux sites historiques et culturels, ainsi que de nombreuses espèces végétales et animales endémiques. Ce paysage est en danger de disparition en raison de l'impact de l'agriculture intensive et de l'urbanisation. Il est donc essentiel de le protéger et de le promouvoir comme un patrimoine culturel et biologique de l'Équateur.

Resúmenes

Los Paisajes Protegidos: su papel en la promoción del uso sostenible de la tierra agrícola

PETER O. GEN

Los mapas de colocación de las tierras agrícolas protegidas muestran un crecimiento en muchos países, especialmente en los países en desarrollo. En muchos países, estas prácticas agrícolas se ven afectadas por las prácticas de cultivo tradicionales, mientras que otros se ven afectados por la pérdida de tierras agrícolas, especialmente en los países en desarrollo. Los paisajes protegidos pueden ser una solución para promover el uso sostenible de la tierra agrícola. Este artículo muestra cómo los paisajes protegidos pueden ser utilizados para promover el uso sostenible de la tierra agrícola. El artículo muestra cómo los paisajes protegidos pueden ser utilizados para promover el uso sostenible de la tierra agrícola. El artículo muestra cómo los paisajes protegidos pueden ser utilizados para promover el uso sostenible de la tierra agrícola.

La aplicación del Modelo de Paisajes Protegidos en el sur de Kenia

OSWALD E. L. WISHITEMI Y MOSES M. KONJO OKELLO

La conservación de los paisajes protegidos es un desafío en Kenia. Este artículo muestra cómo los paisajes protegidos pueden ser utilizados para promover el uso sostenible de la tierra agrícola. El artículo muestra cómo los paisajes protegidos pueden ser utilizados para promover el uso sostenible de la tierra agrícola. El artículo muestra cómo los paisajes protegidos pueden ser utilizados para promover el uso sostenible de la tierra agrícola.

Una aproximación del Paisaje Protegido de Categoría V hacia el manejo de zonas parachoques en Nepal

PAHAR SU THOKI

Una aproximación del paisaje protegido de categoría V hacia el manejo de zonas parachoques en Nepal. Este artículo muestra cómo los paisajes protegidos pueden ser utilizados para promover el uso sostenible de la tierra agrícola. El artículo muestra cómo los paisajes protegidos pueden ser utilizados para promover el uso sostenible de la tierra agrícola. El artículo muestra cómo los paisajes protegidos pueden ser utilizados para promover el uso sostenible de la tierra agrícola.



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Founded in 1948, The World Conservation Union brings together States, government agencies and a diverse range of non-governmental organisations in a unique world partnership: over 950 members in all, spread across some 139 countries.

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The WCPA mission is to promote the establishment and effective management of a worldwide network of terrestrial and marine protected areas.

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