



Saving Biodiversity for Human Lives in Northern Pakistan

Stephen R. Edwards

*with contributions by
Bryan Hugill and Faiz Ali Khan*







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The title of this story is based on a slogan on a sign, “Save Biodiversity for Human Life”, that was erected at the entrance to the Kalam Conservancy. It so precisely summarized the essence of the Mountain Areas Conservancy philosophy that, when I asked, I was given permission by the villagers to incorporate it into the title of story – for which I am very grateful.

From the outset I was acutely aware that the story I would be telling was only possible because of the efforts of hundreds of people, most of whom I have never met. The Mountain Areas Conservancy Project, like all such activities, builds on, and incorporates the lessons and achievements of previous work. Without reservation, the project team, and myself are in debt to all of those institutions and people who created the environment in which the MACP has been implemented.

Special recognition must be accorded to the Aga Khan Rural Support Programme (AKRSP) which, under the leadership of Shoaib Sultan and Steve Rasmussen, contributed substantially to the social development within communities across Northern Pakistan over a 24 year period. It was this pioneering work that set the stage on which the MACP was able to build. Their work was fundamental to the success the project achieved in legitimizing the role of Social Organizers and establishing village, valley, and conservancy-scale representative management institutions. AKRSP introduced the principle of co-financing which made it possible for local communities to invest in, and “own” local development projects.

Key individuals like Ashiq Ahmad Khan, Javed Ahmed, Ghulam Rasool, Syed Yahya Shah, Mumtaz Malik and Bashir Ahmed Wani who asserted their leadership had substantial influence over the design and implementation of this project. These people also had substantial influence over my professional growth and education, which in turn, influenced project designs in other projects around the world.

The Wildlife Department in North West Frontier Province, Northern Areas Forest and Wildlife Department, and Secretariat of Tourism, Minerals and Environment, and Office of the Federal Inspector General Forests, have all played key roles in the development and implementation of the project. Local and international NGOs – Aga Khan Development Network (AKDN), Bilore Advisory and Sustainable Development Organization (BASDO), Himalayan Wildlife Foundation (HWF), International Snow Leopard Trust (ISLT), Nonihal Development Organization (NDO), Project Snow Leopard, Wildlife Conservation Society (WCS) and World Wildlife Fund Pakistan (WWF-P) – all contributed significantly to the development of the project, and in many instances were key partners in its implementation.

The various community institutions comprising local men and women leaders are at the heart of this success story. These people, by embracing the principles and objectives of the project, provided the foundation on which community capacity and empowerment could develop. Some have been so effective that they are no longer dependent on the project, which is the highest accolade that can be given to them.

The dedication, energy, and commitment of the staff made this project possible. The succession of National Project Managers (Chris Shank, Abdul Latif Rao, Mahmood Akhtar Cheema, Abdul Aleem Chaudhry and Raja Attaullah Khan) provided the leadership that sustained the vision of the project. But, above all it has been the field teams in Northern Areas and NWFP being led by the Regional Project Managers Mohammad Iqbal, Faiz Ali Khan, Iqmail Hussain Shah, and Jawad Ali who are the heroes of this story. They, along with the interns, drivers, office assistants, accountants, conservation planners, conservancy facilitators, biodiversity specialists and social organizers, played crucial parts in implementing the project. It is their accomplishments that I am reporting in this story. Simply put if they had not done their jobs we could not have achieved anything. Of course, none of this would have been possible either, without the financial support of the United Nations Development Programme, Global Environment Fund and the Government of Pakistan, for which we are grateful.

On behalf of my close friends and contributors to this story – Bryan Hugill and Faiz Ali Khan – I extend my heartfelt gratitude to all of the people who made it possible for me to tell this story. Thank you.

Stephen R. Edwards, Ph.D.
Special Advisor
The World Conservation Union (IUCN)

Introduction

This is a story about how development assistance can conserve biodiversity and improve the lives of rural people. It documents changes in the awareness and capacity of the people of the rugged mountain terrain of Northern Pakistan, and how their enhanced livelihood security has contributed to conservation of biodiversity of the region. Two successive projects, designed with the assistance of the author, provide a basis for documenting these changes over 14 years. Both projects were funded by the Global Environment Facility (GEF) through the United Nations Development Programme, and implemented by the Pakistan office of The World Conservation Union (IUCN) – in partnership with government and local non-government organizations. While the changes that have taken place are not exclusively the result of these investments, it is clear that people have changed their views about their environment and the importance natural resources play in their development.

I remember the awe I felt during my first visit to Northern Pakistan in 1991 when I saw remnants of the Silk Road for the first time. It was a path, just wide enough for a person or horse, suspended along a cliff-face. How had they chiselled it out of the cliff-face? What courage it must have taken for traders like Marco Polo in the mid-1200's, to travel that path where any misstep would have sent them and their goods into the Indus River hundreds of feet below. It is no wonder that people of the region conclude statements about travel with “inshallah” – with God's will.



The Character of Northern Pakistan

Northern Pakistan is bordered by India and China to the east and Afghanistan to the north and west. This region of 175,000 km², is dominated by the Himalayan, Karakorum, and Hindu Kush mountain ranges with more than 700 peaks over 6,000 meters and five over 8,000 m, including the second highest mountain in the world, K2, at 8,611 m. Four biomes dominate the region: dry alpine valleys and snowfields, moist alpine meadows, dry temperate coniferous forests, and holly-oak scrub.

The steep gradients, immense climatic variation, with temperatures varying from -20°C in the winter to +45°C in the summer, have shaped a unique assemblage of biodiversity of global importance, including such animals as the Snow Leopard, Markhor, Ibex, Marco Polo Sheep, Blue Sheep, Brown and Black Bear, Musk Deer, Ladakh Urial, Woolly Flying Squirrel, Chukor, Ram Chukor and Snow Partridge, and a wide variety of economically important plants, such as *Hippophae rhamnoides*, *Morchella* spp., *Valeriana jatamansi* and *Viola serpens*.

Less than 10% of the land is suitable for farming and that is only possible because of an elaborate network of irrigation channels, which can be as much as 20 km long. Crops include maize, wheat, barley, millet, potatoes, peas, beans, and fruit and nut trees. Livestock, comprising sheep, goats, cattle and yaks, are also important sources of family income.

I soon learned that the achievements of the people we would be working with were no less spectacular than those of the people who built the Silk Road. People in every village we visited told us how they had built water channels, some 10 to 20 km long, and blasted and dug tunnels through mountains to bring water to their fields; constructed bridges across rivers or roads along cliffs to link their villages to the main road. What struck me most was not these engineering achievements, but their incredible determination and commitment. No challenge was beyond them.

Fifteen years later this spirit continues to drive village development and progress throughout the region, in spite of daunting physical, cultural and bureaucratic obstacles, and extreme seasonal weather conditions. It is not surprising then that this story is about change in the lives of the people of the region; their capacity and achievements. At the same time it is a story which is marked by contrasts – cultural, religious, social and philosophical – between different communities, between them and authorities, and between them and other outsiders, including the staff associated with the PRIF (Pre-Investment Facility) and later with the MACP. It also illustrates shifts in the approach to conservation in the region from focusing on saving a few key species to emphasizing livelihood security as a prerequisite to conserving all species; and the differing perspectives and expectations of civil society, government agencies, and non-government organizations (NGOs) affiliated with the project.

My work in Pakistan began in 1992 when Aban Marker Kabraji, IUCN's Pakistan Country Representative, and Shoaib Sultan, General Manager of the Aga Khan Rural Support Programme (AKRSP), invited me to assist in the development of a project which would focus on sustainable use of wild resources as a tool to conserve biological diversity and contribute to the development of rural communities in the mountain areas of Northern Pakistan. Along with three colleagues – Javed Ahmed from the AKRSP, Ashiq Ahmad Khan from the Pakistan Forest Institute (PFI), and Mumtaz Malik, with the NWFP Wildlife Department – we formed the core writing/project development team.

Northern Pakistan is a mosaic of ethnic groups, languages, dialects, cultural norms and religions. Box 2 explains the origin of the principal ethnic groups found in the vicinity of the conservancies of Northern Pakistan. Figure 1 illustrates the patterns of migration and present distribution of the ethno-linguistic groups of Northern Pakistan.

Ethnic Groups in the MACP Conservancies of Northern Pakistan

Aside from the impressive diversity of animal and plant life, the valleys of Gilgit, Skardu, Chitral, Swat, Kashmir, and a host of others, are also home to ethnically and culturally diverse human populations that depend on the available natural resources for their livelihood security (see Figure 1). We do not know who resided in Northern Pakistan before the arrival of Aryans¹ from Central Asia but the groups referred to below reflect the diversity of the cultures found within the MACP conservancies today.

The Shin and Yashkun are almost certainly of Indo-Aryan descent according to most anthropologists. The Shins of eastern Kohistan are geographically, kinship-wise, traditionally, linguistically and culturally related to the Shins who reside in Chilas, Gilgit, Astor, Darel, Tagir, Haramosh, Gultari, Gurez, Dras, Soro and Baltistan. It is widely believed that these people came to Pakistan from Central Asia via Khyber to Pakhli above Darband and to Siran and then to Kohistan.

The Yashkun are believed to have migrated via the Hindu Kush into Northern Pakistan from the Indian Sub-continent before the Shins. They comprise the majority ethnic group in Gilgit, Punial, Yasin, Ishkoman and Chitral, as well as the majority in Hunza, Nagar, and Ghizer.

The Balti are of Ladakhi/Tibetan descent with some Dardic influence. They are found in Baltistan (formerly a district of Ladakh). The Balti language belongs to the Tibeto-Burman family and is a sub-dialect of Ladakhi. The total population is around 400,000. Historically, Tibetan Khampa and Dardic tribes traveled to Baltistan (called *Baltiyul* by locals) where they settled. In the 7th century, Baltistan came under the control of the Tibetan King Songtsen Gampo and under this renewed Tibetan influence, the Bön and animist Baltis began to embrace Tibetan Buddhism over Indian Buddhism.

The Pathan (also known as Pashtun, Pakhtun, and ethnic Afghans), the second largest ethnic group in Pakistan (representing over 15% of the Pakistan population), are found within North West Frontier Province (NWFP) and are characterized by their language, adherence to Islam, and code of honour, which is referred to as "Pashtunwali". The main tenets of *Pashtunwali*, which are often the centre of Pashtun tribal life in rural areas, include *Melmastia* – hospitality and asylum to all guests seeking help; *Badal* – justice and revenge; *Zan*, *Zar* and *Zameen* – defence of women/family, treasure, and property/land; and *Nanawati* – humble admission of guilt for a wrong committed, which should result in automatic forgiveness from the wronged party.

The Kalash (also known as Kalasha), reside in the Bumboret, Rumbur, and Birir valleys in the Hindu Kush (NWFP). They are descendants of an ancient Dardic people. Many Kalash claim to be direct descendants of Alexander the Great or Greek settlers, although this remains questionable. Their culture and belief system differs dramatically from those of the ethnic groups surrounding them. The Kalasha believe in various deities and nature plays a significant role in their daily life and religious traditions. Sacrifices are offered and festivals held to give thanks for the abundant resources surrounding them.

The Dom ethnic group, also known as Domba, Doma, or Bericho, is part of a larger ethnic group of gypsies that are known as Roma. In 1989 only 500 people spoke Domāki². Domāki speakers are believed to have originally come from India as musicians. Today, they are found in the Shina valley area.

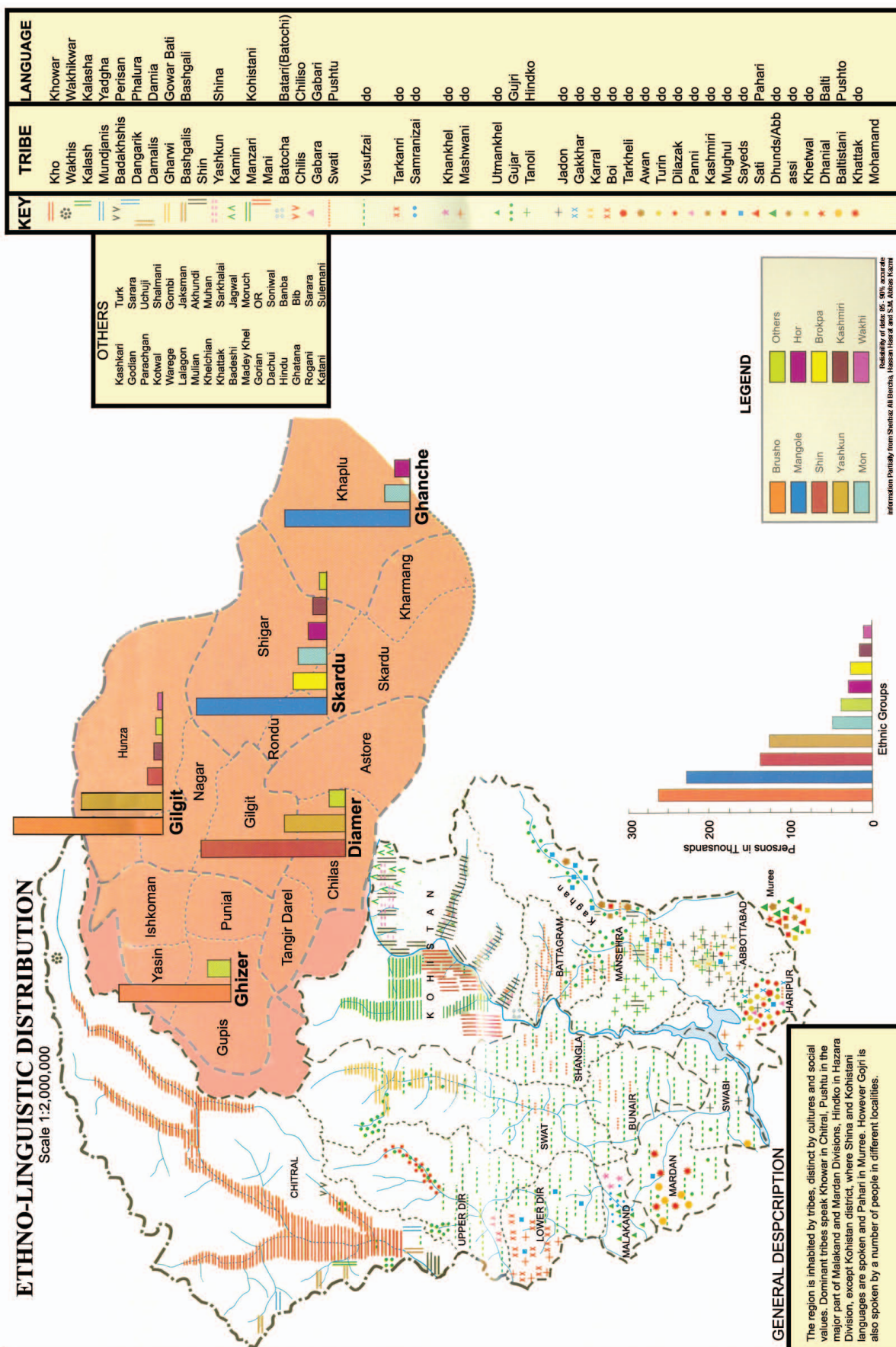
The Gujjars are a combination of many different South Asian peoples, with elements of Central Asian influences. There are around 1,200 Gujar clans across the world. Their actual origins are shrouded in time. Within the mountainous areas of the north, many Gujjars are transient pastoralists, constantly moving their sheep, goats and cattle from one pasture to another.

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Bryan Hugill, Programme Officer, Mountain Areas Conservancy Project

1. The term Aryan is used in the context of a linguistic group based on Aryan languages, not a race.
2. Domāki is an Indo-Aryan language spoken only in a small enclave in Northern Areas, Pakistan



Piloting Community-based Resource Management as a Strategy to Conserve Biodiversity

During 1992 and 1993 I visited dozens of rural communities in the valleys in Northern Areas and North West Frontier Province (NWFP) with Pakistani colleagues. This region was selected because of the presence of species of international concern, e.g., Snow Leopard, Brown Bear, Markhor, Snow Partridge, Chukor, and Ram Chukor, and the social and institutional development that had been achieved by the AKRSP in the region provided an advantage to implement the project. While the ecological and physiographic conditions were interesting, the state of forest cover and the status of plant species did not figure directly in the decision to focus on the region.

Whenever we traveled to Northern Areas, we normally spent the first night in Gilgit, the regional administrative centre. Gilgit was reached either via a 14 hour, bone-jarring ride in a 4-wheel drive vehicle from Islamabad along the Karakorum Highway (commonly referred to as the KKH) or a 45 minute flight in a Fokker 126. The former always left an indelible impression on one's lower back and backside, while the flight was marked by spectacular views as we flew through mountain passes looking up at some of the world's highest mountains. While the flight was the much preferred option, it was often cancelled due to cloudy conditions or high winds in the mountain valleys through which the plane had to fly.

I do not recall which option was used for that first trip, but I do remember vividly the stark, rugged beauty of the mountains; the views of the snow-capped peaks framed by a brilliant blue sky, emerald green terraced plots of new wheat or barley accented by the pale pink blossoms of the apricot trees; hair-raising, narrow tracks the 4-wheel drive vehicles followed along the edges of mountains and across unstable scree slopes to reach villages; the persistent smell of smoke from the cooking fires in the homes we visited. Above all, however, I remember the warmth and gracious welcome we experienced in every village we visited.



Gulraiz Ghouri

Development of the initial project concept spanned two years, and involved three or four trips to Pakistan and many consultations with villagers, local specialists, government officials and prospective partner organizations. Through this consultative process we learned about the conditions in which the project would be implemented, the level of interest and needs of the people, and the status of key species in the region. The insights we gained allowed us to write an informed proposal to achieve meaningful objectives, responding to governments' and rural peoples' needs, while meeting the requirements of the prospective donor. The project was framed around two broad objectives:

- To assist rural villages to develop and implement biodiversity management plans for sustainable use and conservation of biodiversity.
- To build capacity of government agencies and NGOs to assist rural villages to sustainably use and conserve biodiversity.

The project was entitled "Maintaining Biological Diversity with Rural Community Development". It was submitted to the Global Environment Facility (GEF) and was formally approved by UNDP as a three-year³ Pre-Investment Facility (PRIF) project with a budget of US\$ 2,500,000. The Government of Pakistan formally initiated the project on 1 January 1995. Because the GEF only provided incremental funding to conserve biodiversity of international concern, the Government of Pakistan made a substantial commitment of financial and human resources toward implementation of the project.

The project was implemented by three partners:

- IUCN-Pakistan, with responsibility for assisting valleys/villages prepare and implement biodiversity management plans in Northern Areas, in collaboration with the Aga Khan Rural Support Programme and the Northern Areas Forest Department. It also provided overall project administration, accounting and management services.

3. The PRIF phase project actually concluded 31 December 1999 following a one year no-cost extension.



- Wildlife Department of North West Frontier Province, with responsibility for establishing a “Biodiversity Conservation Unit” to assist villages prepare and implement biodiversity management plans within the Province.
- National Conservation Strategy Unit of the Ministry of Environment with responsibility for supporting the Project Management Committee and providing overall project policies and facilitating communications amongst federal and provincial government agencies.

Ghulam Rasool⁴, who we had consulted when we were developing the project, noted in a recent meeting: “In the beginning most people had doubts or suspicions about the motives of the project. Today, that is no longer true. Most people recognize the value of the approach and the sincerity of the team and thus are willing to collaborate.”

The work began by identifying candidate valleys in Northern Areas and NWFP. Through village dialogues the field team was able to secure commitment from 72 villages with a total population of around 61,000 people to begin implementation of the project in 15 valleys (see Table 1). Most of the villages had had substantial experience working with AKRSP, so as noted a lot of the institutional structures needed to take decisions and act on them were already in place.

A substantial investment was made in capacity development, including training to help government officials be more effective as service providers rather than strict enforcement officers. Villagers were trained in survey methodologies and resource management planning. The field teams helped villagers prepare their first biodiversity management plans, which provided a framework to identify and manage components of biodiversity for sustainable use. Study tours were arranged for staff, government personnel and villagers. An array of short courses were offered to the villagers to help build their capacity.

TABLE 1				
Basic Information on the Valleys Selected during the PRIF				
Valley	Villages	Households	Populations	Area (sq. km)
Northern Areas				
Basho	2	98	748	338
Bunji-Bulachi	7	329	2,005	119
DMTK	10	1,070	8,676	550
Hushe	2	446	4,681	350
Kachura-Shagarthang	5	511	4,596	219
Khyber	3	317	1,222	125
SKB	1	120	976	800
Subtotal	30	2,891	22,904	2,500
North West Frontier Province (NWFP)				
Arkari	7	300	2,100	533
Begusht	4	506	3,058	153
Golain	10	1,380	13,800	709
Madaklasht	7	750	4,013	966
Mahodand	3	142	1,250	59
Munoor	3	600	4,116	133
Nanser ⁵	-	-	-	-
Utror	8	1,095	9,866	522
Subtotal	42	4,773	38,192	3,075
Grand Total	72	7,664	61,096	5,575

4. President of Belour Advisory and Social Development Organization (BASDO), a local NGO.

5. Data are not available on villages in Nanser valley.

The project invested in policy research to identify ways in which government could delegate rights to rural people and/or communities to manage and use components of biological diversity. Requirements to export species listed on the Appendices of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) were documented, including requirements for importing hunting trophies of Markhor (and other ungulate species), which were listed on Appendix I, into key countries in North America and Europe. Studies were also conducted to identify economically important plants in Northern Pakistan that could be used sustainably.

Villagers put in place systems to monitor the status of populations of key species and implementation of their management plans. IUCN monitored overall implementation of the project, one aspect of which was the periodic visits that the author made to review progress over the life of the project.

Moving from Valleys to Mountains – The Birth of the Conservancies Concept

When the PRIF ended in 1999 it had demonstrated how the community-based approach to sustainably use natural resources could contribute to conservation of biodiversity. Building on the achievements of the PRIF project, a GEF proposal was prepared which scaled the approach to address conservation needs across broader landscapes. The key lessons learned from the PRIF project, which guided development of the full scale “Mountain Areas Conservancy Project” (MACP) were:

- While communities did invest in conservation of biodiversity, it remained a low priority in contrast with their development needs. Simply, if their lives were not secure they were not capable of investing substantial efforts to conserve biodiversity.

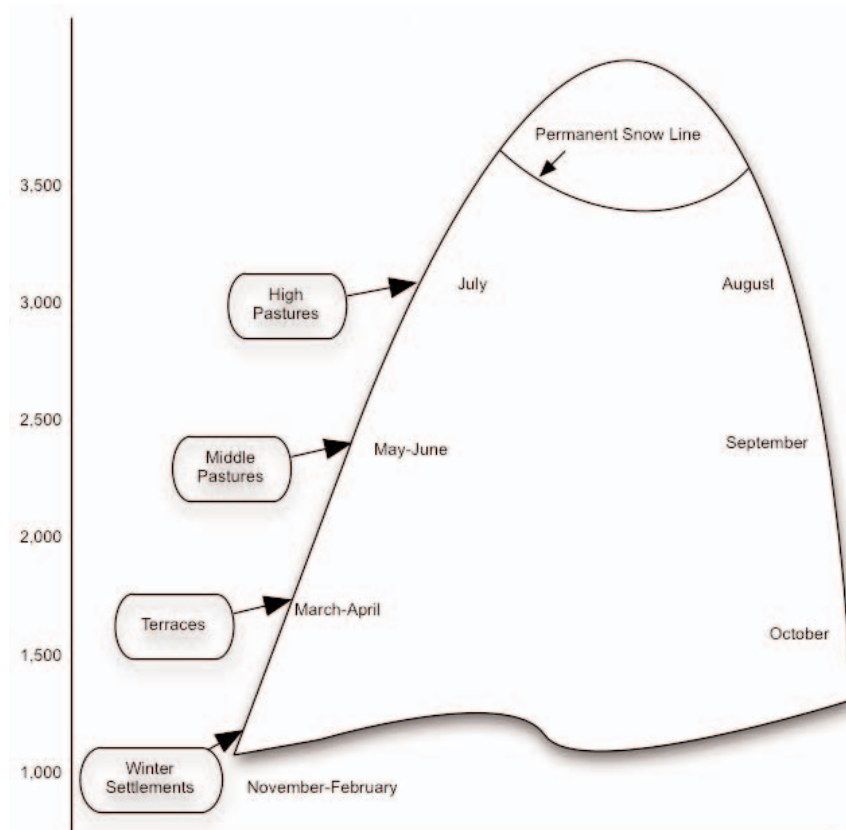


- Working with individual valleys was not sufficient to meet villagers' needs for livelihood security and ensure that uses of biodiversity would be sustainable.
- If key species like Snow Leopard, Markhor, Ibex, Black Bear, Pheasants, Partridges, and many important plants were to be conserved the project had to work at a higher, more inclusive, landscape scale.

FIGURE

2

Annual Vertical Migration Pattern in Northern Pakistan



Based on figure provided by WWF Pakistan 2005. *Conservation Education and Awareness (Output 2)*. Mountain Areas Conservancy Project, Final Technical Report PAK/98/G31 and PAK/98/014. Environmental Education Division, WWF Pakistan, Islamabad, Pakistan

- Villagers migrate up and down the mountains with the seasons (see Figure 2). In the spring livestock are moved to high mountain pastures where they remain through the summer. In the fall they are returned to the valley for the winter. During the winter, snow accumulation often leaves villages isolated, requiring villagers to have sufficient stocks of food, supplies, firewood and fodder to survive until the snows melt. Thus, to address the peoples' needs, required that the project operate at a scale that could take into account the full scope of factors affecting the peoples' natural resources.
- Taking into account the needs of the communities and the urgency to conserve biodiversity, the writing team concluded the conservancy approach that had been developing in Southern Africa (see Box 3), was the most appropriate means to delegate rights and responsibilities to rural people to manage and use natural resources.

Overview of Conservancy Concept in Southern Africa

The term “conservancy” has been applied to landscapes that are legally demarked for management of natural resources by the landholders associated with that landscape. The concept was initially applied to provide a legal basis for landholders to collaboratively manage water resources, on which they depended.

In Southern Africa in Botswana, Namibia, South Africa and Zimbabwe the concept has been applied to large land areas where private and/or communal landholders are granted rights to manage and use natural resources. The Namibia Ministry of Environment and Tourism, which has probably adopted the most advanced vision of conservancy in terms of national policy, makes no distinction between private and communal landholders.

To obtain rights to manage a conservancy, the Namibian Ministry must be satisfied that the people have the capacity to manage wildlife resources. It must be legally constituted, with clearly defined boundaries. The members of the conservancy are defined by the individuals in the conservancy and must be sufficiently representative of the communities served by the conservancy.

Key rights of conservancy managers are:

- to use, manage and benefit from wildlife in accordance with the conservancy policy;
- to recommend quotas for wildlife utilization and, in consultation with the Ministry, decide on the form of utilization; and
- to enter into agreements with private companies for different uses within the conservancy;

Key responsibilities of conservancy managers are:

- to be legally constituted;
- to have a conservancy committee which will be the executive body of the conservancy, consisting of representatives of the community; and
- to have a sound accounting system and effective secretariat.

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Taken from Box 5.5 Namibia's Conservancies: Nature in the hands of the people. 2003. In: *World Resources 2002-2004: Decisions for the Earth: Balance, voice, and power*. United Nations Development Programme, United Nations Environment Programme, World Bank, World Resources Institute.

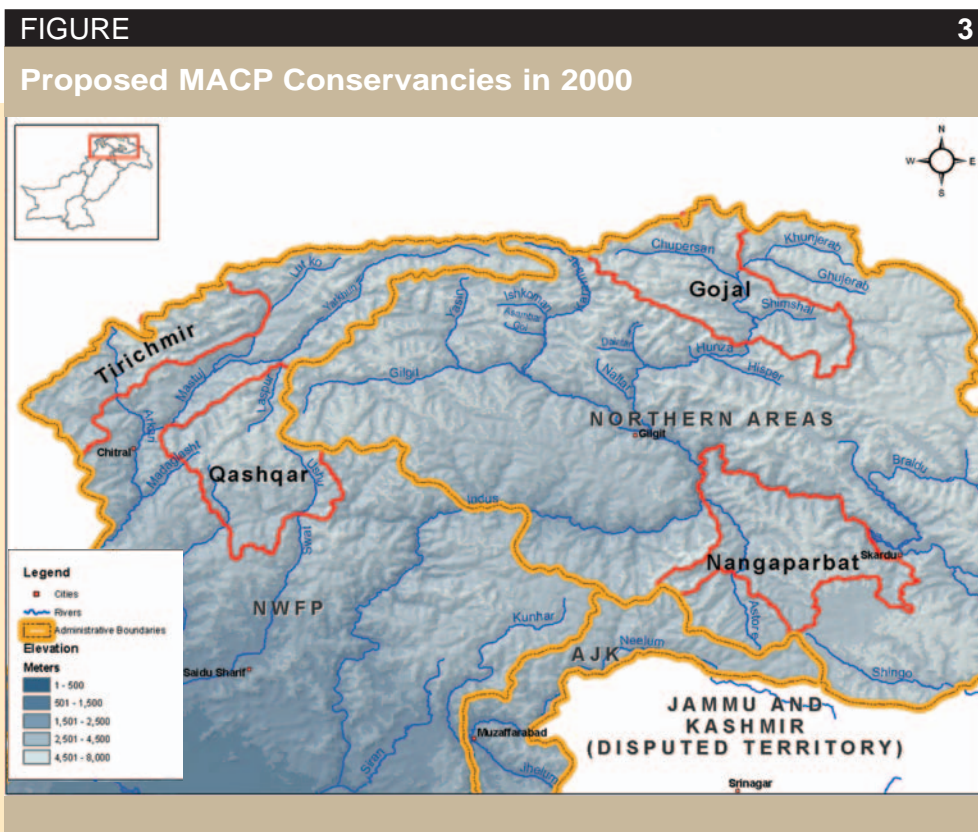
In developing the project, our intent was to demark conservancy areas that embraced contiguous mountain ecosystems that included the high summer pastures and lower valleys where people concentrated in the winter. We believed the conservancies could provide a basis for fostering cooperation amongst the villagers who relied on goods and services provided by these large ecosystems and would facilitate development of integrated programmes to manage and sustainably use the broadest spectrum of renewable natural resources. And it would allow the team greater opportunities to identify different benefits and incentives that would promote the conservation of biodiversity within the conservancies.

Since the late 1990s, Namibia's “decentralized” conservancy system has:

- Greatly increased wildlife populations, which were previously declining;
- Increased community income. The wages collected from wildlife tourism have grown from about 500,000 Namibian dollars in 1996 to more than six million in 2001. Benefits are evident in better provision of social services and greater ability of residents to pay school fees;
- Increased local participation in resource management. Fifteen conservancies are now registered, involving more than 30,000 people, and more than 35 others are being formed. The number of people participating in decisions, including the very poor, has more than tripled; and

- Expanded institutional and technical support for community-based management. For example, the Ministry of the Environment and Tourism has created and staffed a Community-Based Natural Resource Management Support Unit with 29 field officers. This unit helps communities negotiate joint ventures with private sector investors for economic activities such as game hunting and eco-tourism.

According to the MACP proposal “Project sites would be clustered, with a single cluster comprising a number of valleys, harboring significant biodiversity and constituting a viable ecological unit. Each unit would form a conservancy ... managed by local communities in partnership with government as multiple-use areas.” Four conservancies were proposed based on ecological continuity, range of biodiversity of international concern and other criteria (see Figure 3). Two proposed conservancies were located in NWFP and two in the Northern Areas. The Tirichmir and Qashqar Conservancies were located in NWFP in the Hindu Kush; in the Northern Areas, the Gojal Conservancy was located at the intersection of the Karakoram and Pamir mountain ranges and the Nangaparbat Conservancy was located in the Western Himalaya.



In July 1999 the MACP project was approved for seven years with US\$ 10.3 million provided from the UNDP/GEF⁶. Two broad objectives have guided implementation of the project:

- To protect and ensure the sustainable use of biodiversity through a community-managed conservation paradigm.
- To establish conservancies covering wide ecological landscapes as a focus to conserve biodiversity of international concern.

6. A six month no-cost extension has been approved; it will close on 31 December 2006.

Seven outputs provided a basis for monitoring and documenting achievements in the project (Box 4).

BOX

4

MACP Forecasted Outputs

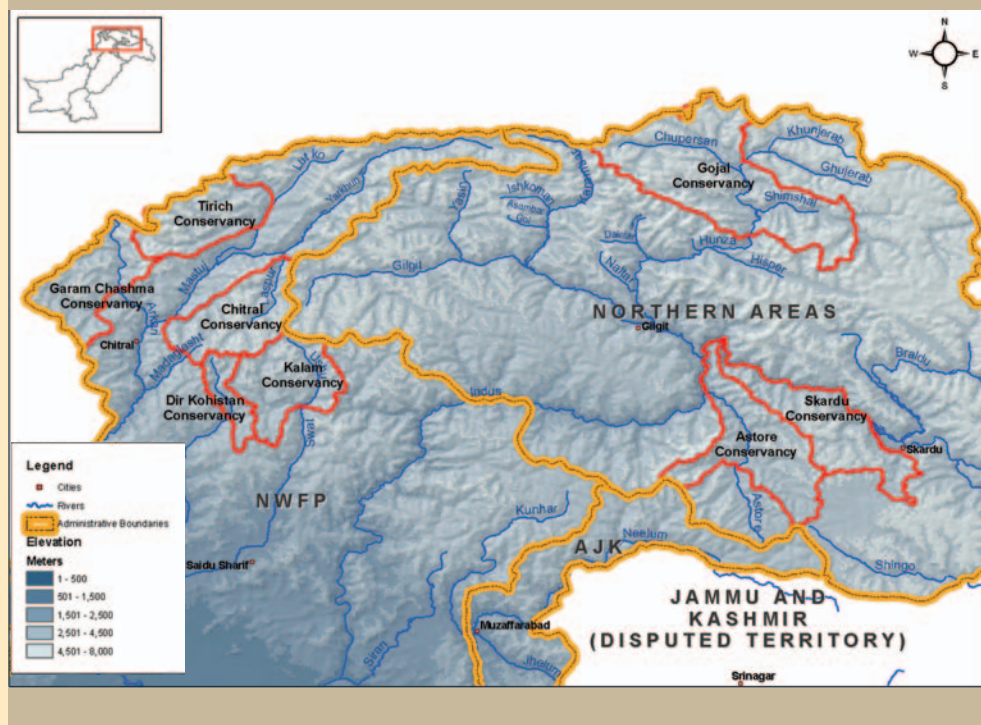
1. Institutional and human capacity of community organizations would be strengthened and planning and management structures would be in place.
2. Conservation values would be imparted to local communities and facilities would be established for sharing information and experiences amongst villagers.
3. A system for monitoring and evaluating project impacts, including ecological and socio-economic outcomes would be established.
4. Development agencies and communities would target financial and human resources toward village eco-development.
5. Knowledge of sustainable use of biodiversity would be enhanced, with results applied in on-going community development activities.
6. Government policies and regulations would be re-moulded to support management of conservancies and institutional capacities for managing participatory conservation models would be strengthened.
7. A biodiversity trust fund would be established to help meet recurrent costs of conservancy management.

Since the MACP began the conservancy concept has evolved considerably. Social, religious, cultural, and administrative factors, as well as logistical considerations, including distances between villages, proved to be much more important in defining the scope of the conservancies than the criteria applied when the project document was drafted. As a result, instead of the four conservancies that had been planned, eight conservancies have been established (see Figure 4). Work began to establish a ninth conservancy –

FIGURE

4

MACP Sub Conservancies



Tirichmir East – but it was abandoned because of conflicts with local villagers. While the eight conservancies are substantially within the original footprint prescribed in the project document, they are far more “organic” in their scope and scale, are “owned” by more people and include more communities than originally conceived. With these changes the conservancies established under the MACP cover 17,607 km² and include 66 valleys with 369 villages and 258,774 people. Four of these, Garam Chashma, Tirichmir West, Chitral, Kalam and Dir Kohistan are located in NWFP and another three, Skardu, Astore and Gojal, are located in the Northern Areas (NA) (see Table 2).

TABLE				2
Conservancy Statistics ⁷				
	Km ²	Number Valleys	Number Villages	Population
NWFP Conservancies				
Kalam	2,094	6	69	62,789
Dir Kohistan	639	3	25	27,226
Chitral	2,107	5	32	17,778
Garam Chashma	1,865	5	48	20,687
Total NWFP	6,705	19	174	128,480
Northern Areas Conservancies				
Gojal	5,913	11	31	15,636
Astore	2,942	17	82	51,397
Skardu	2,047	19	82	63,261
Total Northern Areas	10,902	47	195	130,294
Total	17,607	66	369	258,774

Three-person teams were established to facilitate formation and development of the conservancies: a Conservation Planning Specialist, who served as the team leader, a Social Organizer and an Education Specialist. Three teams were deployed in Northern Areas and three in NWFP. In NWFP the Conservation Planning Specialist and Regional Project Manager were seconded to IUCN from the NWFP Wildlife Department. The remaining technical support people were contracted under the project.

Twelve different languages, including English and Urdu are spoken (Table 3) in the project area, which meant that communications were also challenging, requiring some team members to be proficient in multiple languages. It was common in village meetings for questions and answers to go through two translations.

While the MACP covered a large area, this story is really about the people and the changes that have occurred in their lives – none of which would have happened if the project team had not gained the villagers’ trust. As was the case in defining the size and scope of the conservancies the history, cultural and religious values and the peoples’

TABLE		3
Conservancy Languages		
NWFP	Northern Areas	
Gawari		Balti
Gujri		Brushaski
Khowar		Shina
Nooristani		Wakhi
Persian		
Pushto		
	English	
	Urdu	

7. Based on figures provided by project staff in May 2006.

traditions have been much more important in village and valley decision-making processes than technical considerations.

The project team approach with communities in the Gojal Conservancy (see Box 5) illustrates the importance of patience and the need to respect community wishes – which have been fundamental guiding principles of the conservancy approach.

BOX

5

Gojal Conservancy — Success Leads to Success

MACP interventions started in Gojal Conservancy in March 2000. In the first year dialogues were held with all communities. WWF-Pakistan was already working with one village to promote biodiversity conservation. Irrespective of these early efforts several communities strongly opposed the MACP approach. They feared that the government would take control of their pastures and other natural resources which would force them to reduce their livestock, which was important for their livelihood. Their suspicions grew out of the conflict between communities and government when the Khunjerab National Park was established and several communities lost their grazing rights and were forced to seek assistance through the civil courts to restore their traditional use rights.

Resistance spread. Activists influenced more communities to not cooperate; Forest Department officials were banned from one valley and MACP staff was advised not to visit another valley unless invited. Under these circumstances the project team suspended their work with these communities. From the beginning it was the policy of the MACP to not force communities to adopt the project approach. By concentrating their efforts on those communities willing to cooperate, the staff were able to achieve positive results. The skeptical communities noticed others benefiting from conservation: increased wildlife populations, trophy hunting benefits, improved livelihood options, people taking charge of their natural resources – all of which was different from what had been experienced when the Khunjerab National Park was established.

The MACP was seen to be empowering people, and those same activists who had opposed cooperation, approached MACP staff requesting assistance. Today, Valley Conservation Committees have been established, a resource needs assessment has been prepared, Valley Conservation Plans are being drafted, Valley Conservation Funds are being established, and wildlife surveys have been conducted. The Gojal Conservancy has been strengthened. The natural resources of the area are being conserved and the livelihoods of the communities are more secure today.

We have learned that the conservancy concept has a place, but its application cannot be forced on people. While communities' previous experiences may negatively influence how they relate to the project, it is crucial that they not be forced to adopt the conservancy approach. Success can be achieved by conveying the right message: the project empowers people; the conservancy concept is not fostering establishment of protected areas.

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Mountain Areas Conservancy Project (Northern Areas)**

Implementation of the project was led by IUCN in partnership with government and local non-government organizations. Government's role in the project has never been as clear as it should have been. When the project began, governmental agencies had the overall mandate to support and assist rural people. Government approaches varied between Northern Areas, a federally administered territory, and NWFP, which has a Provincial Parliament with line agencies and legal authority over different natural systems, e.g., wildlife, forests and water. IUCN staff implemented the project in the Northern Areas with Wildlife and Forestry staff. In NWFP, project implementation was lead by Provincial Wildlife Department staff that was seconded to IUCN.

The Aga Khan Rural Support Program (AKRSP) helped establish Village and Women's Organizations and assisted MACP staff to introduce the project to the

IUCN Pakistan



communities. AKRSP also assisted in planning exercises, such as conservation planning, resource needs assessments and conflict resolution. World Wide Fund for Nature Pakistan (WWF-Pakistan) provided education, training and communications services.

Early in the MACP high-value trophy hunting of Markhor was pursued as a revenue generating activity. Markhor is listed on Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)⁸. Under normal circumstances, trade in species listed on Appendix I is prohibited; however, Parties can adopt an export quota for hunting trophies of select species if the hunting benefits biodiversity in general and the species in particular – which was the case in regards to Markhor. With the adoption of this quota importing countries could permit entry of those trophies. In 1997 the Parties to CITES approved an export quota of six trophies of Markhor⁹.

Within Pakistan trophy hunting of wild sheep and goats has been a tradition, so it was natural for the Wildlife Departments in both Northern Areas and NWFP to develop high-value sport hunting programmes. The quota was shared between three jurisdictions with two Markhor trophies permitted from each: Balochistan, NWFP and Northern Areas. Subsequently the quota was increased to 12 trophies under CITES, allowing export of four trophies from each jurisdiction.

Trophy hunting for high-value species has been very successful. Since 1999, in seven hunting seasons, communities in the conservancies and 75% in NWFP have earned over US\$ 760,000 from Markhor, Ibex, and Blue Sheep trophy permits, guide services and outfitter fees (Table 4). Markhor trophy permits have sold for as much as US\$ 50,000. Blue sheep were offered for the first time in the 2004-05 hunting season. It is noteworthy, that the amount received from hunting these high-value animals is equal to the value of about 21,000 domestic sheep, at today's value.

While trophy hunting brought new and increased income into the region, it has also been a mixed blessing. On the positive side, the adoption of the Markhor quota led to the adoption of a policy that ensures 80% of the trophy permit fee is shared with the communities in Northern Areas in the area where the hunt takes place. In

8. For more information on CITES see <http://www.cites.org/>.

9. Resolution Conf. 10.15 (Rev. CoP12) adopted at the 10th Conference of the Parties (Harare, 1997).

TABLE

Conservancy income from Trophy Hunting in MACP Conservancies (1999-2006)

Hunting Season	Ibex	Markhor	Blue Sheep	Permit fees	Guide fees	Outfitter fees	Total	Community Share
1999 - 2000	4	-	-	9,333	1,666	5,250	16,249	8,799
2000 - 2001	8	1	-	38,333	3,164	9,750	51,247	33,197
2001 - 2002	6	-	-	5,083	1,330	5,250	11,663	5,130
2002 - 2003	11	5	-	150,996	9,356	29,273	189,595	128,281
2003 - 2004	24	5	-	174,932	15,711	35,474	226,117	152,514
2004 - 2005	23	6	2	246,084	19,610	47,407	313,101	212,555
2005 - 2006	29	5 ¹⁰	2	210,500	12,990	54,000	277,490	221,292

NWFP the majority of the trophy hunts were outside of conservancies therefore over 90% of the trophy hunting revenues has gone to communities outside of the conservancies. Income received from trophy hunting in NWFP between 1999 and 2006 totaled US\$ 829,000 of which US\$ 654,000 went to communities; however, only US\$ 32,736 was provided to communities within the conservancies. Because trophy hunting has brought new income to the communities, there is broader understanding of the value that wild animals can have. On the negative side, trophy hunting has dominated the efforts of government, promoted a growing dependence on trophy revenues by villagers, which may not be sustainable, and detracted from efforts to develop other sustainable use activities.

As the MACP project approaches its conclusion, legal means for granting authority to the people associated with the conservancies to manage and sustainably use the biodiversity resources within the conservancies has not been adopted. An initial draft law, prepared by the NWFP Wildlife Department, defines

10. Of the five markhor hunted in 2005-06 season, 3 were hunted in Chitral District, NWFP. Two of these animals were killed outside of a conservancy. While 75% of the fee went to communities, only 7% went to communities within conservancies.



conservancies in relation to hunting zones that would be designated as a type of protected area. This approach would diminish the economic development potential and landscape management aspects of the conservancy approach. This law, however, is still undergoing extensive review and hopefully in its final form will take into account the more inclusive role conservancies can play to foster development with effective environmental stewardship.

Against this backdrop the MACP has pursued a central thesis: Improved security of the people in the region will enhance conservation of the biodiversity. Peoples' **awareness, capacity, governance structures** and **empowerment** have all improved since the project began. The status of the biodiversity in the region has also improved as has the security of the people in the conservancies.

Biodiversity Values Understood

The MACP has been very successful at increasing understanding of the values of biodiversity and other natural resources in relation to their economic development and security. When asked what the most significant change was in their community since the project began, villagers have consistently indicated that it was their increased awareness of the value of their natural resources. Some communities noted that a turning point in their understanding was when they received cash from a Markhor hunt. The people in the Khyber Valley simply stated that these animals were now their "most important cash crop". Nevertheless, while there is heightened awareness of the importance of "cash crop species", there is also greater appreciation of the interdependence of ecosystems and the importance they play in securing their livelihoods. In most of the villages visited the people understood the importance of managing their pastures to enhance fodder productivity and their forests to sustain water supplies.

Because communities like Khyber received income from the hunts, they stopped all hunting of the animals themselves, banned others from hunting in their valley (transgressions are reported to the local authorities to deal with), altered how high pastures were used to provide more habitat for the animals, and limited cutting of forests for firewood.

Awareness of the value of biodiversity has extended well beyond the bounds of the conservancies. The project field teams are commonly invited to visit communities to discuss the conservancy approach. Several communities outside of the conservancies have asked if their valleys could join existing conservancies while others have requested assistance to develop their capacity to manage biodiversity. The story of Sadpara (Box 6) is typical of how the MACP established relations with communities which led to their engagement in the project. It is now quite common for representatives from conservancy villages to attend meetings outside of their conservancy and for people from outside of conservancies to attend Conservancy Committee meetings.

In Northern Areas, Syed Yahya Shah, who is recognized by local people as a wise leader, scholar and activist, has motivated people in several villages in the Nagar valley, which is adjacent to the Gojal Conservancy, to establish a "community park", which would foster collaborative management of the natural resources for sustainable use and to conserve biodiversity. The aims of the village-based management of the proposed community park are virtually identical to those of the MACP.

The importance of managing all of the natural resources, including water, pastures, forests, agriculture, livestock, as well as wild animals and plants, is understood at a

Sadpara Village

Sadpara, in Skardu Conservancy, comprises five hamlets with 1,764 people, is only 5 km from the MACP Field Office in Skardu, the regional administrative centre. The inhabitants only formed their Valley Conservation Committee (VCC) in March 2004. In the same month they capitalized their Valley Conservation Fund, established a Women's Conservation Committee (WCC), and completed their Valley Conservation Plan, which is being implemented under the MACP in collaboration with the Northern Areas Forest, Parks and Wildlife Department. The following month they registered their Committee as a legal entity under the Social Welfare Act.

The turning point in MACP staff relations with this community was the commitment to construct a bridge across the Sadpara River, which was built in 2005, allowing for the first time safe and fast access to and from Skardu throughout the year. The community contributed 22% towards the construction costs through the provision of labour. The financial and technical assistance provided by the MACP and AKRSP not only made it possible to build the bridge, but also established the trust necessary for the community to engage with the MACP. Since then the villagers have received a series of capacity building workshops and technical assistance has been provided on a number of natural resource management issues.

Last year the MACP provided the community with 3,400 trees for reforestation and 322 fruit tree saplings. Presently, the VCC has 50 active members, 10 from each hamlet; the Women's Conservation Committee has 25 active members.

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fairly sophisticated level. People know the interrelationships between these different natural resource components and how the use or misuse of one can affect others.

Water was often recognized as the key to managing other resources. Leaders in most of the community meetings we attended noted that a secure water supply improved crop production and increased family incomes. Daily domestic requirements for water are now more easily met and, in general, health in the communities has improved.

In other instances, such as in Khyber and Sadpara in Northern Areas, the problem is not access to water, but rather controlling water to avoid flooding, loss of property and damage to homes, bridges and roads. This is particularly true in the



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spring when the snows melt, causing substantial increases in river volumes that change small streams into raging torrents, which can wash away bridges and cause landslides leaving the communities isolated. Repairing damage to bridges, roads and homes diverts community capacity from attending to their crops and livestock, which can reduce household income and decrease security.

Villagers know that improved management of the high mountain pastures will improve the status of wild goats and sheep, such as Markhor, Ibex, and Blue Sheep, which can bring income from trophy hunting fees. Pasture management has taken several forms, from banning the use of particular pastures to zoning pastures for different uses at different times during the summer season. Stocking levels of sheep and goats in pastures are also being more closely controlled.

Wood harvests remain a central issue in the villages. Villagers are aware of the importance of the forest cover to retain water and secure the land from erosion and reduce the risk of landslides, but they are also dependent on the forests for firewood and building materials. In our meetings with the communities it was common for them to request assistance to find alternative energy sources, more efficient stoves and alternative building approaches, so that their dependence on the forests would be reduced.

The pace and depth of understanding of the conservancy concept, as well as development of capacities, has been much more rapid amongst the communities and project staff than in the government institutions, including line agencies. The existing policy and legislative framework follows the old command and control system which does not foster inter-sectoral coordination amongst line agencies, which is a major barrier to the integrated approach to resource use fostered under the project. The main hurdle seems to be the age-old sectoral structure which focuses on protection of individual roles within government rather than on facilitating increased empowerment and decision-making capacities amongst the communities.

The field officers from these agencies, who have been involved with the project, are quick to note the need for inter-agency collaboration across different sectors, e.g., forests, water, welfare; that without the technical skills the other agencies can bring the project will be less effective at meeting the long-term needs of the villagers. The simple fact is that they are trapped in their department hierarchies, which prevent them from doing anything about this issue.

The combination of the inflexibility of the legal structure, the fact that the most relevant legislation can date back to the 1800s in some areas, and the tendency for government officers to frame decisions in relation to their agency mandate, has constrained how the conservancy concept is understood. Hence the role conservancies can play to foster community development with biodiversity conservation, while having limited success, could be much more effective if there were greater inter-agency cooperation.

Capacity to Manage Natural Resources Enhanced

When I first visited the villages of Skoyo, Krabathang and Basingo in Skardu Conservancy in 1996 (referred to as SKB locally) it was by way of a very small box hanging from a cable over the Indus. I remember my excitement and nervousness as I climbed into the box and was launched into space over the river as the box slid down the cable to a mid-point over the river. There was a pause and I recall looking down at the raging river below and wondered what would happen if Then the villagers pulled the box, thankfully with me still in it, to the opposite

bank. As I walked from the “landing point” into the village I kept thinking: How did they do it? All commerce into and out of those villages was via that box – in which I barely fit. Families, their possessions, crops, livestock, poultry all came into and left the villages in that box. Everything! How could they conceivably develop with a bottleneck like that? And, I had to return to the vehicles in the same little box!

Ten years later, our arrival in the village of Krabathang was via a jeep-able suspension bridge that was nowhere near as fun but far more secure and, more importantly, ensured that the village had easy access to the outside world. According to the villagers “the greatest change occurred when the village received funds from a trophy hunt in 1997.” They used the funds (along with MACP project funding) to build irrigation channels which allowed them to develop more land for agriculture. They also constructed a reservoir in the mountains above the village to secure a water supply for the village. Today, every house in the village has access to water, which means that the women and children no longer have to walk down a precarious path to get the day’s water supply. Probably of greatest importance in terms of meeting long-term human social and development needs, funds from the project were used to start a school and employ a teacher.

Under the project the villagers also formed a Valley Conservation Committee, which organized the villagers to manage their natural resources. They made new trails to the pastures, banned harvests of dwindling forests in the mountains above the village, and began a programme of planting poplars as an alternative to meet their energy needs. Today, they are seeking funding from the government under the Poverty Reduction Programme to develop an alternative energy source. They have their own bank account, set their own priorities, and decide in which projects they will engage.

In another village, Khyber, in the Gojal Conservancy in the upper Hunza Valley in Northern Areas, villagers noted that “under the project we have come to realize that our natural resources can be used to support development in the village.” As a result they have changed how they use the natural resources. Previously benefits were limited to those individuals who harvested the resources. People



IUCN/Matthieu Paley



took whatever wood they wanted from the natural forests for construction and fuel, grazing was not controlled, and the value a wild animal represented was mostly for food, such as the meat from Ibex.

Now that the villagers know the values of these resources they ensure that the benefits go to the community. The village has limited harvests of firewood to 750 kg per family per year, which they get mostly by pruning fruit trees and collecting dead wood. Unauthorized hunting is banned and enforced, because they view certain species as a “cash crop to be managed”. They have also altered how they use their highland pastures, because they know that trophy size will increase if the wild animals do not have to compete with their livestock for summer forage. The village is looking at ways to improve their goat and sheep livestock and to reduce their impact on the pastures.

According to the head of the Village Conservation Committee, “As a result of the adjustments in our practices the benefits are increasing”. Income from uses of their natural resources is being used to address community needs, such as health and education, as well as covering the costs for managing the natural resources. However, these changes in their practices are also causing some conflicts. Khyber is located in a high pass, is isolated much of the winter because of the snows, and experiences extremely harsh weather conditions during the winter. Fuel wood is essential for the villagers’ survival during the winter. It is used for cooking and warming their houses. The quota of 750 kg of firewood per household per year which they had established is not enough. While they are forced to increase the quota, they are seeking alternative energy sources and/or means to increase the efficiency of their stoves for cooking and heating to minimize the impact.

The capacity villagers have gained from their involvement with the project has prompted the project team to retain people from the village to share their experiences with other villages and to explain the benefits they have received from their participation.

In NWFP over 130 training sessions were organized over six years on topics ranging from account and record keeping to oak management; from pasture assessment to survey techniques for Chukor, Kholas Pheasant, Markhor, Ibex,

and Snow Leopard; from gender sensitization to conflict resolution; and from livestock management and breed improvement to medicinal plant collection techniques and how to assess resource management needs. In some instances special training has been provided to women's groups. As a result communities have acquired substantially greater technical skills than they had when the project was started, which are reflected in their management decisions and actions.

In the Garam Chashma Conservancy everyone has rights under the management plans that have been developed. In one valley in which there are both Sunni and Ismaili villages, their common desire to benefit from the natural resources provided a means to bring them together. The Valley Conservation Committee has representatives from both groups, bringing these two sects together for a joint cause. This Committee has since taken several decisions that reflect their enhanced capacity: They have banned unauthorized hunting and established a fine of Rs 2,000 for those caught violating the ban; a pasture management plan has been developed; unauthorized fishing has been curtailed; and limits have been imposed on the amount of wood that individuals can harvest.

In a group meeting of representatives from the Kalam Conservancy, Amir Zada Kalam, President of the Conservancy, noted: "The big achievement of the project has been the development of institutional capacities for the people to cooperate around biodiversity and nature conservation. The needs the people mentioned were heard and assistance was provided – irrigation channels, roads, water supplies, and micro-hydel power stations were developed. The result is that five Valley Conservation Committees joined together to establish the Kalam Development Forum, which has been registered as a limited company with the provincial authorities."

A particular effort has been made to enhance the capacity and involvement of women in environmental management and decision-making. According to Mohammad Afzal Mir¹¹ in Gojal Conservancy, eight Women's Conservation Committees (WCCs) were formed under the MACP. These WCCs established their own Conservation Funds and helped the village men contribute their share to Valley Conservation Funds. These WCCs participated in development of Valley Conservation Plans, took part in inter-valley and inter-conservancy awareness building visits, and motivated women in other valleys to organize their own WCCs. The project team organized training in vegetable cultivation and production, seabuckthorn and fruit preservation techniques, and other vocational needs.

In Skardu Conservancy women participate in development processes within their cultural norms. While the process of establishing women's committees and groups was slower than in Gojal Conservancy, today there are 16 Women's Conservation Committees and Women's Groups; five have contributed to their Valley Conservation Funds. Training has been organized on how to preserve fruit and seabuckthorn, account and record keeping, gender sensitization, environmental awareness, and mother and child care. Two WCCs have constructed compost pits and another supported the construction of a water reservoir which cost Rs. 90,921 of which the community contributed Rs. 22,942.

In Astore Conservancy, workshops were organized for Village Conservation Committees to orientate the members about the roles women play in conservation. Eight WCCs have been formed; four established bank accounts and capitalized

11. In Mountain Area Conservancy Project (2006). Quarterly progress report April-June 2006. MACP, Northern Areas.

Women's Conservation Funds. Training has been provided to WCC members in gender and environmental awareness and account and record keeping. Four WCCs have opened accounts and established Women's Conservation Funds.

In NWFP, according to Khan Ghulam, Monitoring and Evaluation Coordinator, eight Women's Conservation Committees have been formed in the conservancies. Another ten women's groups have also been formed, which are expected to evolve into full fledged Conservation Committees in due course. Five of the Women's Conservation Committees have established Conservation Funds averaging over Rs. 100,000 each.

Training has been organized for the Women's Conservation Committees and Women's Groups on a range of topics, including account and record keeping, agricultural best practices, fruit and vegetable processing, gender and environment, gender sensitization, medicinal plant collection techniques, pasture assessment, resource and needs assessment, livestock, livestock management and breed improvement, and visitor management.

Government capacity has developed substantially in NWFP, according to Dr Mohammed Mumtaz Malik, Chief Conservator Wildlife of the NWFP Wildlife Department. In addition, he noted that "the culture in the Department has been changed to embrace sustainable use." In large part this was achieved because, from the beginning of the project, staff in NWFP was seconded to the project. In Northern Areas government staff received training opportunities, were part of the valley and conservancy planning processes, and in some cases staff were seconded to IUCN as in NWFP.

Institutions Enhance Cooperation and Collaboration

Having the appropriate institutions and legal authority to make decisions regarding the management and use of natural resources is a core requirement to ensure the sustainability of uses of wild natural resources. Such institutions foster cooperation amongst the communities sharing the vast landscapes on which they depend for the delivery of key ecosystem goods and services, such as water, pasturage and wild resources. Traditional community-based institutions established to foster cooperation in the management of water resources are institutional models which are fully congruent with the principles of the conservancy concept (see Box 7).

In looking at what has been accomplished in terms of governance, it is clearly a mixed record. Within the conservancies, the cooperating communities have generally found it of value to form Village or Valley Conservation Committees and in many instances Village or Valley Conservation Committees and Women's Groups and Women's Conservation Committees have been established. These committees provide villagers with a facility to set priorities, make decisions, and establish rules and guidelines for the use of community resources, as described in previous sections. They have also proven an effective means to mobilize people to undertake collective actions when needed, including opening up access roads after landslides, which are common during the rainy season. Institutional structures designed to foster cooperation amongst the several communities which reside in a valley or at an even higher scale – like the conservancy as a whole – have had varied success.

There are some examples of conservancy-scale institutions which have served very important functions. For example, the Kalam Development Forum that has been established in the Kalam Conservancy has brought people together from

Traditional Water Management and Governance Systems in Northern Pakistan

In the mountains of Northern Pakistan water management entails diverting water from a high altitude source (e.g., glaciers, snow melt, rivers) to serve the needs of villages in the lower valleys. Some of these water channels are as much as 20 km long and, because the entire channel is unlined and passes through several different types of soil and rock, requires constant attention and maintenance to minimize loss.

In NWFP work groups, headed by a *merjoj* (chief of the channel, and at one time a hereditary position), ensure the maintenance and the opening/closing times of prescribed sections of the channel. The *merjoj* supervises this work, resolves conflicts and oversees distribution of water between the various household clusters (locally called *phi*) and the ways the *phi* undertake their collective irrigation-related activities.

Emergency maintenance groups, or *waldoyo*, are stationed at locations along the channel where there is danger of landslides and breaching. Watchmen (*joiwal*) are also stationed along the length of the channel to ensure the smooth flow of water and that repairs are done where and when necessary. A number of *joiwal* are posted at the source of the water to ensure that damage is minimized during times of increased water flow.

In Northern Areas in the Gojal Conservancy, village committees known as *lambardar*, meet annually to select individuals from the community for paid water management positions for the upcoming irrigation period. This includes a supervisor and teams (*chilgálas*) who manage the allocation schedule, prevent water theft, and make minor repairs on the channels. Non-participating households pay a fee towards the salaries of the *chilgálas*.

In both NWFP and Northern Areas water allocation among communities and households on the same irrigation channel system is based on: a) historic rights in accordance with specific inputs in channel construction, which includes hereditary rights; and b) privilege because of standing or merit accorded to certain clans or kinship groups, and preferential treatment of those who work on maintaining the irrigation system.

However, this system is eroding as increased outside funding and support for water projects call for more democratic and equitable water development and allocation systems (such as improved remuneration for workers, and equal distribution of water amongst users irrespective of status).

Under these traditional systems of “laws” and “rules” all communities and villagers associated with a water channel receive an equitable share of water during all seasons. These traditional systems also provide penalties for violations of the rules. In NWFP, fines are assessed of individuals and groups that fail to perform their duties on the irrigation system, which may be paid either in cash or in kind, depending on the nature of the fault. Penalties are also assessed people who are found to be taking water without permission. In Gojal and Hunza, local Ismaili Arbitration and Reconciliation Boards are responsible for implementing legal proceedings against those found stealing water. These Boards operate free of cost and compensate the winning party with the entire fine.

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Kreutzmann, H. (Ed.). 2000. *Sharing Water: Irrigation and Water Management in the Hindukush – Karakoram – Himalaya*. Ameena Saiyid, Oxford University Press, Karachi, Pakistan.

Bryan Hugill, Programme Officer, Mountain Areas Conservancy Project.

different communities in one valley belonging to different clans and religious sects. This was possible because the Kalam Development Forum provided a structure to manage natural resources for their mutual benefit. Several examples of similar cases were mentioned in our meetings with communities.

The Skardu Conservancy Management Committee recently took several decisions designed to institutionalize the body, including making arrangements to set up an office in Skardu, which would also serve as an information centre for tourists. They have also taken responsibility for recording and circulating minutes

of their meetings and addressing issues with government officials directly, rather than relying on the project team. They are pursuing options to register their Committee as a company or social organization with the Northern Areas government.

In NWFP, the Kalam Development Forum Board, serves as the Conservancy Management Committee for the Kalam Conservancy. This company expects to establish independent relationships with donors and exercise their authority over the management and use of natural resources within the conservancy. They have already banned unauthorized hunting and logging. Recently a villager who shot a black bear was fined Rs. 6,000, which went into a Valley Conservation Fund. They have set up a check point on the only road to transport timber to market to ensure that only authorized timber harvests pass. The conservancy employs a “guard” at the checkpoint who is paid Rs. 6,000 per month.

Other conservancies have experienced various levels of success in setting up such umbrella coordinating mechanisms.

Several factors appear to affect the level of success in institution building, including the presence of strong leadership, the perception of the value of the benefits that will be derived, the level of duplication/competition with established institutions, and the relevance of the institution in relation to village traditions and practices. Above all, however, the factor that will determine the effectiveness (and value) of conservancy-level institutions is the authority these bodies have over the management and use of natural resources. Nevertheless, as of this writing no legal mechanism has been adopted to delegate authority to community-based institutions to manage natural resources at the scale of the conservancies. The traditional institutions established to manage and distribute water may provide a model that would help government officials to develop regulations that would grant authority to communities to manage natural resources within a conservancy.

According to Izhan Ali Hunzai, General Manager of the AKRSP Pakistan, “Our efforts at addressing civil society issues within communities have not been sufficient. The scale is too small to influence government and there is less capacity to retain skills and knowledge”. Therefore, AKRSP is facilitating the formation of “Local Support Organizations”, which are envisaged as service providers for the communities. These bodies could complement the conservancy-scale management committees that the MACP has been pursuing as they will focus on social organization, fund management and support services. The Conservancy Management Committees’ *raison d’être* lies with its role to foster collaborative management of the natural resources within the conservancies.

The Government of Pakistan in receiving the grant from the UNDP/GEF agreed to provide legal authority to those engaged in the project to manage and use wild biodiversity sustainably within the conservancies. Progress has been made. For example, the adoption of policies in Northern Areas and NWFP that stipulate that 80% and 75% respectively of the fees paid for high profile trophy hunts are distributed amongst the communities in the area of the hunt is a landmark achievement (see Table 4). In NWFP the policy goes further, providing a basis for sharing the 75% among several communities. The community nearest the point where the animal is shot receives the largest share; communities recognized as being important to the conservation of the species, such as the communities that manage the pastures which the animal uses in the summer, receive smaller shares.

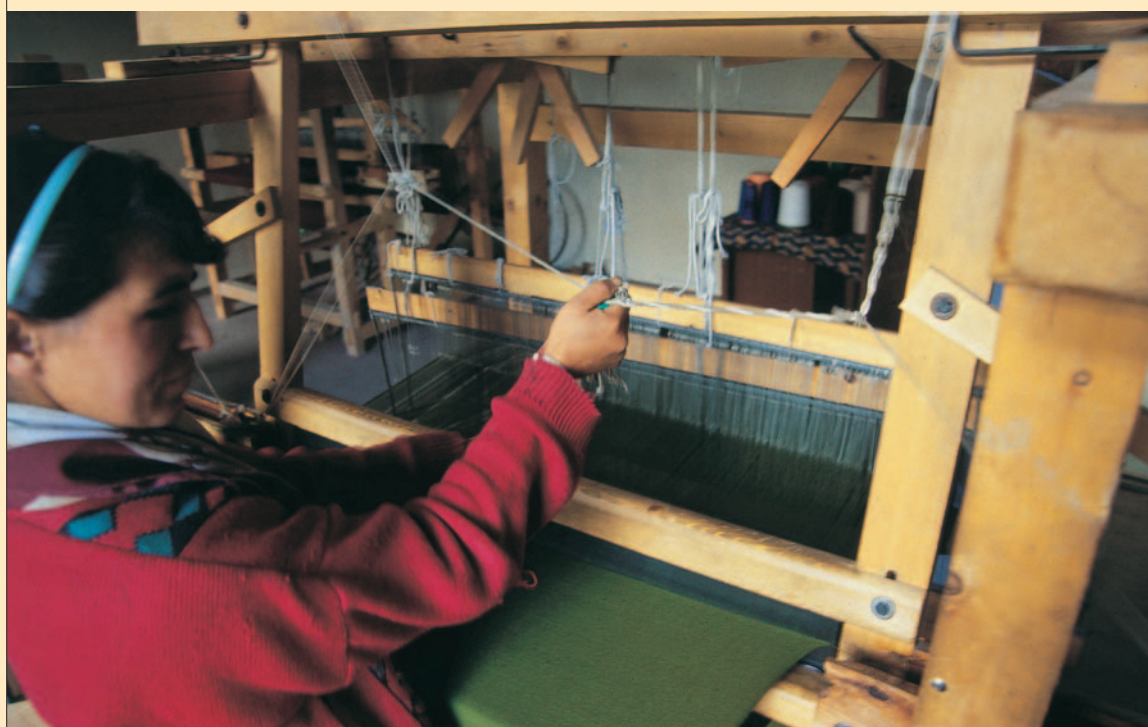
In NWFP the Wildlife Department is trying to formalize community's rights in relation to hunting zones that the Department would designate. In the early drafts of the provincial law these hunting zones were defined as conservancies and representatives from the communities could be named to a management body by the Wildlife Department. The peoples' rights in terms of management and use of animals under the authority of the Department in these areas were not delineated. The draft law also endeavors to give the Wildlife Department the authority to make decisions over other wild natural resource products such as non-timber forest products, grazing areas, and tourism.

No policy or law has been adopted that would grant authority to communities to manage natural resources in the conservancies in either Northern Areas or NWFP, which leaves the communities in a vulnerable position as the project comes to a close.

Communities Exercise their Empowerment

The communities with whom the project team has been working are keen to take charge of managing their natural resources. All of the communities visited have adopted rules that are being enforced by the villagers – and quite effectively according to what we were told, often relying on social ostracization to encourage payment of fines. The status of select species across the region in which the project is being implemented is generally improving (see Status of Biodiversity below) which is correlated with the increased protection of key species and enhanced management of habitat.

The Skardu Conservancy Management Committee noted that not all Valley Conservation Committees in their conservancy have registered with the government, and they saw that one of their key roles was to help those VCCs to get registered; another was to help these committees resolve conflicts. According to the Chair of the Conservancy Management Committee “because



we have learned the value of natural resources we now manage them for our benefit. We are able to respond to problems and develop solutions.”

All of the communities visited have established Village or Valley Conservation Funds which are kept in local banks. The source of the funds varies from income received from trophy fees to grants provided by the project and other agencies, as well as contributions from villagers. IUCN, in its role as project manager, has required that an institutional representative be a co-signatory on use of project funds held in community bank accounts. In all cases the communities have full authority over how the interest earned on these funds is used and make their own decisions as to which projects they will support/undertake.

The situation in Bunji, in Astore Conservancy, illustrates how a community, with the assistance of the MACP has taken charge of their own destiny. The Village Conservation Committee gained strength in the community by resolving conflicts and providing a facility to bring people together to plan development and conservation activities, such as the repair and lengthening of a 10 km-long water channel and organizing volunteers from the village to clear a landslide which had blocked the road into the village. Their largest project has been to prepare a land use plan for a new village site, which they have done with advice from an architect from Gilgit. In the new village each family will be granted 6.5 kanal of land (1 kanal = 5,445 sq ft).

Village leaders in Bunji were clear that they would negotiate arrangements with prospective donors and that they were prepared to share the costs of resource management/environment activities. They noted that they have been pursuing a project to develop a micro-hydel power station that would reduce their dependence on a neighboring military installation for power. The estimated cost for the infrastructure and installing the micro-hydel power station is Rs. 40 million, of which the community is committing 25% of the cost in funds and contributions-in-kind.

Every Committee we met during our visit stated that they would invest their own funds and labor to co-finance projects they determined to be a priority. On average, they felt that they could contribute 25% of the costs; however, it would depend on the scale and importance of the project.

In a joint meeting of representatives from Manoor, Gabor, Murdan and Begosht Valleys in the Garam Chashma Conservancy, Chitral District, NWFP, it was noted that the conservancy concept has proven valuable to foster cooperation amongst the valleys and villages associated with the conservancy. The Valley Conservation Committees are the optimal focus for financial investments. But the Conservancy Management Committee is best for establishing the management policies at the scale of the conservancy.

According to villagers, legal authority and rights over natural resources remains a major issue. Historically, they have lacked authority to make decisions over management and use of the living natural resources in the vicinity of their villages which has limited the scope of resources they can use for economic development. As villagers feel more and more responsible for the resources they are using they have adopted rules such as bans on fishing, hunting and logging without permits to ensure that the resources can be used sustainably.

In another part of Chitral District a conflict emerged between Golain Gol villagers and encroaching communities. A village not associated with the conservancy claimed rights to use a pasture in the conservancy based on a royal decree from a local ruler that predated imposition of modern Pakistan law. That village

decided to bring 30,000 goats, which they were being paid to graze, to the pasture in the conservancy. When Golain Gol villagers informed the visitors that the goats were not welcome because they had declared that the pasture in question was not to be used, the conflict of views quickly escalated to physical blows. The consequence was that the 64 villagers who asserted their authority were jailed for one month. Their case is still pending in the court. Interestingly, while listening to the story, I could not help but see from the looks on the faces of the villagers that they were proud of what they had done. While paying a substantial penalty, they did achieve greater control over the use of the pasture. When the intruding village returned to use the pasture, which had been authorized by local officials, they only brought 1,300 goats.

In the Kalam Conservancy in Swat District, NWFP, the people told us that the development of institutional capacities for the people to cooperate around biodiversity and nature conservation was a big achievement. These institutions ensured that the people were heard, and that there was a means to get needed assistance for developing irrigation channels, roads, water supplies, and micro-hydel stations.

Throughout the project area the issue of communities' rights is prevalent. Either there has been no delegation of rights to communities or delegation of authority has been framed in a manner which gives them very limited or no decision-making powers.

Several factors probably contribute to this: First, as noted previously government agencies operate within limited remits. Second, government personnel are not rewarded for their creativity. Third, the various agencies that have authority over different natural resource components of the conservancies, such as water, forests and wildlife, do not cooperate with each other. There is also a pervasive belief that rural people cannot manage wild resources without government assistance.

From the villagers' perspective, government agencies are generally not viewed as a source of help, but rather the source of rules that more often than not curtail or take away their rights. Rarely are the communities consulted before such rules are adopted, which leads inevitably to conflict. Every community is concerned that the government might designate areas they have been using for centuries as a protected area that they would not be permitted to enter. They know that if that happens they will receive very little or, more likely, no compensation for their losses.

At the same time, when they need help from government agencies, for example to authorize transport of wild harvested products like pine nuts to market, they are assessed exorbitant fees, which may constitute a fine for the presumptive damage done to the pine trees when the nuts were harvested.

All the while, and in spite of the difficulties, throughout the project area the communities have forged ahead in establishing various rules and management conditions that they have concluded are essential to conserve their natural resources and meet their development goals.

Status of Biodiversity Improved

The work in Northern Pakistan has been based on the premise that secure people will secure their biodiversity. Since the project began people have become more aware that the status of the biodiversity was linked to their

livelihood security; they have acquired skills and capacity to manage and use renewable natural resources in an integrated manner; institutions have been established by the local people which are providing forums for community, valley and conservancy-scale democratic decision-making; and they have been empowered to the extent that they are taking charge of their own affairs, set rules and regulations that guide the use of natural resources, and assume responsibility for protecting those resources.

While it is not possible to state that the enhancement in the status of the people is the key factor that contributed to the enhanced status of biodiversity, survey data indicate that key species have either increased or at least held their own in the conservancies since the project began.

Markhor populations have increased in select valleys in both NWFP and Northern Areas between 2000 and 2006 (see Figures 5 and 6). Ibex populations have increased in the valleys surveyed in NWFP (Figure 7) while in Northern Areas their status varies (Figure 8): in Katchura-Shagarthang the population increased between 2001 and 2003 then dropped in 2006; in Basho the population is larger than it was in 2000, but is smaller than the population that was surveyed in 2003; in SKB populations appear to be holding their own.

The Blue Sheep population in Gojal Conservancy, Northern Areas (Figure 9) is substantially larger in 2006 compared to 2000 when surveys began. All components of the population, including yearlings, males and females, are increasing, which indicates that the populations are not being over-exploited.

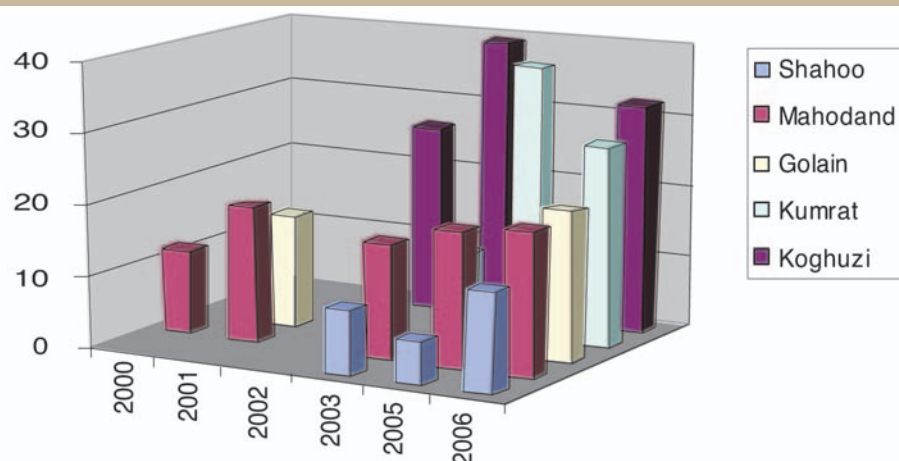
A similar pattern is observed with regard to Urial Sheep in Bunji Valley, Astore Conservancy (Figure 10), with the total population increasing eight-fold between 2000 and 2006.

Musk deer are famously elusive and the surveys were not undertaken in a consistent manner. Nevertheless, averaged survey results from several valleys in Astore Conservancy show a steady increase in all components of the population (Figure 11).

FIGURE

5

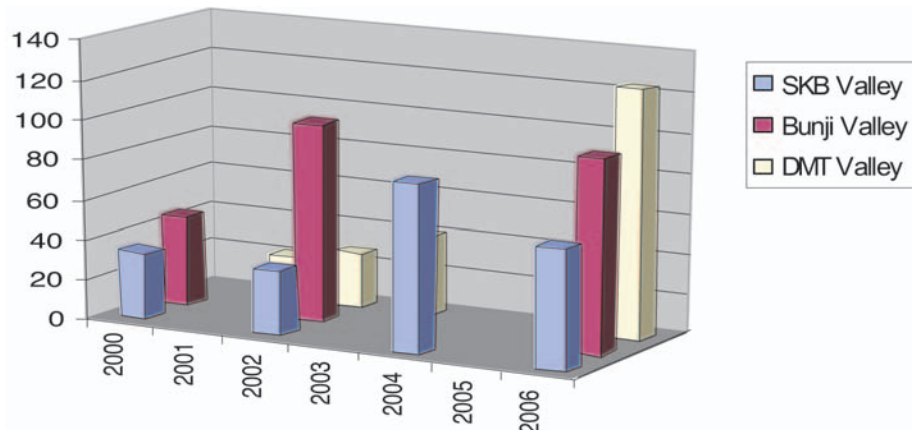
Status of Markhor in Select Valleys in NWFP



FIGURE

6

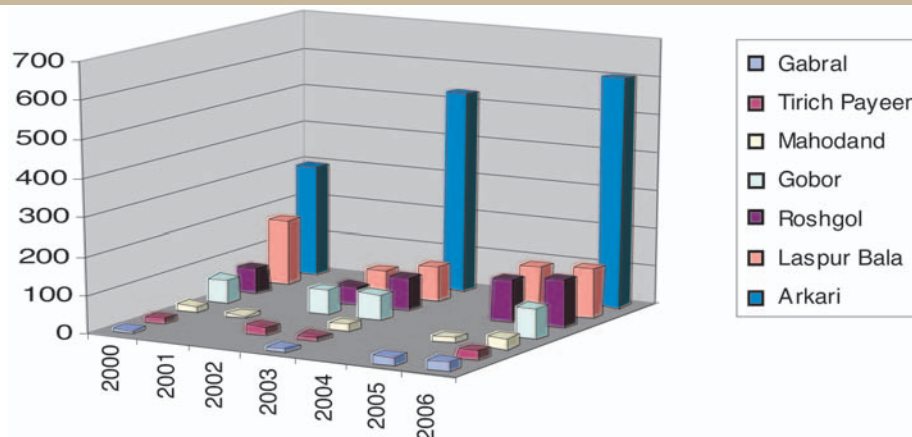
Status of Markhor in Select Valleys in Northern Areas



FIGURE

7

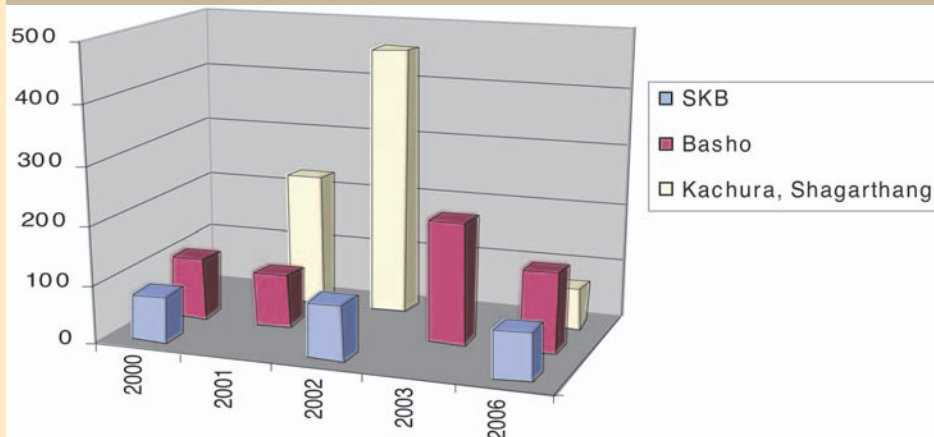
Status of Ibex in Select Valleys in NWFP



FIGURE

8

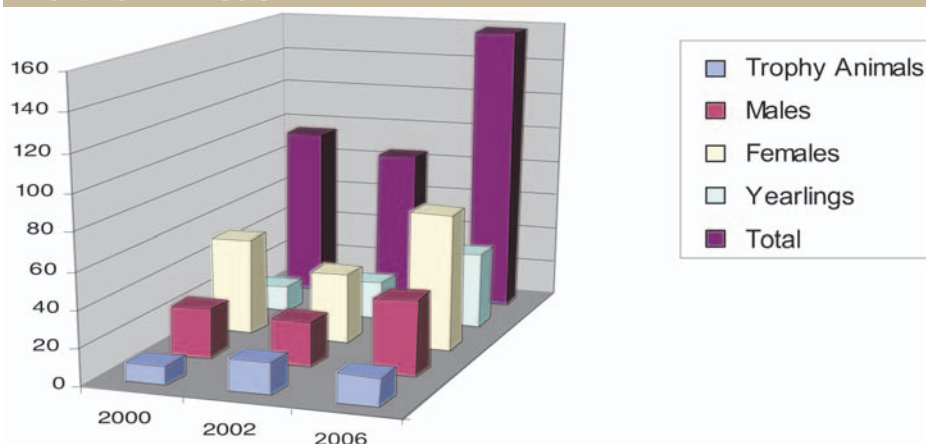
Status of Ibex in Select Valleys in Northern Areas



FIGURE

9

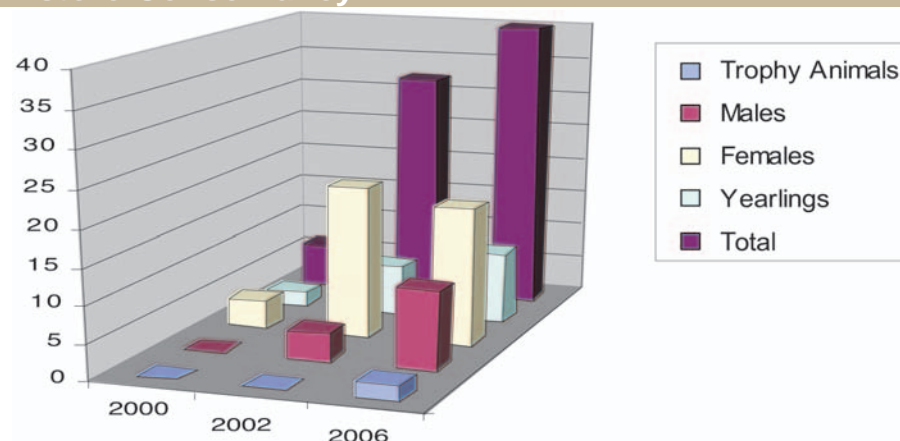
Status of Blue Sheep Population in Gojal Conservancy, Northern Areas



FIGURE

10

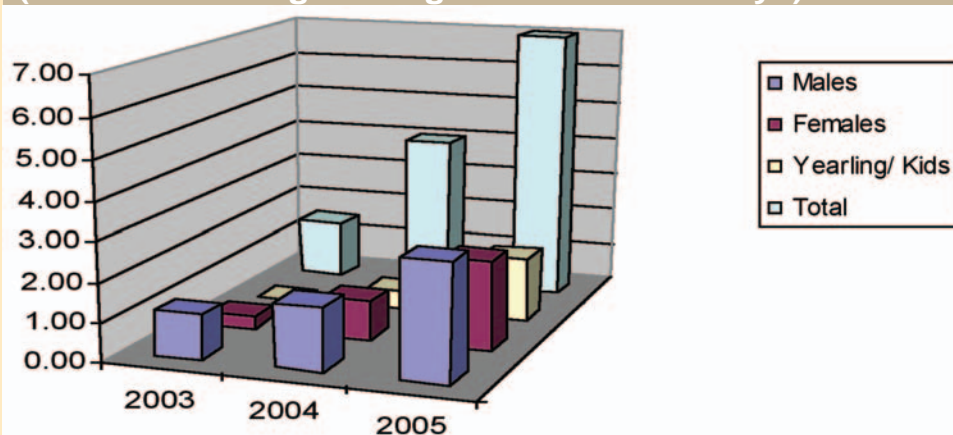
Status of Urial Sheep Population in Bunji Valley, Astore Conservancy



FIGURE

11

Status of Musk Deer Population in Astore Conservancy (based on average sittings from select valleys)



While not definitive evidence because of the relatively few reference points, Snow Leopard sightings recorded in NWFP in 2003 and 2005 and in Northern Areas in 2004 and 2006, indicate that the population is increasing (Table 5, Box 8). It is noteworthy that Arkari Valley in NWFP, which had the largest number of Snow Leopard sightings in 2005, has the largest populations of Ibex.

In Basho, SKB and Kachura-Shagarthang valleys in Skardu Conservancy (Northern Areas) officials conducting surveys for ungulates in February 2006 documented Snow Leopard presence by sightings of scat, pug marks and prey remains. Three animals were

photographed by fixed station automatic cameras in March and April 2006. In addition to these sightings, villagers consistently reported that the Snow Leopard population was increasing. The number of incidents of Snow Leopard-livestock conflicts also appears to be increasing.

TABLE

5

Snow Leopard Survey Sightings in NWFP

Valley	2003	2005
Mahodand	Presence confirmed	3
Gabral	Presence confirmed	2
Golain	Presence confirmed	2
Arkari	Presence confirmed	8
Roshgol	Presence confirmed	n/a
Shagrom	Presence confirmed	n/a

BOX

8

Status of Snow Leopard

From the start of the MACP conservation planning focused on helping communities understand the value of resources. Special emphasis was given to sensitize communities to the crucial role predators play in the environment. The Snow Leopard was particularly important, as the species had historically been killed to prevent them from attacking villagers' livestock. Over the course of the project there has been an attitudinal change amongst villagers concerning predators from enemy to friend. A recent example illustrates this change. A Snow Leopard had gotten trapped in a livestock shed in the village of Hushe, where it killed more than thirty sheep and goats. Despite the huge loss that the community had experienced the village elders invited project staff, the Forestry and Wildlife Department and District Administration to witness the release of the leopard the next day. Later, The Snow Leopard Conservancy recognized what the community had done by honoring them with a conservation award.

While it is hard to document the status of the Snow Leopard populations in Northern Pakistan, both project staff and villagers believe that they have remained stable or increased within the conservancies. Regular sightings by community guides, filmed documentation of Snow Leopard by WWF and BBC, photographs from remote motion-sensitive cameras, and the regular observation of Snow Leopard dung, pug marks and kills reinforce this view.

Faiz Ali Khan, Technical Specialist, Mountain Areas Conservancy Project

Lessons

The conservancy concept is more than a scheme to conserve biodiversity by fostering sustainable use of select species. It is a framework for integrated, collaborative management of renewable natural resources, including the water, pasturage, forests, agriculture, livestock and wild species of plants and animals. A definition for a conservancy that is consistent with this concept is provided in Box 9.



The Mountain Areas Conservancy Project has provided a strong enabling base with incentives for people living in the mountains of Northern Pakistan to change their behavior from exploiters to managers of natural resources for sustainable use. Under the project the landscape scale

approach embodied in the conservancies has provided these people the means to cooperate in the management of natural resources at a level not achieved previously.

A thumbnail overview of the status of various factors that have been addressed in the MACP is provided in Box 10. In brief, the US\$ 10.3 million dollars – equal to US\$ 5.68 per person per year – that have been invested have had a substantial impact on the status of the biodiversity and peoples' security in the region. When you consider that this investment covers an area in excess of 18,600 km² in probably the roughest terrain on Earth, it is truly a major achievement. At the same time, in relation to the high-value trophy hunting alone, rural people within the conservancies have already over US\$ 760,000 in new revenues in the region.

BOX

9

Definition of a Conservancy

A conservancy is a framework for collaborative management of renewable natural resources for multiple uses by local people and the government. Conservancies are managed for the express purpose of fostering stakeholder ownership, livelihood security, and conservation of biodiversity resources. The size and shape of conservancies vary according to the interests and needs of the cooperating stakeholders. Over time, the geographic scope and the management objectives of conservancies may evolve as the stakeholder composition changes. The conservancy approach may be applied in marine or terrestrial ecosystems; in any biome in which there is common interest amongst local people and the government to collaborate to achieve the conservancy objectives.

MACP – Thumbnail Overview

Funding	US\$ 10.3 million	
Per capita investment	US\$ 5.28 per person per year	
Duration	7.5 years (July 1999 –December 2006)	
Area	17,607 km ²	
Coverage	66 valleys	
	369 villages	
	258,774 people	
Achievements	↑	Awareness of value of biodiversity
	↑	Village capacity to manage natural resource
	↑	Government capacity
	↑	Effective governance structures in place
	↑	Communities empowered to act on own
	↔	Policy in place delegating rights to villages
	↓	Legal basis for delegating rights to communities to manage conservancies
	↑	Status of Markhor
	↔	Status of Ibex
	↑	Status of Musk Deer
	↑	Status of Blue Sheep
	↑	Status of Snow Leopard

Social factors are important

When the project was designed little consideration was given to social or cultural factors, or the physical or jurisdictional barriers that separated communities when the conservancies were drawn on a map. The four conservancies that were originally designated in the project document were “drawn” to accommodate distributions of key species of international concern.

People living in the remote valleys in the mountains of Northern Pakistan, maybe because of their isolation, tend to be very conservative; religious beliefs often dictate social behaviors and roles of different components of village life. The lines of authority, boundaries and rights amongst adjacent communities are much more clearly defined, than one would find in urban societies.

It was therefore not surprising that over the life of the project the scale and nature of the conservancies have evolved in response to local needs. Social factors became the most important consideration in defining the conservancies. Relations between different communities often dictated how they would engage with each other, which in turn influenced how the conservancies were finally decided. Because the project teams responded to local needs, overall there was greater “ownership” by local people, and where there was strong leadership, the conservancies were particularly successful.

Conservancies foster cooperation

The MACP has provided a means to bring different ethnic and cultural groups together because of their common interest in cooperating to benefit from uses of natural resources. An example is seen in the Gabor Valley where two communities – one Sunni and the other Ismaili – are collaborating in the management of Garam Chashma Conservancy for conservation and their mutual socio-economic development.

The conservancy approach has provided opportunities for communities to discuss issues related to resource management, and to develop their own rules for managing these resources. As a result there is an increased sense of ownership of these resources. Their interest in benefiting from these resources has led the communities to stop poaching, introduce controls over fuel wood harvests, and restrict grazing rights to pastures.

The project has provided means for women to engage in planning processes, awareness building programs and receive training in livestock and poultry management, keeping nurseries, record keeping and fruit processing. However, decisions concerning landscape-scale management, uses of pastures, forest management, and agriculture remain limited.

Awareness of biodiversity values enhanced

The communities in Northern Pakistan, both within and adjacent to the conservancies, are more aware of the value of their natural resources. The benefits accrued are visible and interest is high enough that communities outside of the conservancies are organizing themselves and establishing institutions to manage and use wild natural resources in a manner similar to the approach fostered by the MACP. A good example is the initiative in the Nagar Valley, being promoted by Syed Yahya Shah, where the communities are collaborating to set aside a large area as a “community managed park” dedicated to conserve, manage and sustainably use wild species. In addition, communities outside of the conservancies are requesting support to establish new conservancies or help to join existing conservancies.

The capacity of villagers associated with the conservancies to manage and use renewable natural resources is improved, which is one of the most important achievements of the project. Many of these people are now skilled enough to be retained as consultants, or employed, to assist other communities develop their own conservancy management schemes.

Trophy hunting is a blessing, with a price

Trophy hunting revenues have enabled communities to invest in resource conservation and fulfill development needs. A little over US\$ 760,000 was “earned” by communities in Conservancies in Northern Pakistan from trophy hunting fees between 1999 and 2006 (see Table 4). However, because of the emphasis on trophy hunting, other natural resource management and sustainable use schemes have not been pursued with the same degree of commitment. This is undermining the potential for the use of other natural resources such as

non-timber forest products, economically important plants, and ecotourism development. Several factors have most likely contributed to this imbalance, including the fact that the government departments that are the implementing partners in Northern Areas and NWFP, are mandated to manage and protect wild animals. In addition, government agencies are also keen to obtain the trophy hunting revenues.

At the same time only a few of the communities within the conservancy areas will ever be able to benefit from trophy hunting. There is a likelihood that the value of the hunts will decrease as demand decreases. For these reasons it is essential that greater consideration be given to develop capacities to use the full spectrum of wild natural resources that can be used sustainably to promote livelihood security in Northern Pakistan.

Limitation of needed skills

The breadth of expertise within the project teams has limited the scope of assistance that can be provided. The project teams and its partners lack the expertise to assist communities in developing small commercial enterprises. As the communities have gained understanding of potential values of the natural resources in the conservancies there is increasing need to find and engage specialists in enterprise development, business planning, product development and marketing. Communities also need access to new technologies, such as waste treatment, water management, woodless construction, fuel-efficient stoves and energy production and management.

Rights issues unresolved

The peoples' rights to use natural resources remain unresolved. While 80% of trophy hunting revenues in Northern Areas and 75% in NWFP are shared with the communities, the process is not transparent. Issuance of permits seems to favor particular communities because it is easier to hunt near them; deals are made with individual hunters rather than using a tender system that focuses on outfitters; and the amount charged for permits is not standardized. The government agencies appear to be promoting the use of the species while more effort should be invested in monitoring the status of the populations subject to use.

No law or policy has been adopted which clarifies the nature of the conservancies or the communities' rights to manage the natural resources within them. The draft legislation in NWFP as noted above defines conservancies in relation to "community" managed hunting areas, but the Wildlife Department would appoint the oversight bodies and have a plurality of positions on them. The Namibian legislation may provide a model that would help frame a policy and regulations that would meet government's needs as well as those of the local communities.

Environmental conditions limit progress

Work in the communities can only progress for six to seven months each year, which is also the time that the local people must ensure that their crops are planted and harvested and that their livestock is cared for and readied for market. Villagers are obliged to divide their time between their crops and contributing to the project. The result is that it simply takes longer to do things, especially when it entails working with leaders in several communities.

The Way Forward — Managing Landscapes in Mountainous Areas

Because of the scale of conservancies, and the diversity of the natural resources found within them, they are serving as enterprise development zones. Even with the advantage the region holds in terms of water and energy resources of national interest, the likelihood that a manufacturing or service capacity will be developed in the region to fuel development is decades off and will require a much more substantial infrastructure for transport and communications than exists today. In the meantime, the people in Northern Pakistan will need to find ways to use the existing natural resources as a basis for their development. Based on the lessons learned from the MACP, the government should facilitate a people-owned process of sustainable development in Pakistan's beautiful mountain ranges that will ensure that the natural resources are conserved. The alternative is continuation of subsidies and government funded activities which foster dependence. The conservancy approach promotes self reliance and accountability, which would make cooperating communities strong allies of the government in fulfilling their mandates to conserve biodiversity.

There remains a spectrum of capacities amongst the communities in Northern Pakistan, ranging from those that have not engaged in the conservancy approach to those which are in the process of developing capacities to those that are fully empowered. How future projects engage with these different communities will necessarily vary. In those communities that are beginning to address the conservancy approach project teams will need to continue to serve as their advocate and guide, assisting communities to identify their natural resource management issues and objectives and arranging for technical training; advising them as they develop their management/development plans; and assisting them to integrate into established conservancy management structures. The enhanced capacity of villagers that have been associated with the project could provide opportunities for their employment in future projects, which may help legitimize a profession of Conservancy Technical Advisors.



Regarding those communities that are in the process of developing capacities, the emphasis must grade from guide to service provider as the communities become more assertive in their requests and definitive in what kinds of support or services they want. In other words project teams have to change the way they work and interact with the communities; from providing substantive guidance and input into the process to being more of a facilitator of the array of technical services needed. The implication of this shifting pattern of engagement is that these teams will have to be flexible and capable of changing their role as the communities gain capacity.

Ultimately, success is achieved when the communities are empowered sufficiently to no longer need the team's guidance and support, but make their own decisions about how they will sustainably use their natural resources. When this happens the institutions that have been supporting the development process should step back and respect the independence of the communities. Their new role would be far more effective as investment partners.

In line with this new role, it would be appropriate for representatives from these empowered communities to serve on advisory boards, which would benefit from their insights and wisdom. Ultimately, governance of projects designed to help local communities should be guided by representatives from those communities.

