

UPPER MUSTANG BIODIVERSITY CONSERVATION PROJECT

Project Brief for a GEF Medium-Sized Project

August 1999

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Project Summary
Upper Mustang Biodiversity Conservation Project

PROJECT IDENTIFIERS

1. **Project name:** • Upper Mustang Biodiversity Conservation Project
2. **GEF Implementing Agency:** UNDP
3. **Country:** Nepal
4. **Country Eligibility:** Nepal is a Party to the Convention on Biodiversity as of 23 November 1993
5. **GEF Focal Area:** Biodiversity
6. **Operational Program:** Mountain Ecosystems (OP# 4)

7. **Project Linkage to National Priorities:** The project is consistent with the national priorities of (i) conservation of nature and natural resources, (ii) balancing conservation with human needs, and (iii) creating durable linkages between conservation, culture, and sustainable tourism, as defined in the Nepal National Environmental Action Plan and the Nepal National Conservation Strategy. The project is located entirely within a Protected Area of His Majesty's Government of Nepal, and is in concert with the King Mahendra Trust for Nature Conservation Strategic Plan, 1997-2002 and the Nepal Biodiversity Action Plan.

8. GEF National Operational Focal Point:

Ram Binod Bhattarai, Secretary, Ministry of Finance, His Majesty's Government of Nepal
Date of Endorsement:

PROJECT OBJECTIVES AND ACTIVITIES

9. Project Rationale and Objectives:

To conserve biodiversity of actual and potential value to preserve globally important habitats, genomes, and species as an extraordinary example in the high altitude of the Himalayas in Upper Mustang.

Indicators: Biodiversity conserved in a sustainable manner, along with the preservation of indigenous knowledge and cultural heritage, through enhanced local participation.

10. Project Outcomes:

Stabilization in quality and quantity of globally important biodiversity in Upper Mustang. Preservation and restoration of biological and cultural heritage by harnessing indigenous institutions and melding with participatory processes of management.

Replicable project features which can be used elsewhere in similar fragile environments. Establishment of long term mechanisms (conservation and tourism management plans) to protect the area in perpetuity.

Indicators: Community-based natural resource management plans are operational with respect to rangeland, forest, and other natural resource use and reflect biodiversity conservation objectives. Wildlife and habitat management plans are operational and reflect biodiversity conservation objectives. Indigenous institutions are active partners in conservation, as evidenced by collaborative planning and implementation of plans. Environmentally-sound livelihood strategies integrated with natural resource and wildlife management plans and local populace benefited. Historical and architectural monuments restored.

11. Project Activities to Achieve Outcomes:

Activities to assess the largely unknown biological resources of Upper Mustang and thus narrow the existing knowledge gap in biological diversity in fragile high altitude environments.

Activities to identify, support and build upon existing, valuable and functioning indigenous institutions for natural resource use, culture, religion, and local economies.

Activities to monitor and evaluate changes in biological diversity and socioeconomic and cultural conditions as they relate to this.

Activities to strengthen the management of an existing protected area by enhancing existing institutional capacity.

Indicators:

Measurable increases or stabilization in rare animal species counts and rare and medicinal plants.

Keystone species documented and periodic species status survey reports conducted, with dissemination of information to local and national stakeholders.

Community-based self-governing institutions (both indigenous and introduced) are well established with equitable livelihood benefits and the creation of common understanding and mutual trust regarding biological and cultural values among all stakeholders in the protected area.

Established program of combined training for members of conservation staff and local communities in participatory research.

Members of local communities trained in basic research to assist in biological inventorying.

Strengthening of conservation area staffing levels as well as of training in biodiversity monitoring and evaluation.

Information sharing to replicate project activities in other fragile, high altitude environments.

12. Costs and Financing (in US\$):

GEF:	Project:	727,500
Co-Financing:	UNDP:	130,000
	AHF:	750,000
	KMTNC:	320,000

ICIMOD	75,000
Total Project Cost:	2,002,500
Associated Financing:	
KMTNC:	190,000
Total Baseline Funding:	190,000
IA Fee:	146,000

13. Information on project proposer: This project is proposed by King Mahendra Trust for Nature and Conservation (KMTNC).

14. Information on project executing agency: The King Mahendra Trust for Nature and Conservation is an autonomous, non-governmental and nonprofit organization, established in 1982 in accordance with the King Mahendra Trust for Nature Conservation Act, 1982. In its capacity as a national NGO, the Trust has undertaken over 60 projects in the field of nature conservation, sustainable rural development, and biodiversity conservation during the last decade. The proposed project falls within the Annapurna Conservation Area Project, which was designed, and continues to be managed, by the Trust as a model conservation initiative to preserve natural resources by promoting local initiative and participatory management arrangements.

15. Date of Initial Submission of Project Concept: 22 March 1999

16. Project Identification Number: NEP/98/A02

17. Implementing Agency Contact Person:

Mr. Tim Boyle, Regional Coordinator, UNDP/RBAP/GEF

Tel: (212) 906-6511, Fax: (212) 906-5825

18. Project Linkage to Implementing Agency Program: To help address the root causes of poverty and environmental degradation, UNDP in Nepal focuses on four areas: decentralization and governance, women's empowerment, sustainable livelihoods and environmental and natural resource management. This project conforms to the Country Cooperation Framework of the Government and UNDP; and it is linked in particular to the environment and natural resources management focal area and, in general, to the other focal areas for UNDP assistance in Nepal.

ABBREVIATIONS USED IN THE TEXT

ACAP	Anapurna Conservation Area Project
ADO	Agricultural Development Officer
AHF	American Himalaya Foundation
CAMC	Conservation Area Management Committee
CRAC	Community Resource Action Committee
DDC	District Development Committee
DFO	District Forest Officer
DHO	District Health Officer
GIS	Geographic Information System
ICIMOD	International Centre for Integrated Mountain Development
IOF	Institute of Forestry
KMTNC	King Mahendra Trust for Nature Conservation
LDO	Local Development Officer
LMUCO	Lo Manthang Unit Conservation Office
MDSA	Mustang Development Service Association
MOFSC	Ministry of Forests and Soil Conservation
NRM	Natural Resource Management
PAR	Participatory Action Research
VDC	Village Development Committee
WWF	Worldwide Fund for Nature

1. Introduction

1.1 Nepal

Nepal is a small, landlocked country located in the Central Himalayan mountains of South Asia. The country is bordered by the Tibet Autonomous Region of China in the north and India to the south, east and west and has an area of approximately 147,000 square kilometers. Although a small country, Nepal's diverse topography comprises a vast range of altitudinal and climatic zones. Elevations range from 60 meters to 8,848 meters within a horizontal distance of only 150 kilometers. The climate of Nepal varies accordingly, from subtropical monsoon in the Terai to arctic tundra in the High Himalayas.

The mountains of the Central and Eastern Himalaya comprise one of the world's ten most important areas for biodiversity conservation. Because of its unique biogeographic location and diverse topography, Nepal ranks within the first quartile of global biodiversity importance. The variety of ecosystems, the rarity of these ecosystems globally, the number of endemic species, and the number of threatened and endangered species, all contribute to this ranking. The country has biological richness of both Indo-Malayan and Palaeoarctic realms, including endemic Himalayan flora and fauna. A total of 118 ecosystems have been identified, with 75 vegetation types and 35 forest types, about 6,500 species of flowering plants, over 1,500 species of fungi, 350 species of lichens, over 170 species of mammals, 844 species of birds, 180 species of fish, and at least 635 species of butterflies.¹

It is estimated that 54 percent (43 percent forests and 14 percent rangelands) of Nepal is covered with vegetation. Low and erratic precipitation, rough topography and poor drainage, and low temperatures characterize Nepal's rangelands. These special characteristics have resulted in the evolution of unique plant communities. Because they range from subtropical savannas to temperate grasslands and alpine meadows, as well as a cold arid steppe north of the Nepal-Himalayas, they feature high biodiversity values. About 131 endemic plant species exist in Nepal's high altitude rangelands. Of 41 key non-timber forest products, 14 species occur in alpine rangelands. Alpine rangelands also provide habitats for wildlife and forage for domestic animals. Endangered wildlife species predominantly occur in the alpine areas and the arid steppe. They include the snow leopard, Tibetan wolf, Tibetan argali, lynx, brown bear, Tibetan wild ass, and wild yak (status unclear). Some of these species are among the least known wild animals in the world and only little is known about their distribution, ecology and behavior.

1.2 Upper Mustang

Once a major trade route for salt and grain between Tibet and India, Mustang's position astride the Kali Gandaki river continues to provide easy access through the Himalaya for local communities. Almost all of the district lies above 2,500 m and is cold, high altitude steppe, caught in the rain shadow of the Dhaulagiri Himal to the west and the Annapurna massif to the east. Mustang is one of the most remote areas in Nepal, and is second in terms of scarcity of population. The entire district lies within the Annapurna Conservation Area, the largest protected area in Nepal. Development programs, tourism management, and conservation activities are supported by the King Mahendra Trust for Nature and Conservation (KMTNC).

Upper Mustang consists of the northern half of the Mustang district. Historically, the livelihood strategies of the people of Upper Mustang have consisted of a combination of animal husbandry,

agriculture and trade – a lifestyle similar to the nomadic and semi-nomadic pastoralists of the Tibetan frontier and the Central Asian plains. Today, income generated through tourism complements the traditional activities, although the number of households that benefit from tourism is very limited due to official restrictions on the volume and the type of tourism possible.

The people of Upper Mustang rely heavily on animal husbandry to supplement agricultural contributions to subsistence needs for the approximately 6,000 people, mainly Tibetan Buddhists, inhabiting the area. Although the status of and access to rangelands varies greatly within Upper Mustang, it is apparent that rangeland conditions have slowly deteriorated during the last two decades. Following the closure of the border with the Tibet Autonomous Region of China to livestock in 1988, the pressure on rotational grazing systems in Upper Mustang has been exacerbated.

Upper Mustang is an area where local indigenous institutions and cultural values are inseparable from the natural environment. The recent changes that have come about have important implications for the biodiversity of the area, and affect both the culture and the livelihood strategies of the local population. The weakening of indigenous institutions and the erosion of cultural values directly affect the area's biodiversity. In the case of medicinal plants especially, Upper Mustang is facing the loss of rare and endangered species that have been used medicinally for centuries by traditional Tibetan doctors. At present, demand for such medicines is growing, not declining. Traditional and religious institutions are increasingly in danger of losing importance, with monks opting to migrate to areas that can support monasteries and monastery schools. The restraints placed upon natural resource use by religious law have consequently started easing. The unique blend of religion, culture, and natural resource use patterns that was in equilibrium is now threatened.

Upper Mustang has the status of an extraordinary refuge for nature and culture, and is under consideration for nomination as a World Heritage Site on these two grounds. The rangelands of Upper Mustang provide habitats for numerous species of wildlife, many of which are endangered, and for a wealth of plant species (Annex III and IV). Many plants are of medicinal value and other yet unidentified species may provide important genetic material for future economic use. Mustang also provides an important corridor for migrating birds, the most important being the Demoiselle crane (*Anthropoides virgo*). Located at the junction of the wetter, western and the drier, eastern Himalayan mountains, Upper Mustang is also home to many endemic species of plants (e.g. *Poa mustangensis*, *Clematis bractolata*, *Saxifraga neopropagulifera*), although the exact numbers and species are currently not known.

Despite recent changes in socioeconomic and political environments, pastoralism remains the basic livelihood strategy of Upper Mustang. Herders exhibit extraordinary knowledge and animal husbandry skills in coping with one of the harshest areas of the Himalayas. Rangeland management and pastoral development specialists need to access this vast body of indigenous knowledge. The key to biodiversity conservation strategies in Upper Mustang lies in incorporating and building upon such knowledge and skills when designing a natural resource management plan.

Furthermore, the conservation of grassland and forest ecosystems and indigenous pastoral systems is integrally linked to the perpetuation of the people's culture and their religious practices. The ecosystems and, in particular, the high priority areas that the project seeks to conserve, are interconnected intimately with the livelihood systems of the local communities of Upper Mustang. Cultural, economic and ecological systems in the area have been closely linked in Upper Mustang for centuries. Changes in one of the systems affect the others in a cyclic manner. It is through their indigenous culture and traditional institutions, both lay and religious, that decisions concerning management of these natural resources are made. The social hierarchy in Mustang remains quite strong despite the recent changes. The Raja of Mustang, the Lamas, and the leaders of village-based organizations continue to be held in high regard and, as such, comprise some of the local level resources vital to successful community mobilization and biodiversity conservation.

1.3 GEF and National Priorities

The World Wildlife Fund (WWF) has stratified Global 200 terrestrial ecoregions by their conservation status, explicitly identifying those ecoregions that are considered critical, endangered, or vulnerable, and those that are relatively stable or intact. According to this WWF system, Upper Mustang is a critical and endangered ecosystem. Furthermore, a biodiversity assessment of the Himalayas commissioned by the WWF and UNDP in 1998 recommends Upper Mustang for biodiversity conservation.

Following the ratification of the Biodiversity Convention in 1992, the Government of Nepal implemented the National Biodiversity Action Plan Project with financial and technical support from the UNDP and the Global Environment Facility. In its current draft form, the plan recognizes the inadequate attention paid to grasslands in general and high mountain ecosystems in particular. The major issue for conservation in the rangelands of the Nepal Himalaya is the loss of biodiversity, in particular animals threatened with extinction and non-timber forest products and medicinal plants that are currently overexploited. This is usually a direct result of loss of habitat, brought about by human actions as well as natural causes. The National Biodiversity Action Plan proposes a major focus on high altitude rangelands because they "contain an exceptionally high number of endangered species". Therefore, they need "greater support to maintain existing biodiversity, rural livelihoods, and a viable economy". Furthermore, the plan recognizes the poor level of current understanding of many endangered wildlife species. The Plan specifically identifies Damodar Kunda of Upper Mustang as a sensitive ecological site, and proposes the generation of baseline information and the development of a management plan.

At present, a network of protected areas covers more than 16 percent of Nepal's land area. Vital for biodiversity conservation, the network represents most of the major ecosystems of Nepal, including 8 national parks, 4 wildlife reserves, 3 conservation areas, and 1 hunting reserve. Current major biodiversity conservation programs in the high altitude ecosystems include but are not limited to: Makalu Barun National Park and Conservation Area Project, the WWF Kanchenjunga Conservation Project, the Annapurna Conservation Area Project, and the Manaslu Ecotourism Project (Manaslu was declared a Conservation Area by His Majesty's Government of Nepal on November 30, 1998). Unfortunately, most protected areas suffer from insufficient staffing, which is further aggravated by vacancies and secondments. Furthermore, the lack of

operational management plans and severe shortage of relevant information hamper biodiversity conservation efforts.

UNDP has made selected efforts at mitigating this in Nepal, primarily through inputs in the GEF Biodiversity Conservation in Nepal Project (NEP/92/G31) implemented by the Department of Parks and Wildlife, The Mountain Institute and KMTNC and other NGOs. This has resulted in the preparation of the National Biodiversity Action Plan, and a broad spectrum of support to the Makalu-Barun National Park and Conservation Area. Further UNDP has implemented the Parks and People Project (NEP/94/001), focusing on enhancement of alternative livelihoods in buffer zones of the Terai national parks, and provided support to the Nepal Terai Research and Training Center.

In addition to the Nepal Biodiversity Action Plan, the objectives of the project are consistent with the Nepal National Conservation Strategy, the conservation of biodiversity as envisioned in the Master Plan for the Forestry Sector (1988) and, most importantly in the context of project execution, the activities of project is in accordance with Strategic Plan (1997 – 2002) of the KMTNC. Also, this project will tie into the UNDP-supported Himalayan Eco-regional Cooperation Project, an effort at coordination of biodiversity and natural resource management priorities in the six Himalayan countries. Mustang's proximity to Tibet and the forthcoming cross-border road will have implications for both projects.

2. Background and Context (Baseline Course of Action)

2.1 Threats

Anthropogenic pressures in Upper Mustang have been relatively low in the past. Until recently, human interactions with nature had not seriously threatened plant and wildlife resources. However, for the last ten years (access to pastures across the border has been restricted since 1988), pressure on the natural resources, especially the rangelands of Upper Mustang, has increased. Today, threats to biodiversity include:

- Changing patterns of animal husbandry by local pastoralists and nomads, leading to increase in conflicts between wildlife and livestock, greater grazing pressure on proximate rangelands, and decline in valuable endemic species. In the northern part of Upper Mustang, the threat to rangelands has been compounded by the closure of the border with the Tibet Autonomous Region of China.
- Over-exploitation of shrublands and the remaining forests which constitute less than 3 percent of the total area for fuel. While the provision of alternative energy sources has somewhat reduced the demand for wood and dry scrub for fuel, human pressures--especially related to tourism--contribute to the increased usage.
- Over-exploitation of native medicinal plant resources, several of which (including some considered to be most effective medicinally) are endangered or threatened. Global interest in alternative medicines--particularly, Tibetan and Ayurvedic medicine--has been partly responsible for the growing demand for scarce Himalayan plants.

- Inadequately planned activities, particularly commercial ventures that are expected, as a result of anticipated changes in tourism policy.

2.2 Root Causes

The underlying causes of the threats to the biodiversity of Upper Mustang are grouped into four main categories. The first category consists of **sociocultural and economic factors**. Poverty is widespread in Mustang, despite the economic potential of its rich natural and cultural heritage. Due to some outmigration, the local population of Upper Mustang is growing only slowly. Livestock numbers, however, appear to be on the rise—although not for all domestic species alike. While community interest and participation in development activities is high, current conservation-oriented activities are limited to tree planting, agricultural development, and the introduction of alternative technologies with no direct and immediate positive effects on the area's rangelands or biodiversity.

The second underlying cause is the **weakening of indigenous cultural and religious organizations and the authority of local institutions**. It is within these indigenous institutions that consensus is formed concerning socially equitable and environmentally sound uses of natural resources. The strong link between biodiversity conservation and culture has weakened partly due to the deterioration of local religious and cultural heritage.

The third underlying cause is the **lack of information on rangeland ecological processes** in the Himalayas in general, and Upper Mustang in particular. This information gap has hampered effective biodiversity conservation efforts and management of rangeland resources for livestock and wildlife alike. **Inadequate institutional capacity** further compounds the lack of information on wildlife and habitat requirements and the interaction between livestock and wildlife. Inadequate institutional capacity constrains additional activities in biodiversity conservation, tourism management, and cultural heritage restoration.

The fourth underlying cause is the **lack of a comprehensive and progressive biodiversity conservation strategy and conservation-oriented management plan** that is linked to ongoing socioeconomic developmental processes in Upper Mustang. Some developments, such as tourism, are occurring haphazardly and without an assessment of their environmental impacts.

Social and Economic Factors

Upper Mustang constitutes the northern part of the administrative district of Mustang. For the purpose of the proposed project, it is identical with the restricted area for which the Government of Nepal requires a trekking permit (currently US\$ 700 for ten days) for foreign tourists. The number of accepted trekking applications is approximately 1,000 per year. This number was exceeded for the first time in 1998, which indicates the continued interest of foreign nationals in visiting the area and the absence of a clear upper limit on total tourist volume. Tourists are required to carry sufficient kerosene for cooking purposes and stay, with only few exceptions, along the trails. Their direct environmental impact as regards fuel is therefore limited. However, their support staff (i.e. porters and guides), which numbers about twice that of tourist numbers, relies on the traditional fuels of firewood and dung, and the environmental impact is very direct.

Poverty and the lack of viable alternative income-generating opportunities is also contributing to biodiversity loss. Although trade remains an important economic activity and is directly linked to the annual migration during winter, the economy is predominantly based on livestock. While in some villages livestock numbers have gone up, in others they have drastically declined. This is not only due to historical, climatic and economic factors but correlates, in some villages, closely with the lack of interest in herding by younger men. Although the pattern is not uniform, it is clear that the closure of the border with the Tibet Autonomous Region of China increased pressures on the remaining rangelands, resulting in degradation that has affected livestock and wildlife populations. Certain livestock numbers, especially yak, have been greatly diminished because of a lack of adequate available range. This has resulted in a loss of traditional fuel supplies and has put a greater strain on other remaining sources. Remaining high and concentrated populations, in turn, have indirectly led to an increase in the depredation rates of snow leopards on livestock, a major concern for local villagers.

Some conservation and development activities were begun in Upper Mustang, mostly after 1992, by CARE, Anapurna Conservation Area Project (ACAP), and the government. However, the level of support has been minimal in terms of development assistance, owing partly to the remoteness and difficulty of access as well as the harsh climatic conditions of the area. Most civil servants leave the area during the winter, which largely follows the age-old seasonal migration pattern of about half the area's population.

Currently, villagers have little incentive to support biodiversity conservation measures, because of the lack of realistic economic alternatives and because, sometimes, wild animals pose a serious threat to valuable domestic animals. A greater degree of awareness and involvement of the local communities is necessary; the focal points of entry are the existing indigenous local institutions of natural resource management, religious leadership, the royal house of Mustang, and so on.

Existing Institutional Capacity for the Management of Upper Mustang

The capacity of the existing institutions, such as LMUCO with about 30 personnel, is primarily in development-oriented activities and there is little or no training in biodiversity management, wildlife conservation and monitoring. Staff turnover is high, with most people staying on average only for a period of about two years. The physical hardship involved, and the fact that most staff members are from outside the area and not of Tibetan origin, makes adaptation difficult. Their approaches to participatory natural resources management are of necessity copied from other areas of the Annapurna Conservation Area which differ greatly in ecological, economic, sociocultural and institutional characteristics. The need to understand local resource use patterns, evolve a new approach to conservation, and to train local community members to augment existing conservation efforts is thus quite apparent. The institutional arrangement should reach out to and mobilize the existing potentials of local institutions as well.

Current efforts do not address the implications of ecosystemic changes in this watershed area nor does institutional capacity exist at present to address related biodiversity concerns. Biological and socioeconomic surveys were carried out in 1994. Part of the exercise was to investigate priority areas for biodiversity conservation. The surveys of fauna and flora, as well as accounts from the local population, provide some insights into the local situation, but are inadequate as a

basis for designing biodiversity conservation activities. Data are not properly geo-referenced, and critical or high priority areas are insufficiently identified. There is a serious lack of knowledge about the state of the protected area. This is a serious impediment to effective conservation, and needs to be addressed in the initial stages of the project.

2.3 Baseline Activities

The most active entity in development and conservation in the area is the **Lo Manthang Unit Conservation Office (LMUCO)** of the **Annapurna Conservation Area Project** of KMTNC. Funding is provided by the Government (Ministry of Tourism and Civil Aviation) and the American Himalayan Foundation. Since its establishment in 1992, the LMUCO has implemented core programs with a focus on nature and cultural heritage conservation and sustainable tourist management. Baseline programs are offered in natural resources, conservation education and extension, community development, women's development, tourism development, alternative energy, agriculture development, health service support, cultural heritage, soil and water conservation and soil and riverbank stabilization.

The Natural Resource Management Project executed by **CARE Nepal** consisted of development inputs mainly in irrigation improvement, agroforestry, installation of drinking water systems, and local institutional development. This project was completed in December of 1998.

The **Mustang Development Service Association (MDSA)** has been operating in the southern part of Mustang District for some years. This NGO engages primarily in agriculture-related developmental activities but has interests in provision of primary health, education, and energy.

Several of the ongoing programs form an essential part of the baseline of the Upper Mustang Biodiversity Conservation Program as they assist in addressing some of the underlying causes of threats to biodiversity. However, the current programs focus exclusively on local and national benefits and are insufficient to address the global biodiversity values of the upper Mustang area. The link between community-oriented development activities and biodiversity conservation goals needs be strengthened by providing improved and alternative income generating opportunities that would decrease the dependence on those high priority areas containing significant global values and those habitats frequented by endangered and threatened wildlife.

A most important community-oriented activity requiring support is the protection and restoration of the unique existing culture and monuments. Although not a direct income-generating activity, support for monumental and cultural heritage activities will protect the major income-generating asset that the area contains: features of substantial touristic value. More importantly, as initial cultural heritage activities undertaken in 1968 demonstrated, communities are being revitalized as some residents select traditional in preference to migration or the existing alternative income-generating activities. In other words, in the case of this unique project, traditional cultural pursuits should be considered as belonging to the category of alternative economic activities and should be welcomed for their potentially less resource dependent effect on the environment.

3. Rationale and Objective (Alternative Course of Action)

Current activities in Upper Mustang are almost exclusively directed towards developmental goals. These comprise a major portion of the baseline activities in the area. The project will

build upon the ongoing initiatives and, importantly, on the recent learning experiences of KMTNC, CARE and the government of Nepal in Upper Mustang. It is designed to **improve the conservation and management activities in Upper Mustang, in order to preserve an extraordinary example of the high altitude biodiversity of the Himalayas.** This project will lead the way to continued ecological, socioeconomic, cultural, spiritual and aesthetic benefits to the local population, Nepal as a nation, and the global community. While the available data are insufficient for an in-depth analysis of the extent of threats to biodiversity and degradation of Upper Mustang's natural ecosystems and managed grazing areas, it is clear that without carefully designed interventions that involve the local community, the pressure on biological resources will increase to a point where irreversible damage may become widespread and detrimental to the survival of species of global significance.

While the biodiversity of the protected area of Upper Mustang has immense and widespread direct, option, and existence values, the management of the area suffers from severe constraints, including weak capacities, paucity of data, and poor facilities. It is in particular the first two constraints that have until today prevented the design of conservation strategies and a management plan as well as a tourism management plan, which once integrated would address the requirements for nature conservation and economic development in the local communities. The deterioration of historical religious monuments and with it the weakening of the authority of religious leaders are slowly dissolving the historically strong link between Buddhist philosophy and values, cultural belief systems and a respect for nature.

Substantial resources are required to address these constraints. The need to harmoniously integrate sustainable development and biodiversity conservation has been recognized by the Government of Nepal as well as the KMTNC, which has practiced this approach since 1986 in other parts of the Annapurna Conservation Area. This need is particularly pronounced by the fact that the economy of the local communities is almost entirely based on the use of natural resources (which now includes the area's scenery, and attracts an increasing number of visitors from abroad). While the Government of Nepal and the KMTNC support biodiversity conservation and integrated rural development in the protected area, their resources are too scant to address the concerns of the global community and conserve those species and ecosystems of global significance.

3.1 Objectives

The principal objective of the project is to conserve biodiversity of actual and potential value and to preserve globally important habitats and species of Upper Mustang. Through the adoption of an ecosystem approach to conserving biodiversity, the specific activities supported under the project will meet the following objectives:

- **Objective 1:** To build institutional capacity for effective protected area management and biodiversity conservation specific to Upper Mustang, directed primarily to biological and technical expertise, but also covering organizational development, information collection and processing, planning and monitoring, budgeting and finance management; support capacity development of different stakeholders such as local institutions, local authorities and project management; support development of sustainable institutional bases related to tourism

management and the long-term utilization of tourism and other revenues for conservation-related work.

- Objective 2: To develop through research and data collection a base of essential information of biodiversity in Upper Mustang with baseline biological indicators; establish a geo-referenced database; formulate a comprehensive Upper Mustang Biodiversity Conservation Strategy, which includes a Conservation Management Plan and a Tourism Management Plan, with consideration to sociocultural, institutional, economic and environmental processes and the carrying capacity of the ecosystem (linking natural and human systems); identify and prioritize areas for continual monitoring and evaluation.
- Objective 3: To undertake "demonstration" initiatives through local partnerships, for example, on afforestation, improved pasture management, establishment of hay meadows, rehabilitation of degraded rangelands and predator protection methods, including improved corrals and herd management techniques. compensate for potential grazing restrictions in high priority biodiversity conservation areas.
- Objective 4: To conserve, restore, and protect ancient religious monuments of the Upper Mustang; strengthen indigenous institutions for the preservation of local cultural and religious heritage, forming an important entry point to mobilize the local communities of Upper Mustang for biodiversity conservation.

The overall goal of the project is to conserve the globally-significant biodiversity of Upper Mustang. This will be achieved through the participatory design of a conservation strategy, land use and management plans. These plans will demarcate priority areas for biodiversity conservation, land use types and management zones within Upper Mustang to meet integrated conservation and management goals. These will include zones where all human activities will be prohibited or strictly managed (high priority areas for keystone species); multiple use zones for sustainable harvesting of fuelwood and grazing, zones for community-based intensive management, including human settlements and agriculture; and areas for tourism activities as well as other economic activities that do not negatively impact areas of high biodiversity. Furthermore, the plans will outline the carrying capacity for livestock as well as tourists, guide future developments and indicate monitoring, evaluation and financial resource needs in order to sustain biodiversity conservation beyond the lifetime of the project.

Building on current activities in the area, the project provides an alternative to the baseline situation of inadequate information and human resources by making considerable investments in capacity building. Investments in basic infrastructure, while necessary to strengthen essential activities, will be minimal. The most essential activities include the monitoring and evaluation of the status of habitat and wildlife, and levels and impact of pastoral activities and tourism. This is a priority in the initial stages of the project, and serves as a basis for developing strategies, plans and specific interventions. It focuses in particular on the current status and distribution of endangered wildlife, migration patterns, limiting factors, population trends and habitat requirements, as well as the interaction between wildlife and livestock. It is important to assess to what extent a multiple-use approach is viable. Research is further required on approaches to pasture management and the establishment of hay meadows in the high intensive use areas. The

project builds on and expands the preliminary and limited inventories of Upper Mustang's flora and fauna conducted in 1994 to establish a geo-referenced database of functional biodiversity.

The conservation approach to be deployed for this project recognizes that people and indigenous institutions do matter and that their participation in the management of protected areas is necessary to sustain conservation activities. Appreciating that the alienation of local communities is never a viable option, the project will confer and work closely with community members and institutions during research, planning and implementation; address their needs in management strategies; and seek close interactions to build wherever possible on indigenous knowledge and the inherent strengths of enduring local institutions.

The conservation and management strategy will study the linkage of human and natural ecologies. A direct response to locally expressed needs will be activities in the area of pasture development and innovative strategies for securing more benefits locally from tourism. Natural resource conservation activities (in particular tree planting) will expand and strengthen the communities' capacity to fulfill their fuelwood and timber needs as well as the requirements for additional fuel for tourists and their support staff, where other alternative energy sources prove to be impractical. These activities will be complemented by heritage conservation activities to strengthen the weakening link between religious belief systems, cultural values and natural resource conservation and management.

4. Project Components, Activities and Expected Results

The four objectives of the project are inter-related and build upon each other. The project is designed in response to this interconnectedness. The objectives will be addressed through a series of linked components comprised of several activities. The strategies and main activities planned are outlined below:

4.1 Components and Activities for Objective 1:

Project Component 1 - Capacity Building and Monitoring: A major constraint facing biodiversity conservation in Upper Mustang is inadequate institutional capacity, primarily the shortage of staff well-trained in biodiversity conservation science, and a shortage of trained and motivated local people dependent on natural resources for their livelihood. Moreover, the government anticipates a major handover of resources of the Annapurna Conservation Area to the Conservation Area Management Committees (CAMCs) in as little as two years. While the existing professional capacity of the staff will need to be upgraded, major attention will have to be focused on the potential for local participants to handle these new major responsibilities. While much of the formal institution building in preparation for this turnover is already being carried out through other ACAP programs, there is significant capacity-building yet to be carried out in the area of individual skills development. The project anticipates handling much of this capacity building through projects in the other components, which will themselves have a strong "learning through doing" focus integrated into their design, utilizing a participatory approach. These would involve local participants in participatory activities in research, planning and monitoring and acquisition of technical skills for biodiversity conservation. In addition, the project will produce a database for the purposes of monitoring and reporting its activities and provide biological indicators for impact assessment, and set up a system for the on-going observation of these indicators. The component is expected to cost US\$ 202,500 [GEF US\$

92,500 and US\$ 110,000 from co-financing] over the project period and in particular in the first two to three years. Activities will include:

- strengthen capacity through recruitment and training of staff to be able to work with participatory methods in research, planning and monitoring and acquisition of technical skills for biodiversity conservation, tourism management, pasture management and other related issues;
- design of the database (including monitoring and impact assessment indicators), planning and monitoring, budgeting and finance management, and implementation methods to have direct impact on biodiversity conservation;
- 4 months training in wildlife/protected area management and related fields, such as mapping, for staff members (three persons annually to occur in the winter);
- on-site practical training for rangers, forestry specialists, game scouts, and craftsmen in conservation;
- in-country training for staff and local participants in cultural (including architectural) conservation and planning;
- procurement of limited computer equipment for additional data handling;
- procurement of field equipment that is specific to baseline information collection and monitoring activities.

4.2 Components and Activities for Objective 2:

- **Project Component 2 - Baseline Inventory for Action Planning:** Certain limited targeted inventories are essential for the development of relevant biodiversity conservation, tourism management and heritage conservation plans. The project will concentrate on essential data gathering to enable the projects to be properly implemented. Some research will be based on limited earlier surveys, reports and academic theses in the area. Much of the data for the project will be gathered through participatory methods as part of project planning, implementation and monitoring activities. In this way information will be gathered in close collaboration with the local people. While indigenous knowledge is utilized, participants will also be trained to improve the gathering and utilization of data for their own activities as well as for a centralized database. All of these can provide a reference for monitoring the success of the project in biodiversity conservation, the reduction of negative impacts of tourism on the environment and the effects of changing livelihood strategies, ICIMOD will contribute the services of a GIS specialist one month per year to help the project in data management. The activities are expected to cost US\$ 300,000 [GEF US\$ 155,000 and US\$ 145,000 from co-financing] over the project period. They will include:
 - review & finalize methodologies, and train project staff and community mobilizers in rapid assessment and related information gathering procedures
 - establish criteria for ranking the biodiversity and socio-economic importance of designated areas within Upper Mustang
 - gather existing background information and identify key data-gaps (reports, maps, etc.)
 - conduct field surveys, inventories and reconnaissance of the status, range and distribution of the endangered species, identification of limiting factors, habitat requirements and seasonal movements, identification and distribution of key native plant species including medicinal plants and other commercially valuable species;

- impact assessment of fuel use (biomass and dung) by local people and tourist support staff;
- structural and measured surveys, including institutional assessments and budgets, for the consolidation, protection and restoration of major religious monuments and selected small monuments of the area as part of the baseline costs,
- Collate data, rank and characterize priority areas for project interventions
- Prepare and distribute a resource status, threat and conservation needs report
- Establish a project-based database for Upper Mustang
- Encourage other institutions to conduct surveys and research to fill data-gaps beyond the purview of this project.

Project Component 3 - Establishment of Community Based Natural Resource Management and Seed Grants:

A community resource strategy cannot be developed in a vacuum. Public involvement and participation in the project cycle and beyond are important for sustainability of conservation efforts. Indigenous community-level institutions continue to provide durable solutions for day-to-day problems by drawing upon traditional relationships and mutual understanding. ACAP has also helped establish CAMCs at the Village Development Committee (VDC) level. These institutions have been legally empowered to take over the sustained responsibility for managing natural resources once the handover has been completed. Together, these institutions provide a basis for managing sustainable biodiversity conservation as well as implementation of the Upper Mustang Biodiversity Conservation Management Plan. The capacity of these institutions has to be increased to deal with problems that were not part of traditional life. The stress of diminished resources, of a higher population, of changes in grazing and weather patterns and of the arrival of foreigners as tourists to a once isolated area all require changes in the existing order if they are to be coped with. The project will work with the local participants on a demonstration basis to help them to identify key issues of resource management, and solve them through new and existing social mechanisms. The Community Based Natural Resource Management Component is the logical outgrowth of the baseline inventory and the characterization of priority areas, and will be implemented in four units: Community Resource Strategy Development, Demarcation and Management of Critical Biodiversity Sites, Establishment of a Conservation Area Management Plan and People-Wildlife Conflict Alleviation. In overview, the project will provide a series of small seed grants which will be prioritized through consultations of the Community Resource Action Committee or a similar institution. Receiving a seed grant will require compliance with the following requirements:

- only biodiversity conservation projects are funded,
- they require a workplan, which forms a contract with the community,
- they require a reciprocal contribution of cash or kind,
- the recipients have to agree to long-term maintenance,
- funding is withdrawn if compliance and improvements are not demonstrated within the agreed upon period.

Such subprojects require that participants carry out initial research, justification, planning and monitoring and implementation of their project within agreed upon time limits. A fixed ceiling per participant household will be set on project contribution to any given subproject. The project provides financial, planning and technical support as well as monitoring of the seed grant

activities. Such activities could include activities in reforestation, soil and riverbank stabilization, land stabilization, corral improvements etc. Special consideration is given to subprojects in wildlife "hotspots" which are defined by reported incidents or through survey data. Projects given this special consideration will be particularly those which solve human /wildlife conflicts within wildlife protection objectives. It is intended that these activities will be translated into direct measures for the protection of keystone species and high priority habitats and provide local participants with models and experience in solving biodiversity problems in satisfactory ways in a sustainable fashion. Close consultation with all stakeholders will be essential during all phases of these subprojects to ensure that biodiversity protection is maintained.

The activities are expected to cost US\$ 410,000 [US\$ 245,000 from GEF, US \$50,000 from UNDP and US\$ 115,000 from co-financing] over the project period.

They will include:

Unit 1. Community-based Natural Resource Management Strategy

- Finalize criteria and modalities for involving local communities and institutions in natural resource management and biodiversity conservation, especially in concert with the CAMCs.
- Following baseline information gathering, conduct a series of working meetings and workshops (involving local leaders, resource experts and staff) to identify a set of indicative NRM/Biodiversity conservation interventions (i.e. demonstration projects) along with qualifying and implementation procedures and criteria

Identify and prioritize candidate sites and communities for pilot or demonstration phase (using objectively-based criteria)

- Negotiate contractual agreements and work-plans with communities; provide funding and technical expertise; implement pilot projects.
- Conduct awareness-raising and community out-reach activities (including educating and training communities/leaders on preparation and submittal of grant applications to support community based NRM grants/criteria)

Refine project grant criteria and implementation procedures to conform with Annapurna Conservation Area operational procedures upon "hand-over" to the local communities.

Unit 2. Demarcation and Management of Critical Biodiversity Sites

- Consolidate existing information on key biodiversity sites (plants, animals, habitats and ecosystems) of Upper Mustang and prepare an initial map indicating known or suspected biodiversity hotspots
- Define methods for validating existing information and undertaking field surveys
- Conduct field surveys at biologically appropriate times of year
- Revise biodiversity site maps as necessary
- Document and distribute information about the current status, threats and conservation needs for rare wildlife, plants and biodiversity in Upper Mustang
- Using accepted conservation biology protocol, identify those areas vital to the maintenance of globally threatened species (including specific management requirements for ecosystems and habitats necessary to sustain viable populations of these plants and animals). Emphasize need and importance of involving experts in this step.

- Conduct focused meetings with local communities and strategic resource users to develop and negotiate management protocols and plans for each of the designated species and/or sites
- Sign management agreements and provide necessary technical inputs for implementing management prescriptions
- Monitor and evaluate effectiveness of interventions using biologically valid indicators
- Extend lessons learned to other areas in Upper Mustang through community awareness raising and public outreach

Unit 3. Conservation Area Management Plan

- Organize Management Plan Development Team (ensure multi-disciplinarity, should include at least 1-3 local representatives and personnel from all levels of management/Annapurna Conservation Area activities)
- Gather additional background information required and validate data gathered as part of Component 2. Make sure critical biodiversity, cultural and tourist sites etc. are accurately and completely factored in.
- Hold public meetings at the local level to obtain relevant input and ensure all key issues have been identified
- Assess the environmental, economic, and administrative constraints and opportunities, integrating this within both the national and regional context
- Refine the Conservation Area's primary objectives and preliminary management zones (include input from local knowledgeable persons) necessary for cultural and biodiversity conservation and increased economic sustainability
- Ground-truth and validate the proposed management zones/boundaries and modify if needed and if feasible
- Prepare a Draft Management Plan and Strategy, including details of the "hand-over process and the on-going community-based NRM role, sustainable financing, etc.
- Hold public meetings to solicit feedback on the plan, and modify as appropriate.
- Prepare the final draft management plan for government review and approval
- Revise, prepare and distribute the Operational Management Plan
- Begin implementation of management plan activities not covered under other components of GEF
- Secure additional resources and funding for long-term expansion or implementation of critical elements to other parts of Upper Mustang

Unit 4. People-Wildlife Conflict Alleviation

- Undertake focused field surveys of communities reporting livestock and crop depredations, and document loss patterns
- Identify root causes and map depredation "hotspots"
- Identify and prioritize control measures with emphasis upon low-cost community-based remedial interventions
- Seek support and consensus in Upper Mustang for preferred control measures in people-wildlife issues
- Undertake pilot projects in depredation "hotspots" meeting specified criteria

- Evaluate effectiveness of actions through systematic monitoring involving local people
 - Provide small grants to expand activities to other areas
- Sponsor a Consultation in Pokhara to discuss People-Wildlife Conflict Alleviation strategies in Nepal

Project Component 4 - A Tourism Management Plan: One of the important tasks of the project is to focus on sustainable tourism management, addressing issues such as tourist carrying capacity as a function of styles of visitation, local generation of income, mitigation of environmental impacts of tourism-related activities, and the generation and recapture of revenue for sustaining necessary management activities beyond the lifetime of the project. While a tourism management plan will form an important part of the Upper Mustang Biodiversity Conservation Strategy, it is also important for the project to work with CAMCs and other local institutions to focus on these issues to regulate tourism without sacrificing biodiversity conservation. By concentrating on strengthening the ability of these institutions to establish controls on tourism development, it is felt the project can contribute to the improvement of peoples lives without sacrificing the local environment. Such activities will build on the tourism management and planning components of ACAP and will be conducted in collaboration with the private sector and local representatives to make awareness raising an integral part of this component. This project will negotiate with government to develop an agreement for revenue sharing of tourist fees. Benchmarks will be prepared between government and the project, agreeing to the incremental growth of revenue sharing as locale institutions are strengthened. The activities are expected to cost US\$ 75,000 [GEF US\$ 60,000 and US\$ 15,000 from co-financing] over the project period. They will include:

- to work with local institutions such as the CAMCs to assess of the carrying capacity as a function of styles of tourist travel in Upper Mustang, with proactive recommendations and establish guidelines and procedures for the sustainable management of tourism;
- assessment of environmental impact from tourism initiatives, including the identification of additional sites for communal and private fuelwood plantations and other potential energy sources to offset trek staff's consumption of wood and shrubs;
- identification of activities to increase the quality of tourism and tourists' access to information about the culture and environment;
- assessment of the requirement for communal and private lodging facilities, if necessary, including recommendations for rehabilitation and upgrading of traditional homesteads to provide accommodations for trekkers;
- participatory preparation of a tourism strategy to be incorporated with the Upper Mustang Biodiversity Conservation Strategy, including zoning of land for tourist areas in Upper Mustang with CAMCs, local government and other local institutions;
- work with government to design of a more equitable revenue sharing system, establishing benchmarks for increases in revenue sharing according to the policy of the Government of Nepal, the needs for economic development in the local communities, and the needs for sustaining biodiversity conservation on a long-term basis. Work with local institutions such the CAMCs to establish procedures for planning and expending these additional funds.

4.3 Components and Activities for Objective 3:

Project Component 3 - Establishment of Community Based Natural Resource Management

Project component 3 described under Objective 2 above is also a major activity of Objective 3 (demonstration initiatives through local partnerships).

Project Component 5 - Sustainable Rangeland Management: A variety of factors have led to changes in livestock production patterns in Upper Mustang. The closure of the Tibetan border has restricted access to winter rangeland thereby resulting in almost complete elimination of yak herds; tourism has fostered increased numbers of mules used as pack animals, and changing climate has resulted in reduced rangeland productivity across the region. Little is known about the impacts these changes have had on rangeland biodiversity. Restricting pastoralists from biodiversity high priority areas will further exacerbate the problem. Biodiversity serves as the primary indicator of sustainable rangeland management in a subsistence context. Without diversity on the range, humans cannot survive in such harsh conditions as exists in the Tibetan Plateau. Given this, the project does not need to seek means to remove livestock husbandry as a viable livelihood in order to preserve biodiversity, but we do need to find out whether the current systems of rangeland management pose a threat to biodiversity. The project will provide support for research on sustainability of current land-use systems and for pursuing options for integrated forage management incorporating both scientific and indigenous systems of management that meet the optimal needs and desires of the households and do not disrupt the integrity of the ecosystem. This approach adopts Participatory Action Research as the framework for assessment, planning and implementation utilizing Participatory Rural Appraisal, local monitoring of wildlife and participant-led research. Once the system is defined, demonstration projects mutually identified by stakeholders will be implemented for improved pasture management or other interventions, establishment of hay meadows and improved grazing management. As purely demonstration projects, the activities are designed to eventually trigger more extensive efforts by locals outside of the demonstration areas and will enable communities to participate closely in learning from these demonstrations over the life of the project. The Sustainable Range Management Component will consist of four major units: capacity building, action research, consensus building and social mobilization, and technical and/or social interventions on a demonstration scale. Extensive training will be given to project staff to enable them to successfully work within a Participatory Action Research framework. ICIMOD will contribute the services of a rangeland management expert for two months per year. The activities are expected to cost US\$ 255,000 [GEF US\$135,000, UNDP US\$50,000 and US\$ 70,000 from co-financing] over the project period. They could include:

Unit 1. Capacity Building in PAR methodologies

- train staff and local participants in PAR Methodology and Rangeland/Vegetation Assessment Tools

Unit 2. Action Research

- define and diagnose how resources are currently being managed and the environmental and socio-economic factors that dictate their use.

Unit 3. Consensus building and social mobilization

- organize community meetings to discuss outcomes of PAR and to define vision for future action.

- use diagnosis results to help local participants define their user groups.

Unit 4. Technical and/or social interventions (could include):

- formation of herders or grazing groups, building on traditional organizations to provide access to inputs and to assure access rights.
improvement of fodder and forage resources on land with irrigation potential as well as dryland areas (emphasis on winter forage);
- experimentation with improved grazing management;
- improved techniques for snow melt water collection;
- evaluation of incentive structure (e.g. credit schemes) and regulations for pastoralists interested to invest in rangeland development (current interest is widespread in the area);
- seed banking;
improvement of herding techniques directed toward protection of herds from predation by snow leopards, e.g. corral improvement and improvement of guard dogs.

4.4 Component and Activities for Objective 4:

Project Component 6 - Conservation of Traditional Culture and Religious Monuments:

Traditional religious and lay institutions have maintained both the culture and environment of Upper Mustang for centuries. The present decline of these institutions (due to out-migration and other reasons previously identified) has occurred alongside the physical deterioration of unique historical and religiously important historic structures, and has led to a corresponding decline in attention to the environment and sustainable use of natural resources. The tree plantations that traditionally belong to each monastery, and the religious strictures against killing wildlife, are two examples of such institutions. This component is designed, throughout Upper Mustang, to build upon the very promising success in revitalizing the community of Lo Manthang through the type of monument conservation activities that KMTNC began implementing during the summer of 1998. This component is part of the ongoing conservation activity in the area and forms a critical link to tourism management. The GEF support requested for this project will not fund this component. The activities are expected to cost US\$ 690,000 [US\$ 690,000 from co-financing] over the project period. They will include:

- structural and measured surveys, including institutional assessments and budgets, for consolidation, protection, and restoration of the major religious monuments and selected small monuments of the area.
- mobilization of religious and cultural institutions in support of cultural conservation, linked to biodiversity improvement in Upper Mustang;
- repair and conservation program for the historically and religiously important site of Lo Gekar, including cleaning and consolidation of the wall paintings;
- preparation of a conservation plan for the village of Tsarang and for restoration of the landmark Chorten at the entrance to the village, and a study of the Palace for tourism development potential, and repairs to the monastery;
conservation and consolidation work at historically and religiously important sites such as Gompa Ghang, and provision of technical advice and supervision for the current building activities of Ghemi Gompa;

- conservation and consolidation of the wall paintings of various small monasteries and cave temples such as those at Chhoser and Luri; and
- renovation of the many walls and significant chortens at the entrances to villages located on main trails.
- preparation of a conservation master plan for the historically, culturally, and architecturally important town of Lo Manthang.

4.5 Expected Results

The implementation of the project components and activities outlined above is expected to:

- stabilize quality and quantity of globally important biodiversity in Upper Mustang and conserve high priority areas for wildlife and flora of the protected area's natural rangeland and shrubland through the implementation of biodiversity conservation and tourism management plans;
 - provide a better understanding of Upper Mustang's resources, the interactions between livestock and wildlife, impacts of tourism, and mitigative measures to minimize those negative impacts;
 - build institutional capacity in Upper Mustang to sustain biodiversity conservation and cultural heritage activities beyond the lifetime of the project;
 - strengthen the link between biodiversity conservation, religion, and culture through cultural heritage restoration works which harness traditional institutions;
 - make tangible contributions towards enhancement of livelihoods in Upper Mustang through participatory initiatives that are environmentally sound and responsive to locally-expressed needs.
- establish long term institutional mechanisms to protect the area in perpetuity, including long-term financial resources for the conservation and management of natural resources;
- procure or recapture tourism revenues, as much as practicable, for use in sustaining natural resource and cultural heritage conservation activities, in order to preserve strong tourist interest, a key economic asset of this area.

In addition, the Upper Mustang Biodiversity Conservation Project would become a model project for natural resource conservation in other high mountain areas of the Himalayas with similar environmental and socioeconomic conditions. The project expects to generate insights regarding tourism management, biodiversity conservation, improved pasture management, and social organization and revitalization of communities through cultural activities, having applications far beyond Upper Mustang. While monitoring and evaluation activities are proposed specifically for this project, some of the research methodologies and research results of Component 2 will be useful for other areas.

Local and national level benefits particularly accrue through development-oriented activities. However, all of the components and activities of the alternative course of action as presented above have direct and in most cases immediate links to biodiversity, so that a clear distinction between development and conservation is not possible. No component, if implemented as a freestanding project, would reach the globally important goal of conserving biodiversity. But, when taken together, these components form an optimal and holistic approach for setting the

right conditions for biodiversity conservation and cultural heritage conservation and for sustaining efforts in the future.

At the global level, the outcomes of the project would contribute to several chapters of the Agenda 21. By contributing to the conservation and sustainable use of biodiversity important to agriculture, the project is also in accordance with decisions III/5 and III/11 of the Third Meeting of the Conference of the Parties to the Convention on Biological Diversity. The success of the project would furthermore contribute to efforts of combating semi-desertification of high alpine and steppe rangelands and strengthen the role of local communities in environmental conservation and management activities. Finally, research results and experiences gained will be replicable in other parts of the region and be made available on a regular basis and upon request.

5. System Boundary

The system boundary for the Upper Mustang Biodiversity Conservation Project is identical to the restricted area of Mustang district. The whole area forms the northernmost part of the Annapurna Conservation Area. The ecosystems and in particular the high priority areas that the project seeks to conserve are interconnected with the livelihood, cultural and institutional systems of the local communities of upper Mustang. By exploring viable pasture management alternatives and local income-generating opportunities in tourism, the project aims to reduce the pressure on high priority areas and improve the biodiversity of global significance. Cultural, economic and ecological systems in the area have been closely linked in upper Mustang for centuries. For historical reasons cultural, political and socioeconomic developments in this part of Mustang differ from the rest of the district. Changes in one of the systems affect the others through a feedback process. The project aims at impacting the complex feedback loop through a mix of community-based activities in natural resource and cultural heritage conservation to reduce the pressure on biodiversity while improving the quality of life of the local communities. The recent development of tourism within the systems boundary of the project will directly contribute towards this end by generating direct incomes as well as sufficient funds to sustain the conservation-oriented activities within the area.

6. Risks and Sustainability

Capacity building is a crucial component of the project. It is designed to develop human resources for the effective management of the protected area of Upper Mustang and particularly for biodiversity conservation and the long-term monitoring of changes. Therefore, capacity building must start in the first year of the project. To increase the effectiveness of the project and the long-term sustainability of biodiversity conservation, the capacities of local institutions and communities will also be enhanced.

The demarcation of high priority areas is problematic for areas that are frequently used for livestock grazing. It will therefore be necessary to work in partnership with existing local village-based community organizations, organize grazing user groups as required and collaborate closely with these and local Conservation Area Management Committees in the demarcation process. This will support to foster joint efforts in the demonstration projects on biodiversity conservation, herd management and improved pasture management. Indeed, all activities have to be planned and implemented in close collaboration with local stakeholders so that the objectives can be realistically achieved within the time frame of the project. As research and the collection of

baseline data are very important components of the project it will be crucial to involve experienced researchers in the design and the implementation of the activities. This will be achieved by collaborating closely with relevant technically sound research organizations, for example, with a rangeland management expert from ICIMOD.

On-going social and economic processes, such as decline in cultural values and tourism development, potentially poses negative environmental impacts to the protected area, and need to be minimized. It will be possible to sustain the biodiversity of Upper Mustang without compromising the livelihood systems of the local people only if tourism management issues are included in the conservation and management plans. The compromising of livelihoods will be mitigated partly through increasing investments in alternate energy sources and intensified efforts in private and communal small-scale plantation development, until fuelwood demand matches supplies. The KMTNC/ACAP has extensive experience in both areas, and will continue these activities even under the baseline scenario. Furthermore, income generated through tourism is necessary to offset the potential decline of incomes from pastoralism. It is therefore crucial to spread direct income generation in the communities as equitably as feasible.

Carefully managed tourism can work to foster protection of biodiversity in upper Mustang. The tourism management plan will incorporate a mechanism whereby funds generated through the sale of trekking permits are channeled back to the area for long-term development and conservation activities. The current revenue through the sale of permits far exceeds the financial resources needed for conservation. That amount is not expected to decline in the future, which offers realistic opportunities for financing biodiversity conservation in the long-term. Institutional sustenance can be planned with the use of these revenues.

A Memorandum of Understanding is being sought with the Government of Nepal to the effect that once a mutually satisfactory local institution is identified, a rebate of at least 50%, but up to 80% of the fees collected from tourists entering Upper Mustang will be allocated from the Central Treasury to that organization for activities supporting biodiversity conservation and sustainable tourism. If necessary the agreement will mandate a series of benchmarks, increasing the rebate level as institutional capacity increases as indicated through a series of confidence building measures carried out through the project demonstrating that institutions ability to plan projects and handle funds. The benchmark increases should arrive at the agreed upon maximum within the life of the project. This will improve the sustainability of the project results.

The extensive and proven experiences of the KMTNC and UNDP, in particular with the GEF-funded Biodiversity Conservation in Nepal Project (NEP/92/G31), will be utilized to ensure success of this project.

7. Stakeholder Participation and Implementation Arrangements

7.1 Stakeholder Involvement

The development of the Upper Mustang Biodiversity Conservation Project was undertaken in a participatory manner. In November of 1998, the following national stakeholders (many with specific local interest in upper Mustang) participated in a UNDP-hosted meeting designed to build a consensus on the project components and activities, and/or they were otherwise drawn

into direct discussion and review of the project, including vetting and review of drafts of this Project Brief:

- Joint Secretary, and the Chief of the Planning Division of the Ministry of Forests and Soil Conservation;
- Under-Secretary, Ministry of Tourism and Civil Aviation;
- Chief Ecologist for the Department of National Parks and Wildlife Conservation;
- Director General of the Department of Archaeology, and Chief Archaeologist, Mountain Regions;
- Regional Planner, and the Pasture and Rangelands Expert, ICIMOD;
- Representative and Under Secretary of National Planning Commission Secretariat;
- Project Coordinator, Nepal Biodiversity Action Plan;
- Director, Sanday Kentro Associates, restoration architectural firm;
- Project Coordinator, CARE Nepal;
- Representative of the International Center for Integrated Mountain Development (ICIMOD);
- Representative of IUCN;
- Representative of WWF;
- Representatives of the KMTNC;
- Representatives of the AHF;
- Assistant Resident Representative of UNDP in Nepal.

Those participating stakeholders who are either beneficiaries or who maintain field positions within the area were consulted in the field over the course of three field trips. Various options were discussed concerning types and modalities of the development and conservation work to be done in the area. It is notable that these stakeholders supported this project's objectives and proposed activities without objection:

- Director, and the Mountain Regions Director, of ACAP;
- Chief, Lo Manthang Unit Conservation Office (LMUCO) of ACAP;
- Mustang District Development Committee Chairman;
- Village Development Committee Chairs and Vice-Chairs from the VDCs of upper Mustang;
- The Raja and Prince of Upper Mustang;
- The Venerable Khempo of Mustang, the area's religious leader;
- Numerous villagers, traders and government civil servants posted in the area.

In addition, those people and organizations familiar with conservation-related issues and with local experience were consulted, including program staff of the World Conservation Union (IUCN) and World Wildlife Fund-Nepal. Secondary data were derived from the limited studies conducted in upper Mustang, and complemented with interviews with key informants.

Field visits were organized, on three different occasions, with the participation of both high ranking Government, AHF, KMTNC and UNDP officials, to generate field-level information and for consultations with local stakeholders. Primary importance has been given to consultations with local authorities, indigenous cultural and religious institutions, traditional

village-based organizations, and different community-based management committees and women organizations (such as the Aama Tolis). These local organizations constitute an important point of contact, consultation, and participation at community levels. These effective local participatory groups will be further engaged to assure maximum participation in the project activities.

The dissemination of information is important at three main levels. First, information will be exchanged through the project and local institutions within and among communities, which include schools and religious authorities. Second, information will be made available to the stakeholders at the district and national levels. Third, as some of the approaches (e.g. the demonstration project for pasture development, and cultural heritage conservation work) have model character and are of interest to a wider community, information will be circulated to relevant institutions and upon request to interested parties. This will ensure that experiences will be available from the local, through the national, to the global level.

7.2 Institutional Framework and Project Implementation

The project will be executed by the King Mahendra Trust for Nature and Conservation (KMTNC), an NGO, which has been given the mandate by the Government, through an Act, to support and manage conservation and development initiatives in the Upper Mustang area. KMTNC will execute this project following the NGO Execution Guidelines of the UNDP. The National Project Manager will be appointed by the KMTNC, in consultation with UNDP and the American Himalayan Foundation and with the approval of the national coordinating authorities, as per the NGO Execution Guidelines. The Project Manager will assume primary responsibility for all aspects of the execution of the project. An AHF Associate selected in consultation with KMTNC and UNDP will be appointed to act as an Associate Manager as well as to implement AHF activities. The standard UNDP policies and procedures governing the management of inputs for project implementation apply.

Technical Committee

A small Project Technical Committee will be formed under the Chairpersonship of an appropriate technical specialist knowledgeable in biodiversity in the Himalayan context. The Technical Committee will be comprised of a Representative each from KMTNC, AHF, ICIMOD and UNDP. The Government will be represented by the Planning Chief of the Ministry of Forest and Soil Conservation and an individual selected by the Ministry of Tourism. Three Representatives will also be selected from amongst institutions such as WWF, IUCN or the IOF. The Project Manager will be Secretary of the Technical Committee. The Technical Committee will be selected specifically for their expertise and interest in high mountain biodiversity and conservation issues, or for their knowledge of areas of direct interest to the project such as ecotourism.

The primary function of the Technical Committee will be to provide technical guidance to the project and act as a sounding board for project ideas. All of us are new to working in such fragile ecozones, and it is felt that such occasional additional inputs would be useful, particularly before new interventions are tried out. It is felt such a consultation pool would improve the chances of successful project implementation and avoid costly mistakes. Similarly, such a group

would enable the project management to advertise its successes and pass on good programs to other projects in Nepal. It is also felt that the Technical Committee could also provide guidance to the Tripartite Review making technically based management decisions. For this purpose, a member of the Technical Committee could be selected as a technical resource person at the request of the Tripartite Review to help guide them in making technical decisions. The normal functions of a steering committee, namely management review and support will not be provided by the Technical Committee. In this project, management review will be conducted only through the Tripartite Review Committee at the national level, and the Community Resource Action Committee in Upper Mustang. The Technical Committee will be a strictly advisory voluntary body. It will meet once every six months.

A sustainable institution that caters to the specific needs of Upper Mustang is important. KMTNC will establish a Project Office within the LMUCO facility in Upper Mustang under the leadership of the Project Manager. Project implementation will consider the significant experiences gained by the KMTNC and UNDP in promoting community-based sustainable approaches to conservation of biodiversity resources. Initiatives will be undertaken, particularly during the second phase, to develop the LMUCO into a sustainable institution that continues to provide technical assistance for biodiversity conservation.

Project activities will be guided through local consultations and ownership. As specified in the Conservation Area Management Regulations 2053, the Project Office will utilize the Conservation Area Management Committees as the entry point for local participation in conservation. The CAMCs will serve as an on-going forum for discussion on issues pertinent to project activities. A Community Resource Action Committee will be constituted as a local steering committee to ensure that the project retain a strong local focus and ensure the participation of local people even in review of project management and implementation. The DDC and VDCs will be regularly informed and every attempt will be made to keep them involved in project activities.

Community Resource Action Committee

The *Community Resource Action Committee* (CRAC) is only a suggested name for a committee to act as the local project steering group. Such committees are meant to be responsible for local policy guidance and providing a sense of project ownership to local participants, giving them representation in project decisions. The Committee would also have a role in the selection or prioritization of small interventions implemented under the project's seed grant program. It is hoped that this committee, or one like it, can be strengthened to enable it to administer funds provided by HMG in tourism rebates or other funding mechanisms.

The committee forms the formal liaison between the project and the community, thus it must involve all of the project's major. Although the CAMCs are now the institutional focal point of the ACAP program, at present, they have not been federated. The current LMUCO has to work separately with each CAMC and coordination has been a challenge. The present project envisions a committee which maintains the CAMC as its central focus, but effectively federates it for the purposes of participating in project activities. The coordinated CAMCs then join other stakeholders in the decision-making process on an equal footing.

The Community Resource Action Committee will include a Chairperson of the one of the seven CAMCs of upper Mustang elected by all of the CAMC Chairpersons. He will act as the CRAC Chairperson. The Secretary of the body will be elected from amongst the Secretaries of the CAMCs. The Project Manager will attend CRAC meetings on behalf of the project, and can ask other project staff to attend as resource persons to make presentations to the group. The Project Manager will also play the role of facilitator to the group, working with the Chairman and the Secretary to ensure that the CRAC meetings are held and are well-attended. The LDO will represent local government on the committee, and selected district line agency officers (such as the ADO, DFO, DHO etc.) may be also asked to attend as observers or to act as resource persons for the LDO. The DDC Chairman will also be a member of the committee to ensure the participation of local government at the district level. The CAMCs and the VDCs are already linked, as the VDC Chairmen are ex-officio members of the CAMC according to the Conservation Act. Thus lower-level local government is automatically included as well. The Raja of Upper Mustang is also included as the honorary Chairperson of the group, in respect for his traditional position, as is the Venerable Khempo. A representative of the Aama Toli or similar local women's organization will also be included in the group. The CRAC will meet every three months with no meeting held during the winter period. Any member may be represented by another individual assigned to serve in his stead. A meeting may not require the attendance of all members, but can be held if a quorum is reached.

The Project Manager will help ensure that all local stakeholders are represented in the meetings of these committees. Consultative meetings will be facilitated by the Project Office and documentation on decisions will be maintained. It is important that both the Project Management and the Technical Committee base their decisions and actions on information derived from the consultations so that local potentials and knowledge are fully utilized.

7.3 Main Agencies Involved in the Project

KMTNC: To address the environmental and socioeconomic problems in biologically and culturally rich areas, the KMTNC, after receiving a mandate from the government through the King Mahendra Trust for Nature Conservation Act, launched the Annapurna Conservation Area Project (ACAP) in 1986. The KMTNC executes ACAP as a project. Since 1992, ACAP has been operating in upper Mustang through its regional branch, the LMUCO. Awareness raising, education, and extension are at the heart of its programs, and women's and mothers' groups are integral to the design and implementation of their activities. However, most of LMUCO's activities in upper Mustang are development-oriented, capacity for biodiversity conservation activities is currently weak, there is a lack of long-term management plans, a lack of baseline data on which to base decisions, a poor documentation system, and diminished financial capacity. These weaknesses do not detract from KMTNC's achievements in Upper Mustang. It is currently the only service provider to local communities on a significant scale, it has credibility and rapport with local communities, and is aware of its shortcomings in biodiversity conservation. These particular weaknesses are addressed through the proposed project's activities.

AHF: The American Himalayan Foundation recently established a Regional Office in Nepal to oversee their Himalayan projects, and has had extensive experience in nature conservation and cultural heritage preservation. A non-profit organization that is based in the USA, AHF for the past 15 years has concentrated its assistance on the high Himalayan belt, and for several years has been supporting KMTNC/ACAP directly in its baseline efforts in upper Mustang. Presently, through KMTNC, AHF is supporting the consolidation and restoration of the Lo Manthang's Thubchen monastery assembly hall, arguably Nepal's architecturally and historically most important high mountain monument. This restoration work will continue for at least two additional years, and is expected to mesh efficiently with the GEF-supported Upper Mustang Biodiversity Conservation project. AHF is committed to long term support for and involvement in Upper Mustang through the KMTNC, and its support is part of the baseline cost.

UNDP-Nepal (GEF Implementing Agency): The primary goal of UNDP is to relieve some of the many causes of poverty through integrated sustainable human development projects and programs. To be more responsive to national priorities and the needs of Nepal and its people, UNDP-assisted programs work directly with elements of civil society, the private sector, and all levels of local and national governments to bring about self-reliant development that is pro-poor, pro-employment, pro-nature and pro-women. To help address the root causes of poverty and environmental degradation, UNDP-Nepal focuses and will provide financial support to project activities in four areas:

- decentralizing governance for participatory development;
- enabling women's access to services and resources;
- generating employment and sustainable livelihoods; and
- managing the environment and natural resources.

Other Agencies: The International Center for Integrated Mountain Development (ICIMOD), a multilateral clearinghouse for projects and information specifically for the Hindu Kush Himalayan range, has shown serious interest in the project. Their agreement has been obtained in providing a range management specialist to conduct surveys on the condition of rangelands and to undertake participatory research and program development involving the human-livestock-wildlife interface. Their advice and views will be sought on a variety of technical matters, including georeferencing biodiversity data, high mountain farming systems, gender issues and alternative livelihood strategies.

It is further expected that the Cultural Heritage Preservation component of this project will be very attractive for international agencies working in ancient monument restoration and related fields, e.g., the World Monuments Fund, UNESCO, and other public and private agencies and donors.

7.4 Implementation Schedule

The harsh climatic and physical conditions of Upper Mustang creates difficulties in maintaining the same pace of work throughout the year. During four to five months in the winter, significant migration of the local population to lower areas of Mustang and other adjoining districts take place. Laborers, village leaders, some ACAP staff and many villagers will be unavailable, or work at rates greatly compromised by the conditions; some activities simply cannot be executed at temperatures that reach well below freezing. To accommodate for the extremely harsh winter

conditions and the corresponding seasonal out-migration of local residents and development workers, virtually all project activities will be curtailed during the winter months, such that the project will be implemented on a "suspended" time schedule of seven months annually, with the exception of certain staff and participant training and reporting activities which can be undertaken outside the project area during this period. Other exceptions to this schedule can be made by the Project management if required from time to time.

A two-phased project approach is proposed with the first phase consisting of the preparatory activities for developing the conservation and tourism management plans, the design of the plans itself, pasture management activities, capacity building of protected area staff as well as community members. During the second phase, capacity building is continued and plans are implemented. Components 3 and 6 will commence during the first phase and continue during the second. The first phase will last three years and the second two years. A strict division between the phases is not envisioned and annual reporting on progress may determine that plan implementation can commence earlier than outlined above. The first phase, however, will not last longer than three years.

The project is unique in that it is the first attempt to link directly biodiversity and cultural heritage conservation with economic and tourism management. The complexity of the project and the inter-relatedness of the components requires a yearly review by an outside expert to ensure that the components are being suitably implemented in an integrated fashion and a thorough review of the activities at the end of the first phase. The expert will report to the Tripartite Review. Further, work plans will be reviewed on an annual basis by the Tripartite Review and the technical committee.

8. Incremental Costs and Project Financing

The GEF contribution is intended to build on the baseline activities of the ACAP in Upper Mustang. It will not substitute or duplicate any of ACAP's ongoing project activities. Thus, the alternative strategy comprises the baseline plus additional sustainable development and conservation oriented interventions as proposed under the Upper Mustang Biodiversity Conservation Project.

KMTNC's baseline financing includes only part of the annual budget allocations to KMTNC from the Government of Nepal (via MOFSC) that are attributable to project-related conservation activities, plus ongoing direct financial assistance from AHF that also relates to baseline activities of this project (see Table 8.1 and Annex I).

As far as national conservation and development goals are concerned, the achievements of the ACAP/LMUCO are commendable considering the limited capacity of the Government of Nepal and the KMTNC to raise funds and make human resources available for such a remote area with difficult access. However, from a global perspective, the root causes of present threats to many endangered and threatened species in Upper Mustang persist or are on the increase. It will only be possible to minimize threats and to turn potential opportunities into realistic options through a concerted effort to pool financial and human resources and greatly build capacity at both protected area management and community levels. Without this effort, the short-term success will not be sustainable and threats to globally significant biodiversity will remain.

Currently, the threats to the biodiversity of Upper Mustang have not reached a critical level and, thus, appear manageable. This is mainly due to the early isolation of Mustang, access restrictions to Upper Mustang and the unrestricted access to alternative grazing lands across the border with the Tibet Autonomous Region of China. Recent developments have changed the accessibility structure for the region, which, in turn, has disrupted the delicate equilibrium and increased pressures on biodiversity. It is far more cost-effective to address the growing problems now, with comprehensive conservation and management plans, than to address environmental degradation and biodiversity loss at a later stage through rehabilitative efforts.

8.1 Component Financing:

Component	GEF (US\$)	Other sources (US\$)	Project total (US\$)
Capacity Building	92,500	110,000	202,500
Baseline Inventory for Action Planning	155,000	145,000	300,000
Establishment of Community Based Natural Resource Management	245,000	165,000	410,000
Tourism Management Plan	60,000	15,000	75,000
Sustainable Rangeland Management	135,000	120,000	255,000
Cultural heritage conservation	0	690,000	690,000
Evaluation	40,000	30,000	70,000
Total	727,500	1,275,000	2,002,500

(See Annex 1. for detailed financing breakdown)

9. Monitoring, Evaluation, Reporting and Dissemination

Monitoring and impact assessment will be done according to UNDP requirements and the major initiatives will be as follows:

Baseline data on the project area will be organized in accordance with the indicators to be developed to measure outputs and impact. The data will be updated on an annual basis to review progress being made.

- In accordance with NGO Execution Guidelines, the project will prepare and update annual and quarterly workplans and quarterly financial reports for UNDP, on the basis of which funds will be disbursed.

- The Executing Agent and, in particular, the Project Management will ensure regular monitoring of progress, using detailed indicators for field level monitoring covering both quantitative and qualitative information, and provide project reports to the UNDP.
- Quarterly and annual review of progress made will be done with the participation of the stakeholders and taking into account feedback from the Community Resource Action Committee..
- Annual Tripartite Review Meetings, with the involvement of major partners, will be organized.
- Given the uniqueness of the project and UNDP's responsibility as GEF Implementing Agency, UNDP/Nepal will engage the services of an expert to review the implementation of the project in Upper Mustang on a yearly basis, to be funded by the project and by UNDP's other resources.
- The project will be subject to independent evaluation, as per GEF guidelines. UNDP will organize this evaluation for the end of the second year of project implementation. The evaluation will review progress against specified goals, and advise on continuation of funding, contingent on these goals having been met.
- A final evaluation will be undertaken three months prior to the expected completion date. The evaluation team will have a similar composition to the mid-project evaluation team.
- Technical review meetings will also be organized as required.

The Project Management, KMTNC, and UNDP will ensure effective documentation of all processes undertaken, lessons learnt and successful initiatives. Information on successful experiences will be disseminated through networking arrangements and by using different communication tools to the communities in Upper Mustang to strengthen their support and ownership of the project initiatives. Information on successful experiences will be disseminated to other similar areas in Nepal as well as to the general public and donors.

Annex I Costs and the Incremental Cost Matrix

The total project cost of the alternative strategy for the Upper Mustang Biodiversity Conservation Project is US\$ 2,192,500. Baseline expenditures are US\$ 190,000, while incremental costs are US\$ 2,002,500. Financing of baseline expenditures is mainly by the government through KMTNC. Co-financing of incremental activities will be US\$ 130,000 committed by UNDP, US\$ 750,000 committed by AHF, US\$ 320,000 by KMTNC and 75,000 committed by ICIMOD. Financing of incremental costs of US\$ 727,500 is requested from GEF.

Baseline expenditures include the support for relevant components of the LMUCO that directly relate to this project. In particular, these include activities under

- natural resource conservation;
- sustainable tourism development;
women in conservation and development;
- conservation education and extension programs; and
heritage conservation programs.

A complete breakdown of the financing structure is provided below.

Annex 1 continued: Costs and Incremental Costs Matrix.

	Baseline	Alternative	Increment (A-B)
Domestic benefits/costs	<ul style="list-style-type: none"> ➤ Unsustainable use of natural resources leading to rangeland deterioration ➤ Overuse of shrublands for fuel by local people and tourist support staff ➤ Current development and conservation programs address conservation issues insufficiently ➤ Limited options for local income generation ➤ Limited knowledge about viable pasture management options ➤ Cultural heritage deteriorating 	<ul style="list-style-type: none"> ➤ Rangeland management improved through the forming of grazing user groups ➤ Additional fuelwood plantations established and the use of alternative energy promoted ➤ Conservation management and tourism plans regulate the use of locally important natural resources ➤ Provision of a wider range of economic options, particularly in tourism ➤ Improved pasture management options are available ➤ Cultural heritage conserved 	<ul style="list-style-type: none"> ➤ Raised the standard of living through increased productivity of rangelands ➤ Direct and indirect use of shrubland resources conserved and agricultural productivity raised through an increased use of organic fertilizers ➤ Environmentally sound eco-tourism with minimized impacts on the natural environment ➤ Raised standard of living of people from wider range of income-generating activities ➤ Raised livestock productivity ➤ Link between cultural heritage and natural resource conservation strengthened
Global environmental benefits/costs	<ul style="list-style-type: none"> ➤ Loss of wildlife through increasing pressures on natural resources ➤ Unsustainable extraction of medicinal plants and non-timber forest products ➤ Low conservation awareness among local people ➤ Inadequate capacity to plan interventions and to implement biodiversity conservation activities ➤ Insufficient scientific knowledge as a base for effective management. 	<ul style="list-style-type: none"> ➤ Improvements in habitat and species protection collaboration with local people ➤ Improved protection of non-timber forest products, medicinal plants and endemic species ➤ Improved awareness among local people of biodiversity conservation needs ➤ Considerable investments in capacity building for protected area management staff and local people ➤ Continual monitoring and evaluation as a basis for biodiversity management activities 	<ul style="list-style-type: none"> ➤ Reduction of pressures on wildlife habitats and of risks to endangered and threatened species of global significance ➤ Sustainable use of plant species reduces risks of their extinction ➤ Improved conservation awareness leading to reduced threats to biodiversity values in Upper Mustang ➤ Increased capacity leads to more effective biodiversity conservation and monitoring of change ➤ Research results improve understanding of Upper Mustang's biodiversity and assist in conservation plan development to protect globally significant biodiversity

GEFSEC Project Tracking System

Response Due Date: 04/29/99

Correspondence Description

Addressed to: <u>Mr. Kenneth King</u>	Correspondence Date: 04/20/99
Date Received: 04/21/99	Organization: UNDP
From: Rafael Asenjo	

<i>Assigned To: M. Ramos</i>

<i>Status: Closed</i>

Type: Memorandum
Topic: MSProj: Nepal: Upper Mustang Biodiversity Conservation Project (Letter of Endorsement)

Action Instructions

- ☐ For Bilateral meeting
- ☒ For information only. No action needed.
- ☐ Please handle/respond on behalf of Mr. Kenneth King and provide a copy.
- ☐ Please handle/respond on behalf of Mr. Mohamed El-Ashry and provide a copy.
- ☐ Please prepare a draft response and return to Program Coordinator
- ☐ Please reply directly and provide a copy.
- ☐ Please review and/or technical comments

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<i>Projects File Room Location:</i>
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