United Nations Development

Project title: Snow Leopard and Ecosystem Protection Program		
Country: Pakistan	**Implementing Partners:** Snow Leopard Foundation	**Management Arrangements:** NGO Implementation
UNDAF/Country Program Outcome (2018-2022): Outcome 6 - the resilience of vulnerable populations is increased by addressing and mitigating naturally and human-induced disasters, including climate change mitigation and adaptation measures, and sustainable management of natural resources.		
UNDP Strategic Plan Output: • Output 1.4.1: Solutions scaled up for sustainable management of natural resources, including sustainable commodities and green and inclusive value chains; • Output 3.4.1: Innovative nature-based and gender-responsive solutions developed, financed and applied for sustainable recovery.		
UNDP Social and Environmental Screening Category: Moderate Risk	**UNDP Gender Marker:** 2	
Atlas Project ID/Award ID number: 00088620	**Atlas Output ID/Project ID number:** 00095191	
UNDP-GEF PIMS ID number: 5716	**GEF ID number:** 9231	
Planned start date: July 1, 2018	**Planned end date:** June 30, 2023	
LPAC date: October 3, 2017		

Brief project description: The high range Himalayan ecosystem in Pakistan is of critical importance for the biodiversity and ecosystems of global significance that harbors and forms an important life-support system for a large number of remote agro-pastoral and other communities that depend on it. It provides a number of essential ecosystem services – a source of freshwater, maintains hydrological functions, reduces erosion and sedimentation downstream, provides food security and maintains land races of food crops grown in much of northern Pakistan. Hundreds of millions of people depend on these ecosystems for water for hydropower and agriculture, forage for livestock and food for themselves, mineral resources, medicinal and aromatic plants and their products, cultural traditions and spiritual values, and inspiration that draws increasing number of people from around the globe to experience these places. This region is also the center of the globally endangered snow leopard (*Uncia uncia*) range that extends from the mountain of Central and Southern Asia across twelve range countries. Despite the immense biological, socio-cultural and hydrological values of the Himalayan ecosystems, these natural ecosystems are under severe threat from high dependence of local communities on natural resources, pressures from economic development, selective removal of medicinal and aromatic plants, and the emerging threat of illegal wildlife trade and wildlife crime. To address these threats, the project will adopt a landscape approach to conservation and management by ensuring that key biodiversity areas, buffer zones, corridors and areas outside traditional protected areas that are critically important for conservation of endangered snow leopard and associated species and habitats are managed in tandem with the sustainable use of these resources and improvements in livelihoods of local communities living in this region.

The project's incremental value lies in promoting the sustainable management of alpine pastures and forests in the high range Himalayan ecosystems to secure conservation of globally significant wildlife, including endangered snow leopard and their habitats. And at the sametime ensure sustainable livelihoods and socio-economic benefits for the community in the three high altitude landscapes in the Himalayan region (that consists of alpine pastures, sub-alpine forests and critical watersheds). This will be achieved through the four inter-related components of the project, these are: 1) Landscape level approach for snow leopard conservation; 2) Protected Area expansion and strengthening; 3) Participatory conservation in snow leopard model

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landscapes through sustainable community development; and 4) Support for international cooperation and conservation and management actions informed by knowledge, awareness and monitoring and evaluation. These actions are aimed at conserving the snow leopards, wild prey and associated species and habitats contained within these landscapes through measures such as maintaining their ecosystem values and ameliorating climate change impacts, enhancing surveillance, monitoring and inter-provincial and trans-boundary cooperation to reduce wildlife crime and related threats, and improving knowledge and communications.	
FINANCING PLAN	
GEF Trust Fund	USD 4,644,521
UNDP TRAC resources	USD 0
Cash co-financing to be administered by UNDP	USD 0
(1) Total Budget administered by UNDP	**USD 4,644,521**
PARALLEL CO-FINANCING (*all other co-financing that is not cash co-financing administered by UNDP)*	
UNDP	USD 0
Government	USD 13,860,000
Non-Government	USD 1,270,000
(2) Total co-financing	**USD 15,130,000**
(3) Grand-Total Project Financing (1)+(2)	**USD 19,774,521**

SIGNATURES

Name: Khizer Hayat Khan Signature: _____	Agreed by: Ministry of Climate Change, Government of Pakistan	Date/Month/Year: _____
Name: Dr. Ali Muhammad Nawaz Signature: _____	Agreed by Implementing Partner : Snow Leopard Foundation	Date/Month/Year: 17/7/2018
Name: Ignacio Artaza Zuriarrain Signature: _____	Agreed by UNDP	Date/Month/Year: 17/7/2018

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Abbreviations

AJK	Azad Jammu and Kashmir
AKDN	Aga Khan Development Network
AKRSP	Aga Khan Rural Support Program
APO	Annual Plan of Operation
BWCDO	Baltistan Wildlife Conservation and Development Organization
CBO	Community Based Organizations
CDR	Call Details Record
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CSO	Civil Society Organization
CKNP	Central Karakoram National Park
CMCA	Community Managed Conservation Area
CMS	Convention on Migratory Species of Wild Animals
DCC	District Conservation Committee
DNP	Deosai National Park
ETI	Economic Transformation Initiative
ESU	Evolutionarily Significant Units
Ev-K2-CNR	Everest–K2-National Research Council
FSP	Full Sized Project
GB	Gilgit-Baltistan
GEF	Global Environment Facility
GEFSEC	Global Environment Facility Secretariat
GLOF	Glacial Lake Outburst Flood
GRM	Grievance Redressal Mechanism
GSLEP	Global Snow Leopard and Ecosystem Protection
HCVF	High Conservation Value Forest
HWC	Human Wildlife Conflict
HWF	Himalayan Wildlife Foundation
IG	Inspector General
IFAD	International Fund for Agricultural Development
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for the Conservation of Nature
IWT	Illegal Wildlife Trade
KP	Khyber Pakhtunkhwa
LPIT	Landscape Planning and Implementation team
MACF	Mountain Areas Conservancy Fund
MACP	Mountain Area Conservation Project
METT	Management Effectiveness Tracking Tool
MMP	Mountain and Markets Project
MOCC	Ministry of Climate Change
MOU	Memorandum of Understanding
MSP	Medium Sized Project
NE	Nationally Executed
NGO	Non-government organization
NPD	national project director

NPM	national project manager
NTFP	Non-timber forest products
PA	Protected Area
PAP	Project Affected Persons
PCC	Provincial Coordination Committee
PIF	Project Identification Form
PIR	GEF Project Implementation Report
POPP	Program and Operations Policies and Procedures
PPG	Project Preparation Grant
PSC	Project Steering Committee
PSL	Project Snow Leopard
RPM	Regional Program Manager
RPP	REDD+ Readiness Preparation Program
SDG	Sustainable Development Goal
SESP	Social and Environment Screening Procedures
SFM	Sustainable Forest Management
SLF	Snow Leopard Foundation
SLM	Sustainable Land Management
SRU	Sustainable Resource Use
STAP	GEF Scientific Technical Advisory Panel
ToP	Terms of Partnership
UNDP CO	UNDP Country Office
UNDP-GEF	UNDP Global Environmental Finance Unit
USAID	United States Agency for International Development
VCC	Valley Conservation Committee
VCP	Valley Conservation Plan
WCS	Wildlife Conservation Society

II. DEVELOPMENT CHALLENGE

1. The high range Himalayan ecosystem in Pakistan is of critical importance for the biodiversity and ecosystems of global significance that harbors and forms an important life-support system for a large number of remote and agro-pastoral communities that depend on it. It provides essential ecosystem services – a source of freshwater, maintains hydrological functions, reduces erosion and sedimentation downstream, provides food security and maintains land races of food crops grown in much of northern Pakistan. Hundreds of millions of people depend on these ecosystems for water for hydropower and agriculture, forage for livestock and food for themselves, mineral resources, medicinal and aromatic plants and their products, cultural traditions and spiritual values, and inspiration that draws increasing number of people from around the globe to experience these places. Overall the country's northern mountains provide water to half of the nation and 70% of summer flow into the Indus River watershed. Rangelands occupy over 22% of Pakistan's mountainous areas and provide critical grazing areas for wild and domestic ungulates. In Northern Pakistan, approximately 60-80% of the population is engaged in subsistence agriculture and an estimated livestock population of 4.56 million is dependent on alpine pastures[1] alongside wild prey species. Despite the immense biological, socio-cultural and hydrological values of the Himalayan ecosystems, these natural ecosystems are under severe threat from high dependence of local communities on natural resources, pressures from economic development, selective removal of medicinal and aromatic plants, and the emerging threat of illegal wildlife trade and wildlife crime.

2. Spread across the Hindu Kush, Karakoram, Pamir and Western Himalayan mountain ranges, Northern Pakistan [Gilgit-Baltistan (GB), Khyber Pakhtunkhwa (KP), and Azad Jammu and Kashmir (AJK) administrative units] represents a mosaic of pluralistic diversity – a composite of myriad human cultures and linguistic diversity including a number of tribal communities – and their relative seclusion and remoteness that has made them the last bastions of globally significant indigenous knowledge and cultural heterogeneity. Around nine million people belonging to different ethnic groups, including one of the world's oldest known civilizations in the Kelash valleys, reside in this region. Likewise, the high altitudinal variations and associated climate regimes in the region have given rise to corresponding numerous unique ecosystems and biological communities of global significance.

3. These mountain complexes provide connectivity for high altitude fauna, acting as a bridge for the biota of Afghanistan, China, and India. The region supports 113 mammal species against Pakistan's total of 174 species.[2] It supports 525 species of birds, which represents 80% of the avifauna of the country.[3] Of the 177 fish species reported from Pakistan, 90 (51%) occur in the Himalayas. Fifty species of reptiles and 15 of amphibians have been recorded from the region, representing 33% of Pakistan's herpetofauna.[4] Similarly, 90 fish species (51%) have been reported from the Himalayas out of the 177 native freshwater fish species in Pakistan, of which 29 are endemic to the country. The Northern Pakistan region includes elements of four phytogeographic regions (Sino Himalayan, Indian, Euro-Siberian and Mediterranean), and almost 80% of Pakistan's endemic flowering plants are confined to these mountains. The Kashmir Himalayas in particular, is identified as a global center of plant diversity and endemism. Khunjerab National Park in Karakorum is considered a high-altitude biodiversity hotspot.[5]

4. This region is also the center of the globally endangered snow leopard (*Panthera uncia*) range that extends from the mountain of Central and Southern Asia across twelve range countries. The snow leopard is listed under Appendix I (i.e. species threatened with extinction) of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). It is also listed under Appendix I of the Convention on Migratory Species

[1] IUCN 2003. Northern Area Strategy for Sustainable Development
[2] Roberts, T.J., 1997, Mammals of Pakistan, Oxford Press, Karachi.
[3] Roberts, T.J., 1991/1992, Birds of Pakistan (2 Volumes). Oxford Press, Karachi
[4] Akbar, G. and M. Anwar (Eds.) (2011). Wildlife of Western Himalayan Region of Pakistan (Northern Mountains) ISBN: 978-969-8283-67-4.
[5] WWF (2009) Khunjerab National Park: A Spectacular habitat on top of the world.
http://wwf.panda.org/about_our_earth/teacher_resources/best_place_species/current_top_10/khunjerab_national_park.cfm

of Wild Animals (CMS), and was later elevated to 'requiring Concerted Action' in 2002 (Resolution 7.1). It is also listed as Endangered in the International Union for the Conservation of Nature (IUCN) red list. The snow leopard occupies the high mountains of twelve countries extending from the Hindu Kush in eastern Afghanistan and the Syr Darya through the mountains of Pamir, Tian Shan, Karakorum, Kashmir, Kunlun, and the Himalaya to southern Siberia, as well as the Russian Altai, Sayan and Tannu Ola Mountains covering a total area of around 1.7 million km^2. The global snow leopard population is estimated to be between 3,900 and 6,400 individuals. Snow leopards generally occur between elevations of 2,500–4,500 m, but are also found at lower elevations (900–1,500 m). Home ranges vary from 12-39 km^2 in productive habitats, to over 500 km^2 in areas of low prey density. The total habitat of the snow leopard in Pakistan is around 80,000km.^{2} spread over 5 mountain ranges, the Hindu Kush and Hindu Raj in Khyber Pakhtunkhwa (KP) and the Pamir, Karakoram in Gilgit-Baltistan (GB) and Azad, Jammu and Kashmir (AJK)[6]. These ranges form an important link between the Central Asian and East Asian populations of snow leopards, and serves as a vital corridor for the genetic interchange between these populations. Although no precise population estimate is available for the country, the current population assessment is around 200 individuals[7].

5. With its wide distribution, precarious conservation status and immense aesthetic appeal, the snow leopard is considered the flagship species of the high altitudes and an indicator species for Asia's high mountain ecosystems. In recognition of the irreplaceable value of the snow leopard in natural and cultural heritage and an indicator of the health and sustainability of high mountain ecosystems, the twelve snow leopard nations adopted the Bishkek Declaration in 2013 to pledge to ensure that snow leopards and the people who live among them thrive in healthy ecosystems that contribute to the prosperity and well-being of the countries and the planet. The Declaration recognized the need to intensify conservation efforts in the large landscapes required for snow leopard survival by identifying and designating critical habitats of key snow leopard, maintaining their integrity and connectivity through natural corridors, and strengthening their protection on the ground, enhancing the role of local communities in snow leopard conservation efforts by adopting and implementing policies that favor the involvement of such communities as stewards of biodiversity and take firm action to stop poaching and illegal trade of snow leopards and other wildlife. As a signatory to the Bishkek Declaration, Pakistan has initiated number of actions with the intent of safeguarding and conserving its unique natural heritage of high altitude wildlife populations and their habitats by promoting landscape conservation approaches through participatory policies and actions.

6. The proposed project area encompasses both the Greater Himalayas and Trans-Himalayan ranges of the snow leopard in Pakistan. The Greater Himalaya is represented by sub-alpine and dry temperate forests and alpine scrub, alpine meadows, vast areas under permafrost, glaciers and rock faces, while the Trans-Himalayan cold deserts primarily consist of sparsely vegetated steppes, small patches of moist sedge meadows near water bodies and vast areas that are barren and under glaciers. These areas are the headwaters of many major rivers of Northern Pakistan, and form part of the high range Himalayan ecosystem, which have unique assemblages of flora and fauna. The Himalayan Ecosystem is recognized as one of the 35 global biodiversity hotspots by Conservation International and is among the 200 WWF global ecoregions in the world. In addition to the snow leopard, these areas also harbor several other IUCN-listed endangered large mammals. The associated species found in this region include the markhor (*Capra falconeri*; globally Near Threatened); Marco Polo sheep (*Ovis ammon polii*); alpine musk deer (*Moschus chrysogaster*; globally Endangered); Himalayan lynx (*Lynx lynx*); blue sheep (*Pseudois nayaur*); brown bear (*Ursus arctos*); Indian wolf (*Canis lupus*); and Himalayan ibex (*Capra sibirica*). Ibex, markhor and wild sheep that are all key prey species of snow leopard and are therefore important to the species' survival.

[6] Ud Din, Jaffar, Ali, Hussain, Ali Nawaz, Muhammad 2016, The current state of Snow Leopard Conservation in Pakistan.

[7] Snow Leopard Foundation (2017) Personal communications

Threats to Biodiversity and Ecosystem Services

7. Despite the immense biological, socio-cultural and hydrological values of the Himalayan ecosystems, especially the high altitude ranges have not received adequate attention in terms of natural resources management and conservation from local and national governments. In many high altitudinal areas, the threat to snow leopards, wild prey[8] and their ecosystems face a variety of direct and indirect threats that vary in intensity and prominence. Habitat degradation and fragmentation is increasing due to unsustainable livestock grazing, high dependence of local communities on natural resources, pressures from economic and infrastructure development (unplanned development), selective removal of medicinal and aromatic plants, and emerging threat of illegal wildlife trade and wildlife crime.[9,10] Since the harsh climate and topography of the area is relatively less conducive to agriculture and other developmental options such as industry, most of the region is largely dependent on pastoralism. Livestock grazing in this highly fragile and dynamic region is the most pervasive land-use, in the absence of better livelihoods options for most local communities. The intensity and occurrence of grazing threats varies throughout the region, but is still the single-most important threat to snow leopard habitat (Table 1). These, and other threats are described below:

8. *Climate change impacts*: The Greater Himalayas as a whole is very sensitive to global climate change. Progressive increases in warming at high elevations are already occurring at approximately 3 times the global average (IPCC, 2007). During the last century, Pakistan's average annual temperature increased by 0.57^{o}C and annual precipitation increased by 25%, with the mountain regions registering an increase of between 0.6^{o} C to 1.0^{o} C in the mean temperature and the Greater Himalayas showing a trend of increasing precipitation during the monsoon season (June-September) and of a slightly decreasing precipitation in the winter months (December-March).[11] It is projected that by 2080, the temperature increase in Pakistan will be as high as 4.38°C, with temperature increases in both summer and winter being higher in northern than southern Pakistan. Given that current discussions about dangerous climate change are centered on increases of 2–3 °C, these temperatures are potentially catastrophic for Greater Himalayan people and ecosystems. Ongoing climate change over succeeding decades will likely have additional negative impacts across these mountains, including significant cascading effects on river flows, groundwater recharge, natural hazards, and biodiversity; ecosystem composition, structure, and function; and human livelihoods. A recent study indicates that about 30% of snow leopard habitat in the Himalaya may be lost and become heavily fragmented.[12]

9. *Overgrazing within rangelands* is the cause of the most widespread land degradation in upland areas, causing considerable damage to the integrity of ecosystems and provision of essential ecosystem services – from soils, trees, water and biodiversity. Overgrazing has resulted in a high composition of less palatable forage species, including wide-spread weeds and poisonous plants. Grazing also impacts Juniper forests as young seedlings are susceptible to the browsing and trampling of livestock. The livestock census indicates an annual growth rate of 3.5% in GB since 1976.[13] Based on the livestock census of 1996, it is estimated stocking rate at 5.2 ha/animal unit, which was three times more than the recommended critical stocking rate (i.e. 16 ha/animal unit for low potential range)[14]. Thus the rangelands that were assessed as burdened and overgrazed 20 years ago are experiencing even higher degradation due to progressively increasing livestock numbers. This has also led to

[8] The main wild prey of snow leopard is blue sheep (*Pseudois nayaur),* musk deer (*Moschus crysogaster),* Argali (*Ovis ammon hodgsomi),* and marmots (*Marmota spp.)*. Other prey might include Tibetan antelope (*Pantholops hodgsonii*), Himalayan tahr (*Hemitragus jemlahicus*), ibex (*Capra ibex*), Markhor (*Capra falconeri*), wild yak (*Bos gruniens*), pika (*Ochotona spp*.) and hare (*Lepus spp*.)

[9] Ning, Wu, Rawat, G.S., Joshi, S., Ismail, M. and Sharma, E. (Eds.) 2013. High Altitude Rangelands and their Interfaces in the Hindu Kush Himalayas. Kathmandu. ICIMOD

[10] Mishra, C.D. et al. (2010). Multiple Use of Trans-Himalayan Rangelands: Reconciling Human Livelihoods with Wildlife Conservation. Pp. 1-12. In Wild Rangelands: Conserving Wildlife While Maintaining Livestock in Semi-Arid Ecosystems, 1st edition.

[11] Asian Development Bank (2017). Climate Change Profile of Pakistan

[12] Forrest et al. 2012 Conservation and Climate Change: Assessing the vulnerability of snow leopard habitat to treeline shift in the Himalaya, Biological Conservation No 150,129-135.

[13] Khan, A.G. (2003), *NASSD Background Paper: Rangelands and Livestock*. IUCN, Pakistan, Gilgit.

[14] FAO. 1987. Pakistan's experience in rangeland rehabilitation and improvement. Food and Agriculture Organization of the United Nations

high disturbance to wild ungulates such as markhor and ibex. Competition with livestock for forage is one of the most widespread causes of ungulate decline.[15]

10. *Illegal timber harvesting, and unsustainable gathering of fuel wood and non-timber forest products (NTFPs)* by local people dependent on this resource in rural areas, have led to widespread deforestation and degradation and diminishing forest resources. Deforestation rates in Pakistan are among the highest in the world. The total natural forest cover has reduced from 3.59 million hectares to 3.32 million hectares at an average rate of 27,000 hectares annually. Sedimentation following the loss of forests brings enormous social costs as a result of reduced storage capacity of reservoirs, loss of fertile soils, increased maintenance cost of irrigation infrastructure, reduction in agricultural production and increased vulnerability. Growing human and livestock populations, coupled with government control over forests in northern Pakistan and erosion of traditional systems of forest resource management has led to overuse of timber and non-timber forest products (NTFPs). Local communities rely on forests, particularly juniper, for construction material, fuel wood, thatch, fencing material, grazing ground for livestock and household medicine/remedies. Collection of wood and NTFPs in juniper forests has resulted in severe degredation, causing reduction of juniper forests from 640,000 ha to an estimated 295,000 ha (or reduced by 46 percent) over the past 20 years in GB that is translated into a 14,750 ha loss per year. Juniper have endured long periods of heavy human use, primarily for grazing of livestock and gathering.

11. Among the non-livestock pasture products, medicinal and aromatic plants are of prime importance to the economy of the area. Pakistan is among the top eight countries of the world to export medicinal plants. The total export in year 2000 was worth US$ 5.45 million with approximately more than 40% share from mountain regions of Northern Pakistan. It is expected that this value has further increased during the past decade. About 120 species of medicinal plants are collected from the mountains and exported to national and international markets. The destination of the export mainly includes Germany, Middle East, France and India etc. Approximately 5,000 poor families of mountain dwellers are engaged in the gathering of medicinal plants mainly during spring and summer[16].

12. *Illegal hunting and killing of wildlife and human-wildlife conflict*: While poverty has a direct linkage to increased reliance on rangelands and overgrazing, it is also responsible for much of the illegal hunting and killing of wildlife in northern Pakistan. Degraded rangelands, reduced abundance of wild herbivores, and increased prevelance of domestic livestock culminate in increased conflict between local communities and predators. Economic hardship is one of the root causes prompting herders to kill snow leopards to protect their livestock, and retribution killing of snow leopards in response is considered a high threat to the species.[17] It is estimated that around 8 snow leopards are killed annually in Northern Pakistan, but un-reported figures may be higher. In addition, to compensate for livestock losses and supplementation of their incomes, herders in the region have also relied on poaching of snow leopard and wild prey to sell in the black market. International net trade in snow leopard between 1975 and 2000, as reported by CITES Parties, is 1,042 items (that include 53 skins, 570 specimens, 3 garments, 3 trophies, 9 bodies, and 2 skeletons). It is estimated that a snow leopard pelt fetches around USD 4,000 in the Peshawar market. The Snow Leopard Foundation (SLF) reports that on an average about 0.6 livestock per household are killed annually during the recent 5-year period in in Northern Pakistan. In addition, SLF reports that annual livestock losses is estimated at 2-5% of total herd loss in some areas of the snow leopard homerange, resulting in between USD 128-190 annual loss per family. Livestock kills in Northern Pakistan is the most significant threat to local herdmen.

Table 1: Threats to Target Landscapes

[15] Khan, A.G. (2003), *NASSD Background Paper: Rangelands and Livestock*. IUCN, Pakistan, Gilgit.

[16] Sher, H., Aldosari, H., Ali, A. and de Boer, H.J. (2014) Economic benefits of high value medicinal plants to Pakistani communities: An analysis of current practice and potential. Journal of Ethno-biology and Ethno-medicine

[17] Snow Leopard Network, (2014) Snow Leopard Survival Strategy

Protected Areas and Key Biodiversity Areas (outside PA network)	Threats					
	Habitat Degradation due to unregulated livestock grazing	Harvest of fuelwood /and timber	NTFP collection	Human-wildlife conflicts	Unregulated Tourism and encroachment in meadows	Climate change and shortage of water
Karakoram-Pamir Landscape	H	M	H	H	H	H
Hindu Kush Landscape	H	H	M	H	M	H
Himalaya Landscape	H	H	H	M	H	L

Note: Threat levels are H =high, M = medium and L = low

13. Given the above threats, challenges and gaps in conservation responses currently implemented, it is pertinent that a long-term strategy is put in place to secure the snow leopard and other globally significant biodiversity, land and forest resources in the high range Himalayan region while enhancing lives and livelihoods of local communities that are dependent on these ecosystems. Four inter-related barriers as described in the next section have been identified to impede the development of such a strategy.

Root Causes and barriers that need to be addressed

14. The long-term vision of the project is to promote a landscape approach for the conservation of the snow leopard. There are four key barriers to conservation and sustainable management of snow leopard landscapes in northern Pakistan, that are outlined below:

Barrier 1: Absence of a landscape-level approach to snow leopard conservation

15. While the region has an extensive protected area network this is fragmented and is often not fully representative of the wide variety of habitat types and ecosystems within the snow leopard habitat. Local and migratory pastoral communities continue to use these protected areas and surrounding lands for livestock grazing and collection of fuelwood and other bio-resources, competing for habitat and resources with snow leopard, wild prey and associated species. In many areas outside protected areas, the trend is increased pace of development – development interventions supported by various government and non-governmental agencies have resulted in rapid socio-economic development, expanded transportation networks and changes in cropping patterns (e.g. adoption of cash crops in limited arable land against traditional subsistence crops). All of these have far-reaching impacts such as changes in pattern of land use, degradation of alpine pastures and forests and fragmentation of natural areas.[18] This is particularly relevant for the snow leopard as its home ranges are extensive (500-800 km^2) and protection of migration corridors, that are usually outside the protected area network is key to the survival of the species. These adverse changes undermine the potential for protected areas to safeguard snow leopards and ecological processes – indicative of the need to enhance connectivity and protect biological corridors that lie outside the protected area network.

16. There are often a variety of different kinds of heterogeneity that can be recognized in large landscapes beyond the realms of protected areas that are necessary for the conservation of the snow leopard. Provincial forest and wildlife agencies lack the skills, capacity, experience and mandate to manage such wider heterogeneous areas. Other government agencies such as rural development, animal husbandry and agriculture do not have a presence within these landscapes. Consequently, there is currently no formal multi-sector and multi-stakeholder landscape-scale mechanisms being developed and implemented to: (i) safeguard dispersal corridors between adjacent but separate core snow leopard populations; (ii) maintain the genetic variations of snow leopard populations; (iii) secure the conservation status of key prey species; and (iv) ensure the resilience of ecosystems to the effects of climate change. While the Global Snow Leopard and Ecosystem Protection (GSLEP)

[18] Radotra etal. (2015) Pasture and forages in North Western Himalayan Region: Current Status and Strategies

program seeks to promote landscape level approaches to conservation of snow leopards, wild prey and their habitats, government agencies have little experience in developing strategic plans to mainstream biological considerations when planning and undertaking their respective sector activities and there is limited opportunity for multi-sectoral and multi-stakeholder cooperation and collaboration and decision-making processes. Similarly, local communities lack economic incentives, along with awareness, capacity and support in the planning and sustainable management of forests and meadows for biodiversity conservation and climate change mitigation.

Barrier 2: Inadequate representation and protection of important habitats, including forests, in the existing PA network

17. Although there are around 44 established PAs in snow leopard habitat in Northern Pakistan (Annex 10), including 32 Community Managed Conservation Areas (CMCAs) these have not been assessed for their adequacy and effectiveness to conserve snow leopard and associated species. A broad gap assessment of the national Protected Area (PA) system of Pakistan shows that forest ecosystems in general are either inadequately represented or not represented at all, particularly in KP and AJK. There has been no detailed gap assessment of the PA system in this northern region of Pakistan, nor are current conservation programs working effectively or efficiently, to determine areas for improved synergy and collaboration. Skills and abilities of wildlife and forest managers within PAs for law enforcement are reduced due to lack of training and equipment and the management capability of the PAs is limited and indequate to effectively conserve snow leopard and facilitate community engagement. Currently there is no system in place in the country for evaluating management effectiveness of Protected Areas.

Barrier 3: Insufficient involvement and support of local communities towards conservation solutions

18. Given the lack of livelihood options and alternatives for local communities in this harsh landscape, most of the protected areas and areas outside them are often intensively used for livestock grazing and other forms of resource extraction as part of the local economy. Competition for alpine meadows, is leading to the depletion of wild prey species of snow leopard, resulting in increased dependence of snow leopard on livestock and consequently increased human-wildlife conflict. This is further compounded by the fact that the harsh, remote, and marginal landscape provides few opportunities for alternate livelihood sources for the local communities. Traditional practices of pastoralism and sustainable use of natural resources has declined, resulting in a more open grazing regime, high livestock density and increased collection of non-timber forest products for commercial purposes that is undermining the sustainability of the resource. Further, the difficult terrain, small and under-developed markets, poor connectivity and inadequate general infrastructure is compounded by limited capacities and skills and governance deficits entailing a high cost of delivery of public services, thereby acting as a constraint for improving the lives and livelihoods of local communities. In addition, business approaches and opportunities to enhance and mobilize funds (tourism, sustainable hunting, production of local crafts, catering, etc.) in a more systematic manner that would enhance local revenues are limited. All these factors act as barriers for development of sustainable alternative livelihood options for local communities, thereby making them further dependent on natural resources, while Protected Area authorities and other government agencies are left with few options in formulating strategies for conservation of snow leopard, wild prey and habitat, and local livelihoods.

19. The lack of social safety nets and workable strategies to protect livelihoods and/or compensate for wildlife-caused damages has exacerbated the root causes of human-wildlife conflicts (e.g. families face average annual livestock losses to predation of 2-5% (and sometimes even higher) in snow leopard habitat, often equivalent to up to one month's salary). Communities often claim compensation for predation, hold protests, and try to influence political and administrative leadership in resolving conflict. The lack of workable solutions undermines their ability to engage in wildlife conservation efforts. A recent survey in Musk Deer National Park (in AJK) - where there are no ongoing carnivore oriented conservation efforts - indicated that the majority of people (72-

86%) wanted to reduce or eliminate populations of snow leopard, brown bear and wolf[19]. This is further exacerbated by a general lack of awareness among natural resource users and managers in northern Pakistan towards both the importance of biodiversity and forest conservation and laws protecting wildlife and forests in the region. Materials and activities have previously been developed, but largely without a supporting strategy to ensure their effectiveness. Past efforts have either not been sustained, or have not been reinforced in order to create a strong understanding among local people of the value of protecting wildlife and associated forests and ecosystems. The role of community members as co-managers is recognized under Pakistan's National Snow Leopard and Ecosystem Protection Priorities (NSLEP) and supported by new legislation (i.e. the provincial Model Wildlife Law). AJK has approved the Model Wildlife Law while GB and KP are heading in the same direction. This shows positive interest and intent on behalf of the Government, however the adoption of mechanisms for sharing of responsibility and benefits with local communities have not been widely implemented as part of national policy. NGOs working in northern Pakistan have developed workable models for community conservation but these models need greater support from national policy and broader application.

20. Despite these constraints, many valley areas in the Himalayan highlands provide unique opportunities for in-situ (on-farm) management of agro-biodiversity because of the preponderance of locally developed traditional crop varieties (and associated wild species) in cultivation systems based on traditional knowledge and skills, high agro-climatic heterogeneity and local socio-cultural integration. However, over the last two decades, the diversity of traditional agricultural crops and vegetables in the Himalayan region has suffered because of erosion, introduction of hybrid varieties, shift towards cash crop cultivation which has led to the decline of some of the most useful varieties of crops considered to be part of the cultural heritage of traditional societies of the Himalayas. Opportunities for promotion of ecotourism also exists, but efforts so far have been small and ad-hoc, because of dearth of capacities and information that has prevented mountain communities from maximizing such benefits.

Barrier 4: Lack of knowledge, awareness and skills necessary for wildlife monitoring, wildlife crime detection and effective conservation decision-making

21. The vastness of northern Pakistan's mountains, coupled with extreme ruggedness and poor accessibility, have limited systematic field-based research. Government and non-government organizations (NGOs) are hindered by a general lack of information as minimal systematic studies, if any, exist to assess distribution and basic ecology of snow leopards and prey species (even within PAs) and there is limited understanding of current juniper coverage and climate change impacts. Baselines for all major wildlife in northern Pakistan are severely limited; in fact, rigorous studies for snow leopard and wild snow leopard prey are lacking across Central Asia. Restoration measures for different degraded Juniper and sub-alpine and alpine forest sites under different ecological and socio-cultural environments are little understood. Drivers of, and vulnerabilities to, climate change in northern Pakistan are little understood. Contributing to this, the technical surveillance capacities for conservation of signature species such as snow leopard are weak and basic equipment and training for personnel is lacking. The current operational budget (US$ 4.8 million) of the three snow leopard range provinces is not adequate given the vastness of the area, rugged terrain, and diversity of issues each department is dealing with. In many PAs in northern Pakistan, staff numbers, capacities, and operating costs are far below the requirements for even basic operational management. International cooperation on snow leopard conservation to explore possibilities for coordinated management of habitat, cooperation on research on gene flow and on control of illegal trade have been identified as priorities for Pakistan under the Global Snow Leopard Ecosystem Program, but have not yet been advanced.

22. There is a scanty presence of Forest department establishments on the ground in the above sectors and limited presence of the field personnel. In addition, staff are inadequately trained for combating wildlife crimes, lack

[19] UNDP/GEF's MACP project (1999-2006) laid a positive foundation of awareness and appreciation for conservation in GB, KPK, and AJK communities; however, MACP only reached about 60% of the region covered by this project and in the past 10 years the motivation of MACP communities has been gradually diluted, due to limited post-project follow up and weak interaction by the government and IUCN with those communities.

skills in identifying species and specimens, lack adequate knowledge of laws and legal procedures and have limited or no knowledge in intelligence collection and processing (Annex 1 provides a review of laws pertaining to natural resource management in the Himalayan range). The infrastructure of the forest department at higher altitude is extremely poor with a very weak force in command. It is hence, unclear to what extent poaching, trapping, sale of pelts and other wildlife parts, and other wildlife related offences occur in this region. Owing to poor coordination between provincial authorities (such as those in charge of Protected Area management) and local self-governments, it is likely that incidence of wildlife crime goes un-addressed, and there is limited involvement of local communities in monitoring wildlife populations, patrolling, and other wildlife protection related activity. Further, the lack of adequate technical knowledge and skills and equipment to control wildlife-livestock conflicts results in significant retaliatory killings of snow leopard and other species. There is also limited trans-boundary cooperation between state governments in the region on conservation and wildlife protection. There is also a gap in analyzing the exact number of poaching cases that are prosecuted and convicted due to the lack of proper evidence collection and systematic investigation measures using Call Details Record (CDR) analysis and cyber tracking in effective prosecution and conviction. Convictions pronouncing higher punishments will need to be institutionalized and replicated in other cases for creating greater deterrence values.

23. The Global Environment facility (GEF) investment will promote multi-sector cooperation among stakeholders to mainstream biodiversity conservation across development sector policies and plans. This will be achieved by institutional capacity development; inter-sector collaboration in landscape planning approaches; and raising public awareness of threats to snow leopard and biodiversity. The direct threats impacting on the project target, safeguarding Pakistan's snow leopard landscapes, and their relationships with a range of indirect factors (root causes) are illustrated in **Figure 1**, with the entry points for project intervention strategies indicated.

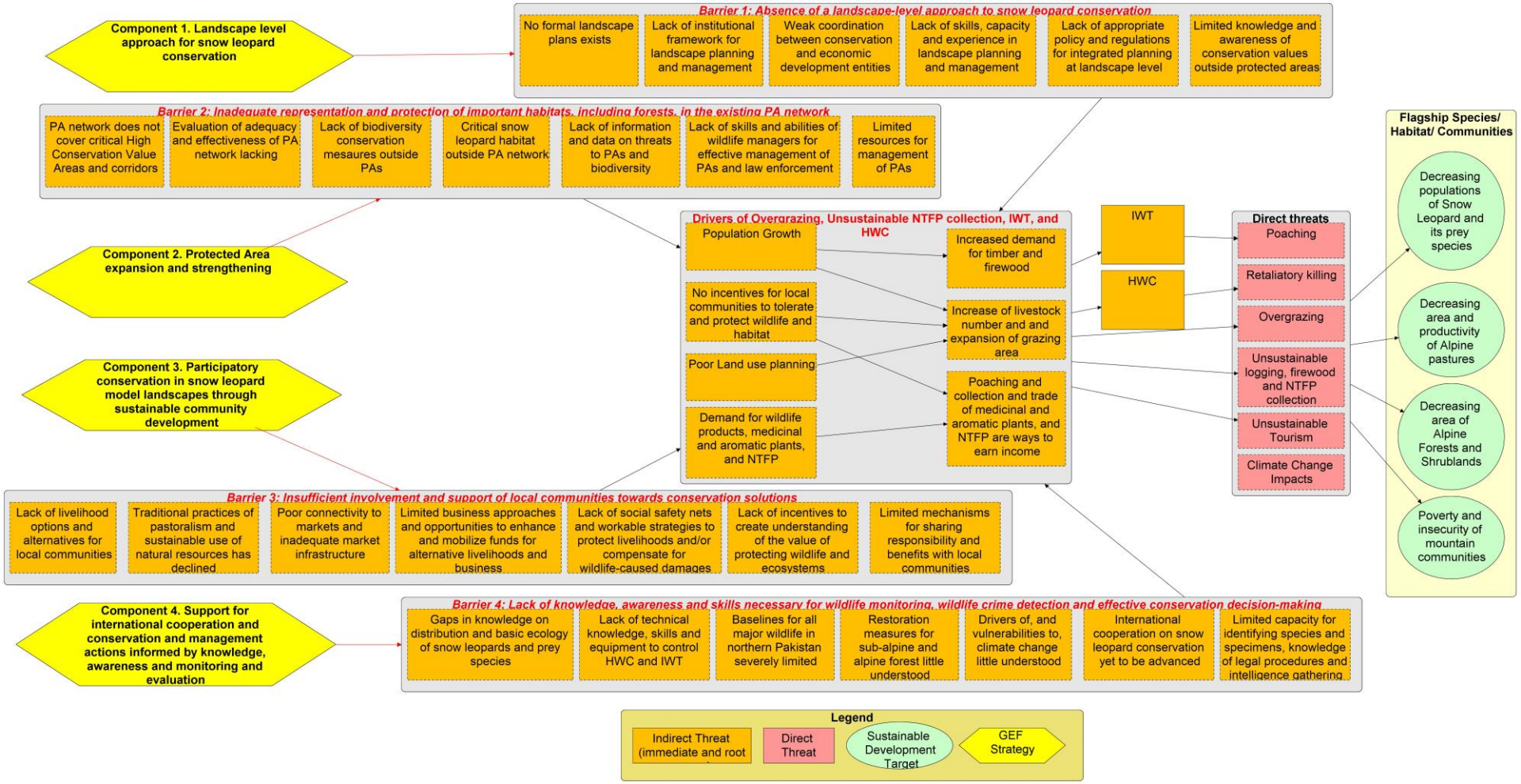


Figure 1. Direct threats to biodiversity, root causes and barriers to effectively address development challenges in Pakistan and suggested UNDP/GEF strategies to address the challenges.

Alignment with national and global priorities

24. The project is aligned with the strategic priorities of the National Biodiversity Strategy and Action Plan (NBSAP) of 2015, including the following that will be directly supported:

- Terrestrial Ecosystems: Strategy 1. The institutional and regulatory framework will be improved to address the challenges of the 21st century for conservation of biodiversity, its sustainable use and equitable sharing of benefits.
- Terrestrial Ecosystems: Strategy 2. The natural habitats will be conserved through the expansion and effective management of a network of protected areas and integrated with the landscapes through community empowerment.
- Terrestrial Ecosystems: Strategy 3. The knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends will be improved and conservation status of known threatened species will be improved
- Forest Ecosystems: Strategy 2. The forest biological diversity including the ecosystem services shall be protected and restored through adoption of an ecosystem approach for management of all types of forests.
- Forest Ecosystems: Strategy 3. The knowledge, the science base and technologies relating to forest biodiversity, its values, functioning, status and trends will be improved to prevent loss of forest biodiversity, and mitigation measures adopted including by reforming the rights and concessions of local people.
- Mainstreaming Biodiversity: Strategy 1. A well-planned continuous dialogue will be initiated with high-level policy makers, planners and administrators at central and regional levels in important development and business sectors that impact or depend on components of biodiversity.

25. It is also aligned with the Country Program Action Plan of Government of Islamic Republic of Pakistan and UNDP, UNFPA and UNICEF (2013-2017), supports the following OP2 Strategic Priority Areas (SPAs) as follows:

- SPA 2: Inclusive economic growth through the development of sustainable livelihoods, namely Incentives, capacity building and introduction of best practices for community-based management of natural resources in vulnerable environments, including the sustainable management of threatened ecosystems and combatting desertification.
- SPA 3: Increased national resilience to disasters, crises and external shocks by strengthening capacities for disaster risk management, support climate change adaptation and mitigation and provide early recovery assistance to crisis-affected communities.

26. Within the global context, the project will contribute to achieving the Aichi Targets, in particular:
    - Strategic Goal B (Reduce the direct pressures on biodiversity and promote sustainable use), and the following targets:
        - Target 7: (Agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity); and
        - Target 11: (Terrestrial and inland water, coastal and marine area, especially areas of particular importance for biodiversity and ecosystem services, and conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures and integrated into the wider landscapes and seascapes. for eradicated, and measures are in place to manage pathways to prevent introduction and establishment).

27. The project also contributes to the 2030 sustainable development agenda and the Sustainable Development Goals (SDG), particularly:
    - Goal 2: end hunger, achieve food security and improved nutrition and promote sustainable agriculture.
    - Goal 15: to protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

- Target 15.4: By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development
- Target 15.5: Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species
- Target 15.7: Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products
- Target 15.9: By 2020 integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts
- Target 15c: Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities

28. The project is consistent with the recommendations of the Global Snow Leopard and Ecosystem Protection Program (GSLEP) and is a direct response to the implementation of the GSLEP priorities in the country through Pakistan's National Snow Leopard and Ecosystem Program (NSLEP). The Overarching Goal of the GSLEP for the 12 Range Countries is to work together to identify and secure at least 20 healthy populations of snow leopards across the cat's range by 2020. The three criteria that were recognized by GSLEP that will secure healthy populations of snow leopards are, populations: (a) representing at least 100 breeding age snow leopards; (b) containing adequate and secure prey populations; and (c) having connectivity to other snow leopard populations. The three landscapes in Northern Pakistan included in the project represent 3 of the 20 landscapes identified by GSLEP as having healthy populations of snow leopards and therefore, has been identified as a priority landscape to ensure conservation of the species and provide connectivity with other landscapes in the neigbouring countries.

Baseline Scenario and Associated Baseline Projects

29. The strategic framework for this project is the *National Strategy and Action Plan for the Conservation of Snow Leopard, 2014 – 2020*. The main goal of the strategy and action plan is to prevent the decline of the Snow Leopard population in Pakistan. The plan defines the following critical areas for intervention: reducing habitat loss and degradation; reducing livestock impact on wild prey base; reducing retaliatory killing of snow leopard; improving institutional capacity; improving awareness; and addressing climate change.

30. Northern Pakistan is a major focus of conservation efforts by the government and leading conservation organizations like IUCN, World Wildlife Fund, Pakistan (WWF-P), Himalayan Wildlife Foundation (HWF), the Snow Leopard Trust (SLT), and the Wildlife Conservation Society (WCS). Although snow leopard was not the prime focus of many projects undertaken in northern Pakistan in the past, they have contributed to snow leopard conservation in various ways ranging from enhancing awareness to improving habitat quality and prey base.

31. There are a number of projects funded through the federal and provincial budgets. The annual operational budget of the three snow leopard range provinces is $4.82 million US$ (KP 3.5, GB 0.78, AJK 0.54), which is being spent in controlling wildlife crime, maintaining watch and ward, management of protected areas, and species and habitat management. These departments also have developmental budgets, almost equivalent to the operational budget, which has been used for building infrastructure in snow leopard range, including offices, check posts, information centers and field stations. Existence of the infrastructure and staff movement imparts surveillance necessary to control wildlife poaching, and has promoted awareness on wildlife legislation in rural communities.

32. The Mountain Areas Conservancy Fund (MACF) – established to support conservation-related activities of Valley Conservation Committees (VCC)[20] with a capital value of US$ 3.28 million under the MACP that operated in 4 conservancies. The profit generated through term deposits was expected to provide financial support to snow leopard conservation initiatives undertaken by VCCs in northern Pakistan. However, the MACF has only been recently operationalized on account of the decision to capitalize the fund when the total capital value reached $5 million. MACF funds are likely to be transferred to VCCs on account in the very near future.

33. The Mountain and Markets Project (MMP, 2010-2017) is a US$ 3.293 million project implemented by UNDP in collaboration with the Ministry of Climate Change and the provincial forest and wildlife departments of Khyber Pakhtunkhwa and Gilgit-Baltistan. The MMP is using voluntary certification of NTFPs as a tool to promote biodiversity conservation and strengthen existing conservation efforts with innovative market-based mechanisms. The MMP will assist in organizing communities in the snow leopard range, and building their capacity for collective conservation actions. It will facilitate the development of Sustainable Resource Use (SRU) agreements with communities, including snow leopard conservation.

34. More than 70% of the trophy-hunting quota in the country is allocated to the snow leopard range. Local communities will benefit directly from the 80-90% share of the legal hunting of snow leopard prey species—markhor, ibex, blue sheep—which delivers an annual cash income of at least US$0.7 million in permit fees.

35. Community-based conservation is ongoing through a variety of organizations - including Snow Leopard Trust (SLT), Snow Leopard Foundation (SLF), Himalayan Wildlife Foundation (HWF), WWF-Pakistan, and Baltistan Wildlife Conservation and Development Organization (BWCDO). These organizations are working with several communities in collaboration with the wildlife departments in KP and GB. Through these initiatives, basic data on snow leopard distribution and conflicts with humans are being collected, and snow leopard focused conservation models are currently being developed and piloted.

36. WCS works with 65 communities across four districts in GB and has trained over 100 community wildlife rangers to monitor snow leopards and key prey species. This work has helped improve protection across all program communities, and populations of markhor, urial, and other species are already experiencing significant increases. WCS works extensively in the Karakoram-Pamir and Himalay landscapes. WCS also has done significant trans-boundary work in the region, including a large conservation program across the border in the Wakhan National Park of Afghanistan where it has been camera trapping, collaring, and studying snow leopards since 2007. The BWCDO, a local entity working in Baltistan region on conservation of snow leopard. Under the Project Snow Leopard (PSL), BWCDO has started community-based micro-insurance scheme for livestock depredation and conducted snow leopard population studies based on genetic research and provided detailed population estimates. It also conducted awareness campaigns in 23 villages, arranged vaccination of 20,000 livestock heads, and built 23 corrals to safeguard against snow leopard intrusions. BWCDO also successfully disbursed US$0.023 million to local communities under micro-insurance scheme. Similarly, WWF-Pakistan under the United States Agency for International Development (USAID) –WWF-US funded "Conservation and adaptation in Asia's High mountain communities and landscapes" project is undertaking conservation, education and research programs in GB and Chitral District of KP Province. HWF works in the Himalaya landscape in PA mapping, formation of VCPs and community conservation activities and wildlife crime prevention.

37. The Ev-K2-Cnr Chartered Association is an autonomous non-profit association that promotes scientific and technological research in mountain areas and supports conservation management planning. EvK2Cnr signed a memorandum of understanding (through UNDP) with the Italian Government for Euro 2 million (USD 2.36 million) from 2017-2019 for the development of a management and operational plans for Central Karakoram National Park (CKNP) and Deosai National Park (DNP), establishment of a connectivity conservation corridor

[20] The MACF was established by the now completed UNDP-GEF Mountain Areas Conservancy Project (MACP). The project facilitated the establishment of valley conservation plans in 4 conservancies with the financial support of the MACF. The MACP conservancies lie outside those valley clusters proposed under the current GEF project.

between CKNP and DNP, promotion of conservation awareness, implementation of valley conservation and development plans. Research and ecotourism promotion. Other notable development NGOs operational in the snow leopard range include various entities of Aga Khan Development Network (AKDN) and recently launched "Economic Transformation Initiative (ETI)" program of Government of GB, co-funded by International Fund for Agricultural Development (IFAD). The AKDN organizations are working in the region in rural development, economic empowerment, education, health and cultural development. The AKDN has been the pioneer of promoting community participation in developmental initiatives by establishing community based organizations and capacity building.

38. The proposed project complements the UNDP supported "Disaster Risk Management Support" project (2013-2017), that is working at the national and provincial levels to formulate a program of disaster risk management. The project is providing technical support to districts across Pakistan to enhance national, provincial and district capacities in prevention, assessment, management and reduction of risks. It is also supporting vulnerable populations to benefit from improved and sustainable environmental management practices and improved risk reduction and risk response mechanisms.

39. These initiatives in the baseline scenario are significant insofar as they provide basic support to northern Pakistan and a framework for the socio-economic development for local communities. However, there is no overall approach at a suitable landscape scale to effectively conserve snow leopard and address the threats and drivers of ecosystem degradation identified above.

III. STRATEGY

40. The alternative scenario will promote a landscape-level approach which seeks to address major threats to snow leopard survival, while supporting communities to adopt sustainable land and forest management practices and implementing priority snow leopard conservation activities identified in the national strategy and action plan, in priority habitats of northern Pakistan. Four components have been designed to address the barriers described above.

41. The project objective is ***to promote a landscape approach for the survival of snow leopard and its prey species by reducing threats and applying sustainable land and forest management in critical habitats in Northern Pakistan.*** To achieve this objective, the GEF alternative aims to remove the barriers with the long-term solution to achieve the sustainable development and ecological security of Pakistan's forest and land resources through integrated planning, management and protection involving a wide range of stakeholders. Further, the project recognizes the fact that these landscapes underpin the lives and livelihoods of a large number of local communities and that implementation of coherent strategy to promote sustainable livelihood options that are biodiversity friendly is an integral part of the solution.

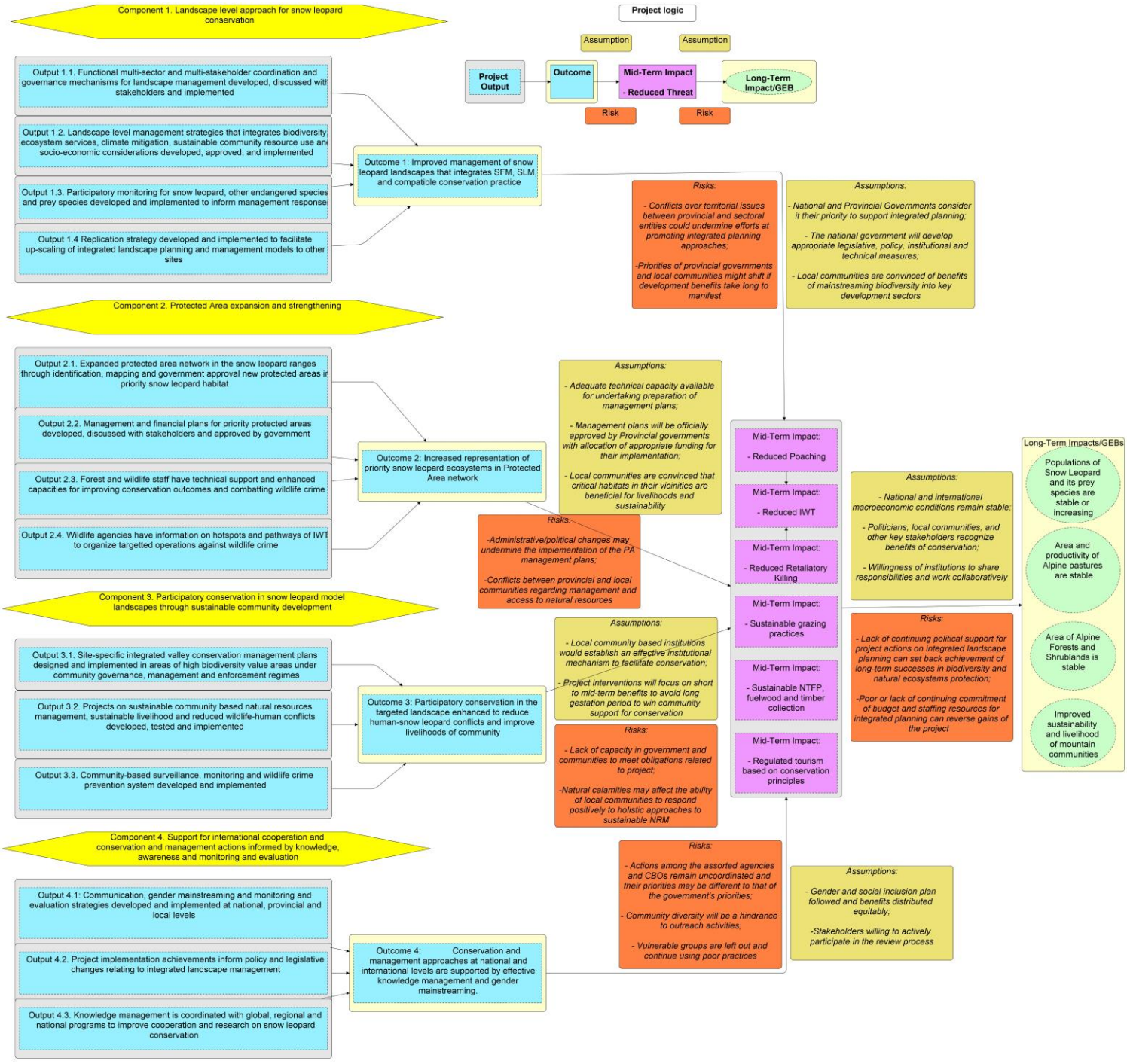
42. The project will be implemented over a 5-year period based on the following principles:

- Adopting a landscape approach to resource governance as against the exclusive protected area centric approach to facilitate the maintenance of the ecological integrity of the landscape and its constituent parts;
- Ensuring collaborative relationships with partner institutions [with civil society organizations such as WCS, IUCN, HWF, WWF, Aga Khan Rural Support Program (AKRSP), BCWDO and others] to promote a broad-based partnership for conservation and sustainable management of snow leopard habitats at the landscape level and ensure sharing of responsibilities for planning and implementation in the project areas;
- Supporting and implementing a participatory/consultative bottom-up project planning and implementation approach that focuses on state and community priorities and decisions that are linked to conservation, sustainable resource use and livelihood outcomes;
- Supporting decentralized planning and management by strengthening the role of communities, local state government institutions, and community based organizations, increasing their potential for becoming agents of change for promoting sustainable natural resource management and biodiversity conservation;

- Strengthening capacities of all stakeholders for the effective enhancement of conservation and sustainable use, and improve livelihood benefits and provide sustainable incomes;
- Adopting an integrated multi-sector approach as a strategy for improving the management of landscape and habitats within Northern Pakistan;
- Building an effective knowledge base that builds on successful lessons and experiences from the previous and on-going programs;
- Ensuring an adaptive management approach to address threats to biodiversity and natural resources and associated challenges, including those related to ecological, demographical, market, technological and economic factors in the landscape;
- Selectivity in terms of interventions and locations to serve as a demonstration model of the landscape, nature of challenges and the limited institutional capacity and resources available under the project; and
- Enhancing collaborative arrangements to expand successful community approaches (including livestock insurance scheme) to non-project areas using provincial and national government budgetary support as a means to build community support for conservation of the snow leopard.

43. In particular, the project aims at implementation of four inter-related and mutually complementary Components (project strategies) that are focussed towards addressing the barriers relating to unsustainable use of land and forest resources; limited options for alternative livelihoods; inadequate protection and management of areas outside protected area networks; and limited biodiversity monitoring. The suggested project strategy was approved by a number of key national and state-level stakeholders during the validation workshop conducted in July 2017 (Refer to the minutes of the validation workshop in Annex 26). The relationship between the barriers and the project intervention logic is further illustrated in the Theory of Change diagram **in Figure 2**.

Figure 2. Project Theory of Change



Project Areas

44. The project target area is located in northern Pakistan and spans across the snow leopard habitat in Gilgit-Baltistan, Khyber Pakhtunkhwa and Azad Jammu and Kashmir. This region encompasses permanent snowfields and cold desert in the northern most areas and highest altitudes (Karakoram Mountains), extensive sub-alpine scrub (including juniper), dry temperate coniferous forest (including morinda spruce, Himalayan pine), and mixed deciduous and coniferous forest (Himalayan moist temperate forest, including Himalayan poplar and Indian maple). The project will establish three 'model' snow leopard landscapes, covering a total area of 6 million ha (refer to Annex 1). These model landscapes include important PAs (e.g. Central Karakoram National Park or CKNP and Khunjerab National Park or KNP) as well as hunting regions, community lands, unprotected critical wildlife corridors and rangelands that include juniper forest. The three landscapes together include: 676,000 ha of rangelands (including alpine meadows and sub-alpine scrub with juniper), 1.47 million ha agriculture, 67,000 ha of coniferous and mixed deciduous and coniferous forest, with the rest comprising rivers, lakes, rock and snow covered areas. Collectively, these three landscapes represent critical and contiguous snow leopard habitat that provides transboundary connectivity with snow leopard landscapes in Afganistan, India and China.

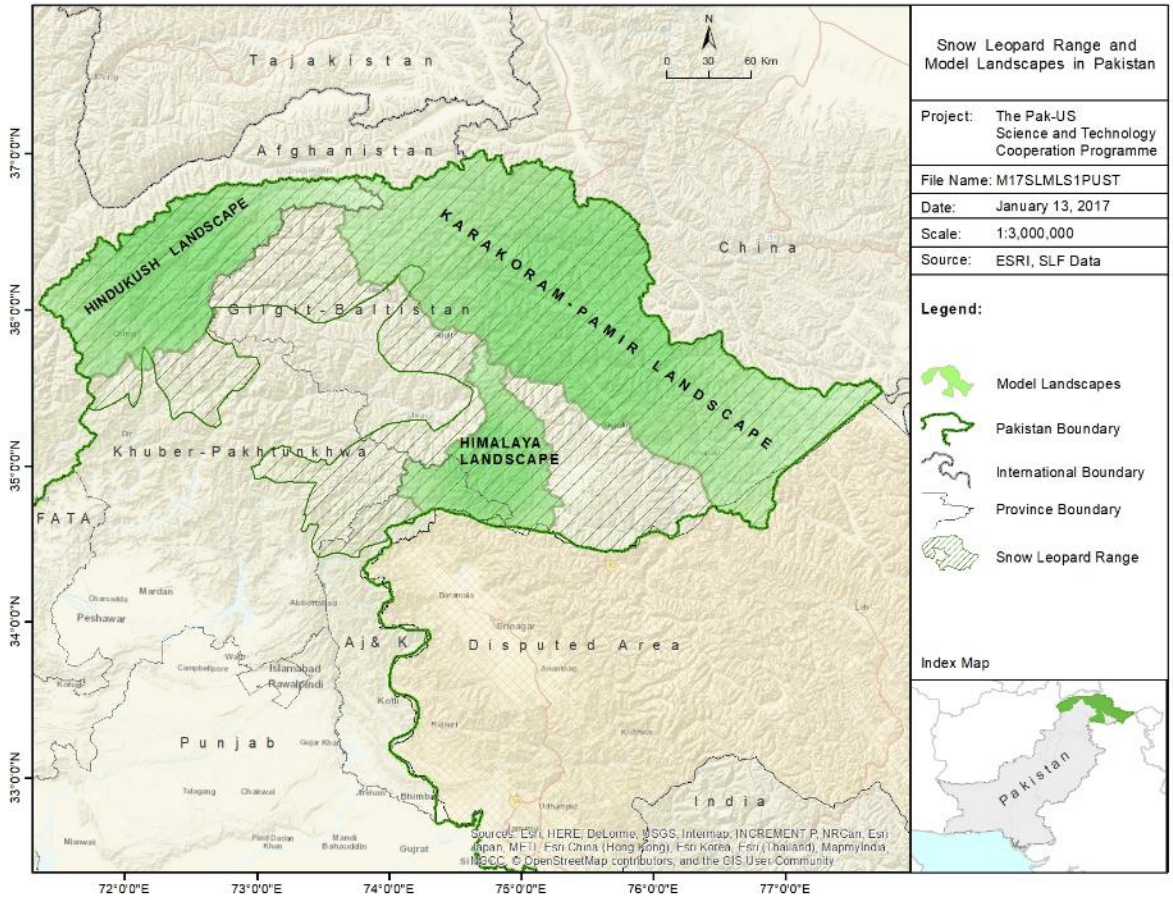


Figure 3: Map of Project Landscapes

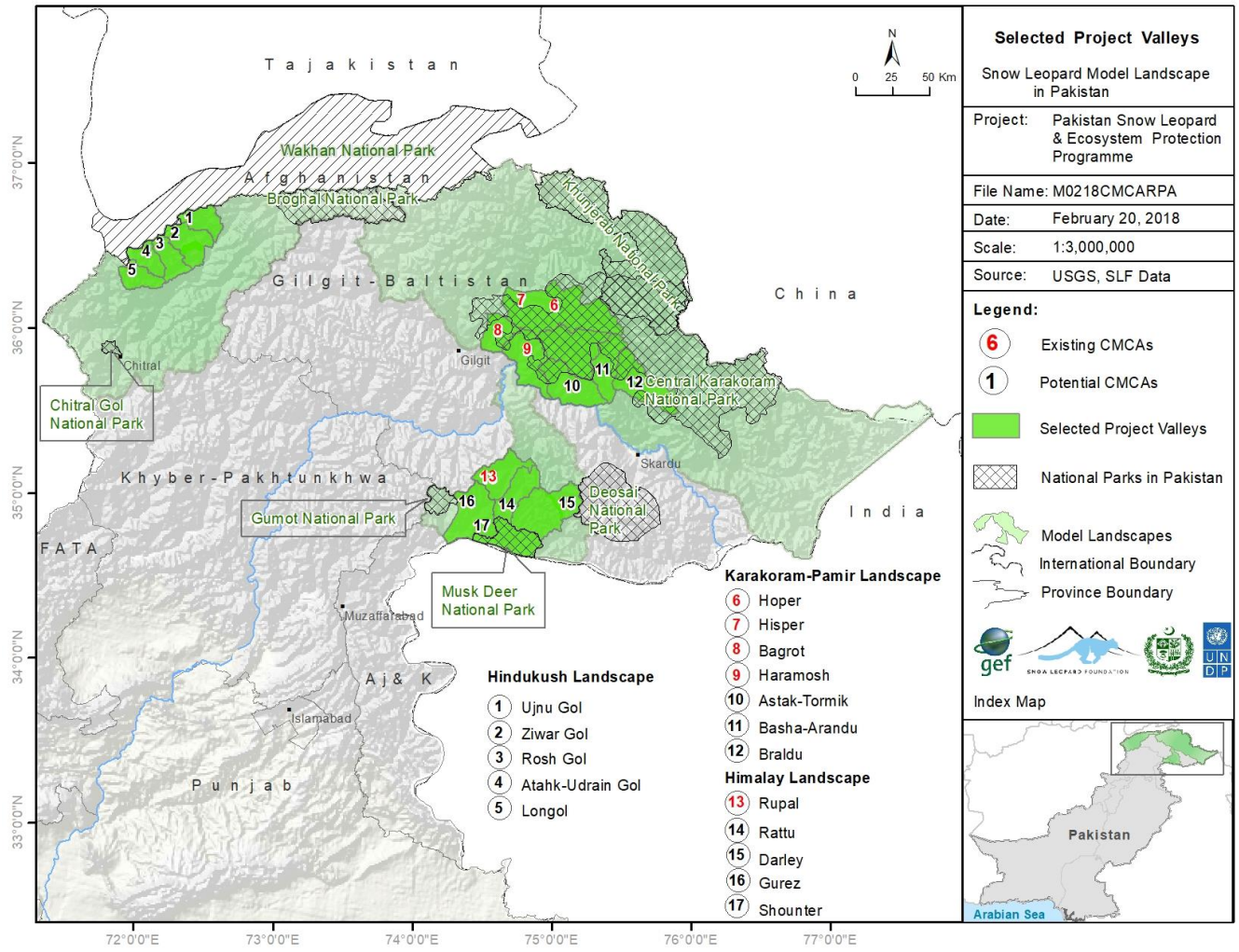
Table 2: Geographical, biological and socio-economic features of selected landscapes[21]

Landscape	Geographic and Biological Features of Landscape	Socio-Economic Features of Landscape
Karakorum Pamir Landscape 38,245 Km^2	An area of 38,245 Km^2 in the Himalayan High Lands having Montana grasslands and shrub land biomes. Bounded by Afghanistan, China and India. Climatically, dry temperate, dry hot summer and cold winter with snowy precipitations. Major part composed of rangelands (16,568 Km^2) and snow filled lands (18,474 Km^2). Habitats are range from dry temperate forests to alpine meadow and alpine scrubs. More than 14 small and large water bodies. Snow leopard, brown bear, wolf, lynx, Marco Polo sheep, blue sheep, ibex and Markhor are important fauna. Existing protected areas spread across 22,277 sq. Km.	Estimated population is about 0.45 million spread across 244 villages and 35 valleys. Arable land constitutes about 2 % of the total area. Wheat, maize, barley, potato, and fruits are major crops. These crops are grown in about 60,207 hectares' area with annual gross production of 0.36 million tons. The rangelands of KP reportedly support more than 2.5 million livestock, mostly sheep and goats. Communities are dependent on natural resources for fodder, fiber wood and medicinal plant collection as one of the sources of income. Tourism is another off-farm source of income to the economically marginalized communities and on average +50,000 tourists visit KP each year generating revenue of about USD 16 million. Management of tourism in the area is prerequisite. Many of the glaciers are retreating because of climate change and results in frequent calamities. Livestock predation is common and is affecting both wildlife and livelihoods.
Hindu Kush Landscape 13,883 Km^2	This landscape falls in the Hindu Kush and Hindu Raj mountain ranges along the Afghan border. Altitude ranges from 1,094 to 7726 meters. Dry temperate coniferous, arid temperate scrub, subalpine birch and moist alpine pastures are characteristic habitats. Twenty-five percent (25%) of land consists of rangelands and 68% of perennial snow, glaciers and bare lands. Climate is dry hot in summer and cold in winter and varies with altitude. Fauna include snow leopard, markhor, ibex, lynx, wolf, brown bear, black bear and many small mammals and birds (both birds of prey and game birds). 14 species of fishes, 28 species of herpito-fauna are also found.	The Hindu Kush Landscapes covers twenty-eight valleys with population of 0.4 million. Most of the settlements are found on the top of alluvial fans on river terraces, near streams/springs wherever soil coincides with easily available water. Agriculture and pastoralism are the principal means of livelihood in Chitral valley. The total cultivated area is 22,552 hectares. Eighty percent of the farmers possess less than two hectares and only 1 percent has 2.5 hectares. Main crops are Wheat, Maize, Barley and Paddy. Vegetables and Fruits are also grown. Total livestock population of the landscapes is about 0.7 million with sheep (25%), goat (51%), cattle (23%) and other (1%). Livestock rearing is a key component of economy, providing food and allowing local communities to supplement their income by selling wool and hides and primarily managed by women. Though high potential of hydroelectric power generation, communities are dependent on forest and other natural resources to meet day-to-day household requirements. Small-scale aquaculture of freshwater fishes has a good potential for income generation. Natural calamities resulting from Glacial Lake Outburst Floods (GLOFs) and earthquake have devastated many communities and fragmented the wildlife habitats in the recent years. Tourism potential has not been properly utilized.
Himalayan Landscape Area 7055 Km^2	The landscape lies in Sharda division of District Neelum AJK state and Astore District of GB in the Himalayan region, forming the catchment of Neelum River and Indus River. Moist temperate forest, coniferous forests and alpine meadows are dominant flora. Musk Deer National Park and Ghamot national Parks fall in this landscape.	The Himalaya landscape has seventeen valleys, out of which four fall in AJK and thirteen in Astore District of GB. Total human population is about 0.28 million living in 29,626 households with average household size of 7.6. Livestock rearing and subsistence farming constitute major options of livelihood. Wheat, barley, maize, potato, and fruits are major agricultural products. About 18,270 hectares' area is under cultivation in Astore with net production of 0.1 million

[21] Refer Annex 2 for more detailed description of the four landscapes

	Fauna include snow leopard, black and brown bears, musk deer, Markhor, ibex, snow-cock, monal pheasant, Koklas Pheasant etc.	tons. Major livestock types include sheep, goat and cattle. Cattle are owned by every household to meet their daily milk requirements. Encroachment to PAs, pasture leasing system, illegal timber logging, and overgrazing has major impact on the landscape.

Figure 4: Map of Project Landscapes, Valleys and CMCAs



IV. RESULTS AND PARTNERSHIPS

i. Expected Results*:*

45. The project is designed to achieve the following long-term impacts or Global Environment Benefits (GEBs), *namely that the Population of snow leopard is stable or increasing.* The long-term impact will be achieved through reduction of direct threats and following Mid-Term Impacts: *Decreased Illegal Wildlife Trade (IWT)*, *Reduced Human Wildlife Conflict (HWC)*, *Sustainable grazing practices*, *Sustainable logging and firewood collection*, and *Sustainable medicinal and aromatic plant and NTFP harvesting*. Reduction of direct threats will be possible through the following project objective outcomes: *Promotion of landscape approach to survival of snow leopard and its prey species by reducuing threats and applying sustainable land and forest management in critical habitats in Northern Pakistan.*

46. The project's incremental value lies in demonstrating the case of the selected high elevation landscapes[22] (alpine pastures, forests and critical watersheds) to develop participatory natural resources management practices and sustainable livelihoods for local communities while concurrently conserving the snow leopard and prey populations and their habitats, maintaining the ecosystem values of these landscapes, and ameliorating climate change impacts. A GIS database and maps will be developed for each of these conservation landscapes to map areas of high snow leopard, wild prey and biodiversity conservation significance, socio-cultural value and climate mitigation, grazing management, and community resource use. These layers will allow for defining which ecosystems can be sustainably used and which should be conserved in order to retain snow leopard habitat, connectivity and ecosystem integrity and ensure productivity of rangelands in the long term. It will also help develop capacities and required enabling frameworks through "learning-by-doing" approaches in the selected target landscapes. Sustainable pasture and forest management approaches will be based on assessments of key snow leopard and wild prey habitats, ecosystem services in addition to capacities and concepts established by earlier projects in Pakistan, as well as in other snow leopard range countries. The project will be able to develop and demonstrate a matrix of best practices of high range Himalayan ecosystem and snow leopard conservation for scaling up and replication in other landscapes nationally and globally. A series of publications and workshops will be launched to accomplish this.

47. They GEF increment supports four inter-linked outcomes that are aimed at achieving the Objective Outcomes:

Outcome 1: Improved management of snow leopard landscapes that integrates sustainable forest and land management and compatible conservation practice.

Outcome 2: Increased representation of priority snow leopard ecosystems in the Protected Area network.

Outcome 3: Participatory conservation in the targeted landscape enhanced to reduce human-snow leopard conflicts and improve livelihoods of community.

Outcome 4: Implementation, upscaling and replication of project approaches supported by effective knowledge management and gender mainstreaming

Component 1: Landscape level approach for snow leopard conservation

Total Cost: US$4,252,000; GEF project grant requested: US$642,000; Co-financing: US$3,610,000

Outcome 1: Improved management of snow leopard landscapes that integrates sustainable forest and land management and compatible conservation practice

[22] A biological landscape is defined as a system of interacting and myriad of ecosystems within a defined broader area that serves as a functional unit of productivity, protection and socio-economic benefit.

Baseline conditions for this outcome (without GEF project):

48. In the absence of GEF funding, sector agencies at the provincial and district levels will operate largely on a sector specific interventions and multi-sector coordination will function at a basic level. It is also likely that the focus of the current sector institutions will continue with a strong focus on infrastructure and other rural development activities without much emphasis on the integration of conservation and sustainable natural resources considerations into their respective sector planning processes in the snow leopard habitats. This approach will likely not be able to guarantee: (i) an effective multi-level integration between provincial and district government, and (ii) an effective consultation between different institutions and sectors. Further, the implementation of environmental and conservation policies' will be associated with lack of a strong and effective spatial planning at a landscape level. Any existing provincial or district level coordination mechanisms will mostly be represented by decision makers, rather than technical and professionals and, consequently have limited technical advocacy functions that support integration of sustainable resource uses. The institutional framework of country will continue to have a significant division of the competencies in matters of spatial and sectoral planning between provinces and national institutions, resulting in a significant lack of co-planning and co-management (between provinces and national levels) of natural resources. Province's spatial planning and policies will not address issues at landscape level and will likely not integrate biodiversity into development programs. They will continue to limit their action mostly to single interventions, often without a holistic vision and approach. Existing low capacity for ecological surveys and monitoring of species and habitats, and intense development pressure will lead to massive loss of biodiversity resources, compromising sustainable development. Scientific knowledge on biodiversity and ecosystems will be confined to very few individuals or institutions, with no systematic application at policy level and on-the ground.

Alternative for this outcome (with GEF project):

49. Under this outcome, the GEF increment will establish three 'model' landscapes and build multi-sectoral consensus through spatial planning and zoning to identify priority conservation areas or core areas and multiple use areas within the landscapes based on already available extensive surveys carried out by SLF. Multi-stakeholder governance and management framework will be developed and strengthened for the implementation of landscape zoning agreements and valley level management strategies and prescriptions in the three model landscapes. This Outcome will contribute to achieving the overall goal of developing working landscape models to conserve snow leopard, wild prey and associated species and their habitats across a significant swathe of the snow leopard global range. The outcome will further contribute to strengthening capacity of provincial and local level institutions for planning, implementation and monitoring of the population and related changes of key species to assess the health of the landscape. It will guide comprehensive and participatory landscape-level management that will entail an assessment of adequacy of existing PAs and PA operations within each landscape to identify requirements for biological corridors (inside and outside of PAs) and develop plans to manage and operationalize them. The plans will also identify priority areas for community conservation (outside of existing PAs) and define areas for improved forest and rangeland management. Monitoring and surveys will better inform decisions on conservation approaches as well as management responses.

50. This Outcome will be achieved through four outputs, which will contribute (along with the other three Outcomes of the project) to achieving the overall goal of developing integrated landscape planning and management approaches to conserve critical snow leopard habitat and associated biodiversity and in establishing capacity for planning, implementation and monitoring of the landscape management plans. It would also support the development of a replication strategy to facilitate the upscaling of the landscape conservation approach in the country.

Output 1.1: ***Functional multi-sector and multi-stakeholder coordination and governance mechanisms developed, discussed with stakeholders and supported***

51. Under this Output, the GEF increment will support the development of mechanisms for multi-sector and multi-stakeholder coordination and governance in the multiple use landscapes. All the three landscapes identified have diversity of sector and communities practicing different land tenure and natural resource management systems. There is also a range of government and non-government organizations that are active in different valleys of the landscapes to achieve the organizational goals of development and conservation. The establishment of multi-sector, multi-stakeholder coordination and governance institutional mechanisms to ensure coordination and convergence of planning, manpower and financial resources to integrate conservation, ecosystem services, sustainable meadow and forest management, water management, sustainable community natural resource management and use, and socio-economic considerations in the multiple use landscapes will be achieved under this Output. The multi-sectoral and multi-stakeholder landscape coordination committee will be chaired by the Chief Secretary/Additional Chief Secretary of the Province and include sector agency representation (including forestry and wildlife departments), as well as civil society and community representatives. The key responsibilities of the Provincial coordination committee will be the following:

- Facilitate development of directives, guidelines, manuals, and standards for integrated landscape governance: the Project will support the development of guidelines and standards for landscape zoning and plan elaboration, which will be mainstreamed into provincial level systems;
- Proposing specific framework policies to mainstream biodiversity conservation into key sectors at the macro level-scale;
- Facilitating coordination between sector entities to ensure synergies in planning and management within the landscapes as well as to ensure that sector agencies enforce negotiated landscape management agreements;
- Facilitate collaborative partnerships with provincial governments, CSOs and NGOs and local communities to achieve broad support for snow leopard conservation across their landscape ranges;
- Encouraging provincial and district governments to adopt management practices to mainstream biodiversity conservation into key sectors, through a holistic approach at the landscape level;
- Informing and guiding the endorsement process for the landscape management agreements and valley conservation plans, after a technical review of their contents to verify the compliance with operational and legal frameworks;
- Supporting coordination between landscape governance and planning and other potentially related policies, initiatives, and projects
- Supporting budget measures to implement policies and plans to mainstream biodiversity conservation into key sectors on a large scale;
- Facilitating coordination of programs of government agencies, Snow Leopard Foundation, other civil society organization and non-governmental organizations to ensure synergies at the landscape level;
- Ensuring that all new developments takes cognizance of agreements reached at landscape level as well as biodiversity values and has adequate mitigation/compensation plans with budgets for management of impacts;
- Coordinating and supporting the development and implementation of a provincial capacity building program for all stakeholders involved in the landscape planning and management process; and
- Advocacy of landscape approaches, landscape integration with socio-economic development priorities and financial planning.

Output 1.2: ***Landscape level spatial zoning and management agreements that integrates biodiversity, ecosystem services, climate mitigation, sustainable community resource use and socio-economic considerations developed, approved and implemented.***

52. Under this output, the GEF increment will support landscape level spatial zoning and management agreements (for three model landscapes (representative conservation areas) including the Karakoram-Pamir (3,824,500 hectares), Hindu Kush (1,383,300 hectares) and Himalaya (705,500 hectares) that would define commitments between a range of stakeholders and sector agencies (agriculture, mining, infrastructure, tourism, highways and livestock) to effectively manage snow leopard landscapes and reduce development and related threats. Since

conservation of broad mountain landscapes is necessary to conserve wide ranging species like snow leopard as well as other migratory species that move seasonally from higher to low elevations, this output will facilitate the zoning, adoption of landscape level agreements and actions to bring biogeographically and ecologically intact mountain ecosystems under conservation paradigm.

53. The proposed landscape spatial zoning exercise and management agreements will consider a more holistic and participatory approach of management of large landscapes, both protected areas, their buffer zones, and multiple use areas for multiple benefits, such as for snow leopard and their wild prey habitat conservation, climate change adaptation, provision of ecosystem services, sustainable management of pastures and non-timber forest products, and community benefit sharing and livelihood improvement. The landscape level spatial zoning (core, buffer, multiple-use and economic development zones) and management agreements will be agreed with key stakeholders, approved by relevant government agencies and individual sector agency plans would be implemented within the framework of the agreed landscape management agreements. This exercise would be undertaken through collaborative efforts with government agencies, private sector institutions and a range of Civil Society Organizations (CSOs) that are already implementing community centered conservation activities within these landscapes. Annex 3 provides a step-by-step guide to the design and implementation of integrated landscape level conservation management approaches.

54. The landscape spatial zoning and management agreements would be finalized through the following range of actions:

- Assessment and mapping of biodiversity and socioeconomic values [using significant information already available through SLF (e.g. snow leopard distribution and snow leopard and prey habitat suitability, threat distribution, land use and infrastructure), supplemented by additional ground validation where required] of the three landscapes to facilitate documentation of major fauna and flora, ecosystem services and climate change impacts;
- Using the existing socio-ecological information and maps developed under the previous activity, and through a consultative process with local communities and relevant stakeholders, reaching agreement on appropriate zoning of the landscapes into: (i) priority conservation area for the conservation of biodiversity, in particular for snow leopard and other endangered species and their habitat and dispersal and biological connectivity, corridors and crossings; (ii) multiple use areas for sustainable natural resource management and community resource use, including community based conservation and forest management, range management and climate risk management; and (iii) areas where development activities can take place within agreed environmentally sound principles;
- Assessment of major threats to snow leopard and associated ecosystem in each core and multiple use areas within the landscapes;
- Reaching broad agreement of strategies/prescriptions for each core and individual multiple zones within the landscape and identifying a holistic and participatory approach for management of these zones, including defining extension of protected areas and their buffer zones; identifying degraded areas of alpine meadows and sub-alpine forests for protection; areas for sustainable grassland, forestry and agricultural development and improvement; high conservation value forests (HCVFs) for multiple benefits; and community benefit sharing and livelihood improvement;
- Formalization and validation of the landscape management agreements. Landscape management agreements will be drafted and agreed in consultation with relevant stakeholders including line agencies and local communities, validated through multi-stakeholder workshop and submitted to government authorities for endorsement;
- Validating prioritized valleys for intensive management to demonstrate sustainable practices within the framework of the landscape spatial planning exercise and ensuing management agreements; and
- Defining partnership arrangements with other CSO programs that operate within the landscape with the aim of building a truly coordinated and collaborative effort for conservation of snow leopard and their habitats.

55. In the long-term, the mapping and strategic planning exercises would provide information for - future management of the landscapes for different conservation outcomes and uses; facilitate environmental assessment that meet conservation norms; and help develop appropriate governance and enforcement systems. This will therefore, ensure that future development is sustainable and environmentally appropriate and helps conserve the important biological elements in the landscapes.

Output 1.3: Participatory monitoring for snow leopard, other endangered species and prey species developed and implemented to inform management responses

56. Under this Output, the GEF increment will support the baseline surveys focusing on snow leopard and other predators, their natural prey and habitat. The baseline surveys will be conducted in collaboration with provincial wildlife departments, other conservation organizations and local communities. The available baseline established for snow leopard in Pakistan is $\pm$ 200 individuals[23] distributed across the three landscapes identified during the project. A framework for long-term participatory monitoring and adaptive research will be developed for each landscape based on priority conservation and development priorities. The monitoring program will then be approved by the respective provincial wildlife departments and implemented with project and government support. The Snow Leopard Foundation and provincial Wildlife Departments together will be responsible for design and overseeing the monitoring that will be complemented by a program to involve local communities in broader surveillance, monitoring and enforcement at the landscape level.

57. List of interventions to achieve this Output are summarized below:

- Design research and monitoring framework and implementation plan for baseline surveys and monitoring changes in status of snow leopard, wild prey and associated species and habitats that will help guide and inform future management of the landscapes. This plan will define methodology, monitoring frequency, and staffing and financial resource requirements;
- Validate existing snow leopard, prey and key endangered populations, including understanding of genetic diversity and genetic limitations of snow leopard populations, resource use, gene flow, and landscape level population structure of snow leopards in the three project landscapes;
- Monitor changes in snow leopard and prey population over time;
- Determine diversity in snow leopards and gene flow across landscapes. To determine diversity in snow leopards and gene flow across landscapes and help wildlife managers protect biodiversity by identifying a series of conservation units. Mitochondrial DNA sampling will be used to resolve taxonomic uncertainties and evolutionarily significant units (ESUs). The facility for initial process for preparing basic DNA samples will be established under the project. However, services like gene sequencing will be taken from other available laboratories; and
- Understanding human-wildlife conflict and poaching and trade in wildlife in the landscapes. Parallel to the participatory monitoring program, the project will provide support for establishing baselines in terms of validating poaching and wildlife trade, human-wildlife conflict, etc. in each of the three landscapes.

58. The monitoring would entail, design of a monitoring program, hiring of research and field assistant staff, travel and equipment costs and training of community data collectors to enable the establishment of baselines for a longer-term monitoring program, as well as to feed into the monitoring of the project outcomes and impacts, update of tracking tools, and mapping of wildlife trade routes, conflict zones and threats. The project will also support short-term action-based adaptive research to better understand the ecological, ecosystem, socio-economic, resource extraction and illegal wildlife related impacts on the landscape. A needs assessment workshop will be conducted in each landscape to determine relevant topics for action oriented research and arrangements to conduct these research activities. A list of indicative management studies and assessments is presented in Annex 11. In addition, at the beginning of the project implementation, international expertise would be obtained for detailed calculation of carbon benefits to validate the current estimates.

[23] Snow Leopard Foundation estimates (2017) based on recently completed surveys

Output 1.4: Strategy developed and implemented to facilitate replication/up-scaling of integrated landscape planning and management model to other sites

59. A replication strategy will be formulated towards the middle of the project based on lessons learned from the integrated landscape planning approach models developed and pilot tested in the three sites. This Output will support the analysis, documentation and dissemination of best practices and lessons demonstrating tangible improvements in biodiversity and natural resources status to provide examples for replication. Based on these best practices and lessons, the replication strategy will provide a basis for actions in other key landscapes and areas in identifying required institutional and coordination arrangements, resources and partnership commitments (including with NGOs), select interventions and potential sites for replication by the fourth year of the project.

60. Project activities will develop key elements necessary for replication, including (i) strengthening the enabling environment for mainstreaming of biodiversity and integrated natural resource management into planning and management of large biological landscapes in the country by proposing improvements in regulatory frameworks and developing methodological guidelines (Outputs 1.1 and 1.2); (ii) establish multi-stakeholder and multi-sectoral institutional platform necessary to promote integrated landscape planning and management (Output 1.2); (iii) develop and demonstrate models of multi-sectoral approach to economic and land use planning that addresses key knowledge gaps and uncoordinated planning and development agenda that impede sustainable and sound management of large biological landscape reserves (Output 1.2 and Output 3.1); (iv) develop tools and institutional arrangements that ensures socio-economic developments within biological landscapes maintain minimum standards of environmental compliance (Output 1.1); (v) support improved awareness and communications of impacts of unplanned developments on biodiversity and natural resources (Outcome 4); and (vi) expansion of cooperation with CSOs already working in snow leopard landscapes to promote a broaden partnerships for sustainable management of these conservation landscapes (refer Annex 18). Under this Output, the project will support the following activities:

- Facilitate dialogue with provincial authorities and other stakeholders interested in replicating best practices for managing biological landscapes;
- Conduct training programs to enhance skills and capacity of other provinces and partners interested in replication of integrated landscape planning and practice;
- Provide technical support to facilitate initiation of institutional planning for integrated approaches in other biological landscapes;
- Develop replication and scaling up strategy and plan (based on good practices and lessons learned from the Project and regional and international initiatives), including resource requirements, partners and coordination arrangements;
- Develop manuals/ handbooks/compendiums that would facilitate replication;
- Mobilize internal (including channelling existing provincial and district budgetary support) and external financial resources for replication; and
- Collaborate with CSOs to broaden partnerships for expansion of landscape planning approaches in snow leopard landscapes.

Component 2: Protected Area expansion and strengthening

Total Cost: US$3,313,107; GEF project grant requested: US$808,107; Co-financing: US$2,505,000

Outcome 2: ***Increased representation of priority snow leopard ecosystems in the Protected Area network***

Baseline conditions for this outcome (without GEF project):

61. As land-use planning would continue to largely neglect consideration of ecosystem values and biodiversity, this would lead to forest and rangeland degradation. This will result in the loss of high conservation value forests and meadows outside of the traditional protected areas thereby affecting ecosystem functions and increased fragmentation of snow leopard habitats. Sectoral approaches that prevail in terms of land use decision-making,

forest and meadow planning will not incorporate HCVF approach, landscape considerations nor community forest management approaches. National policies will not pay much attention to support land use optimization to sustain resource resilience and facilitate operationalization of the HCVFs and ecosystem services considerations. Enforcement capacities to ensure compliance with ecological standards in land use and reduction of high levels of trespassing in use of forests will remain weak.

62. While, around 3 million hectares within the three target landscapes are under the National Protected Areas Network, these National Parks, Wildlife Sanctuaries, Community Managed Conservation Areas and Games Reserve will likely continue to be managed in isolation with little consideration of the extensive natural habitats beyond its boundaries and the threats that emanate from outside its boundaries. Consequently, protected areas will continue to remain as islands and threats from surrounding landscapes will likely continue to increase, undermining the protected areas objectives. Designation of new and formal protected areas will come too late after heavy degradation of the habitats and, there will be insufficient resources and capacity to properly manage the areas even after proclamation. Current CMCAs would remain narrowly focussed on non-timber forest product harvesting rather than on biodiversity conservation. It would continue to lack ecologically defined boundaries and not adequately integrate conservation and development aspects. Consequently, snow leopard populations and prey species within and outside the traditional protected areas will face intense pressures and threats, with likely reductions in population sizes, thereby threatening the survival of the species over its entire Western range.

Alternative for this outcome (with GEF project):

63. Under this outcome, the GEF increment will support the extension of protection for snow leopard and associated species through the identification of new PAs and extension of existing PAs (in particular CMCAs) by addressing gaps in the existing PA system in the three model landscapes and expanding community conservation beyond the boundaries of the traditionally (government owned) PAs. PA management and financing plans (in particular for existing CMCAs) for critical snow leopard habitat will be developed/aligned and operationalized to provide for: (i) zoning for protection and sustainable use of natural resources by local communities; (ii) effective monitoring and law enforcement governing wildlife poaching, NTFP harvesting and other natural resource use; (iii) improved governance, including co-management and conflict resolution mechanisms; and (iv) monitoring of targeted species and ecosystems, establishing thresholds for resource use and informing PA management. CMCAs management will be re-aligned to focus more broadly on conservation outcomes and facilitate the better integration of biodiversity and community needs, to be extended to encompass areas of key biodiversity and snow leopard ranges and key conservation corridors. Since, the existing pressures on state managed PAs (that are usually located in the higher elevations of the valleys) originate from habitations located in the lower part of the valleys, the expansion and improved management of natural habitats through CMCAs and introduction of environmentally sustainable grazing and forest use practices therein, will likely help reduce existing pressures on the state-managed PAs themselves. The project will provide an opportunity to pilot the implementation of METT (Management Effectiveness Tracking Tool) in order to evaluate the current efficiency of the government managed PAs. The results will help develop a METT baseline for PAs in Northern Pakistan, which will help track progress in coming years. Support will also be provided for capacity building and training of PA staff (within model landscapes), community organizations and other relevant personnel to support effective PA management and operationalization, including for law enforcement. The project will train and equip forest and wildlife managers (PA staff and community organizations) for implementing monitoring and enforcement systems to reduce violations and wildlife related trade and crime. Overall, the aim of this cross-training and co-involvement between PA staff and community organizations/local communities will improve efforts not only within PAs, but also coordination and integration of these efforts across the larger landscape, including corridor and rehabilitation zones spanning both PA and non-PA regions.

64. This outcome will be achieved through the following outputs, which will contribute to achieving the overall goal of expansion and impoved management of critical snow leopard habitat within the three landscapes.

Output 2.1: Protected area network in the snow leopard range expanded through identification, mapping and gazettal of new protected areas

65. This Output will support the identification of the candidate sites to be delineated as new PAs or expansion of existing PAs, following the evaluation of the existing PA coverage and its effectiveness, using range of socio-ecological information such as the species distribution and habitat suitability maps. Potential PAs thus identified and delineated will be approved by competent authorities and governance systems agreed to. It is anticipated that around 200,000 ha of additional critical snow leopard habitat will be brought under the PA network, mainly as CMCAs (12 new and 5 existing) in the 17 project valleys to improve habitat connectivity and protection for snow leopard.

66. The following action will be undertaken to achieve this output:
    - Assessment of existing PAs in the model landscapes for their coverage and effectiveness to support endangered species such as snow leopard based on habitat suitability modeling;
    - Review of existing PA boundaries based on ecological information to ascertain their effectiveness for conservation of species, habitats and maintenance of home ranges of key species to enable boundary adjustments;
    - Identify and establish 12 new and improve 5 existing Community Managed Conservation Areas (CMCAs) within the 17 project valleys to enhance habitat connectivity and the conservation outcomes of each landscape. Development of corrals, livestock insurance, rangeland and pasture management and NTFP, ecotourism and other livelihood based support (financed under Outcome 3) will build community support for establishment of CMCAs and their effective management. The project will provide necessary support to help communities plan, manage, conserve and maintain such areas; and
    - Establish METT baselines for selected PAs in northern Pakistan providing an opportunity to pilot the implementation of METT in order to evaluate the current efficiency of the PAs, in particular to evaluate effectiveness of community managed sustainable grazing and improve habitat connectivity. The results will develop a METT baseline for PAs in northern Pakistan, which will help to track management effectiveness progress in the coming years.

Output 2.2: Management and financial plans for priority Protected Areas developed, discussed with stakeholders and approved by the government

67. Under this Output, the GEF increment will facilitate the development and improvement of management plans for protected areas, but most specifically for 5 existing and 12 new CMCAs in the 17 project valleys to focus on biodiversity conservation and sustainable natural resources management (rather than on the current narrow focus of management of non-timber forest product harvest and enterprise development alone) and develop guidelines for their improved conservation and management, including community commitments to conservation. The CMCA management plans will be developed in close consultation with key stakeholders, and then approved by government agencies for implementation.

68. This Output will be achieved through the following actions:

    - Creation of 12 new CMCAs[24] within the 17 project valleys that are designed and tested under various governance, management and enforcement regimes. CMCA management will be re-aligned to focus more broadly on conservation outcomes and facilitate the better integration of biodiversity and community needs to be extended to encompass areas of key biodiversity and snow leopard ranges and key conservation corridors;

[24] In addition to update of management plans of the existing 5 CMCAs, 12 new CMCAs will be defined following the valley conservation planning process in the 17 valleys to be supported under the project and investments for these new CMCAs will be financed separately under Outputs 3.1 and 3.2

- Development of management plans for the 12 new CMCAs established under the project and update of management plans of the existing 5 CMCAs;
- Preparation of site-specific plans for soil and water conservation, sustainable resources use, protection of degraded alpine pastures and sub-alpine forests within and outside protected areas and HWC mitigation measures;
- Development of protocols for conservation of snow leopard, endangered species and wild prey habitats;
- Development of management prescriptions for community managed conservation areas, including the sustainable use of resources within these areas etc.
- Extensive consultation with key stakeholders, including local communities on their management responsibilities;
- Coordinate with development sectors to integrate biodiversity conservation principles into sector development plans within CMCAs; and
- Support the implementation of conservation interventions to enhance habitat of snow leopard and associated species within the framework of the overall landscape vision or strategy.

69. A range of conservation management interventions that will likely be supported within the existing CMCAs and new CMCAs under the project is provided in Annex 4. These management interventions will be informed by the overall landscape zoning and vision (Output 1.2) and include only conservation measures (soil conservation and stabilization measures, water harvesting and conservation, and re-seeding with natural grasses to enhance productivity and protection of forests and alpine and sub-alpine pastures) and management of HWC (e.g. predator proof corrals and livestock insurance) within the 17 existing and/or new CMCAs in the project landscapes to reduce livestock predation and build community support for conservation of snow leopard and associated species and their habitats. Interventions for new CMCAs are covered under Output 3.1 and 3.2 through the valley conservation planning process. The planning and implementation of conservation management activities within the 17 CMCAs will be a collaborative exercise between SLF, key CSOs, local communities and the provincial wildlife departments.

Output 2.3: Capacity of forest and wildlife staff in the demonstration sites enhanced to improve conservation outcomes and combat wildlife crime

70. This Output will help build capacity of the key stakeholders, including staff of the respective forest and wildlife departments, and other stakeholders to manage respective components of the landscape which includes – snow leopard, wild prey and associated species and habitat conservation; sustainable pasture and forest management; and sustainable livelihood improvement to design a workable management models. Training of forest and wildlife staff will focus on methods of mapping and spatial planning, implementation and monitoring landscape levels plans. In terms of key biodiversity area, HCVFs, CMCAs and biological corridor management, training will focus on methodology for monitoring of indicator species, evaluation of effectiveness of sustainable pasture and forest management, forest and pasture rehabilitation activities, interpretation and application of laws related to wildlife, protected areas, biodiversity and surveillance, monitoring and prosecution of wildlife-related crime. Training programs and curricula will be developed, and integrated into regular training programs of relevant institutions, including the Peshawar Forest Institute. After the training programs are implemented, the key stakeholders will participate in the design, implementation and participatory monitoring of landscape conservation and management plans. The capacity of department staff and community members to monitor snow leopard and other species will be achieved through the following activities:

    - Conduct capacity needs assessment of the wildlife and forest department staff, other stakeholders and communities;
    - Based on the capacity needs assessment, development of training modules/manuals for conducting different training courses in rangeland management, forestry, restoration approaches for different pasture and forest types, wildlife and protected areas management, livestock and poultry and other livelihood options mentioned in the project will be developed;

- Conduct trainings in wildlife management, assessment and monitoring techniques. Necessary equipment and field survey gears will be provided to field staff;
- Develop syllabus and course contents for diploma course in ecosystem management; and
- Arrange diploma courses in ecosystem management for the selected field staff of the wildlife and forest departments. Institutional support will also be provided to the institute arranging the diploma course.

71. In terms of development of a wildlife crime deterrent system, the project will train staff in the use and efficacy of modern tools and techniques in wildlife law enforcement. It will also explore the potential for use of modern tools and techniques to detect trafficking and illegal trade in wildlife and wildlife parts. Creation of a common platform for multiple enforcement agencies and border forces can be an effective multiplier. Such a strategy will require comprehensive approach for collaboration and capacity building.

72. Under the GEF alternative, the following activities are planned for promoting wildlife crime deterrent systems:
    - Develop intelligent information gathering system for collection of information on poaching and wildlife trade within the landscapes and closely liaise with police, security and custom personnel and others for regular review and enforcement;
    - Train wildlife, army and local police staff to improve capabilities for crime scene investigation and basic forensic science (using existing State Forensic Science Laboratories, to the extent relevant), reporting and record keeping;
    - Train staff of wildlife department, police, security and legal personnel, custom officials, to develop intelligent based information management systems using modern tools and techniques to minimize wildlife related crime and improve prosecutions of wildlife crime; and
    - Investigation of existing routes of illegal wildlife trade, middle men involved and elements dealing with sale of illegal arms, snares, traps etc. and development of strategies for deterring such activities;

Output 2.4: Wildlife agencies have information on hotspots and pathways of Illegal Wildlife Trade (IWT) to organize targeted anti-poaching surveillance operations against wildlife crime.

73. The Northern Pakistan ranges pose specific challenges for law enforcement on account of factors such as difficult terrain and poor connectivity. Other factors include: inadequate enforcement staff, mobility, effectiveness of communications, understanding of the crime, skills for identification of species and the specimens used in illegal trade, understanding of illegal trade connectivity and poaching and trade hubs, routes, networks, protection laws and legal procedures, enforcement operation systems, trade through cyber space, efficiency and efficacy of data collection and creation of data bases, efficiency and ethics of data collation, methods of analysis of data to understand temporal and spatial aggregations, development of joint surveillance system and enforcement are critical deterrents for combating wildlife crime. Such capacity, skills and enforcement systems are currently lacking in this region. The outcome of this exercise would be the development and implementation of an anti-poaching surveillance strategy and plan to reduce incidents of wildlife poaching and illegal trade.

74. The following action will be undertaken to achieve this output:

    - Detail investigation of the past and current trends in illegal trade in wildlife parts and products within the project landscapes in general, and also within the provinces/districts in the landscapes will be conducted in collaboration with local communities and local authorities;
    - Mapping hotspots and pathways of illegal activities;
    - Data on poaching and illegal wildlife trade will be shared with law enforcement agencies (Police, Customs, Revenue and Paramilitary Forces) for targeted intelligence gathering and information sharing, coordination, reporting and effective IWT prevention operations. This exercise will provide enforcement agencies with information on poaching and illegal wildlife trade that would enable the organization of surveillance and monitoring operations against wildlife crime. Information generated through the project, including identified illegal wildlife trade hotspots, implementation experiences and intelligence will be integrated into training materials and communication tools under the project; and

- Development and implementation of anti-poaching surveillance strategy and plan to reduce incidents of wildlife poaching and illegal trade.

Component 3: Participatory conservation in snow leopard model landscapes through sustainable community development

Total Cost: US$9,047,647; GEF project grant requested: US$2,382,647; Co-financing: US$6,665,000

Outcome 3: ***Participatory conservation in the targeted landscape enhanced to reduce human-snow leopard conflicts and improve livelihoods of community***.

Baseline conditions for this outcome (without GEF project):

75. In the absence of the GEF project, there will be slow progress in developing alternative livelihoods resulting in continued unsustainable livestock grazing and other forms of resource extraction, particularly within PAs and adjacent areas. Competition for alpine meadows between snow leopard and wild prey and livestock will continue unchecked resulting in increased human-wildlife conflict. Traditional practices of pastoralism and sustainable use of natural resources will continue to decline, resulting in a more open grazing regime and high livestock density that will eliminate critical habitat for snow leopard and associated prey species. Markets for agricultural, forestry, livestock and tourism products will continue to be poorly developed thereby acting as a constraint for improving the lives and livelihoods of local communities. In addition, business approaches and opportunities to enhance and mobilize funds (tourism, sustainable hunting, production of local crafts, catering, etc.) will be largely limited. Consequently, local communities will continue to depend on natural resources, resulting in further degradation of wildlife habitats and severing connectivity between important snow leopard habitats. Workable strategies to protect livelihoods and/or compensate for wildlife damages to crops and livestock will continue to exacerbate resulting in increased human-wildlife conflict.

Alternative for this outcome (with GEF project):

76. Under this Outcome, the GEF increment will support number of activities aimed at improving conservation outcomes, improved protection of forest and grazing areas, reducing human-wildlife conflicts by enhancing incentives for conservation by primarily focusing on livestock-based and agricultural-based options for economic development and rangeland improvements; improving resilience to climate risks; and reduction of human-wildlife conflicts. It will also focus on improving and diversifying rural livelihoods as a means to strengthen agricultural and non-agricultural based incomes. In this regard, it will build on the lessons from the GEF funded mountains and markets project in working with the private sector on product development and marketing of NTFP products. The community-based models currently proposed are aimed at: (i) reducing economic losses to herder communities due to snow leopard predation through livestock insurance schemes, predator proof fencing and improved herding practices; (ii) enhanced economic gains by herder communities; (iii) enhanced tolerance towards snow leopards and associated wildlife, and understanding of environmentally friendly forest protection; (iv) improved protection of livestock from disease through promotion of livestock vaccination programs for disease control; (v) enhanced agricultural and non-agricultural livelihood activities to enhance local incomes and strengthen community commitment to conservation; and (vi) enhancing community resilience to climate risks.

77. Following the development of landscape management plans, valley management plans will be developed and implemented through extensive community consultation and in cooperation with local organizations. The valley management plans will cover community meadows, forests and agricultural lands within the lower parts of the valley and the interface with the adjacent protected area that are usually in the higher elevation. These valley plans will inform the following: (i) application of improved community livestock grazing and herding practices to facilitate improved management of degraded rangelands within CMCAs and adjacent national parks (to be implemented under Output 3.3); (ii) co-management agreements with local communities for sustainable natural resource use (such as off-take of fuelwood and NTFPs); (iii) appropriate management, monitoring, surveillance

and enforcement measures for reduction of wildlife related conflicts, poaching and illegal wildlife trade; and (iv) improved and diversified alternative livelihood opportunities. Communities within the valleys and in important biodiversity areas adjacent to the PAs will be encouraged to adopt improved climate resilient and biodiversity friendly land improvements and forest management practices (e.g. providing adequate time through rotational grazing regimes); improved shrub land management (e.g. promoting sustainable fuelwood collection, use of fuel efficient stoves and reduced shrub land grazing); silvi-pastoral practices; community forestry using only native tree species to provide sustainable fuelwood; sustainable fodder cultivation; and water and soil management. The promotion of improved conservation and sustainable resource use practices at the valley level will help reduce unsustainable grazing and other resource use practices in the adjacent protected area. Training and extension support on appropriate technologies will be provided.

Output 3.1: Site-specific integrated valley conservation plans designed and implemented in areas of high biodiversity value

78. Under this Output, the GEF increment will support development of valley conservation plans for a total 17 valleys in the three landscapes. The valley conservation plans will encompass both community lands that are usually at the valley bottoms and interface with the adjacent protected area that are typically located at the higher ridges of the valleys. Addressing conservation and sustainable use practices at the valley level is expected to help reduce and improve management of existing grazing and resource use pressures within adjacent protected area thus, resulting in a holistic approach to conservation and management of snow leopard habitats. The valley conservation plans will include guidelines for improved conservation of - natural pasture and forest management; medicinal and aromatic plant harvest and monitoring protocols for management; integration of conservation and livelihood options at the village level; reduced wildlife-human conflicts; climate adaptation; and integration of biodiversity conservation into sector agency plans. The valley conservation plans will be consulted and agreed by key stakeholders, and approved by provincial government agencies for implementation. A bottom-up participatory valley conservation planning process will be established that complements existing planning processes at the local level (Annex 5). The participatory process will include developing new and diversified livelihood options in addition to testing and promoting community-based natural resources co-management strategies to strengthen governance arrangements, along with clearly defined community rights and responsibilities, technical support and skills, funding and extension support required.

79. This Output will be achieved through the following actions:

- Initiate dialogue to establish new and strengthen existing Valley Conservation Committees (VCCs). Conservation issues will then be discussed considering locally perceived development and resource management needs. Community champions will be identified to act as motivators for conservation and play a strong role in institutional networking to realize the objectives of ecosystems management;

- VCCs will take the lead in ensuring community engagement in the planning exercise while developing the valley conservation plans (VCPs). They will also oversee implementation of the VCPs, and maintain cluster-level linkages at the landscape level. Women and disadvantaged communities will be targeted. Support to local communities at the valley level will be provided through a Terms of Partnership (ToP) agreement that defines mutual obligations and provides checks and balances to enforce conservation measures;

- Mapping of socioeconomic, ecological and climate risk profile of the valleys will inform the identification and extent of specific conservation, sustainable natural resource use and alternative livelihood needs. Key stakeholders - CSOs, government line departments and local communities with good representation of women will be involved during assessment and mapping exercises. Training will be provided to VCC members and other stakeholders in conservation management planning techniques. National and regional good practices on protection of alpine pasture and sub-alpine forests for snow leopard and wild prey conservation will be adopted. The project will support local CSOs/VCCs to conduct participatory resource

assessments/surveys that will be used as the basis for identifying the problems and conservation needs of each valley. Support will be provided in GIS-based mapping by collecting and analyzing remote sensing data and satellite imageries. Local communities and local level stakeholders will be trained and involved in ground-truthing of the maps;

- Institute a participatory community-based planning process to define options (building on community's indigenous practice and knowledge) to improve conservation, sustainable natural resource use and livelihood outcomes. The multi-year plans will provide a road map for project support and have full ownership of the VCCs and local sector agencies as they will be fully involved in the planning process. The plans will include interventions focusing on: biodiversity conservation; improved land and forest management; soil and water conservation practices and investments to improve climate resilience. It will also support sustainable use of forest and pastures through promotion of a suitable mix of protection measures, improved herding practices, social fencing and sustainable NTFP practices. In addition, it would support measures to improve conservation and sustainable management of forest resources through zoning; improved management prescriptions for protected areas and community managed grazing areas; as well as measures for sustainable NTFP and fuelwood collection, improved forest-based livelihood and income diversification; and effective monitoring and law enforcement concerning wildlife poaching and trade will be supported.

- Endorsement of the valley conservation plans by the Provincial Coordinating Committee;

- The project will support implementation of the **valley conservation plans** with interventions within the different parcels of land to enhance conservation (under Outcome 2), livelihood and ecosystem benefits and human-wildlife conflict mitigation (under Outcome 3) within the framework of the overall landscape strategy (Output 1.2). These plans will be shared with potential and interested local, national and international donors including NGOs and private sector for additional funding support. If required, cooperation agreements will be signed with the donor and coordinating agencies.

- Valley conservation plans (Output 3.1) and their implementation (Output 3.2) with project-supported investments will be developed following extensive consultation with the community members.

80. The 17 valleys will encompass a total of around 12,000 households and the number of direct beneficiaries of the project will be around 4,000 households (around 25,000 people) that includes households that are partly or directly dependent on natural resources for their livelihoods. The habitations in each of these valleys are in the lower part and are accessible. While the project will directly support these valleys through its investments, additional valleys would be either supported through existing CSOs, NGOs and government programs or will be considered for minimum project support where feasible, particularly in the implementation of livestock vaccination programs or insurance schemes. The 17 valleys have been selected based on the following criteria:

- Proximity to, or located near protected areas, biodiversity rich areas and biological corridors within the landscape;
- Located in snow leopard habitat;
- High poverty levels and high dependency on biomass resources within the landscape;
- Limited financial support from government development agencies;
- Located within valleys, where there is substantial human populations, human-wildlife conflict and other threats; and
- Villages where political and social support is conducive for investment planning.

Output 3.2: Projects on sustainable community based natural resources management, sustainable livelihood and solutions to reduce human-wildlife conflicts developed and implemented.

81. Based on the site-specific integrated valley conservation plans (Output 3.1) and participatory valley conservation planning process (Annex 5), the GEF increment will support limited activities in each valley within a broader

range of potential investments for: (i) improved rangeland, pasture and livestock management to improve productivity and reduce human-wildlife conflicts; (ii) environment friendly community land and forest protection and resource use; (iii) sustainable livelihood improvement and diversification practices such as improved farm and non-farm productivity, ecotourism, value chains, etc.; and (iv) reduced livestock depredation by snow leopard (through corrals, livestock insurance, livestock immunization and improved herding practices). Annex 4 and 7 provide a list of options of activities. The expected outcome of this output will be the formalization and implementation of 17 valley conservation plans. The project will provide technical assistance and support implementation of the village conservation plans. The content of a valley conservation plan is provided in Annex 6. The valley plans will be used by local communities to improve and diversify livelihoods; enhance sustainable management of natural resources (pasture, rangeland, non-timber forest products, etc.); reduce wildlife-human conflicts; promote climate resilience; and the conservation of biological resources. Through the implementation of the 17 valley plans, the project intends to improve the sustainable management of a total of 200,000 ha of biodiversity rich and key snow leopard habitats by establishing Community Managed Conservation Areas.

82. As the project envisages a fully participatory process, project investments are not defined at this juncture (although Annex 4 and 7 provide a menu of conservation, sustainable resource use, livelihood and HWC management options), but would evolve during the valley conservation planning process so that project investments are defined by community needs and priorities. This would include support for: (a) creation and management of new CMCAs; (b) pasture and livestock management; (c) community-based biodiversity-friendly land and forest management interventions; (d) community livelihood improvements; and (e) livestock-predator conflict management (including predator proof corrals and livestock insurance schemes).

83. Grant financing for the valley plan investment would be performance-based and designed by ensuring transparency and extensive consultations with local and district entities and other relevant stakeholders. It will be well coordinated and promoted through effective technical support, regular review of implementation arrangements and the use of monitoring and evaluation information to adjust and refine the system in consultation with the stakeholders (Refer Annex 5 for criteria regarding micro-grants for valley conservation plan activities). Grants will be a typical cash for work payments based on the following principles: (i) competitive assessment to select village institutions/beneficiaries; (ii) selection of beneficiaries in accordance with transparent criteria (to be defined early in the project); (iii) upfront payment (percentage of payment to be defined in consultation with stakeholders); and (iv) balance payment on successful completion and verification of work. Efforts will be made to try and identify additional funding support for this activity from existing government and local development programs. The Output is expected to enhance incomes of farmers and pastoralists from alternative livelihood activities to supplement their existing income. This Output will also promote micro-finance by facilitating linkages with rural banks and microfinance institutions. Based on initial assessment of valley plan options during the project preparation phase, a menu of possible valley investments and alternative livelihood options are presented in Annex 7. While, the valley conservation plan investments will be supported under the project, complementary financing will be also sought through district, sector and CSO programs to ensure broader financial support and long-term commitment to improving the economic well-being of local communities. The convergence of government resources to support landscape activities will be sought through the support of Provincial Coordination Committees (PCCs) and by co-opting provincial, district and sector agency staff into Landscape Planning and Implementation teams (LPITs) during the valley conservation planning process. In addition, the project will evaluate the feasibility of establishing valley level community revolving funds that will help to financially sustain and expand investments beyond the project period (refer Section V (iv) “Sustainability and scaling up” for discussion of suggestions for capitalization of such funds)

Output 3.3: Community-based surveillance, monitoring and wildlife crime prevention mechanism/system developed and implemented

84. This Output will support: (a) designing of community surveillance, monitoring and crime detection plans for each landscape; (b) mobilization of community groups for wildlife crime surveillance and monitoring; (c) training of community groups and provision of equipment and other relevant support for surveillance and monitoring; (d) development of communication and reporting formats and communication systems for information flow and management; and (e) designing a long-term plan for sustaining community surveillance and monitoring system beyond the project.

85. The following activities will be undertaken to achieve this Output.
    - Design community surveillance, monitoring and crime detection plans for each landscape;
    - Mobilization of community groups for wildlife crime surveillance and monitoring and provide equipment and other relevant support for surveillance and monitoring. The activity includes selection and mobilization of community groups to undertake surveillance and monitoring and provision of training, field and surveillance equipment and limited stipend to participating community members of the surveillance teams;
    - Development of communication mechanism for information sharing and management. Communication and reporting formats and communication systems for information flow and management will be developed to assist the communities in wildlife crime surveillance and monitoring;
    - Design of long-term plan for sustaining community surveillance and monitoring system beyond the project in consultation with the local communities; and
    - Engagement and extension of financial support to community wildlife guards on temporary basis.

Component 4: Support for international cooperation and conservation and management actions informed by knowledge, awareness and monitoring and evaluation

Total Cost: US$2,118,193; GEF project grant requested: US$590,600; Co-financing: US$1,527,593

Outcome 4: Implementation, upscaling and replication of project approaches supported by effective knowledge management and gender mainstreaming.

Baseline conditions for this outcome (without GEF project):

86. Information and knowledge on the benefits of integrated landscape planning in Pakistan and especially in the snow leopard areas would remain limited, often anecdotal and mostly restricted to a sectoral approach. The lack of knowledge and information sharing on the status of natural resources, biodiversity, ecosystem services and sustainable livelihood options will remain a key barrier to achieving integrated landscape planning and conservation of snow leopard habitat management. Collaboration between provinces and neighboring countries would prevail, but at a slow and ad-hoc basis, often restricted to occasional meetings or individual actions, rather than a coordinated approach for partnership in information exchange on wildlife trade and poaching. Information on snow leopard and its management will remain fragmented.

Alternative for this outcome (with GEF project):

87. The goal of Outcome 4 is to improve knowledge and information systems to enhance awareness on the benefits of landscape approach for conservation of snow leopard and their associated biodiversity and ecosystems by improving policies that support conservation and sustainable use. To achieve such an objective requires improved understanding and participation of key target groups (decision makers and staff from key sectors), non-governmental organizations, and community groups, researchers, including women and the most vulnerable segments of the population is critical. The development of a communication and outreach strategy is intended to promote meaningful stakeholder participation in biodiversity conservation, sustainable natural resource use and alternative livelihood as well as replicate and scale-up successful lessons in resource conservation more widely in the landscape and beyond. In addition, safeguarding snow leopard and associated species populations will be achievable through appropriate communication and messaging to government stakeholders, community, general public and most importantly youth. This will be accomplished through awareness campaigns, creation and maintenance of an online public access database. This Outcome will also

increase inter-provincial and international cooperation by establishing links with relevant global and regional programs such as GSLEP program and other relevant initiatives. Targeted support will be provided for Pakistan's participation in the Global Snow Leopard Ecosystem Protection Program, including for partnership development and trans-boundary coordination. For example, Pakistan's participation in international meetings and to inter-governmental cooperation on snow leopard conservation (e.g. for inter-governmental control of illegal trade), international collaboration and joint learning and research on snow leopard (e.g. gene flow and connectivity of populations) and good practices for snow leopard conservation. The Snow Leopard Foundation will have new and additional information on the best practices in snow leopard conservation and updated mapping, monitoring and evaluation data that will strengthen its existing database and will be made available beyond the circle of project stakeholders.

Output 4.1: Communication, gender mainstreaming and monitoring and evaluation strategies developed and implemented at national, provincial and local levels.

88. A communication, gender and knowledge management strategy has been developed (Annex 12) to achieve the overall goal of creating linkages between the stakeholders from the grass-roots to the national and global level for exchange of information and ideas, and combined implementation and mainstreaming gender in community-based conservation and wildlife crime prevention. This is intended to build awareness and generate support amongst policy makers, sector agencies and local communities in the conservation of snow leopards and their habitats. It is also intended to facilitate and generate a common vision for the project amongst the various stakeholders. The communication strategy will help build visibility of the conservation initiatives in the landscape and connecting policy makers, media, research and academic institutes, private sector, NGO's and public through a comprehensive program such as consultations, brand building, outreach and awareness. The communication strategy will further facilitate a horizontal and vertical exchange of information and knowledge to strengthen decision support systems available to agro-pastoral or local communities and facilitate knowledge exchange through field visits and awareness trainings. In addition, it will identify promising and good practice and adaptive mechanism relevant to landscape conservation approaches, sustainable land and pasture management and help document and disseminate results of best practices to enable up-scaling. The intent of the Gender Assessment and Mainstreaming Action Plan (Annex 9) is to enhance the role of women in conservation-based actions and reduction of IWT; provide voice for women in the local decision making process related to conservation; sustainable resource management; livelihood; and other local level activities.

89. Resource materials for trainings and awareness activities will be developed in multi-lingual format to create stronger impact of project activity or message to the stakeholders. Nature clubs will be set up in the three landscapes to educate and create awareness to children. Teachers will be given specific training to serve as agents of change. Nature study camps will be conducted to provide environmental education opportunities for school children to understand the importance of protection of snow leopard habitats and to involve children in action-based programs related to environment in their surroundings.

90. The indicative activities for the output include:

- Project communications plans developed and updated annually for each landscape to conduct awareness and outreach activities for a variety of stakeholders so that: (i) the project is well understood, accepted, and implemented effectively and equitably; (ii) knowledge and lessons learned from the implementation process of this project are captured and used to improve current and future project practices; (iii) understanding of landscape and valley conservation planning and management is increased; (iv) understanding and implementation of best practices is improved; (v) the public has an increased understanding of impact of unsustainable practices on the snow leopard and its ecosystems, and (vi) knowledge products are disseminated and applied.
- A package of teaching material/lessons applied to support awareness programs at schools and educational facilities to improve appreciation of conservation of snow leopard landscape;
- Develop branding of the snow leopard product and public access website for improving awareness and communication of project objectives and impacts;

- Review and regularly update M&E plan including results framework baselines during project inception phase, tracking tools, TOC and subsequently adopt these findings to implement all aspects of the project;
- Conduct mid-term and terminal evaluation in line with UNDP/GEF requirements and incorporate and adapt recommendations of MTR into revised project plans and monitor their implementation; and
- Elaboration and implementation of gender mainstreaming plan for the project, updating as required so as to: (i) engage different stakeholders and implementing partners to identify the impact of habitat degradation and climate change on women and adaptation strategies to empower women and vulnerable households; (ii) strengthen capacity to apply gender and socially inclusive perspective to every set of activities; (iii) analysis of gender and social roles in valleys to inform resulting plans and ensures equitable distribution of benefits; and (iv) information is collected and shared across gender and social divides.

Output 4.2: Replication of project approaches through effective knowledge management and gender mainstreaming

91. An effective M&E system (Output 4.1) and regular analysis of M&E data will allow the project to: (i) identify the most effective project strategies; (ii) check project assumptions and risks; (iii) prepare management responses to changing political, economic and ecological environment; (iv) to learn from adaptive management; (v) to incorporate learning in the project planning and adaptive management; and (vi) share experiences and learning amongst national, regional and international partners. Lessons and experiences from the project will be reflected in annual reports to ensure that these will galvanize effective strategies to deliver project outcomes. Additionally, lessons learned will guide and influence future national level policies and regulations (see Annex 2) as well as support replication and scaling up of best practices. To systemize and share its lessons and knowledge, the project will use different communication channel as outlined below:

    - Quarterly project information bulletin;
    - Technical reports and publications in mass media on landscape spatial planning documents and sector agreements, valley conservation plans, poaching and IWT reports and predator-prey information and awareness materials;
    - An Implementer's manual with methodologies and guidelines that captures the process of community based conservation and implementation of best practices will be developed for promotion of community based conservation practice in snow leopard areas (produced under Output 1.4);
    - Regional and provincial workshops to disseminate field lessons and inform legal and policy reform relevant to landscape conservation and sustainable natural use practice;
    - Project website (linked to national and provincial websites) to share project-related information with key national and provincial stakeholders (documents produced under Output 1.4 and Output 1.2 and Output 3.2 and 3.3);
    - Institutionalization of good practices through promotion of sector and/or national/provincial regulatory instruments in order to secure sector/national/provincial-wide replication and up-scaling;
    - Development of a sustainability strategy to define approaches for replication and upscaling of project learning (Output 1.4).

Partnerships will be developed with the CSOs, provincial governments and corporate sector to support replication of best practices in at least 5 additional valleys using non-GEF resources.

Output 4.3: Knowledge management is coordinated with global, regional and national programs to improve cooperation and research on snow leopard conservation.

92. Establishing coordination with the forest, police, defense, revenue and customs department for intelligence gathering is necessary to control illegal trade in wildlife. Similarly, inter-provincial coordination is also important. The output will focus on assessment of existing mechanisms for collaboration and information sharing at provincial, national and international levels and recommend suitable mechanisms for coordination and information sharing. Information and knowledge sharing networks with neighboring countries will be developed

to help link the national level agencies to experts in other countries for biodiversity conservation related information sharing and coordination.

93. Linkages will be established with international and regional conservation initiatives and networks such as GSLEP to which Pakistan is a member, Snow Leopard Network, Snow Leopard Trust and Snow Leopard Conservancy. The project will take measures to develop mechanisms to improve inter-provincial cooperation through institutional arrangements within provinces to combat IWT and protect trans-boundary species, including identification of illegal wildlife trade hotspots, implementation experiences and intelligence. Under this output, the project will support the following activities:

- Inter-provincial memorandum of understanding (MOUs) developed and information shared regarding poaching and IWT;
- Strengthened inter-provincial cooperation, including joint surveillance and patrolling to manage wildlife poaching and crime;
- Technical and best practice reports shared with the GSLEP Secretariat;
- Project participates and presents project results at GSLEP knowledge management events;
- Facilitated dialogue, information exchange and cross-border collaboration with neighboring countries linked with legal and illegal wildlife trade in Pakistan under SAWAN to support trade monitoring and enforcement; and
- Mitochondrial DNA sampling data (Output 1.3) of snow leopard populations will be shared with neighboring countries as appropriate to establish better understanding of populations across national border.

ii. Partnerships:

94. The project will integrate experiences and good practices both in Pakistan and other countries by linking to relevant initiatives at the local, national, regional and global levels. The Global Snow Leopard and Ecosystem Protection Program (GSLEP) is a comprehensive global approach to conserve the endangered snow leopards and unique heritage and fragile mountain ecosystems of which is an important icon. The three model landscapes (see Annex 1), the focus of this project are part of the 20 model landscapes identified in GSLEP, and the outcomes of this proposed project are developed following the KPIs set under GSLEP. The project will complement the GSLEP by implementing national targets, and will coordinate with the GSLEP secretariat on regional activities and global goals, through its NPD (national project director) who is also a focal person for GSLEP in Pakistan. In fact the GSLEP Secretariat has developed a "Standard Management System for Information Sharing", which will be adopted for periodic reporting to the GSLEP.

95. The project has been designed to complement and build on several past and on-going projects in Pakistan and collaborate with the range of CSO/NGO community based initiatives in the landscapes (refer Annex 18), so as to ensure a multi-institutional coordinated and collaborative approach to landscape planning and management. SLF will establish collaborative partnership through MOUs with provincial forest and wildlife departments and key CSOs to implement proposed project activities on the ground, that will build on the comparative strengths of individual agencies and CSOs to avoid duplication and overlap of geographical spread of activities. Table 3 below and Annex 18 lists complementary CSO programs.

Table 3: Partnership Arrangements

Name of on-going and planned program/project, years of implementation	Program/project objectives and targets	How proposed UNDP/GEF project will collaborate with the program/project?
GEF-funded "Mountains and Markets: Biodiversity and Business in Northern Pakistan, 2011-2017	Promoted the development of ecosystem based enterprises in the northern territories of Pakistan. In this project the communities in both these provinces were organized proactively for biodiversity conservation from community based conservation areas was used as an incentive to mobilize communities. The project influenced the establishment of Mountain Areas Conservancy Fund (MACF) by the Federal Government.	Will draw on the lessons of the project in terms of processes for mobilization and organization around biodiversity conservation. It will also take lessons from establishment of Mountain Areas Conservancy Fund (MACF) in establishing Valley Conservation Revolving Funds.
GEF-funded Sustainable Land Management Program to Combat Desertification in Pakistan. (2013/14– 2018/19)	A two-phased program that focused on creating an enabling environment for SLM and information systems and capacity building for SLM at national and provincial levels. The second phase focuses on scaling up SLM and climate resilient practices, developing a planning and decision support system. The SLM project successfully used various community engagement and governance mechanisms, such as village level agreements, alternative livelihoods development and inter-sectoral mechanisms at provincial level.	Guidelines, standards, training products and best practices developed under the SLM initiative will provide important resources for the proposed project to apply in the target landscapes that can be integrated into project design and the development of the landscape and valley plans and site-specific SLM activities.
GEF-funded Sustainable Forest Management to Secure Multiple Benefits in Pakistan's High Conservation Value Forests (2014-2019)	Promotes an integrated approach at landscape level for the management of high conservation value forests that will deliver global biodiversity, carbon benefits and ecosystem services to local communities and enhance resilience across 3 target landscapes totaling 55,600 ha.	The proposed snow leopard project will coordinate closely with the SFM project to ensure complementarity in the project target areas and activities, including forest restoration and rehabilitation.
“Disaster Risk Management Support” project (2013-2017)	A program at national and provincial levels to formulate a strategy for disaster risk management. The project will build national, provincial and district capacities for prevention, assessment, management and reduction of risks and support vulnerable populations to benefit from improved and sustainable environmental management practices and improved prevention, risk reduction and response mechanisms.	This project will collaborate with the Disaster Risk Management Project to leverage synergies and ensure that relevant guidelines and lessons regarding disaster risk are incorporated in the development of valley conservation plans
USAID Community-based conservation of Snow Leopard and Improved Watershed Management (2012-2017)	Test and implement site-based conservation and sustainable development activities and support implementation of the regional framework of cooperation of the Climate Summit for a Living Himalayas.	Lessons and experiences from the USAID project will inform options for community-based sustainable natural resources management

GEF-funded Mountain Area Conservation Project (2002-2006)	Promoted the development of Valley Conservation Plans in 4 conservancies in Northern Pakistan with the objective of sustainable use of biodiversity through community participation and establishment of Mountain Area Conservancy Fund (MACF) to finance activities beyond the life of the project. The MACF was just operationalized (2017) but finds have not been transferred to Valley Conservation Committees (VCC) as they lacked capacity and skills to manage MACF funds.	This project was completed many years ago. The lessons learned from this project, including establishing VCCs and preparation of VCPs, as well as constraints regarding mobilization of the MACF funds will inform the planning and implementation of the project
Baltistan Wildlife Conservation and Development Organization (on-going program)	Tackling human-snow leopard conflicts by providing economic incentives to farmers through insurance schemes and compensation for the loss of livestock following snow leopard attack including predator proof fencing and training in improved herding practice	BWCDO's successes in predator proof fencing, herding practices and compensation programs would provide an opportunity for collaboration. The project will have regular dialogue and consultation with BWCDO and involve them in implementation of activities in selected valleys under the project as well as use their expertise to guide project interventions elsewhere as well.
Wildlife Conservation Society (on-going program)	WCS is implementing a multi-year program to help protect one of the last extensive high-elevation arid conifer forest ecosystems in Gilgit-Baltistan, home to the snow leopard and the snow leopard's key prey species across much of this region, the flare-horned markhor. The program includes wildlife surveys, community-based education, and institution building for resource management, including the creation of resource committees and community rangers to monitor snow leopards and other wildlife and to stop poaching.	The project will reach agreement with WCS and other CSOs on collaborative arrangements, including specific project activities that can be implemented through these CSO, so that the landscape conservation program in the 3 areas becomes a truly collaborative effort.

iii. Stakeholder engagement*:*

96. The purpose of Stakeholder Involvement Plan (SIP) for the project is the long-term sustainability of the project achievements, based on transparency and the effective participation of the key stakeholders. The objectives include: (a) to identify the main stakeholders of the project and their basic roles and responsibilities in relation to the project; and (b) to take advantage of the experience and skills of the main stakeholders and safeguard their active participation in different activities of the project to reduce obstacles in its implementation and sustainability after completion of the project. The approach is based on the principles of fairness and transparency in selection of stakeholders; taking their views and willingness to participate in the project; engagement and empowerment of relevant stakeholders for better coordination from planning to monitoring and assessment of project interventions; access to information and results; accountability of stakeholders; implementing grievance redressal mechanism; and ensuring sustainability of project interventions after its completion.

97. Stakeholder involvement is guided by the objective of the enhancement of the sustainable management of landscapes in Northern Pakistan to secure conservation of globally important snow leopard and associated endangered species, by mainstreaming biodiversity into landscape planning and management. The Ministry of Climate change (MOCC) will be instrumental in establishing collaborative links with national and provincial

entities, CSOs and local communities. Provincial governments will coordinate with state level stakeholders, and solicit the services of NGOs/CSOs to implement project activities.

98. The project initiated consultations with a wide range of stakeholders during preparation of project concept and the PPG stage. During the PPG stage, the stakeholder analysis was updated and elaborated following consultations undertaken by international and national consultants at the landscape sites and with the provincial governments, and with the non-governmental stakeholders and natural resource dependent communities. Stakeholder workshops were conducted at the Provincial level to obtain perspectives of the different stakeholders from April-June 2017, and a national validation workshop on July 13, 2017, in Islamabad. During the validation workshop, stakeholders agreed on project outcomes, outputs, activities and institutional arrangements for the project. Five provincial meetings were held with Secretary/Wildlife Departments in Gilgit Baltistan; three provincial meetings with Secretary and Wildlife Departments in KPK; two provincial meetings in AJK; and a total of 15 community meetings were conducted. These meetings helped to build consensus on institutional arrangements for project implementation, monitoring and oversight, project outcomes and outputs and community roles and responsibilities. The list of stakeholders, minutes of the consultation meetings and validation workshop is attached as **Annexure 26**.

99. **Identification of Potential Stakeholders and taking their views:** The SIP was prepared through the identification of the stakeholders who will be involved as partners in the project. Stakeholders at national, provincial, district and local levels including relevant national agencies, state agencies, CSOs and local communities and others have been mapped for different roles in the project implementation. It was followed by consultations to take stakeholders' views, interests and concerns into the development of the project components, outcomes, outputs, project area, implementation mechanism and other relevant issues. Furthermore, it involved analyzing whether key stakeholders are willing and able to engage in a joint, collaborative process (which may include joint fact finding, dialogue, negotiation, social mobilization and preparation of plans) for project implementation and to resolve the issues.

100. **Role and responsibilities of key stakeholders and their engagement mechanisms and strategies:** Mechanisms and strategies for stakeholder engagement will ensure that the relevant shareholders receive and share information and provide their inputs in the planning, design, implementation, monitoring and evaluation of project initiatives and play a role in sustaining the initiatives during and after the closure of the project. It describes the process of representation of stakeholders in the project steering and coordination committees, identification of their decision-making authority, resources needed by the stakeholders and how this will be arranged.

101. Roles and responsibilities of main stakeholders of the project are summarized in Table 4 below.

Table 4: Stakeholder Involvement Plan

Key Stakeholder	Role and responsibilities	Role in the project and involvement mechanism
A. Local Communities and Grassroots Organizations		
Local Communities and CBOs of model landscapes in KP, GB & AJK	Local communities are custodians, primary users and managers of the landscape resources and key target group for all components of the project. Communities living in the fringe village as well as in remote areas where intervention has been less will also be involved. The local communities and CBOs are primary beneficiary of project's intervention. Local communities both male and female will be consulted	CBOs, Valley Conservation committees will be formed/strengthened. Representation of women, elderly, the poor, vulnerable and minorities will be fully ensured. To the extent necessary, separate women conservation committees will be supported to ensure that women have a voice in decision-making. Key role in planning and implementation of the conservation programs at valley levels.

	during the development of the landscape management plans, with focus on issues related to pastures, forests, agriculture and livestock health and husbandry measures. Communities shall be mobilized proactively using monetary as well as social incentives, including in rangeland assessment, livestock insurance, livestock corrals and livestock vaccination, deworming & nutrition schemes, forest protection, tree plantation, agricultural and eco-tourism development initiatives.	Participation in the wildlife research and advocacy campaigns. Engagement in consultations, training workshops and demonstrations. Field level initiatives particularly mentioned in component 3 of the project will be implemented with active participation of local communities and their CBOs including valley and village cluster conservation committees. For implementation of activities terms of partnerships (ToPs) will be signed with the CBOs and valley conservation committees.
Nomads, and refugees who are non-local including persons coming from neighboring countries	Nomads are local, non-local from neighboring countries like Afghanistan and refugees from neighboring countries. They use the forest resources for their livelihood and rangeland for grazing of their animals. Nomads or seasonal migrants sometimes pay a certain fee (qalang) to local landowners or forest right holders in order to let their animals graze and collect fuel wood.	The nomads and refugees will be involved in awareness raising campaigns for efficient livestock, pasture and rangeland management.
Students/ school children	As part of the community, they can play a role in dissemination of biodiversity message to the local communities.	Will be involved in the formation of nature clubs and nature study camps and global environmental day celebrations to motivate them to play a better role in biodiversity conservation and dissemination of the message to the local communities. Students will also be involved in research studies and surveys.
B. Provincial and local relevant Government departments		
Local and Provincial administration	Management of the administrative matters of the districts and facilitation of the people through public services. District Administrators will Chair the District Conservation Committees (DCCs). The DCCs will be consulted during preparation of landscape management plans, its approval and other relevant project interventions. They will benefit from advice and training and will be able to use data and experiences generated by the project to improve the economic and social component of their District Development plans.	Key partners to facilitate coordination at district and landscape levels and ensure convergence of programs and resources. The Provincial Coordinating Committees will be responsible to harmonize interventions and resolve deadlock between project proponents and communities, if any, during the project implementation. Local level administration will be involved in planning and implementation of VCPs.
Wildlife & Fisheries Departments of Gilgit-Baltistan; Khyber Pakhtunkhwa and AJK	The provincial wildlife department is responsible for protection, conservation, preservation and management of wildlife; management of protected areas, wildlife parks, safaris & zoos; public and private participation through trophy hunting; private breeding farms; and hunting associations. In AJK Wildlife department is also responsible for fisheries component. In GB & KP, Fisheries department is an attached department with agriculture department.	Primary project execution partners at provincial levels. Wildlife department will be represented in the PSC and Project Coordination Committee (PCCs) at the national and provincial levels. The departmental field staff shall be trained in community-based wildlife management as well as population monitoring and innovative

		participatory conservation. Staff shall be actively involved in the planning and implementation of the project activities particularly related to biodiversity conservation, community management and HWC management. Fisheries departments will play their role in fish conservation in aquaculture and will be the part of project coordination committee. The MOUs/Agreements will be designed and signed with the provincial/territorial wildlife departments for joint implementation of selected activities. Wildlife staff will actively participate in the Landscape Planning and Implementation Teams (LPITs) and be directly involved in planning, implementation and monitoring of VCPs, and in particular, provide technical support and oversight for establishment and management of CMCAs, community forest management, community wildlife surveillance and monitoring activities and HWC management investments.
Forest & Rangeland Department of Gilgit-Baltistan; & Khyber Pakhtunkhwa; Forests Department of AJK	Provincial line departments are responsible for sustainable forest management (SFM). The provincial forest departments are responsible for: implementation of acts and policies to protect forest and rangeland resources; law enforcement; management of floral and faunal resources; demarcation and protection of Forestlands against encroachment; raising of nurseries and plantations; provide extension services for mass awareness; and conduct research and training in forestry. Current focus is mainly on protection through law enforcement mainly in the state-owned forests and rangelands. In AJK most of the forestlands in the project area are being managed by the Forest Department. In KP, community as well as the government manages the forestland. In GB, most of the forestland is community managed.	They will provide technical and extension services for undertaking SFM activities, NTFP and soil and water conservation in forestlands in collaboration with local communities and the private sector. Provincial forest departments are among the implementing agencies at the provincial and local levels. The departmental field staff will be trained in SFM. Staff will be actively involved in implementation of the forestry related project activities. The department will have representation in project coordination committee of the respective provinces. The MOUs/agreements will be designed and signed with the provincial/territorial forest and rangeland departments for implementation of selected activities to be implemented jointly. Wildlife staff will actively participate in the Landscape Planning and Implementation Teams (LPITs) and be directly involved in planning, implementation and monitoring of VCPs, and provide technical support and oversight for establishment and management of CMCAs, community forest management, community wildlife surveillance and monitoring activities and HWC management investments.

Agriculture Department, Gilgit-Baltistan; Khyber-Pakhtunkhwa & AJK	Agriculture department is engaged in uplifting of agriculture through: extension of improved agricultural technology for productivity enhancement of major field crops and cash crops; increasing farm income; development of horticulture sector; sustainable management of land and water resources; Agricultural research, education and training; development of better varieties and improved production technologies to enhance the agricultural productivity; improvement in shelf life and marketing of fruits and vegetables; protection from insect pests and plant diseases; pest warning and quality control of pesticides; soil fertility and water conservation; introduction of high efficiency irrigation methods; Agricultural mechanization, reclamation of land and agricultural engineering; Agricultural information and publications; and Agricultural statistics. Responsible for management of the resources to enhance per capita income of the agro-pastoral mountain communities.	Will be consulted during preparation of landscape management plans. Staff will be actively involved in implementation of the agriculture related project activities. The department will have representation in project coordination committee of the respective province. Will be engaged in the implementation of the agro-pastoral related interventions of the project and capacity building of the communities in agriculture related fields. They will also be involved in planning and implementation of VCPs
Livestock Department, Gilgit-Baltistan; Khyber-Pakhtunkhwa & AJK	Livestock department has overall responsibility for livestock and poultry development in the province/territory and providing diagnostic service, prophylactic vaccination against the infectious and contagious diseases in livestock and poultry, introduction of exotic blood in non-descript and indigenous breeds of cattle and educating the farming community in management, disease control, feeding and breeding program.	Will be consulted during preparation of landscape management plans and implementation of livestock related initiatives. Staff will be actively involved in implementation of the livestock related project activities. The department will have representation in project coordination committee of the respective province. They will also be involved in planning and implementation of VCPs.
Police, Military and paramilitary forces	They are responsible for law enforcement, security and defense of the country.	Stationed at the potential wildlife habitats, the support of the security and law enforcement agencies is crucial in documenting and curbing wildlife poaching and wildlife monitoring. In this regard the project will make every effort to collaborate with these agencies in the target landscapes.
Environmental Protection Agencies (EPAs)/ Climate Change Units	Managing pollution, wastes and hazardous substances; Sustainable management of natural resources i.e. soils, water, watersheds, flora and fauna, land use, indigenous ecosystems and human health; Air quality monitoring and protection; and focus on clean industrial production. Protecting indigenous ecosystems and biological diversity. Climate Change Unit of KP is a part of EPA. In AJK, Climate Change Center is responsible for climate change related initiatives.	EPAs will be contacted for pollution prevention and Climate Change units for climate change related initiatives in preparing plans and implementation. The department will have representation in project coordination committee of the respective provinces.

Tourism department	Promotes tourism at the provincial/ territory levels.	Will be contacted in eco-tourism related initiatives and part of project coordination committee.
Govt. & private professional and vocational training institutes	Provide professional and vocational training for enterprise development.	Will play a role in training of snow leopard enterprise in the target communities.
C. Federal Government institutions		
The Ministry of Climate Change (MOCC)	The MOCC is the lead ministry for policy formulation, planning and coordination for climate change, biodiversity conservation, forestry and REDD+ policy-making and programming. It facilitates inter-provincial and inter-ministerial coordination on issues related to forestry, wildlife, biodiversity conservation, and desertification control as well as ensuring national compliance with international conventions. The Ministry is coordinating Pakistan's REDD+ Readiness Preparation Program (RPP), which is set to provide the enabling environment and strategy for SFM implementation. It acts as National Focal point to the UN-CBD, UNCCD and UNFCCC. The office of the Director of Biodiversity shall be involved during the monitoring and implementation of the project.	MOCC is the lead ministry and focal point for the NSLEP. Secretary, Ministry of Climate Change will be the chair of the PSC, and will be responsible to steer and monitor the project, approve annual budget, work plans and provide the interface with federal policy and planning. The Inspector General (F) will be the National Project Director.
Zoological Survey department (ZSD)	Zoological Survey Department of Pakistan is a department under the Ministry of Climate Change, Government of Pakistan which carries out survey and research on distribution, population, and status of wildlife in Pakistan.	ZSD shall be actively engaged during the habitat analysis and surveys.
Other Federal Ministries like Economic Affairs Division	Economic Affairs Division is responsible for assessment of requirements, programming and negotiations of external economic assistance related to the Government of Pakistan and its constituent units from foreign Governments and multilateral agencies.	UNDP's NGO modality is approved by EAD and it will oversee the implementation of this modality.
Pakistan Customs	Pakistan Customs controls trafficking of animals and plants across the borders.	Necessary information will be shared with Pakistan Customs for snow leopard and its prey species conservation.
D. International and national NGOs, Private organizations, and media		
Snow Leopard Foundation, Pakistan	SLF involved in conservation, research and monitoring of snow leopards in Northern Pakistan. Involved in community related programs for livestock insurance, livestock inoculation, awareness raising and education and community development activities.	Implementing partner for the project.
GSLEP Working Secretariat, Bishkek	GSLEP is implementing a project for trans-boundary and monitoring activities.	The strategies, innovations and lessons learnt globally shall be used in implementing the current project.

WWF-Pakistan	WWF-Pakistan is a member of the WWF International Network, one of the world's independent conservation organizations.	WWFs experience of environmental education and awareness raising will be utilized in all the project areas. They will also implement project activities in selected valleys
Snow Leopard Trust (SLT), USA	The Snow Leopard Trust aims to better understand the endangered snow leopard, and to protect the cat in partnership with the communities that share its habitat. In Pakistan, it is working through Snow Leopard Foundation, led by local staff members. They conduct snow leopard research, lead community conservation programs, and negotiate policy decisions with local authorities.	The SLT will continue to provide technical support in the implementation of the project, and will also provide co-financing for the project.
Wildlife Conservation Society WCS	WCS has also established multiple-community conservancies and linked them with the provincial government, in some cases providing the platform for community-government coordination. WCS has trained community rangers to protect forests and wildlife.	WCS experience of community-based management of natural resources will be utilized in project areas in a collaborative fashion. WCS will implement project activities in selected valleys under the project
The World Conservation Union-IUCN - Pakistan	IUCN has been quite active in Gilgit Baltistan in implementing MACP and preparation of Northern Areas Conservation Strategy.	The expertise of IUCN will be helpful in the implementation of the project, and its initiatives in the project areas will be synergized.
Agha Khan Rural Support Program (AKRSP)	The AKRSP is a private, non-profit company, established to improve the quality of life of the people of Gilgit Baltistan and Chitral (GBC). The overall goal of the organization is to improve the socio-economic conditions of the people of northern Pakistan.	The community organizations established by AKRSP in the project areas will be proactively engaged in project initiatives.
Himalayan Wildlife Foundation (HWF)	HWF worked in AJK on biodiversity conservation by forming CBOs.	The community organizations established by HWF in the project areas in AJK will be reactivated and engaged in project initiatives. HWF will plan and implement project activities in selected valleys
Baltistan Wildlife Conservation and Development Organization-BWCDO	BWCDO is a local NGO based in Baltistan region and focuses on conservation of snow leopard. Under the Project Snow Leopard (PSL), BWCDO initiated community-based micro-insurance scheme for livestock depredation and conducted snow leopard population studies based on genetic research and provided detailed population estimates.	Of the 17 valleys, BWCDO will implement project activites on-the-ground in 2 valleys in close coordination with the provincial wildlife department, community beneficiaries and other stakeholders. Activites include: management planning of CMCAs; implementation of the CMCA management plan activities; preparation and implementation of the VCP; monitoring and providing expert advice on community-based livetsock insurance schemes.
Everest–K2-National Research Council (Ev-K2-CNR)	The Ev-K2-CNR Chartered Association is an autonomous, non-profit association which promotes scientific and technological research in mountain areas.	Ev-K2-CNR shall be involved in implementation of the project in GB.
Print and electronic media, Green Journalists Society	Play a role in motivating and outreach activities on matters including greening the environment and biodiversity conservation.	Public awareness and outreach for snow leopard and other biodiversity conservation and sustainable forest management.

Interested experts from neighboring countries like China, Afghanistan, India etc.	Playing their role in biodiversity including snow leopard conservation in their countries	Will be contacted to form a knowledge network and invited in an international conference to strengthen their ties for joint efforts in snow leopard conservation through knowledge sharing.
Private organizations	Private organizations can provide additional resources for snow leopard conservation	Private organizations like leopard couriers will be contacted to provide additional resources for snow leopard conservation through their corporate social responsibility.
IUCN Species Survival Commission "Big Cat Specialist Group"	The project will seek advise and guidance from the Specialist Group on key aspects related to Snow Leopard Conservation	The strategies, innovations and lessons learnt will be shared with the Specialist Group.
E. Academia		
Karakoram International University (KIU), Gilgit	The Karakoram International University is a leading institution of higher learning committed to social development and evolution of peaceful and pluralistic societies in the mountainous areas of Pakistan and geographically similar regions elsewhere.	Engagement of academia and students in research component of the project. Involvement in awareness raising and advocacy campaigns.
Shaheed Benazir Bhutto University and Abdul Wali Khan University Chitral Campuses	Both the institutions are striving for excellence in research and development and have campuses in Chitral District of KP–the Hindu Kush landscape.	Engagement of academia and students in research component of the project. Involvement in awareness raising and advocacy campaigns.
Quaid e Azam University Islamabad	Taking Pakistan forward by providing an affordable, high standard education to students from all corners of the country, creating inter-provincial harmony, providing solutions through research relevant to the national needs, towards transformation of the country into a knowledge-based economy.	Engagement of relevant academia and students for specialized services for the project.

The following initiatives will be undertaken to ensure participation of stakeholders in project activities:

102. **Project inception workshops:** Project stakeholders will participate in the multi-stakeholder national and provibcial inception workshop within three months of the start of the project. The purpose of these workshops will be to create awareness amongst stakeholder about the objectives of the project and to define their individual roles and responsibilities in project planning, implementation and monitoring. The stakeholders will be acquainted with the most updated information (objectives, components, activities, roles and responsibilities of stakeholders, financial information, timing of activities and expected outcomes) and the project work plan. The workshops will be the first step in the process to build partnership with the range of project stakeholders and ensure that they have ownership of the project. It will also establish a basis for further consultation as the project's implementation commences. The inception workshop will address a number of key issues including: assisting all partners to fully understand and take ownership of the project; detail the roles, support services and complementary responsibilities of the government agencies like the MOCC, Provincial governments, sector agencies, local governing bodies, UNDP, CSOs, local communities/community groups – agriculturists, graziers, foresters, youth, women and children, NGOs in terms of implementation of sustainable landscape planning and management. The workshop will inform the roles, functions, and responsibilities within the project structure, including reporting and communication lines, monitoring and conflict resolution mechanisms. The representatives of the CMCAs and in particular, the key CSOs (WCS, IUCN, HWF, WWF and AKRSP) that will be

contracted to execute the project in 10 of the 17 valleys will participate in the inception workshops and in subsequent regular quarterly and supervision meetings.

103. **Stakeholder Participation and Communication Strategy:** A Communication strategy and action plan will be developed for the project by taking inputs and learning from available communication strategies developed for project areas in the past to facilitate awareness, review and informing of policy, stakeholder participation and documentation of best practices related to the project. The project will develop and implement communications and knowledge management actions plan for each landscape (based on Communication and Knowledge Management Strategy defined in Annex 12) to ensure that all stakeholders are informed on an ongoing basis about: the project's objectives, activities; overall progress, and the opportunities for involvement in various aspects of the project's implementation. This strategy will ensure the use of communication techniques and approaches that are appropriate to the local contexts such as appropriate languages and other skills that enhance communication effectiveness.

104. **Quarterly Meetings with key stakeholders:** On quarterly basis, Regional Program Units will organize individual meetings with the main stakeholders including groups of local communities (CBOs, Village and Valley Conservation Committees, landscape level organizations, community cluster groups) with the aim of discussing achievements, project implementation, preparation of plans, challenges, corrective steps taken and future corrective actions needed for the implementation of planned activities. The representatives of the key CSOs (WCS, IUCN, HWF, WWF and AKRSP) that will be contracted to execute the project in 10 of the 17 valleys will participate regular quarterly and supervision meetings.

105. It will ensure participation of women in the local community groups. Result based management and reporting will consider inputs taken from stakeholders during such meetings.

106. **Sharing Progress reports, work-plans and information materials:** Copies of the annual and quarterly progress reports, work plans, introductory brochures, leaflets, posters etc. will be circulated to main stakeholders to inform them about project implementation and planning and outcomes.

107. **Participatory approach for involving local communities:** A participatory approach will be adopted to facilitate the engagement of local communities, either as a group or through their CBOs, including both men and women in the planning and implementation of the project activities. The members of CBOs residents (particularly natural resource dependents) will be trained in the participatory approach. To ensure participation of local communities, the project will develop terms of partnership in consultation with the MOCC and sign the same with the local CBOs and other groups of local communities before implementation of the activities. The operation and management of the initiatives after completion will be the responsibility of the CBOs.

108. **Agreements with CSOs and NGOs:** MoUs/contractual agreements will be executed between SLF and the 4 CSOs/NGOs (namely WCS, BWCDO, WWF and HWF) to implement project interventions on-the-ground in the 10 valleys out of the 17 valleys identified for project intervention. MoUs will be agreed and finalized before the project inception workshop.

109. **Stakeholder consultation and participation in project implementation:** An extensive stakeholder consultation and participation process will be developed and implemented for the project. ToPs will be executed with CBOs, and MOUs/Agreements will be signed with Forest and Wildlife departments.

F. Mainstreaming gender:

110. This project recognizes that in rural Northern Pakistan, women of all ages play a critical role in managing natural resources. Women work in fields and may spend as much as 60 percent of their time in productive gender roles during the growing season. Women collect fuel, medicinal plants, and water and are responsible for storing grain. Women maintain family gardens and storing of vegetables. Women are most often in-charge of livestock health care, shed cleaning, feeding and care of pregnant and lactating animals, milk processing and preparation of milk products such as butter oil (ghee) and buttermilk (lassi). Handicrafts, such as making woolen mats, knitting and embroidery, are also a source of income for women, particularly during the winter months when they are less involved in agriculture. Overall, they have a great deal of indigenous knowledge that should be

utilized in conservation. Men and women have different roles within the family, village and larger socio-political arena. Women are primary caregivers for children and the elderly, and have a greater burden for maintaining the health of the family unit. Women are physically removed from men in society at large, and in rural community women's roles in governance and decision-making are negligible, and in some areas restricted to adult. Female literacy rates are lower than males, for example in GB female literacy is estimated at 38% versus 64% for males. There is also an indication that women's perceptions towards wildlife may be different than men, due to their differing social roles, e.g. research findings from India[25] indicate that women have more negative attitudes towards predators than men, most likely due to their role as family caregivers and the economic impact of livestock depredation upon family income.

111. Efforts will be taken to ensure that development activities do not affect women disproportionately by integrating women's concerns in the initial planning process. In the development of management plans, special consideration will be taken by key stakeholders to ensure the needs and roles of women are fully considered and accounted for. For example, management plans should consider the different ways in which men and women utilize natural resources within model landscapes to ensure that planned activities will not have disproportionate impact on women's social and economic needs. If necessary, women conservation committees will be established as part of VCCs to look after the interests of women.

112. This context has been taken into consideration in the design of this project and will be mainstreamed into its implementation as defined in Table 5 below:

Table 5. Proposed gender mainstreaming actions for project implementation

Gender Mainstreaming Objective	Gender Mainstreaming Activity	Gender mainstreaming Target
To strengthen women based institutions and ensure women's participation and leadership	Support to strengthening Community Conservation Committees, community/village organizations and valley conservation committees and district conservation committees by ensuring women's participation. In some cases, it would entail establishing separate women's community-based committees in the village to facilitate implementation that are largely women's responsibility, as well as set up women's self-help groups where required.	At least 40% of project beneficiaries are women in the target households and these are associated with community-based institutions that participate in the project initiatives. This will in some cases include separate women community-based committees.
Improve understanding of gender issues, capacity building needs of women and policy issues	Support action research to identify the issues related to gender so that capacity building and policy interventions can be planned in a specific manner.	Specific gender related issues and capacity gaps are identified and taken up as part of the planning process in all the three landscapes of the project
To enhance capacity, skills and competence of women in technical aspects related to conservation and livelihood promotion	Technical training programs, study tours/exposure visits and other skills development activities involving women	At least 30% of technical and front-line staff and women leaders of grassroots institutions are trained
To reduce drudgery of the women and enhance conservation through technological interventions	Promote fodder demonstration plots and fodder seed banks, soil and water conservation, forest trees plantation, improvement of grasslands near to the houses, etc.	Drudgery of at least 25% of women members of CBOs reduced due to project interventions

[25] Mir, Zaffar Rais, etal (2015): Attitudes of Local People Toward Wildlife Conservation: A Case Study From the Kashmir Valley. Mountain Research and Development 35 (4)

To promote pro-women livelihood activities, alternative technologies to improve environment, biodiversity and health of women	Focus on women-dominant livelihoods and value chain activities like snow leopard enterprises, livestock management, home gardens, on-farm water management, sea buckthorn and ecotourism activities.	At least 5 alternative technologies introduced to reduce the workload of women, improve environment and household income.
To monitor and evaluate women's participation and their empowerment through the project interventions	Incorporating gender-sensitive indicators and collection of sex-disaggregated data for monitoring and evaluating project results	Gender disaggregated data included in monitoring and evaluation formats.
To enhance role of women in implementation of the project	Engaging local women community mobilizers for social mobilization to encourage greater participation of women from local communities	At least 30% of the community mobilisers engaged in the project are women, preferably locals.
To enhance awareness about access and ownership of land and other productive resources by women	Interventions to enhance awareness related to policy issues through communication strategy and knowledge sharing initiatives	At least 30 % women members of CBOs among the target households are aware about their rights and contribute in the policy issues
To ensure high participation of women in project activities through innovative communication strategy and methods	Including specific efforts to encourage women's role in outreach and communication strategy of the project by ensuring gender focus awareness and communication campaigns	At least 50 % of the communication methods used in the project will be focused towards women
Improve women's role in decision-making	Promote adequate representation and active participation of women decision-making bodies.	At least 25% women representation in project specific committees at landscape, valley & grassroots levels or separate women committees at valley or village level

South-South and Triangular Cooperation (SSTrC):

113. Pakistan is part of a multi-country partnership for snow leopard conservation. Being part of this partnership, allows for extensive and continued information exchange amongst the different countries on forensics, status of key species, law enforcement and wildlife crime, and the exchange of "good practice" and capacity building efforts. Project staff will participate in conferences, workshops and virtual knowledge management sessions organized by the partnership program, to share information on the program and explore potential South-South collaboration on opportunities related to snow leopard landscape conservation and illegal wildlife trade related issues, including reducing trans-boundary trade of illegal wildlife products. Such a South-South collaboration will help Pakistan to learn from other countries on successes in engaging police and trade and customs authorities to prevent, deter and interdict wildlife crime, as well as in sharing information on trans-boundary smuggling operations, arrests and prosecutions of criminal networks including kingpin individuals. Through the GSLEP partnership, Pakistan will seek opportunities for exchange visits to learn lessons from individual project interventions from within and outside the program; help foster intergovernmental cooperation; use M&E tools and geospatial services; apply best practices and peer review; and develop portfolio-wide training and communication strategies.

114. Pakistan's continued participation in GSLEP, provides an opportunity for collective action that would help coordinate and unify the efforts among the snow leopard countries and the global community to achieve a shared vision and goal. It would provide a forum for sharing of good practices and lessons in conservation, community engagement and wildlife crime and trade prevention that can be scaled up and implemented in a wider context. The project will provide valuable monitoring information that will be widely shared to help bring a high-level of attention towards meeting the goals of GSLEP. It would help in efforts to enable countries (some of which are already implementing or formulating GEF projects for snow leopard conservation), international and national partners and donors to adjust and improve efforts to reflect new knowledge and experiences.

V. FEASIBILITY

i. Cost efficiency and effectiveness*:*

115. The project is designed primarily to ensure that investments are the most cost-effective so that project approaches and institutional mechanisms can be easily replicated and scaled up using existing budgetary constraints that operate within the provinces and country. Removing the barriers that impede sustainable and efficient conservation of high Himalayan areas will increase the conservation dividend of the resources and provide a real incentive for local communities to engage in sustainable management and conservation of the resources. Several options were considered in determining the most cost efficient approach that would be viable and socially acceptable. In addition, instead of investing in reforestation of Juniper forests as envisaged at the PIF stage, the project will now support community protection of existing forests and meadows (through declaration of CMCAs) as a more cost-effective measure. Declaring and managing majority of the snow leopard landscape as protected areas would provide the most conservation dividend, but this was considered neither practical nor cost effective given the large dependency on grazing and NTFP collection, as well as the remoteness and accessibility for effective management. Similarly, given the limited budgetary and human resources, it would have been impractical to develop sustainable livelihoods and natural resources management interventions in all the villages located in the landscape within the available resources of the project. The alternative was to seek a balanced approach to conservation and livelihood development in a limited and manageable number of villages through a multi-stakeholder and multi-sectoral institutional coordination mechanism. This approach would facilitate a convergence of planning, manpower and financial resources as a cost-effective and demonstration approach with replication potential using existing provincial and national level budgetary resources. Further, as a measure of cost-effectiveness and collective action, the project will collaborate with partner institutions (with civil society organizations such as WCS, IUCN, HWF, WWF, AKRSP and others) to promote a broad-based partnership for conservation and sustainable management of snow leopard habitats at the landscape level and develop a "whole" of Northern Pakistan approach to conserving snow

leopards and their habitats. This partnership arrangement will facilitate a broad-based effort that extends beyond the project itself, by bringing a range of partners and resources for collective action.

116. At the community level, the project will work through existing local institutions to the extent feasible, but will institute a local level planning process to plan and deliver activities that are related to community natural resource use, grazing and livestock management and community livelihood investments, as well as help coordinate other socio-economic development investments available at the province, district and local level and facilitate convergence through the landscape and provincial level coordinating committees. The planning process will be instituted through administrative approaches that are envisaged under existing government policy rather than create new systems that are not cost-effective. It would work with sectors and partners outside the conservation sector to effectively reduce threats to globally significant biodiversity, through enhancing incomes and diversifying livelihoods of people who are dependent on biological resources in the landscape and mostly use in an unsustainable manner. The intent of the project is to demonstrate the viability of a multi-sectoral and integrated approach to conservation and resource use, and in the process help develop and demonstrate the tools and techniques and enhance capacity to participatory conservation. This is a very cost effective approach because it does not add significant additional resources to conservation, but intends to use existing national, province, private sector, CSO and community resources to demonstrate a new approach to conservation that meets both conservation and local community needs and aspirations.

117. The Snow Leopard Foundation will implement the project, provide technical support and co-financing for the project. SLF has been involved in conservation, research and monitoring of snow leopards in Northern Pakistan for many years. In addition, SLF has been involved in promoting community-related programs for provision of livestock insurance, livestock vaccination, awareness raising, education and community development. This approach is believed to be particularly cost effective, as it reduces the costs that would otherwise been spent on a consultant-driven implementation. Such a approach is also sustainable as it builds the capacity of a NGO partner that has a long term commitment to snow leopard conservation.

118. The total GEF investment of US$ 4,644,521 for this project will leverage a minimum of US$ 15,080,000 in cofinancing, a cost-effective ratio of 1:3.25 with additional associated financing inputs anticipated during project implementation.

ii. Risk Management*:*

119. As per standard UNDP requirements, the Project Manager will monitor risks quarterly and report on the status of risks to the UNDP Country Office. The UNDP Country Office will record progress in the UNDP ATLAS risk log. Risks will be reported as critical when the impact and probablity are high (i.e. when impact is rated as 5, and when impact is rated as 4 and probability is rated at 3 or higher). Management responses to critical risks will also be reported to the GEF in the annual PIR.

Table 6: Project Risk and Mitigation Matrix

Project risks					
Description	**Type**	**Impact, Probability and Risk Level**	**Mitigation Measures**	**Owner**	**Status**
Risk 1 - Conflicts between public institutions and local communities regarding access to natural resources,	Social	P3, I3	Restrictions, if any, on access and use of resources would not be imposed on communities, but evolve through a collective decision-making process and complemented by alternative livelihoods and	NPM (SLF)	Implementation phase

including pasture resources.			resources measures to compensate for such losses. A grievance redress system will also ensure that any conflicts are addressed and amicably settled (refer Section (V) Part (iii) Social and Environmental Safeguards of UNDP Project Document regarding grievance redress procedures		
Risk 2: Lack of capacity in government and communities to meet obligations related to project	Institutional/ Operational	P3, I3	Capacity need assessment of government and local communities will inform project on capacity development needs. Training activities will be tailored to meet specific requirements of different stakeholders to ensure that they have the skills to participate in relevant aspects of the project. Communities participating in the livelihood, sustainable natural resource management and wildlife monitoring activities will be provided on-the-ground training, and training programs will be evaluated for their effectiveness and adjusted as appropriate to ensure their effectiveness.	NPM (SLF)	Planning and Implementation Phase
Risk 3: Limited capacity within Snow Leopard Foundation as Executing Agency to manage risks associated with the project	Institutional	P2, I 3	The SLF has been in the project landscapes since its inception in 2008 on conservation, capacity development and HWC management and has been rated as "Low risk" for implementation of the project by EY Ford Rhodes on behalf of UNDP. Further, SLF project activities are being supported by (i) high level National and provincial level coordinating committees that are chaired by senior government officials that will provide oversight and serve as advisory role to SLF; (ii) forest and wildlife staff are part of the project landscape planning and implementation teams to support SLF; and (iii) MOUs will be signed with provincial wildlife departments and other CSOs to share implementation responsibilities as a measure to manage any risks. These	MOCC and Provincial Governments (through the National and Provincial Coordinating Committees	Implementation Phase

			CSOs will undertake specific activities in selected valleys		
Risk 4: The spread of the project landscapes across mountain areas of three provinces and many districts may cause coordination difficulties affecting implementation and hinder landscape approach to biodiversity conservation.	Operational	P2, I3	This risk will be managed by establishing specific landscape planning and implementation teams for each valley and involving a range of local stakeholders in establishing/strengthening district and valley conservation committees and developing communication strategy.	NPM (SLF)	Implementation phase
Risk 5: Intra and inter community conflicts and conflict between public institutions and communities for natural resource use may hamper landscape level management planning process	Social	P2, I2	Training of the staff and community representative in conflict management and promoting collective decision making process by engaging all potential stakeholders and making the community realize that their resource use rights will remain intact. Further, compensating through alternative livelihood and resource measures as indicated in under Outcome 3 of the project.	NPM (SLF)	Implementation phase
Risk 6: Indigenous people and vulnerable groups may be excluded from participation in project planning and investments related to livelihoods and sustainable use practices	Operational	P3, I3	Participatory process indicated in the project document will ensure that all households in village/valley (including indigenous and vulnerable people) will be part of the investment planning, be trained and have capacity for implementation of livelihood activities and benefit directly from project activities	NPM (SLF)	Planning and Implementation Phase
Risk 7: Efforts to engage women folk in the project activities may be resisted by the communities, resulting in gender bias and an insufficient focus being given to the needs and priorities of women.	Operational	P3, I3	To initially focus activities in those areas where gender relations support women's involvement in planning and management, and where actively functioning women organizations (WOs) exist. Where possible, the project will ensure to establish separate women conservation committees as well as promote specific livelihood options for women with the intent of strengthening women's participation. The success of such efforts may in turn serve as a	NPM (SLF)	Planning and Implementation Phase

			catalyst for work in other areas. A gender analysis and mainstreaming action plan (Annex 9) prepared for the project will be implemented.		
Risk 8: Natural disasters and climate change may affect the implementation and results of project initiatives	Environmental	P2, I2	Measures to reduce impacts of natural disasters and climate change will be initiated, including improved water management, soil and water conservation, crop and livelihood diversification, and training in risk management (refer Annex 5 Valley Level Participatory Community Planning Framework and Annex 7 Indicative list of possible valley conservation plan investments and livelihoods)	RPM (SLF)	Planning and Implementation Phase
Risk 9- Long gestation periods for alternative livelihoods, value chain activities and restoration of pasture resources can undermine community participation	Operational	P2, I2	Valley Conservation Plan activities will entail a menu of options (including activities with short-term gestation periods as buffer until longer-term investments generate sustainable benefits) to help diversify the livelihood and resource base, including linkage with on-going governmental and NGO programs to supplement and complement project activities.	RPM (SLF)	Planning and Implementation Phase
Green: Low Risk; **Yellow**: Moderate Risk					

iii. Social and environmental safeguards*:*

120. **The Social and Environmental Screening Procedure (SESP)** was followed during project preparation, as required by the SESP Guidance Note of the UNDP. Accordingly, the social and environmental sustainability of project activities is in compliance with the SESP for the project (see **Annex 13**). The SESP identified moderate social and environmental risks for this project that would have potential negative impacts in the absence of safeguards. To avoid any potential likely impacts, the project will ensure **Social and environmental screening of all proposed investments** to determine if there are any impacts. If the impacts are considered significant or cannot be managed by simple and practical mitigation measures that can be implemented within the capacity of the communities, these activities will be avoided. When impacts are easily manageable, the Landscape and Valley Conservation Plans would include responsibilities for ensuring oversight for these measures and monitoring of its implementation. The LPITs oversee and evaluate the implementation of the Valley Conservation Plans to assess if social and environment screening has been adequate. Implementation of any social and environmental mitigation measures will be monitored by the LPITs, Regional Project Managers and reported annually, including actions taken. Annual supervision missions will assess the extent to which the risks have been identified and managed. Overall, the project is expected to result in positive impacts for biodiversity conservation and socio-economic benefits through the greater participation of local communities in PA management processes (namely in management of CMCAs), sustainable use of alpine pasture and forest resources and improved natural resources based livelihood activities.

121. Specific efforts will be made while evaluating the condition of resources that will be used in livelihood and value chain programs to ensure that extraction is permissible within sustainable limits. Harvest of non-timber forest products (such as mushrooms, medicinal plants and other products) that are currently practiced will follow ecologically friendly and sustainable practices. The project will ensure defining specific areas and harvest rates on the basis of good practice criteria backed by scientific information and close monitoring.

122. The project does not involve large-scale infrastructure development. The project will not support employment or livelihoods interventions that may pose a potential risk to health and safety of communities and/or individuals or to biodiversity and ecosystem functions. The project will not propose any temporary or permanent physical displacement, nor will there be the need for land acquisition or access restrictions – even in the absence of physical relocation. It would not exacerbate land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources.

123. Any restrictions on access and use of natural resources will not be imposed by the wildlife or forestry departments, but evolve through a collective decision-making process amongst the community members by putting in place appropriate mitigation measures for instance, by providing alternative livelihood opportunities to adequately compensate for any loss of income or resources incurred. Grievance redressal mechanisms will facilitate the resolution of any conflict related to resource use and access. Tribal and vulnerable groups in the landscape will be fully involved in decision-making in terms of resource use, livelihood and income generation investments and conservation action through specific institutional and administrative arrangements. The process will encourage active participation of all households in a village and capacity building programs. For further information on social and environmental aspects and management measures refer UNDP SESP in Annex 13. A screening checklist will be developed during early project implementation based on eligibility criteria for project investments (refer Step 5 under "**Planning and Implementation of Community Activities"** of Annex 5) to screen all investments to ensure that they comply with sound social and environmental principles and is sustainable. The Landscape Planning and Implementation teams (LPITs) in consultation with the respective forestry departments will guide this activity and monitor compliance with the environmental norms as identified through the screening process.

124. In line with UNDP standard procedures, the Project will set up and manage a **grievance redress mechanism** (GRM) as recommended by UNDP (2014) that would address project affected persons' (PAP) grievances, complaints, and suggestions. The GRM will be managed and regularly monitored by the NPM. It will comply with the following requirements:

125. **Uptake:** The GRM will have multiple locations and channels from grassroots level up to the Provincial and National Level: A simplified system of informing about the grievance redress system and also actual management of grievances will be developed under the project. Multiple ways (manual as well as virtual) of submitting complaints or suggestions at various levels will be provisioned in the project. Project Affected Persons (PAPs) in the project areas will be able to submit complaints or suggestions to RPM or NPM or members of SC in person, via mail, email, via special page of the project website, and phone. These channels will be locally appropriate, widely accessible and publicized in written and verbal forms on all project communication materials, and in public locations in the project areas.

126. **Sorting and Processing:** All complaints submitted to RPM, NPM or members of SC will be registered by the NPM and the complaint will be assigned a unique tracking number upon its submission. NPM will maintain a database with full information on all submitted complaints and responses taken. These data are important to assess trends and patterns of grievances across the Project regions and for monitoring and evaluation purposes.

127. **Investigation and Action:** A clear system of complaint resolution will be developed and observed to ensure timely resolution of grievances of the PAPs. The grievances of the PAPs will be of different types therefore the grievance will be classified into three types -

- Local level problems related to access to resources/benefit sharing/inter-village conflicts/compensation etc. (Valley level)
- Project implementation related problems (Provincial level)
- Grievances/Problems that require policy decisions/ decisions (National level)

128. The Project will develop clear and strict grievance redress procedures and assign responsibilities. To the extent possible, complaints will be handled at the level of RPM (in terms of valley and provincial levels), as close as possible to the complainant, and by NPM at the national level. Difficult situations and conflicts will be brought to the attention of SC and UNDP CO if NPM is unable to find appropriate solution. Complaints that are beyond the Project scope will be conveyed by NPM to the NPD/MOCC or SC.

129. **Provision of Feedback on Grievances:** A system of giving feedback about the compliance of grievances will be provided to all registered grievances. The project will provide feedback by contacting the complainant directly or to CBOs in case of complaints of a community member so that complainants are aware about the status of their complaint. Once some decisions/actions are taken on the complaint, the complainant will be informed about the same. If complainants are not satisfied with the response of RPM or NPM to their grievance, they will be able to appeal the SC for decision and UNDP CO via mail, e-mail or the Project website.

130. **Enabling Appeals:** Complainants will be notified of their right to appeal the decision taken. If complainants are not satisfied with response to their grievance, they will be able to appeal the decision to members of SC and UNDP CO via mail, e-mail or the Project website.

131. **Monitoring and Evaluation:** The performance of the GRM will be regularly monitored. As all information about the grievances and their resolution will be recorded and monitored. This data will be used to conduct in-depth analyses of complaint trends and patterns, identify potential weaknesses in the Project implementation, and consider improvements. Environmental and social grievances will be reported to the GEF in the annual PIR. The full SESP screening report is included in Annex 13.

iv. Sustainability and Scaling Up:

132. The project will address sustainability as follows:

133. **Financial sustainability** will be achieved mainly through: (i) the integrated landscape and valley planning exercises, the provincial coordinating committees (that will include representatives from key sector agencies) will facilitate the convergence of provincial government financial resources to support conservation and sustainable community livelihoods that would help financially sustain activities beyond the life of the project; (ii) ensure partnership arrangements between provincial and CSO partners within the snow leopard landscapes that will ensure complementarity and cost-effectiveness of multiple partners and investments; (iii) develop new business models for landscape conservation, livelihood and value chains that recognize the full range of environmental ecosystem services provided by Pakistan's high Himalayan ecosystems. Developing market linkages for sustainable forest and livestock products and services, ecotourism and local handicrafts and establishment of "Himalayan" labels will ensure financial sustainability of local livelihoods; and; (iv) establishment of valley level conservation revolving funds that will help to financially sustain and expand investments beyond the project period. Implementation of such models through carefully developed business plans on ecotourism, NTFPs and other mechanisms could lead to diversification of funding base. In addition, the project will seek to evaluate the potential of extending the Protected Areas Conservation Trust Fund established under a previous GEF-World Bank Protected Area Management Project that currently operates in 3 PAs in the country (2 within Northern Pakistan), as well as potential for extending the successful trophy hunting program that channels 80% of the earnings from this program to local communities. The project will work with the Provincial and National Governments to expand the successful livestock insurance scheme to non-project areas using provincial and national government budgetary support to build community support for conservation of

the snow leopard. These activities will result in long-term sustainability of Pakistan's Himalayan ecosystems that currently rely on government and international donor support.

134. **Institutional sustainability** will be improved through systematic capacity development of capacity of existing public (particularly the Forest and Wildlife Departments) and civil society organizations (Snow Leopard Foundation and other CSOs that operate in the snow leopard landscapes), valley and village level institutions, other relevant sectors and the local communities in the project landscape and beyond. By engaging these stakeholders in conservation and livelihood investment planning, the project will help establish alliances for conservation and sustainable use of the high Himalayan resources that is expected to continue beyond the project period. Capacity building measures will be improved by integrating these programs into the curricula of training institutes. Carefully tailored training and capacity building to enhance the skills of the NTFP and other local producers. The project's institutional arrangements will further help build coordination structures at the national (SC) and provincial level (PCCs) with representation from different development sectors and stakeholders (including CSOs, NGOs and private sector) states and the private sector to implement joint landscape planning and to ensure that development plans mainstream biodiversity and biosecurity policies. To ensure sustainability of institutional arrangements for landscape planning and ensuring mainstreaming of biodiversity policies into development plans, the Government of Pakistan will work towards institutionalization of these coordination mechanisms as part of its long-term strategy to streamline and support biodiversity goals. Formalization of these coordination arrangements will enable sustaining and scaling up of benefits of the project in terms of landscape planning and management and biodiversity mainstreaming. The implementation of the project through SLF (and its partnership arrangements with other CSOs) will further strengthen this arrangement.

135. **Social sustainability** will be improved through the development/strengthening of stakeholder participation mechanisms for the target snow leopard landscapes. A Knowledge Management and Communication strategy has been developed to facilitate awareness and enhance stakeholder participation. Frameworks for Participatory Landscape Conservation (Annex 3) and Valley Participatory community planning (Annex 5) was designed during PPG stage to ensure adequate consultation and participatory decision making to ensure that project activities are detailed in collaboration with local communities, so that extensive consultation including all affected groups is undertaken prior to delineation of areas to be set aside, so as to avoid excessive community resource use areas or to improve the management of such uses. Social sustainability will also be achieved by strengthening community institutions, ensuring their active participation in planning and implementation of conservation and sustainable natural resources management, improving community capacity for management of valley conservation plans and for improving grievance redressal mechanisms that will ensure social sustainability.

136. **Environmental sustainability** will be achieved through a coordinated approach involving improved protected management approaches, sustainable natural resources and pasture management, securing improved forest restoration and sustainable NTFP use, improving incentives for conservation and community participation. It would also help reduction of external threats on PAs and wildlife through landscape level partnerships, will enhance controls on the wildlife trade and poaching, and improve inter-provincial and transboundary collaboration. This work at landscape level is aimed at ensuring environmental and socio-economic sustainability through improved institutional capacity, policies and legislation.

137. **Innovation:** The project design is innovative in several ways. First, it proposes to pilot the first program in Pakistan for integrated planning and management of snow leopard landscapes and to mainstream biodiversity conservation outcomes in sectoral planning. This approach that would involve multi-stakeholder planning and an inter-sectoral coordination approach to landscape level. A landscape would be viewed as a system in itself, comprised of various natural, cultural and socio-economic components. In turn, it is part of the bigger national, regional, thematic, and global networks of BRs; (ii) The snow leopard landscapes would be appropriately re-zoned by ecological-based planning using a patch-corridor-matrix model for biodiversity conservation, taking

account of landscape ecology, inter-connectedness, vegetation zoning, regional land-use planning, nature and cultural landscape integration, etc. (i.e. landscape planning); (iii) bringing actors from the provinces, development sectors and civil society sectors together to achieve mutual understanding and negotiate and implement mutually agreeable plans, combining top-down and bottom-up approaches and promotion of community participation (i.e. intersectoral coordination); and (iv) promoting a conservation-based economy in landscapes, with value creation and increased economic benefits for local people; labelling of goods and services from landscapes (e.g. tourism products and services; sustainable agricultural products; NTFPs, etc.); consumption and production in line with sustainable development; fair distribution; and awareness of conservation of nature and culture. Lessons learned on collaboration with the tourism sector can be shared with other BRs in the region. Secondly, it is innovative because it would seek to link "set-asides" or new conservation areas (CMCAs) and forest restoration as part of a larger effort to improve biodiversity conservation outcomes in HCVFs and improve connectivity of individual parts of the landscapes. Thirdly, it would develop and test sustainable financing mechanisms at the local level (valley or village level) to improve incentive for community engagement in conservation, including establishment of community revolving funds, tourism concession fees, accommodation surcharges, etc.).

138. **Scaling-Up:** The project is designed to provide demonstration models for up-scaling in Pakistan. The capacity building and the development of guidelines and regulations for each aspect of the project will strongly support up-scaling. By communicating and disseminating project's results widely, will help in generating demand for similar initiatives in the country. The involvement of NGOs and the private sector (particularly in ecotourism development, value addition and marketing of forest-based and agricultural products) can lead to further up-scaling of the project's intervention. Improvement in capacity, awareness and regulatory framework will ensure post-project sustainability and encourage investments from public and private sector and hence, can contribute to up-scaling. The project anticipates close collaboration with CSOs, NGO and Provincial agencies to further replicate participatory models in at least 5 additional valleys (with non-GEF funding) beyond the 17 proposed under the project as a means to test replication and scaling up models.

139. The practicability of replicating landscape conservation and livelihood models, governance and capacity building programs will be the basis for the success of this project. The project's approach of integrated conservation and livelihood planning and management including the introduction of new planning and monitoring guidelines specifically for sustainable pasture and forest management will provide the basis for application in other regions of the country as well. The project will introduce a participatory planning process by engaging community members and tapping into their local knowledge. Hence, the process will enable the project to test the acceptability and replicability of such models elsewhere in the country. The Project's investment component will seek to develop synergies among rural development actors and programs with an objective of raising additional investments that will fund and expand models of resource use and alternative livelihood activities within and outside of the targeted landscapes. This component will also seek to catalyze a process whereby regional and local NGOs, CBOs and forest development agencies seek to obtain commitments from provincial budgets for sustainable resource management and related community actions.

140. On a national level, best practices from this project will be replicated in other parts of snow leopard range in Pakistan, as well as applied to other wildlife conservation activities. Many of the proposed innovative activities in this project aimed at reducing threats to snow leopard, including livestock insurance, vaccination programs and corral improvements are highly scalable. Lessons learned through the project's on-the-ground and landscape level interventions in the target 'model' landscapes will be used to promote replication and scaling of the interventions at the national, regional and global levels through knowledge management and dissemination (Component 4). Pakistan's engagement in the GSLEP through its commitment to the international standards in the monitoring and research of snow leopard, as well as by participating in high level negotiations on the future policy improvements aiming at conservation of this species, will ensure sustainability of the results.

141. In summary, it can be clearly stated that the long-term sustainability of these approaches are assured considering the level of commitment at various levels of the government, community and NGO partners with programs and resources committed to the high Himalayan landscapes). The promotion of value chains and market driven approach to create sustainable solutions can outlive the life of the project. The project's focus on developing business models that will allow local farmers and other inhabitants to participate and benefit from the economic systems - that facilitates productive enhancement and marketing, promotes local entrepreneurs, and development of ecotourism potentials to become tourist hubs and use local resources to develop products such as handlooms, crafts, etc. The project includes a specific Output (1.4) to facilitate replication and scaling up of project approaches.

v. Economic and/or financial analysis: Not applicable

VI. PROJECT RESULTS FRAMEWORK

This project will contribute to the following Sustainable Development Goal (s):

1) Goal 2: end hunger, achieve food security and improved nutrition and promote sustainable agriculture
2) Goal 15: protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.
   - Target 15.4: By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development
   - Target 15.5: Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species
   - Target 15.7: Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products
   - 15.9 By 2020: integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts
   - 15.c: Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities

This project will contribute to the following country outcome included in the UNDAF/Country Program Document (2018-2022):
Outcome 6: the resilience of vulnerable populations is increased by addressing and mitigating naturally and human-induced disasters, including climate change mitigation and adaptation measures, and sustainable management of natural resources.

This project will be linked to the following output of the UNDP Strategic Plan:

- Output 1.4.1: Solutions scaled up for sustainable management of natural resources, including sustainable commodities and green and inclusive value chains;
- Output 3.4.1: Innovative nature-based and gender-responsive solutions developed, financed and applied for sustainable recovery

Relevant SP indicators:

- Natural resources that are managed under a sustainable use, conservation, access and benefit sharing regime:
  - Area of land and marine habitat under protection (Ha);
  - Areas of existing PA under improved management (Ha)
  - Area under sustainable forest management (Ha)
  - Biodiversity (using appropriate unit of measure)
- Number of countries in special situations implementing innovative solutions at scale for sustainable recovery: a) nature-based; b) gender-responsive.

	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions and Risks
Project Objective: To promote a landscape approach for the survival of snow leopard and its prey species by reducuing threats and applying sustainable land and forest management in	Indicator 1: Area of snow leopard habitat under integrated landscapes management[26]	*Approximately 10,000 hectares[27] currently managed effectively in protected areas*	*At least 100,000[28] hectares of additional snow leopard habitat brought under participatory conservation management approaches*	*At least 1,500,000 hectares[29] of critical snow leopard landscapes effectively managed under integrated participatory management landscape approaches*	*Assumptions:* *-Local communities understand livelihood benefits and ecological security of sustainable management of landscape resources through cooperation. Thus, they will participate in*

[26] As measured by (i) Effective and functional Provincial Coordination Committee with sector representation; (ii) Landscape Management Plans formalized and validated at provincial level; (iii) landscape effectively zoned with creation of CMCAs; (iv) community institutional arrangements in place for management of CMCAs; (v) partnership arrangements established with CSOs for collaborative actions in landscape.
[27] Including in particular Chitral GoI National Park and few CMCAs
[28] This includes areas brought under CMCAs following completion of the landscape management and valley conservation planning process
[29] This includes around 1,500,000 ha in the target 17 valley conservation areas and other PAs (CMCAs and NPs and WLS), which constitutes about 25% of the total area of the 3 landscapes

critical habitats in Northern Pakistan	Indicator 2 (Mandatory Indicator 1.3.2): Number of additional people benefiting from strengthened livelihoods through solutions for improved management of natural resources and provision of ecosystem services	*Fragmented and stand-alone community managed activities currently exists in the 3 landscapes*	*At least 500 households are directly benefiting from improved sustainable grazing management and diversified and alternative livelihoods and incomes*	*At least 4,000 households[30, 31] (approximately 25,000 people, of which 40% will be women) directly benefit through sustainable resource management approaches*	*sustainable management and ecosystem restoration work.* *-The National and Provincial Governments consider their priority to support integrated planning of the landscape areas and implement target oriented activities with local communities to improve conservation and sustainable use of the resources.* *-The Provinces, CBOs and communities will work in close collaboration to prepare the landscape management frameworks* *<u>Risks:</u>* *-Natural disaster may affect the restoration work.* *-Lack of capacity in government and communities to meet obligations related to project.* *-Livelihood benefits from sustainable management may be low to give up current unsustainable practices* *-Conflicts over issues related to jurisdiction and mandate between provincial and sectoral entities could undermine efforts in promoting integrated planning approaches.*
	Indicator 3 (Mandatory indicator 2.5.1): Extent to which Institutional frameworks are in place for integration of conservation, sustainable natural resource use, control and management of wildlife crime and illegal wildlife trade and improved livelihoods into landscape planning and management	*Multiple use sustainable landscape planning and management approaches absent or limited within Northern Pakistan.*	*Multiple use landscape frameworks agreed with key stakeholders and under review for official approval*	*Multiple use and sustainable landscape approaches institutionalized through national legislative, policy, and institutional arrangements in the three provinces*	
Outcome[32] 1 Improved management of snow leopard landscapes that integrates sustainable forest and land management and compatible conservation practice	Indicator 4: Level of institutional capacity of provincial government agencies for planning, implementation and monitoring integrated landscape plans as measured by UNDP capacity development scorecard	*Limited institutional capacities for planning, implementation and monitoring of multiple use landscape as indicated by the capacity*	*20% Increase in institutional capacity from baseline*	*50% increase in institutional capacity from the baseline*	*<u>Assumption:</u>* *-The national government will develop appropriate legislative, policy, institutional and technical measures that facilitate integrated landscape planning and management in a timely manner.* *-The Provinces will take active part in developing the strategies and*

[30] This constitutes about 30% of the HHs in the 17 target valleys

[31] Representing around 25,000 people

[32] Outcomes are short to medium term results that the project makes a contribution towards, and that are designed to help achieve the longer term objective. Achievement of outcomes will be influenced both by project outputs and additional factors that may be outside the direct control of the project.

		development baseline scores for: *(i) National level-18* *(ii) GB -18* *(iii) AJK- 15* *(iv) KP - 18*			*implementation using new knowledge and skills provided by the project* *-Local communities are convinced that mainstreaming biodiversity into key development sectors is for their long-term interests* *Risks:* *-Priorities of provincial governments and local communities might shift if development benefits take long to manifest* *-Capacity of provincial stakeholders and communities may pose a challenge and constraint in taking forward the initiatives.*
	Indicator 5: Status of snow leopard and associated endangered species populations in the landscapes	*Snow leopard population estimate at + 200 individuals in Northern Pakistan with associated species baselines[33] as:* *Karakoram-Pamir LS:* *Himalayan Ibex- 4,900* *Markhor -230* *Blue Sheep – 750* *Ladakh Urial -50* *Hindu Kush LS:* *Markhor – 3,400* *Himalaya LS:* *Musk Deer, Brown bear*	*Snow leopard and associated species baselines validated and monitoring showing stable or improving population trends*	*Stable or improved snow leopard and associated species populations in Northern Pakistan from existing baselines.*	*Assumptions:* *-SLF and provincial wildlife departments give high priority to monitoring of snow leopard and associated species* *-Adequate technical capacity and resources available for undertaking species monitoring* *Risks:* *-Catastrophic climatic events may greatly impact on snow leopard and associated species populations* *-Large-scale transboundary infrastructure developments would seriously impact on snow leopard and associated species habitat and species.*
Outcome 2 Increased representation of priority snow leopard	*Indicator 6: Increase in extent of snow leopard habitat under PA network*	*3,100,000 ha of snow leopard areas under existing PA network (national*	*At least 100,000 ha of additional priority snow leopard habitat, including 2,000 ha of*	*At least 200,000 ha of additional priority snow leopard habitat, including 10,000 ha of high*	*Assumption:* *-Adequate technical capacity available for undertaking preparation of management plans*

[33] Associated species where indicated will be verified and validated in Year 1, and where baseline values are unavailable (Himalaya LS) these will be determined in Year 1, and monitored subsequently

ecosystems in Protected Area network		*parks, sanctuaries, game reserves and community managed conservation areas, but with exception of around 10,000 ha under National Parks and/or CMCAs, other areas lack appropriate management*	*high conservation value forests legally defined and included in PA network*	*conservation value forests legally defined and included in PA network resulting in 2.96 million tCO_2e sequestrated over 10-year period*	*- Management plans will be officially approved by Provincial governments on time with allocation of appropriate funding for their implementation* *-The Provinces will take active part in developing the strategies and implementation using new knowledge and skills provided by the project* *-Local communities are convinced that critical habitats in their vicinities will benefit livelihoods and ecological security to them and they will participate in conservation and restoration work.* *-Community-based institutions would establish an effective institutional mechanism to facilitate conservation outcomes* *<u>Risk:</u>* *-Administrative/political changes may undermine the implementation of the management plan strategies* *-Lack of capacity in government and communities to meet obligations related to project* *-Conflicts between national, provincial and local communities regarding management and access to natural resources may undermine integrated planning approaches* *-External factors, like major climatic events might negate positive impacts of integrated approaches*
	Indicator 7: Effectiveness in Management of protected areas within the landscape as measured by METT (Management Effectiveness Tracking Tool).	*Current METT baseline scores for PAs are as follows:* *Chitral Gol NP-30; Broghil NP – 12; Central Karokoram NP – 22; Qurumba NP- 13; Khunjerab NP -25; Musk Deer NP- 18; Ghamot NP – 16*	*Average increase by at least 10 points in METT from the baseline*	*Increase in METT score by at least 30 points from the baseline values*	
	Indicator 8: Number of management and financing plans for protected areas with adequate financial resources developed and approved by the provincial government.	*4 PA management plans approved, but lack adequate budgetary provisions*	*Guidelines for improved management of CMCAs developed and approved by government and at least 5 additional management and financing plans agreed with local communities*	*At least 17 additional management and financing plans for existing and new protected areas (CMCAs) revised, approved by government and operationalized with adequate financial support*	
	Indicator 9: Number of forest and wildlife staff and community members actively engaged in wildlife crime monitoring and surveillance to reduce incidence of wildlife crime.	*Limited and uncoordinated training programs currently implemented and incidents of wildlife*	*(i) At least 50 forest and wildlife trained and actively enforcing environmentally friendly management practices and wildlife crime prevention*	*(i) At least 200 forest and wildlife trained and actively enforcing environmentally friendly management practices and wildlife crime*	*<u>Assumption:</u>* *-Adequate capacity and resources available for effective management* *--Capacities of the community groups will be adequate after the training to execute the task.*

		crime in landscapes[34]	*measures in snow leopard habitats;* *(ii) At least 20 community members actively engaged in wildlife crime monitoring and surveillance in community battalions*	*prevention measures in snow leopard habitats* *(ii) At least 60 community members trained and actively engaged in wildlife crime monitoring and surveillance resulting in 25% decrease in incidents of wildlife crime from Year 1 baseline*	*-Local communities have economic interest in reducing wildlife crime* *<u>Risks:</u>* *-Partner Organizations (NGOs) are unable to mobilize adequate manpower and technical resources to support sustainable actions*
Outcome 3 Participatory conservation in the targeted landscape enhanced to reduce human-snow leopard conflicts and improve livelihoods of community.	*Indicator 10: Number of Valley conservation plans developed and under implementation*	*Lack of integrated landscape planning approaches and the current planning process is mostly at sectoral level*	*At least 8 valley conservation plans developed and approved*	*At least 17 valley conservation plans developed, endorsed and under implementation*	*<u>Assumptions</u>:* *-The Provinces will take active part in developing the strategies and implementation using new knowledge and skills provided by the project* *-Local communities are convinced that critical habitats in their vicinities will benefit livelihoods and ecological security and they will participate in conservation and restoration work.* *-Local community based institutions would establish an effective institutional mechanism to facilitate conservation outcomes* *-Project interventions will focus on short to mid-term benefits to avoid long gestation period that would not be conducive to win community support for conservation* *<u>Risk:</u>* *-Lack of capacity in government and communities to meet obligations related to project* *-Conflicts between national, provincial and local communities regarding management and access to natural resources may undermine integrated planning approaches*
	Indicator 11: Average increase in income of communities from sustainable livelihood and resource management activities	*Baseline incomes to be established in Year 1 through the valley conservation planning process*	*At least 5% increase in average incomes from sustainable livelihoods, natural resource management and business activities (At least 30% of beneficiaries are women)*	*Implementation of sustainable livelihood, natural resource management and wildlife deterrents systems ensures at least 15% average increase in incomes of participating communities from the baseline established in Y1, of which at least 30 % of households include women beneficiaries*	

[34] Current number of wildlife crime incidents in 3 landscapes not accurate. Numbers to be validated in Year 1.

					-Sufficiently trained and committed personnel unavailable to provide adequate coverage *-Natural calamities may affect the ability of local communities to respond positively to holistic approaches to sustainable management of resources.*

	Indicator 12: Decreased incidences of human-wildlife conflict as indicated by: *(i) Decrease in livestock lost to snow-leopard and other predators;* *(ii) Reduce incidence of retaliatory killing of snow leopard and other predators*	*(i) Average livestock[35] lost to wildlife estimated at 0.6 head/HH/Year* *(ii) Number of incidents of retaliatory killings of snow leopard and other predators to be assessed in Year 1*	*(i) At least 10% decrease in livestock lost/year to wildlife* *(ii) At least 10% decrease in retaliatory killings of snow leopard and other predators*	*(i) At least 25% decrease in livestock lost/year to wildlife* *(ii) At least 50% decrease in retaliatory killings of snow leopard and other predators*	*Assumption:* *-Communities are willing to subscribe to livestock compensation programs and improved herding practices.* *Risks:* *-Delays in payment of compensation may result in community disengagement from such programs*
Outcome 4 Implementation, upscaling and replication of project approaches supported by effective knowledge management and gender mainstreaming	*Indicator 13: Number of knowledge products reflecting best practices and lessons learned documented and disseminated and up-scaled.*	*No concerted effort exists in promoting best practices*	*Best practice and lessons identified and at least 3 under documentation*	*At least 10 best practices of sustainable grazing and forest use, ecotourism, human-wildlife conflict management, financial instruments for livestock predation resolution, gender mainstreaming being up-scaled in 5 additional valleys with non-project funding*	*Assumption:* *-Stakeholders willing to actively participate in the review process.* *-Project management will be able to identify, document and disseminate the best practices* *-Mid Term Review and End of Project Evaluation of the project will also contribute to identifying the best practices* *-Best practices on sustainable resource management readily available to resource users* *-Gender and social inclusion plan followed and benefits distributed equitably* *-Political climate is conducive to promote trans-boundary collaboration* *Risks:*
	Indicator 14: Increase in the level of awareness of communities in the target landscapes on conservation and sustainable use and threats to snow leopard and biodiversity	*Baseline to be established in Year 1*	*At least 20% of participating households (at least 40% of households include women beneficiaries) have good awareness of conservation, sustainable natural resource use and*	*At least 50% of participating households (at least 40% of households include women beneficiaries) in landscapes aware of conservation, sustainable resource use and wildlife crime prevention benefits*	

[35] Based on 2017 Survey undertaken by SLF in 49 valleys and 2,798 households surveyed predation rates in snow leopard ranges in Northern Pakistan to be validated in Year 1 on landscape basis

			wildlife crime prevention benefits		*-Government priorities may change from due to political pressure from resource users* *-Actions among the assorted agencies and NGOs remain uncoordinated* *-Community diversity will be a hindrance to outreach activities* *-Vulnerable groups are left out and continue using poor practices* *-Changing international political climate may constraint trans-boundary collaboration*
	Indicator 15: Number of effective inter-provincial/trans-boundary collaboration mechanisms negotiated and implemented	*No concerted efforts at trans-boundary and inter-provincial collaboration exists*	*At least 2 effective collaborative inter-provincial agreements negotiated and protocols agreed*	*At least 3 inter-provincial collaborative agreements negotiated, joint patrolling and informed regarding poaching and IWT shared to improve species conservation and trans-boundary to reduce poaching, and agreements reached with at least two neighboring countries for sharing of information on IWT and genetic composition of snow leopard populations*	

VII. MONITORING AND EVALUATION (M&E) PLAN

142. The project results as outlined in the project results framework will be monitored annually and evaluated periodically during project implementation to ensure the project effectively achieves the results supported by Outcome 4: *Conservation and management approaches at national and international level supported by effective knowledge management and gender mainstreaming, the project monitoring and evaluation plan will also facilitate learning and ensure knowledge is shared and widely disseminated to support the scaling up and replication of project results.*

143. Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the UNDP POPP and UNDP Evaluation Policy. While these UNDP requirements are not outlined in this project document, the UNDP Country Office will work with the relevant project stakeholders to ensure UNDP M&E requirements are met in a timely fashion and to high quality standards. Additional mandatory GEF-specific M&E requirements (as outlined below) will be undertaken in accordance with the GEF M&E policy and other relevant GEF policies[36].

144. In addition to these mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed during the Project Inception Workshop and will be detailed in the Inception Report. This will include the exact role of project target groups and other stakeholders in project M&E activities including the GEF Operational Focal Point and national/regional institutes assigned to undertake project monitoring. The GEF Operational Focal Point will strive to ensure consistency in the approach taken to the GEF-specific M&E requirements (notably the GEF Tracking Tools) across all GEF-financed projects in the country. This could be achieved for example by using one national institute to complete the GEF Tracking Tools for all GEF-financed projects in the country, including projects supported by other GEF Agencies.[37]

M&E Oversight and monitoring responsibilities:

145. Project Manager: The Project Manager is responsible for day-to-day project management and regular monitoring of project results and risks, including social and environmental risks. The Project Manager will ensure that all project staff maintain a high level of transparency, responsibility and accountability in M&E and reporting of project results. The Project Manager will inform the Project Board, the UNDP Country Office and the UNDP-GEF RTA of any delays or difficulties as they arise during implementation so that appropriate support and corrective measures can be adopted.

146. The Project Manager will develop annual work plans based on the multi-year work plan included in Annex A, including annual output targets to support the efficient implementation of the project. The Project Manager will ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality. This includes, but is not limited to, ensuring the results framework indicators are monitored annually in time for evidence-based reporting in the GEF PIR, and that the monitoring of risks and the various plans/strategies developed to support project implementation (e.g. gender strategy, KM strategy etc..) occur on a regular basis.

147. Project Board: The Project Board will take corrective action as needed to ensure the project achieves the desired results. The Project Board will hold project reviews to assess the performance of the project and appraise the Annual Work Plan for the following year. In the project's final year, the Project Board will hold an end-of-project review to capture lessons learned and discuss opportunities for scaling up and to highlight project results and lessons learned with relevant audiences. This final review meeting will also discuss the findings outlined in the project terminal evaluation report and the management response.

[36] See https://www.thegef.org/gef/policies_guidelines

[37] See https://www.thegef.org/gef/gef_agencies

148. Project Implementing Partner: The Implementing Partner is responsible for providing any and all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary and appropriate. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes, and is aligned with national systems so that the data used by and generated by the project supports national systems.

149. UNDP Country Office: The UNDP Country Office will support the Project Manager as needed, including through annual supervision missions. The annual supervision missions will take place according to the schedule outlined in the annual work plan. Supervision mission reports will be circulated to the project team and Project Board within one month of the mission. The UNDP Country Office will initiate and organize key GEF M&E activities including the annual GEF PIR, the *independent mid-term review* and the independent terminal evaluation. The UNDP Country Office will also ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality.

150. The UNDP Country Office is responsible for complying with all UNDP project-level M&E requirements as outlined in the UNDP POPP. This includes ensuring the UNDP Quality Assurance Assessment during implementation is undertaken annually; that annual targets at the output level are developed, and monitored and reported using UNDP corporate systems; the regular updating of the ATLAS risk log; and, the updating of the UNDP gender marker on an annual basis based on gender mainstreaming progress reported in the GEF PIR and the UNDP ROAR. Any quality concerns flagged during these M&E activities (e.g. annual GEF PIR quality assessment ratings) must be addressed by the UNDP Country Office and the Project Manager.

151. The UNDP Country Office will retain all M&E records for this project for up to seven years after project financial closure in order to support ex-post evaluations undertaken by the UNDP Independent Evaluation Office (IEO) and/or the GEF Independent Evaluation Office (IEO).

152. UNDP-GEF Unit: Additional M and E, implementation quality assurance and troubleshooting support will be provided by the UNDP-GEF Regional Technical Advisor and the UNDP-GEF Directorate, as needed.

153. **Audit**: The project will be audited according to UNDP Financial Regulations and Rules and applicable audit policies on NIM/NGO implemented projects.[38]

Additional GEF monitoring and reporting requirements:

154. Inception Workshop and Report: A project inception workshop will be held within two months after the project document has been signed by all relevant parties to, amongst others:

a) Re-orient project stakeholders to the project strategy and discuss any changes in the overall context that influence project strategy and implementation;
b) Discuss the roles and responsibilities of the project team, including reporting and communication lines and conflict resolution mechanisms;
c) Review the results framework and finalize the indicators, means of verification and monitoring plan;
d) Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFP in M&E;
e) Update and review responsibilities for monitoring the various project plans and strategies, including the risk log; Environmental and Social Management Plan and other safeguard requirements; the gender strategy; the knowledge management strategy, and other relevant strategies;

[38] See guidance here: https://info.undp.org/global/popp/frm/pages/financial-management-and-execution-modalities.aspx

f) Review financial reporting procedures and mandatory requirements, and agree on the arrangements for the annual audit; and
g) Plan and schedule Project Board meetings and finalize the first year annual work plan.

155. The Project Manager will prepare the inception report no later than one month after the inception workshop. The inception report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board.

156. GEF Project Implementation Report (PIR): The Project Manager, the UNDP Country Office, and the UNDP-GEF Regional Technical Advisor will provide objective input to the annual GEF PIR covering the reporting period July (previous year) to June (current year) for each year of project implementation. The Project Manager will ensure that the indicators included in the project results framework are monitored annually in advance of the PIR submission deadline so that progress can be reported in the PIR. Any environmental and social risks and related management plans will be monitored regularly, and progress will be reported in the PIR.

157. The PIR submitted to the GEF will be shared with the Project Board. The UNDP Country Office will coordinate the input of the GEF Operational Focal Point and other stakeholders to the PIR as appropriate. The quality rating of the previous year's PIR will be used to inform the preparation of the subsequent PIR.

158. Lessons learned and knowledge generation: Results from the project will be disseminated within and beyond the project intervention area through existing information sharing networks and forums. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to the project. The project will identify, analyse and share lessons learned that might be beneficial to the design and implementation of similar projects and disseminate these lessons widely. There will be continuous information exchange between this project and other projects of similar focus in the same country, region and globally.

159. GEF Focal Area Tracking Tools: The following GEF Tracking Tool(s) will be used to monitor global environmental benefit results: BD METT, LD PMAT and SFM TT*, as agreed with the UNDP-GEF Regional Technical Advisor.* The baseline/CEO Endorsement GEF Focal Area Tracking Tool(s) – submitted as Annex D to this project document – will be updated by the Project Manager/Team (not the evaluation consultants hired to undertake the *MTR* or the TE) and shared with *the mid-term review consultants* and terminal evaluation consultants before the required *review/*evaluation missions take place. The updated GEF Tracking Tool(s) will be submitted to the GEF along with the completed *Mid-term Review report* and Terminal Evaluation report.

160. Independent Mid-term Review (MTR): An independent mid-term review process will begin after the second PIR has been submitted to the GEF, and the MTR report will be submitted to the GEF in the same year as the 3rd PIR. The MTR findings and responses outlined in the management response will be incorporated as recommendations for enhanced implementation during the final half of the project's duration. The terms of reference, the review process and the MTR report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the UNDP Evaluation Resource Center (ERC). As noted in this guidance, the evaluation will be 'independent, impartial and rigorous'. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. The GEF Operational Focal Point and other stakeholders will be involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate. The final MTR report will be available in English and will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and approved by the Project Board.

161. Terminal Evaluation (TE): An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terminal evaluation process will begin three months before operational closure of the project allowing the evaluation mission to proceed while the project team is still in place, yet ensuring the project is close enough to completion for the evaluation team to reach conclusions on key aspects

such as project sustainability. The Project Manager will remain on contract until the TE report and management response have been finalized. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the UNDP Evaluation Resource Center. As noted in this guidance, the evaluation will be 'independent, impartial and rigorous'. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. The GEF Operational Focal Point and other stakeholders will be involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate. The final TE report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board. The TE report will be publicly available in English on the UNDP ERC.

162. The UNDP Country Office will include the planned project terminal evaluation in the UNDP Country Office evaluation plan, and will upload the final terminal evaluation report in English and the corresponding management response to the UNDP Evaluation Resource Centre (ERC). Once uploaded to the ERC, the UNDP IEO will undertake a quality assessment and validate the findings and ratings in the TE report, and rate the quality of the TE report. The UNDP IEO assessment report will be sent to the GEF IEO along with the project terminal evaluation report.

163. Final Report: The project's terminal PIR along with the terminal evaluation (TE) report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

Table 7: Mandatory GEF M&E Requirements and M&E Budget:

GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget[39] (US$)		Time frame
		GEF grant	Co-financing	
Inception Workshop (one national and 3 provincial)	UNDP Country Office	6,000	5,000	Within two months of project document signature
Inception Report	Project Manager	None	None	Within two weeks of inception workshop
Standard UNDP monitoring and reporting requirements as outlined in the UNDP POPP	UNDP Country Office	None	None	Quarterly, annually
Monitoring of indicators in project results framework	M&E Specialist	20,000	50,000	Annually
GEF Project Implementation Report (PIR)	Project Manager and UNDP Country Office and UNDP-GEF team	None	None	Annually
NIM/NGO Audit as per UNDP audit policies	UNDP Country Office	15,000 (5 x 3,000)	None	Annually or other frequency as per UNDP Audit policies
Lessons learned and knowledge generation	Project Manager	46,500	25,000	Annually
Monitoring of environmental and social risks, and corresponding management plans as relevant	Project Manager UNDP CO	None	None	On-going
Addressing environmental and social grievances	Project Manager UNDP Country Office BPPS as needed	None	None	Costs associated with missions, workshops, BPPS

[39] Excluding project team staff time and UNDP staff time and travel expenses.

GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget[39] (US$)		Time frame
		GEF grant	Co-financing	
				expertise etc. can be charged to the project budget.
Project Board meetings	Project Board UNDP Country Office Project Manager	None	10,000	At minimum annually
Supervision missions	UNDP Country Office	None[40]	20,000	Annually
Oversight missions	UNDP-GEF team	None[41]	None	Troubleshooting as needed
Knowledge management as outlined in Outcome 4	Project Manager	22,500	None	On-going
GEF Secretariat learning missions/site visits	UNDP Country Office and Project Manager and UNDP-GEF team	None	None	To be determined.
Mid-term GEF Tracking Tool to be updated by	Project Manager	Covered under M&E above	10,000	Before mid-term review mission takes place.
Independent Mid-term Review (MTR) and management response	UNDP Country Office and Project team and UNDP-GEF team	30,000	10,000	Between 2nd and 3rd PIR.
Terminal GEF Tracking Tool to be updated by BCA	Project Manager	Covered under M&E above	10,000	Before terminal evaluation mission takes place
Independent Terminal Evaluation (TE) included in UNDP evaluation plan, and management response	UNDP Country Office and Project team and UNDP-GEF team	40,000	20,000	At least three months before operational closure
Translation of MTR and TE reports into English	UNDP Country Office	5,000	None	As required. GEF will only accept reports in English.
TOTAL INDICATIVE COSTS **Excluding project team staff time, and UNDP staff and travel expenses**		**185,000**	**160,000**	

VIII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

164. Roles and responsibilities of the project's governance mechanism: The project will be implemented over a five-year period. Snow Leopard Foundation (SLF) will be the implementing partner for the project, under UNDP's NGO execution modality, in cooperation with Ministry of Climate Change (MoCC). MoCC is the Government institution responsible for supervising the project. The project is in line with the Standard Basic Assistance Agreement between UNDP and the Government of Pakistan, and the Country Program.

165. The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources. capacity assessment of SLF was undertaken during the project preparation, and the overall risk rating was identified as 'low'. Please refer to Annex 21 – Financial Management Capacity Assessment of Snow Leopard Foundation. A standard Project Cooperation Agreement (PCA) will be signed with SLF constituting the legal agreement between UNDP and SLF on the implementation of the project. PCA is provided in Annex 22 ***– Project Cooperation Agreement with SLF***. SLF will work very closely with the provincial government agencies during the

[40] The costs of UNDP Country Office and UNDP-GEF Unit's participation and time are charged to the GEF Agency Fee.
[41] The costs of UNDP Country Office and UNDP-GEF Unit's participation and time are charged to the GEF Agency Fee

implementation of the project, ensuring that technical and extension support are solicited from the respective provincial government agencies.

166. **Project Board/Project Steering Committee:** The Project Board will be established and chaired by the Secretary, Ministry of Climate Change. The Board will have high level cross-sectoral representation including representatives of the MOCC. As the key government agency in-charge of natural resources and environment, MOCC will ensure that other government ministries are duly consulted and involved as per their mandate (such as the Ministry of Planning and Development, Ministry of Finance and Ministry of Science and Technology). The Board may also include representatives of participating provinces in particular, Departments of Planning and Development and Department of Forest/Wildlife, non-government organizations, experts and community representatives. Other participants can be invited into the PB meetings at the decision of the Board, as and when required to enhance its efficacy. PB is responsible for making by consensus, management decisions when guidance is required by the Project Manager, including recommendation for UNDP/Implementing Partner approval of project plans and revisions. In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value for money, fairness, integrity, transparency and effective international competition. In case a conensus cannot be reached within the Board, final decision shall rest with the UNDP Programme Manager. The PB shall meet at least twice each year. The terms of reference for the Project Board is contained in Annex 14.

167. The Project Manager, selected through a competitive process will run the project on a day-to-day basis on behalf of the Implementing Partner within the constraints laid down by the Board. The National Program Manager will function till the end when the final project terminal evaluation report and corresponding management response, and other documentation required by the GEF and UNDP, has been completed and submitted to UNDP (including operational closure of the project).

168. **Project Assurance** will be provided by the UNDP Country Office. Additional quality assurance is to be provided by the UNDP Regional Technical Advisor, as and when needed.

Project Management:

169. The Project Management Unit (PMU) will be established in the Snow Leopard Foundation. It will comprise of a National Project Manager (NPM), Finance and Admin Officer, Finance and Admin Assistant and Office Assistant. The NPMU, in collaboration with the MoCC and Landscape Coordination committees will have an overall management and administrative responsibility to facilitate stakeholder involvement and in ensuring increased provincial level ownership of the project. The NPMU staff will be located in Islamabad to ensure coordination among key stakeholders at the federal level and with provincial Forest and Wildlife Departments supported by the Landscape Coordination Committees.

Project Governance and Management at the Provincial level

Provincial Coordinating Committees

170. Through the Provincial Coordinating Committees, the Provincial Governments will play a central role in advising, overseeing, planning and monitoring project activities as well as in facilitating development activities with relevant sector agencies in the snow leopard landscapes. The Chair of the committee will be Additional Chief Secretary (Development)/Secretary (Planning and Development Department) in GB and AJK, whereas in KP, District Nazim of Chitral district will chair the committee. Its composition may include relevant line departments and key NGOs working in the area, Regional Project Manager will be the Secretary of the committee. The Mandate/Operational Modalities will include: (i) Endorsement of the project work-plan, (ii) Coordination with other government & non-government departments, (iii) Endorsement/ approval of landscape management Plan, (iv) Resolve issues not settled at District Conservation committee, and (v) Any other issue with the approval of the Chair. The Committee will meet bi-annually.

Regional Project Management Unit

171. At the provincial level, oversight and coordination will be the responsibility of a Regional Project Manager - a senior officer of the Snow Leopard Foundation. However, a senior level technical expert of the Regional Project Management Unit may be given the additional responsibilities of Regional Project Manager. He/she will oversee the project. The Regional Project Manager will run the project on a day-to-day basis and coordinate the functioning of the Landscape Planning and Implementation Team. The Regional Project Manager will liaise with the provincial line agencies to ensure coordination and convergence of programs and resources. He/she will oversee the operation of the Landscape Planning and Implementation Team (LPIT) that will include a Technical Specialists (Landscape Planning Coordinator/ Facilitator, Social Organizer, Natural Resource Management (NRM) Specialist and Livelihood/ Participatory Specialist) on contract basis.

Landscape Planning and Implementation Team

172. At the landscape level, there will be a Landscape Level Planning and Implementation team (LPIT) consisting of a Landscape Planning Coordinator/ Facilitator on full time basis supported by Social Organizers, NRM Specialist & Livelihood/ Participatory Specialist (consultants). Forest and Wildlife Rangers will be part of the LPITs with respect to the interventions undertaken in their respective jurisdictions. The forest and wildlife staff will guide the identification of CMCAs, revision of the management plans, support livestock-wildlife conflict resolution and support the implementation of predator proof corrals, livestock insurance schemes and community based surveillance and monitoring of wildlife poaching and illicit wildlife trade. In addition, sector agency technical staff at the Tehsil (sub-district) level will be engaged, as and when required to provide technical and extension support for planning and implementation of Valley Conservation Plans.

173. The LPITs will have regular interactions with the valley conservation committees in the planning, implementation and the monitoring of VCPs (that will lay out conservation, natural resources management, livelihood and wildlife crime prevention activities) to be funded by the project and complementary funding sources. The LPITs will co-opt block, district and sector staff and NGOs, as relevant to facilitate convergence of manpower, budgetary resources and technical support in the planning and implementation of VCP activities so as to coordinate and maximize resources. They will also participate as relevant in the LPITs to ensure convergence of manpower and financial resources.

Valley Conservation Committees

174. Site specific interventions and annual plans of operations (APOs) would be executed through the well-established democratic community institutions, and in close coordination with other community based organizations as appropriate depending upon their compatibility and strengths. All livelihood and natural resource management planning would be coordinated through the LPIT under the supervision and guidance of Regional Program Manager (RPM), involving various stakeholders and mobilizers. Community level activities agreed through bottom up planning process and as outlined in the APO will then be funded and operationalized under this project. For each village committee where the project would be piloted, a separate bank account would be maintained and operated jointly by the Head of the Committee and a representative of SLF. If SLF plans to withdraw its program with the VCC, then it will withdraw its representative and the bank account will be managed by at least two members elected by the VCC.

175. At each valley site, two types of activities are visualized under the project, viz., activities dealing with generation of innovative livelihoods especially for the households who are highly dependent on the biomass resources, and participatory natural resource management/eco-restoration activities. The VCCs would be encouraged to create assets and revolving funds from the savings made through contributory labor for various activities which would be used for ancillary community based development activities such as maintenance of fodder banks, livestock insurance scheme, water harvesting structures etc. All payments would be made through checks and, accounts will be audited annually.

176. Planning will be undertaken at an individual valley level. To the extent feasible and relevant, the valley conservation committees will be directly involved in the planning activities for conservation, sustainable natural resources use and livelihood improvement. Other valley/village cluster associations such as Self Help Groups, Dairy Groups, Ecotourism groups, producer groups and similar other entities would be directly involved in the implementation of relevant activities within the valley conservation plans. The VCP will take congruence of other programs and activities of the different groups, and will support skills development, technology improvements, product development, marketing, product branding, linkages with financial institutions and other available government and non-government programs and resources, etc.

177. **Role of NGOs, research and training Institutions, Individual experts, private institutions, line departments, financial institutions, cooperative institutions and civil society organizations:** A range of organizations and experts will be engaged in the project to source specialized services and provide - technical support, financial support, capacity building, Research and Development Services, value chain management, sub-project implementations, etc. These institutions and experts will be engaged as specialized institutions for specific assignments or sub-projects in their area of specialization. As per the requirement of the project, institutions will be engaged on contract basis with clear Terms of Reference for the tasks assigned to them. In particular, CSOs operating within the landscapes will be contracted to undertake key project activities in selected valleys.

The project organization structure is as follows:



UNDP COUNTRY OFFICE

178. UNDP is the sole GEF Implementing Agency for the project, providing the project assurance and cycle management services. As such, UNDP holds overall accountability and responsibility for the delivery of results to the GEF. The UNDP Country Office (UNDP-CO) will be responsible for Project Assurance that supports the Project Board by carrying out objective and independent project oversight and monitoring functions. The project is a NGO implementation and will be executed following applicable rules and procedures laid down under the National Implementation Modality and the Project Cooperation Agreement signed between UNDP and SLF. The UNDP Country Director or his designated officials will be represented on the Project Board. Strategic oversight and additional quality assurance will be provided by the UNDP/GEF Regional Technical Advisor (RTA) responsible for the project. This oversight will include ensuring that the project practices due diligence with regard to UNDP's Social and Environmental Screening Procedure (see Annex 13). The following aspects need to be checked by the Project Assurance throughout the project:

- Maintenance of liaison throughout the project between the donors and project implementers;
- Beneficiary needs and expectations are being met or managed;
- Risks are being controlled;
- Adherence to the Project Justification;
- Providing financial and audit services to the project through appointment of independent financial auditors and evaluators;
- Overseeing financial expenditures against project budgets approved by the Project Board;
- Ensuring that all activities including staff and equipment procurement and financial services are carried out in strict compliance with UNDP/GEF procedures
- The project remains viable, so that the scope of the project is not "creeping upwards" unnoticed;
- Internal and external communications are working;
- Applicable standards are being used and followed;
- Any legislative constraints are being observed; and
- Adherence to quality assurance standards.

179. UNDP Direct Project Services as requested by Implementing Partner (if any): The UNDP, as GEF Agency for this project, will provide project management cycle services for the project as defined by the GEF Council. In addition, the IP may request UNDP direct services for specific projects according to its policies and convenience. The UNDP and IP acknowledge and agree that those services are not mandatory, and will be provided only upon request. If requested, the services would follow the UNDP policies on the recovery of direct costs. As is determined by the GEF Council requirements, these service costs will be assigned as Project Management Cost, duly identified in the project budget as Direct Project Costs. Eligible Direct Project Costs should not be charged as a flat percentage. They should be calculated on the basis of estimated actual or transaction based costs and should be charged to the direct project costs account codes: "64397- Services to projects – CO Staff" and "74596- Services to projects – General Operating Expenses (GOE)".

180. Agreement on intellectual property rights and use of logo on the project's deliverables and disclosure of information: In order to accord proper acknowledgement to the GEF for providing grant funding, the GEF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GEF will also accord proper acknowledgement to the GEF. Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy[42] and the GEF policy on public involvement[43].

Detailed Terms of Reference for key project positions is provided in Annex 14.

[42] See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/

[43] See https://www.thegef.org/gef/policies_guidelines

IX. FINANCIAL PLANNING AND MANAGEMENT

181. The total cost of the project is USD 19,774,521. This is financed through a GEF grant of USD 4,644,521, and USD 15,130,000 in parallel co-financing. UNDP, as the GEF Implementing Agency, is responsible for the execution of the GEF resources and the cash co-financing transferred to UNDP bank account only.

182. Parallel co-financing: The actual realization of project co-financing will be monitored during the mid-term review and terminal evaluation process and will be reported to the GEF. The planned parallel co-financing will be used as follows:

Co-financing source	Co-financing type	Co-financing amount	Planned Activities/Outputs	Risks	Risk Mitigation Measures
Government	In kind and cash	13,860,000	Program Investment support, staff and office space and field implementation support, etc.	Potential risk of funds being unavailable to project landscapes because of changing government priorities and lack of political commitment	The co-financing will be from existing and proposed government programs and the Steering Committee and PCCs will facilitate and ensure that co-financing efforts are not severely compromised.
Non-Government	In kind and cash	1,270,000	Program Investment support, field operational costs, etc.	Potential risks of government not willing to collaborate with the CSOs	One of the NGO partners is the Implementing Partner for the project. The NGO will execute a Project cooperation Agreement (PCA) with UNDP to comply with the terms of project implementation. The other NGOs will be represented in the PB and PCCs so that their interest and partnership is confirmed.
TOTAL (USD)		**15,130,000**			

183. Budget Revision and Tolerance: As per UNDP requirements outlined in the UNDP POPP, the project board will agree on a budget tolerance level for each plan under the overall annual work plan allowing the project manager to expend up to the tolerance level beyond the approved project budget amount for the year without requiring a revision from the Project Board. Should the following deviations occur, the Project Manager and UNDP Country Office will seek the approval of the UNDP-GEF team as these are considered major amendments by the GEF: a) Budget re-allocations among components in the project with amounts involving 10% of the total project grant or more; b) Introduction of new budget items/or components that exceed 5% of original GEF allocation.

184. Any over expenditure incurred beyond the available GEF grant amount will be absorbed by non-GEF resources (e.g. UNDP TRAC or cash co-financing).

185. Refund to Donor: Should a refund of unspent funds to the GEF be necessary, this will be managed directly by the UNDP-GEF Unit in New York.

186. Project Closure: Project closure will be conducted as per UNDP requirements outlined in the UNDP POPP.[44] On an exceptional basis only, a no-cost extension beyond the initial duration of the project will be sought from in-country UNDP colleagues and then the UNDP-GEF Executive Coordinator.

187. Operational completion: The project will be operationally completed when the last UNDP-financed inputs have been provided and the related activities have been completed. This includes the final clearance of the Terminal Evaluation Report (that will be available in English) and the corresponding management response, and the end-of-project review Project Board meeting. The Implementing Partner through a Project Board decision will notify the UNDP Country Office when operational closure has been completed. At this time, the relevant parties will have already agreed and confirmed in writing on the arrangements for the disposal of any equipment that is still the property of UNDP.

188. Transfer or disposal of assets: In consultation with the Ministry of Climate Change and the Implementing Partner and other parties of the project, UNDP program manager (UNDP Resident Representative) is responsible for deciding on the transfer or other disposal of assets. Transfer or disposal of assets are recommended to be reviewed and endorsed by the project board following UNDP rules and regulations. Assets may be transferred to the government for project activities managed by a national institution at any time during the life of a project. In all cases of transfer, a transfer document must be prepared and kept on file.

189. Financial completion: The project will be financially closed when the following conditions have been met: a) The project is operationally completed or has been cancelled; b) The Implementing Partner has reported all financial transactions to UNDP; c) UNDP has closed the accounts for the project; d) UNDP and the Implementing Partner have certified a final Combined Delivery Report (which serves as final budget revision).

190. The project will be financially completed within 12 months of operational closure or after the date of cancellation. Between operational and financial closure, the implementing partner will identify and settle all financial obligations and prepare a final expenditure report. The UNDP Country Office will send the final signed closure documents including confirmation of final cumulative expenditure and unspent balance to the UNDP-GEF Unit for confirmation before the project will be financially closed in Atlas by the UNDP Country Office.

[44] see https://info.undp.org/global/popp/ppm/Pages/Closing-a-Project.aspx

X. TOTAL BUDGET AND WORK PLAN

Total Budget and Work Plan			
Atlas[45] Proposal or Award ID:	00088620	Atlas Primary Output Project ID:	00095191
Atlas Proposal or Award Title:	Snow Leopard and Ecosystem Protection Program		
Atlas Business Unit	PAK10		
Atlas Primary Output Project Title	Snow Leopard and Ecosystem Protection Program		
UNDP-GEF PIMS No.	5716		
Implementing Partner	Snow Leopard Foundation		

GEF Component/Atlas Activity	Responsible Party/[46] (Atlas Implementing Agent)	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	See Budget Note:
OUTCOME 1 Improved management of snow leopard landscapes that integrates sustainable forest and land management and compatible conservation practice	**SLF**	**62000**	**GEF**	72100	Contractual Services-Companies	101,000	149,000	70,000	78,000	96,000	**494,000**	1
				75700	Training, Workshops and Confer	11,250	11,250	0	0	10,000	**32,500**	2
				74200	Audio Visual&Print Prod Costs	0	3,000	0	0	0	**3,000**	3
				71600	Travel	8,000	8,000	8,000	8,000	8,000	**40,000**	4
				72200	Equipment and Furniture	62,500	0	0	0	0	**62,500**	5
				74500	Miscellaneous Expenses	2,000	2,000	2,000	2,000	2,000	**10,000**	6
					Sub-total GEF	**184,750**	**173,250**	**80,000**	**88,000**	**116,000**	**642,000**	
OUTCOME 2: Increased representation of priority snow leopard ecosystems in Protected Area network	**SLF**	**62000**	**GEF**	71200	International Consultants	20,000	10,000	0	0	0	**30,000**	7
				72100	Contractual Services-Companies	19,000	50,000	50,000	0	0	**119,000**	8
				75700	Training, Workshops and Confer	20,000	120,000	110,000	30,000	20,000	**300,000**	9
				71600	Travel	10,000	5,000	0	0	0	**15,000**	10

[45] See separate guidance on how to enter the TBWP into Atlas

[46] Only the responsible parties to be created as Atlas Implementing Agent as part of the COAs should be entered here. Sub-level responsible parties reporting directly to NGO Implementing Partners should not entered here.

Activity:				72600	Grants (CMCA Implementation)	20,000	50,000	100,000	100,000	24,107	**294,107**	11
				72200	Equipment and Furniture	40,000	10,000	0	0	0	**50,000**	12
					Sub-total GEF	**129,000**	**245,000**	**260,000**	**130,000**	**44,107**	**808,107**	
OUTCOME 3: Participatory conservation in the targeted landscape enhanced to reduce human-snow leopard conflicts and improve livelihoods of community	**SLF**	**62000**	**GEF**	72100	Contractual Services-Companies	42,000	19,000	25,000	0	0	**86,000**	13
				71300	Local Consultants	50,000	160,800	160,800	160,800	36,400	**568,800**	14
				75700	Training, Workshops and Confer	27,000	42,000	18,000	0	0	**87,000**	15
				72600	Grants (VCP Implementation)[47]	23,200	163,200	303,200	323,200	141,600	**954,400**	16a
						16,800	36,800	56,800	36,800	36,800	**184,000**	16b
				72600	Grants (IWT Implementation)	0	21,600	21,600	64,800	0	**108,000**	17
				73400	Rental and Maintenance of Other Equipment	33,000	90,000	90,000	90,000	30,000	**333,000**	18
				71600	Travel	7,800	8,190	8,600	9,030	7,800	**41,420**	19
				72200	Equipment	0	0	20,027	0	0	**20,027**	20
					Sub-total GEF	**199,800**	**541,590**	**704,027**	**684,630**	**252,600**	**2,382,647**	
OUTCOME 4: Implementation, upscaling and replication of project approaches supported by effective knowledge management and gender mainstreaming.	**SLF**	**62000**	**GEF**	71200	International Consultants	0	0	20,000	0	27,200	**47,200**	21
				71300	Local Consultants	12,000	12,000	12,000	12,000	12,000	**60,000**	22
				72100	Contractual Services-Companies	36,000	70,000	60,000	70,000	24,000	**260,000**	23
				75700	Training, Workshops and Confer	16,000	8,500	32,500	2,500	6,311	**65,811**	24
				72200	Equipment and Furniture	78,500	0	0	0	0	**78,500**	25
				71600	Travel	2,000	2,000	35,000	2,000	14,800	**55,800**	26
				74100	Professional Services (Audit)	3,000	3,000	3,000	3,000	3,000	**15,000**	27

[47] Approximately 84% of Grants are for direct snow leopard conservation (predator proof corrals, livestock insurance and vaccination and improved herding practices) –See budget notes No 16

				73400	Rental & Maint of Other Equip	1,500	1,575	1,653	1,737	1,824	**8,289**	28
					Sub-total GEF	**149,000**	**97,075**	**164,153**	**91,237**	**89,135**	**590,600**	
PROJECT MANAGEMENT UNIT[48]	**SLF**	**62000**	**GEF**	71300	Local Consultants	42,000	36,960	30,492	22,361	12,298	**144,111**	29
				72400	Communication & Audio Visual Equip	9,600	10,080	10,585	11,114	11,670	**53,049**	30
				72500	Supplies	1,938	1,938	1,938	1,938	1,938	**9,690**	31
				73400	Rental & Maint of Other Equip	1,500	1,575	1,653	1,737	1,824	**8,289**	32
				74596	Services to Projects	1,205	1,205	1,206	1,206	1,206	**6,028**	33
					Sub-total GEF	**56,243**	**51,758**	**45,874**	**38,356**	**28,936**	**221,167**	
					PROJECT GEF TOTAL	**718,793**	**1,108,673**	**1,254,054**	**1,032,223**	**530,778**	**4,644,521**	

Summary of Funds: [49]

	Amount Year 1	Amount Year 2	Amount Year 3	Amount Year 4	Amount Year 5	TOTAL
GEF	718,793	1,108,673	1,254,054	1,032,223	530,778	**4,644,521**
Co-financing	2,564,680	3,119,880	3,569,100	3,249,060	2,627,280	**15,130,000**
TOTAL (USD)	**3,283,473**	**4,228,553**	**4,823,154**	**4,281,283**	**3,158,058**	**19,774,521**

Budget notes:

1. Contractual services: This work will be coordinated by Snow Leopard Foundation (SLF) in collaboration with the provincial government and CSO/NGO partners as follows: (i) Limited ecological and socio-economic mapping of snow leopard landscapes to facilitate spatial zoning of landscapes based on ecological values (mainly ground truthing) and reach consensus with key sector agencies on landscape management agreements (consultations, workshops and negotiation) to manage the different ecological zones of the three landscapes. [400 w/d[50] X $150]; (ii) Design of research and monitoring framework, methodology and monitoring techniques and design of monitoring plan to monitor changes in snow leopard and associated species populations (30 w/d X $150); (iii) Validation of snow leopard population and distribution within snow leopard landscapes using Camera Trapping studies to monitor population density and distribution for 5 years of project (150 w/d x 5 years X $150); (iv) Undertaking assessment of wild prey population, distribution and health to ascertain optimal measures for management of prey base (300 w/d X $150); (v) Undertaking genetic sampling to ascertain genetic variability of snow leopard population (500 samples X $150); (vi) Undertaking genetic analysis of samples to assess gene flow and population diversity across landscape (analysis of 500 samples X $150); (vii) Monitoring changes in Snow leopard prey population over time each year for 5 years (50 x 5 X $150); (viii) Assessing competition for food between prey species and domestic livestock at 2 sites to help design measures to reduce competition and conflict (93 w/d X $150); (ix) Study to assess resilience and carrying capacity of rangelands, pasture and retrogressive factors such as climate change impacts on the integrity, sustainability and resilience of fragile mountain ecosystems

[48] Should not exceed 5% of total project budget for FSPs and 10% for MSPs. PMU costs will be used for the following activities: Full time or part time project manager (and or coordinator); Full time or part time project administrative/finance assistant; Travel cost of the PMU project staff; Other General Operating Expenses such as rent, computer, equipment, supplies, etc. to support the PMU; UNDP Direct Project Cost if requested by Government Implementing Partner; Any other projected PMU cost as appropriate. Audit should be funded under Outcome 4 on KM and M&E or under project outcomes.

[49] Summary table should include all financing of all kinds: GEF financing, co-financing, cash, in-kind, etc.

[50] w/d refers to number of work days/assignment

and develop rangeland, pasture and livestock management strategy and plan at 3 landscapes (200 w/d X $150); (x) documentation of 10 best practices and interpreter's manual (266 w/d X $150); (xi) development of sustainability plan for post-project period (100 w/d X $150);

2. Twelve workshops on landscape level management integrates biodiversity, ecosystem services, climate mitigation, sustainable community resource use and socio-economic considerations (12 workshops X $1,875); & 2 consultative workshops on sustainability plan (2 X $5,000)
3. Printing of three plans (3 X $1,000)
4. Travel for bi-annual meetings of Landscape Coordination Committee (160 trips X $250)
5. Purchase of Camera traps (50X $700)[51], GPS (20 X $500), Binoculars (20 X $201), Spotting scopes (5 X $1,500) & Field Gear (20 X $300)
6. Miscellaneous Expenses for meetings of Landscape Coordination Committees (at 4x3x5 meetings at $150-175/meeting)
7. International consultant to assess training needs, module & course content development for wildlife and forest departments (2 months X $15,000)
8. Contractual services: To be undertaken by SLF and CSO partners: (i) for assessing existing PAs in the 3 model landscapes for their coverage and effectiveness to support endangered species such as snow leopard to enable adjustment to PA network and boundaries based on ecological information (100 w/d X $150); (ii) Updating/new management plans for 17 CMCAs to broaden conservation outcomes (from existing NTFP based management) for existing and new CMCAs and tested under various governance, management and enforcement regimes (660 w/d X $150); (iii) Development of wildlife monitoring tools for crime investigation (33 w/d X $150).
9. (i) Ten five days training workshops on wildlife & landscape management and related themes (10 X $10,000); (ii) two 2-days training in investigation of wildlife crimes and basic forensic science (2 X $10,000); (iii) design and conduct of two 6-months diploma courses (25-30 students per diploma course) in ecosystem management for the selected field staff of the wildlife and forest departments (2 X $80,000) & (iv) training workshops of forest and wildlife staff for technical and enhanced capacities for combatting wildlife crime (2 X $10,000)
10. Travel of International consultant for training needs assessment, module & course content development for wildlife and forest departments & for forest and wildlife staff for technical support and enhanced capacities for combatting wildlife crime
11. Grants (coordinated by SLF with the CSO partners through an MoU): for conservation measures in soil and water conservation; pasture improvement; livestock predator proofing measures; and livestock insurance schemes in the 17 CMCAs of the snow leopard landscape. The activities to be supported under the Grants are not listed as individual budget items. Given the participatory nature of the project, these activities will be defined through the consultative process associated with the update of the existing CMCA management plans. Grants will be managed in accordance to UNDP Guidance on Micro-Capital Grants.
12. One hundred Field Gear for Wildlife Field Staff (100 X $400) & equipment for wildlife monitoring (1 X 10,000)
13. Contractual services: Will be coordinated by SLF together with the provincial government and CSO partners: (i) developing format and guidelines of Valley Conservation plans (33 w/d X $150); (ii) mapping and valley conservation plan preparation (260 w/d X $150); (iii) developing guidelines and establishment of revolving funds at valley level (34 w/d X $150); (iv) support for identification of potential value chain enterprises for agricultural crops and NTFP (67 w/d X $150); (v) Support for value chain enterprise development for NTFPs, (133w/d X $150); (vi) design and operationalization of community based surveillance, monitoring and wildlife crime detection plan (54 w/d X $150).
14. National Consultants as Landscape planning coordinator/facilitators[52] (2 coordinators x 42 months X $1,200); Social organizers (4 organizers/valley x 3 x 42 months X $500); Natural resource management Specialist (3 specialists for 42 months each X $1,000); Livelihood/ Participatory Specialists (3) (3 x 30 months X $1,000). This will constitute the Landscape Planning and Implementation team that will be responsible for working with valley communities for planning, implementation and monitoring of Valley Conservation plans.
15. Seventeen one day local level consultative workshops and meetings for developing valley conservation plans ($19,000); Seventeen one day consultative provincial level workshops and meetings for developing valley conservation plans ($38,000); six one-day consultative workshops and meetings of community Groups (6 X $5,000).
16. Grants (coordinated by SLF with the 4 CSOs through an MoU) to 17 Valley conservation committees for implementation of valley conservation plans including on-the-ground investments on sustainable community based natural resources management; sustainable livelihoods; and reduce human wildlife conflict (17 X $67,000-68,000 = $1,138,400). The activities to be supported under the Grants are not listed as individual budget items. Given the participatory nature of the project, these activities would be defined through a village participatory process based on community needs and priorities. Activities are referenced in Annex 4 and 7. Grants will be managed in accordance with UNDP Guidance on Micro-Capital Grants. Grants will support:

    16(a) HWC measures (corrals, livestock insurance, improved protection and herding practices, livestock vaccination) (17 x $55,500 = $954,400)

[51] Given the large extent of the snow leopard landscapes, a minimum of 100 camera traps are required, the balance 50 camera traps would be solicited through other donors.

[52] Coordinators/facilitators will lead LPITs in Karakoram-Pamir Landscape and Hindukush landscapes, while a NRM specialist will lead the LPIT in the Himalaya landscape.

16(b) Community conservation and sustainable natural resources management (such as soil and water conservation; water harvesting; crop disease management; renewable energy; plant nurseries; sustainable harvest of NTFPs; etc.); and diversified livelihoods (such as handicrafts, ecotourism homestays, horticulture and floriculture, agricultural productivity and marketing, snow leopard enterprises, microfinance, post-harvest and value addition, etc.) (17 x $16,000-17,000 = $184,000)

17. Grants for community members to provide limited support for community surveillance and monitoring to reduce poaching and IWT as temporary measures until sustainability plan is developed and launched. Use of grant will follow UNDP Guidance on micro-Capital grants. Any deviation from the Guidance needs clearance from OFRM prior to implementation [36 members X $50 X 60 months)
18. Maintenance and Operation of transport equipment (including vehicle rental for 4.5 years is total of $216,000 for 5 years; and Operation and maintenance cost of vehicles including fuel for 4.5 years of a total of $117,000)
19. Travel (Daily subsistence allowance, boarding and lodging)
20. Equipment for developing value chain for sustainable community based natural resources management, sustainable livelihoods and reduced human wildlife conflict
21. International consultant for mid-term review (25 w/d X $800) & terminal evaluation (34 w/d X $800)
22. National consultant, Coordinator Monitoring & Evaluation (60 w/m months X $1,000) for updating M&E plans, baselines, TTs, and follow up on MTR recommendations
23. Contractual services (this will be coordinated by SLF with the CSO partners): (i) for developing awareness and teaching materials and undertaking provincial/territorial communication and awareness programs in 3 landscapes for 5 years, including for schools and educational facilities (1,400 w/d X $150); (ii) design, developing of awareness materials and conduct of national communication program for 5 years (200 w/d X $150); (iii) undertaking policy level assessments and developing recommendations for improving landscape planning and snow leopard conservation (133 w/d X $150). (Cost of management and update of existing SLF website borne by SLT)
24. Three one day provincial/ territorial level consultative workshops for policy level assessments (3 X $5,000); One day national consultative workshop for policy level assessments (1 X $15,000); national Project launch workshop ($10,000) & provincial/ territorial level Project launch workshops (3 X $2,000); Meetings for establishing coordination mechanism and 3 agreements between the forest, police, defense, revenue and customs department for intelligence gathering ($6,000) & meetings of inter-provincial bodies ($7,500)
25. Equipment including 4 desktop computers (4 X $1,200), 12 laptops (12 X $800), 4 printers (4 X $400), 4 photocopiers (4 X $2,500), 4 scanners (4 X $300), 4 multi-media/ LEDs (4 X $1,000), 9 digital cameras (4 X $800), 3 satellite phones (4 X $1,000), 15 kilo-watts solar photo-voltaic systems for three offices to provide back up support during load-shedding (3 offices X 5 kilowatt solar X $2,000) & 17 field gears (17 X $400)
26. International travel and accommodation cost for mid-term review ($8,000) and terminal evaluation ($10,000); attending international or regional workshops and meetings for development of Information and knowledge sharing networks with neighboring countries ($29,000) and Travel and DSA for National consultant, Coordinator of Monitoring & Evaluation ($10,000)
27. Audit costs (managed by UNDP) at $ 3,000/year = $ 15,000
28. Operation & maintenance of 3 satellite phones during project period
29. Remuneration of 2 national consultants, National Program Manager ($82,349 for 60 w/m months); and Finance & Admin Officer ($61,762 for 60 w/m months) with part funding from GEF grant.
30. Utilities, communication, postal etc. for national and provincial offices
31. Office supplies including stationary for national and provincial offices (part funding from GEF grant)
32. Operation & maintenance of office equipment (part funding from GEF grant)
33. Miscellaneous expenses reserved for contingency and DPC for finance processing and procurement for M&E activities.

XI. LEGAL CONTEXT

Consistent with the Article III of the Standard Basic Assistance Agreement (SBAA), the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:

a) put in place an appropriate security plan and maintain the security plan, considering the security situation in the country where the project is being carried;
b) assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner's obligations under this Project Document [and the Project Cooperation Agreement between UNDP and the Implementing Partner][53].

The Implementing Partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml. This provision must be included in all sub-contracts or sub-agreements entered into under/further to this Project Document".

Note that any designations on maps or other references employed in this project document do not imply the expression of any opinion whatsoever on the part of UNDP concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries.

[53] Use bracketed text only when IP is an NGO/IGO

XII. ANNEXES

1. Brief Profiles of Project Landscapes
2. Review of Policies and legal frameworks for natural resources management in snow leopard range
3. Framework for Participatory Landscape Conservation
4. Planning and management of investments for sustainable community based natural resources management, sustainable livelihood and reduced wildlife-human conflicts (Output 3.2)
5. Valley Level Participatory Community Planning Framework
6. Basic Contents of Valley Conservation Plan
7. Indicative list of possible valley conservation plan investments and livelihoods
8. Capacity building and skills training for local level community institutions
9. Gender Analysis and Mainstreaming Action Plan
10. Protected Areas in the Project Landscapes
11. Management Related Studies and Assessments
12. Communication and Knowledge Management Strategy
13. UNDP Social and Environmental and Social Screening Template (SESP)
14. Terms of Reference for Key Project Positions
15. Multiyear Workplan
16. Monitoring Plan
17. Evaluation Plan
18. Complementary CSO activities in project landscapes
19. UNDP Project Quality Assurance Report
20. UNDP Risk Log
21. Results of the capacity assessment of the project implementing partner and HACT micro assessment
22. Any additional agreements, such as cost sharing agreements, project cooperation agreements signed with NGOs (where the NGO is designated as the "executing entity"), letters of financial commitments, GEF OFP letter, GEF PIFs and other templates for all project types, LOA with the government in case DPCs are applied should be attached.
23. Summary of Consultants and Contractual Services Financed by the Project
24. UNDP Capacity Assessment Scorecard
25. Carbon Calculations
26. Minutes of Validation Workshop
27. Co-financing letters
28. GEF Tracking Tool (s) at baseline
29. LPAC and Provincial Consultation Meeting Report

Annex 1

Brief Profiles of Project Landscapes

1. Introduction of the Model Landscapes

The three snow leopard landscapes namely Karakorum-Pamir, Hindu Kush and Himalayan landscapes are situated in the northern Pakistan covering an area of 59,188 sq. Km. Administratively the Karakorum-Pamir Landscape (38,245 sq. Km), fall in the Province of Gilgit Baltistan, Hindu Kush (13,888 sq. Km area) in the Khyber Pakhtunkhwa Province while Himalayan landscape (7055 sq. Km area) falls in the state of Azad Jammu and Kashmir and Astore District of Gilgit Baltistan. These landscapes have been identified in consultation with the Ministry of Climate Change, respective provincial wildlife and forest departments, conservation NGOs, and communities. These landscapes include seven (7) national parks that have been established to deliver with specific management objectives and many other protected areas such as Community Controlled Hunting Areas (CCHA), Game Reserves and Wildlife sanctuaries. These landscapes encompass world's highest mountain chains, largest glacier and water reserves outside the polar region.

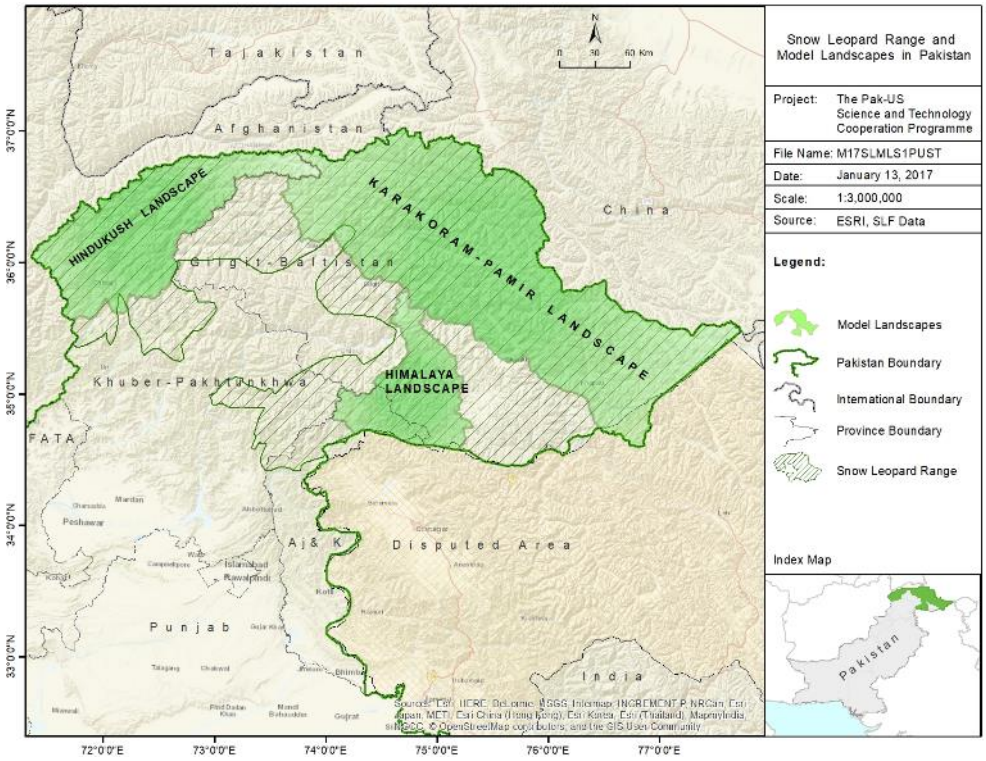


Figure 1: Proposed Snow Leopard Model Landscapes in Pakistan

2. Karakorum-Pamir Landscape:

The Karakorum-Pamir Landscape constitutes 48% of snow leopard range in Pakistan and fall in the junction of Palearctic and Oriental biogeographic zones in the Himalayan Highlands consisting of Montane grassland and shrub-land Biomes. Characteristic habitats in the landscape comprised of alpine steppe, alpine shrubs and alpine meadows, Sub alpine scrub, Steppe of Artemisia and dry temperate forests. The Karakorum-Pamir Landscape embraces three national parks; Khunjerab National Park, the Central Karakorum National Park, Qurumbar National Park and several other protected areas including CMCAs and Game Reserves making a total of 22,277 sq. km area under legal

protection. Physical features of the landscape vary with altitude, starting from the fertile alluvial valley plains to the highest barren lands and glaciated mountains. Climatically, the landscape falls in dry temperate region with harsh conditions in winter and dry warm summer.

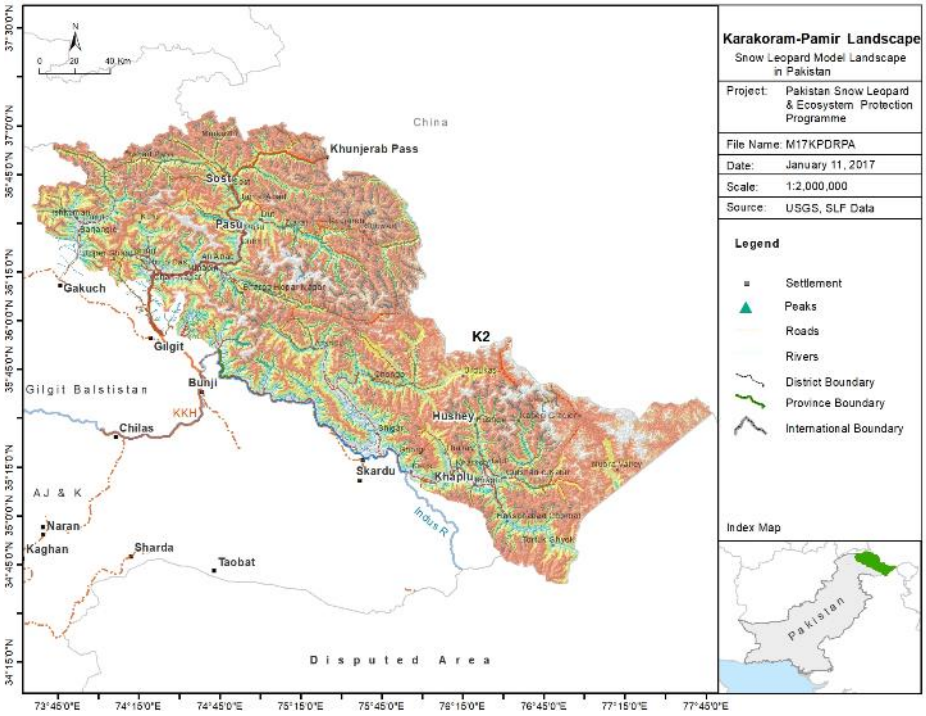


Figure 2: Map of the KARAKORUM-PAMIR LANDSCAPE

Socioeconomic attributes of Karakorum-Pamir Landscape

The Karakorum-Pamir Landscape spread across seven districts and encompasses 35 valleys and about 244 villages. Total human population in the landscape is about 0.45 million living in 42,979 households. Substance farming and livestock rearing are the major sources of livelihoods. Arable land constitutes about 2 % of the total area and wheat, maize, barley, potato, and fruits are major crops. These crops are grown in about 60,207 hectares' area with annual gross production of 0.36 million tons. The rangelands of Karakorum-Pamir Landscape are reportedly support more than 2.5 million livestock, mostly sheep and goats.

Tourism is one of the off-farm sources of income to the economically marginalized communities of the mountainous areas in the landscape. An average, more than 50,000 tourists visit KARAKORUM-PAMIR LANDSCAPE each year generating revenue of about 16 million USD.

Flora:

Phyto-geographically, the Karakorum Pamir landscape falls in the Iran-o-Turanian and Sino-Japanese Sub-regions. The landscape has diverse vegetation types resulted from the varying altitudinal and climatic conditions that entail diversity of habitats. More than 155 plant species are found in various valleys of the landscape, demonstrative of diverse habitat types found in the landscape. The landscape also hosts at least 8 exclusively endemic species along with hosting other 86 species endemic to Pakistan. Dominant families include Asteraceae, Polygonaceae, Saxifragaceae and Rosaceae.

Fauna:

Being located at the junction of Palearctic and Oriental zoogeographic regions the area has an exceptional and unique biodiversity features. Mammal species exceed 40 in number in the landscape and among the more common species are four large carnivores and six ungulates species including snow leopard (*Panthera uncia*), brown bear (*Arctos isabellinus*), Lynx *(lynx lynx isbabellinus)*, wolf (*Canis lupus*), flare horned markhor *(Capra falconeri falconeri),* ibex *(Capra ibex sibrica),* Marco Polo Sheep *(Ovis ammon polii),* blue sheep *(Pseudois nayau)r,* Ladakh urial (*Ovis orientalis vigeni*) and Musk Deer (*M. chrysogerter*) are of great importance.

Similar diverse is the avifauna in the landscape which is represented by birds of prey like Griffon vulture, Kestrel eagle, golden eagle pheasants like Monal pheasants, Snow cock, and chukar partridges. Bird species documented from the landscape are more than 126 in number, though lesser efforts have been made to explore avifauna. Seventeen species of freshwater fishes occur in the landscape including exotic species of brown trout, rainbow trout and common carp and the rest are indigenous in origin. Indigenous fish species are mainly represented by snow trouts belonging to families Cyprinidae, loaches belonging to Nemacheilidae and catfishes of sisoridae. Herpeto fauna are represented by Himalayan pit viper, dice snake, Caspian cobra and agmidae family is represented by Badkhsahn rock agma (*Laudakia badakhshana*), spiny headed rock agma (*Laudakia nupta*), Kashmir rock agma (*Laudakia tuberculate*) and a few others. Bufonidae family of amphibians is represented by three species, namely Kaghan toad, Batura toad and common toad in the landscape.

Community Based conservation in the landscape

Communities across the Karakorum Pamir landscape are very vibrant and dynamic and are involved in community - based conservation. Few communities have independent organizations and are working in their respective communities helping in conservation and natural resource management, while others are extended bodies of national organizations at the community level. Community controlled hunting areas are operating in collaboration with Wildlife departments, NGOs in many villages. Along the conservation organizations a number of local support organizations are also actively working across the landscape. Description of main conservation linked organizations in the landscape is given below.

Baltistan Wildlife and Conservation Development Organization (BWCDO)

Baltistan Wildlife Conservation and Development organization is working on snow leopard and other wildlife in the Baltistan area of Karakorum Pamir Landscape. They are actively involved in research and community based conservation in collaboration with international organization such as snow leopard conservancy. They have developed and implemented insurance programs for livestock in some valleys of the districts of Shigar, Ganche and Skardu.

Shimshal Nature Trust (SNT)

Shimshal Nature Trust is a regional organization of the Shimshal valley in the Karakorum Pamir Landscape. They are active in sensible resource utilization and conservation of wildlife in the area of Shimshal. The community of Shimshal is committed to environmental conservation and has indigenous knowledge of sustainable resource utilization that dates back to 500 years. Their nature stewardship program is an effort to use the indigenous knowledge of resource utilization by providing a scientific base and formalizing the knowledge into modern language and structure.

Valley Conservation Committees (VCCs)

There are fifteen valley conservation committees that are registered with the GB wildlife department and are actively involved in managing their respective community controlled hunting areas. These are the custodian grass root organizations at valley level. Some VCCs are very well developed and are working for many years while others have just started implementing the conservation agenda. Similarly, their effectiveness varies from valley to valley and different conservation related issues and situations.

Conservation issues and opportunities

Following conservation challenges were noticed in the landscape that have overall implications in all three landscapes but have major impact on the Karakoram-Pamir landscape. The proposed measures to tackle the conservation issues should also be viewed in larger context taking in to account all the proposed landscapes in Pakistan.

Human Carnivore Conflict and livestock grazing:

Human carnivore conflict is one of the major conservation challenges in the landscape. The numbers of livestock are increasing with the human population growth in the landscape. Livestock rearing is one of the livelihood means of the communities. There are more than two million livestock in the Karakorum Pamir landscape which are depending on pasture to feed and subsequently predated by carnivores like the snow leopard. In some areas they are set for free grazing which maximizes the conflict. Competition with wild counterparts has caused a decline in ungulate population that is the primary prey of carnivores. Like other areas crop damage by ungulate and bears are not reported from the landscape. To manage the conflict, the SLF has provided predator proof corrals in some areas which have reduced the surplus killing when the predator particularly snow leopard invades the livestock pens. Livestock insurance schemes have been implemented in the areas of Baltistan by the BWCDO to enhance the acceptance of carnivores by the herders in the area. Lessons have been learnt from such practices that will be of considerable help in reducing the human carnivore conflict across the landscape. Livestock grazing is required to be managed in the landscape and practices like rotational grazing to be initiated by identifying and setting aside core wildlife habitats.

Insufficient Wildlife Staff and resource limitations

The area of Karakorum-Pamir Landscape in general and the protected areas (NPs) in particular have shortage of human resource for surveillance. Normally, a single staff has to travel the whole day to reach one corner to the other corner of the area under his jurisdiction (normally accedes 50km) that significantly jeopardizes controlling illegal activities inside the protected areas. Some of the protected areas such as Qurumbar National Park have been notified but the management plan has to be approved and implemented. In the KNP wildlife official report the involvement of Karakorum Security Force (KSF) personnel's involvement in poaching wildlife and exploitation of patchy forest resources.

Similarly, majority of the staff are not well-trained and unaware of the existing laws pertaining to protection of wildlife. Most of the field staff, including the higher ranked staff don not have relevant education i.e. wildlife biology or wildlife management. In the Karakorum-Pamir Landscape payment of salary to the field staff is managed through the department officials instead of direct transaction and hence, they always feel insecure. It's necessary to deploy well-trained guards, with adequate resources and in good number. Facilities for field staff are required in these remote areas.

Poaching

Poaching is a general problem across the landscape but in some areas it's very critical for example in the Valleys of Shimshal, Misgar, Hushay, Braldu, Hisper and Hoper. Most of the areas are very remote and inaccessible and therefore, difficult to monitor. Shortage of resources in the relevant government departments further exacerbates the issue. The wildlife poached in these areas somehow enters into illegal trade both locally and nationally. Although, retaliation is a major cause of killing carnivores, government officials of higher ranks, elite class of the country and politicians are eager to purchase skins, stuff and horn of wildlife species that contribute in spurring poaching. The ungulates are hunted for dietary meat requirements, and even considered mean of subsistence in some areas.

Anthropogenic pressure/ill-managed tourism inside the National Parks

Anthropogenic pressure inside the national parks is another issue with an increasing trend. The Khunjerab National Park in the landscape is actually divided into two parts by the Karakorum Highway connecting China. In the coming days, the route is going to become more populated with heavy traffic with the completion of CPEC. The road remains closed from December to April with the start and melt away of snow. Secondly, thousands of tourists visit these national parks each year resulting spread of solid and liquid waste along the watersheds. For instance, in the CKPN around 12 different trekking routes and tourist destinations exist where people camp and subsequently produce anthropogenic waste and harm the environment of the Park. Majority of the local and national tourist use the plants and trees for campfire.

Firewood collection and resource utilization

In many remote areas the communities utilize the shrubs and forest patches for firewood, such as Artemisia, Ephedra, birch, juniper etc. Medicinal plants are also collected without keeping in view sustainability of the flora. In majority of the cases the laws and regulations are silent about such practices, where they exist, are not implemented due to resource and manpower deficiencies. The management plans of NPs are not including comprehensive resource utilization mechanisms.

Lack of zonation plan and landscape level conservation planning

Three national parks fall inside this landscape. The three national parks established to protect certain species or landscape features and didn't take into account the holistic and landscape level protection and management approach.

Limited knowledge about wild flora and fauna

Understanding of key floral and faunal species of the area is rudimentary and limited. Better knowledge of the ecology of the spceis is important for developing informed management measures.

3. Hindu Kush Landscape

The Hindu Kush landscape falls in the Chitral district of Khyber Pakhtunkhwa, covering an area of 13,227 sq. Km. It forms the western most borders of snow leopard ranges in the country and stretched along the Wakhan Corridor of Afghanistan. Biogeographically it falls in the Palearctic region. Forests are in the form of isolated patches in the lower part of the landscape mainly concentrated in gullies. The altitude varies and ranges from 1000 meters to above 7000 meters.

Physical features of the landscape are dominantly made up of gravel, scree slopes, high mountains, rough terrains, cliffs, ridges, gullies, etc. The forces of nature overwhelmingly determine this distribution. In most of areas it's glaciated, under perennial snow, or is made up of bare rock, grazing lands and forests. This means that less than 4% of the area, amounting to 53,550 ha out of 1.48 million ha, comprises arable land. Cultivation is only possible on fairly level irrigated land. Forests can grow only where precipitation is sufficient to support them and their roots can penetrate far enough to tap the soil moisture and nutrients. Grazing land covers the remaining area, unless the absence of soil, low temperature, or high aridity precludes them.

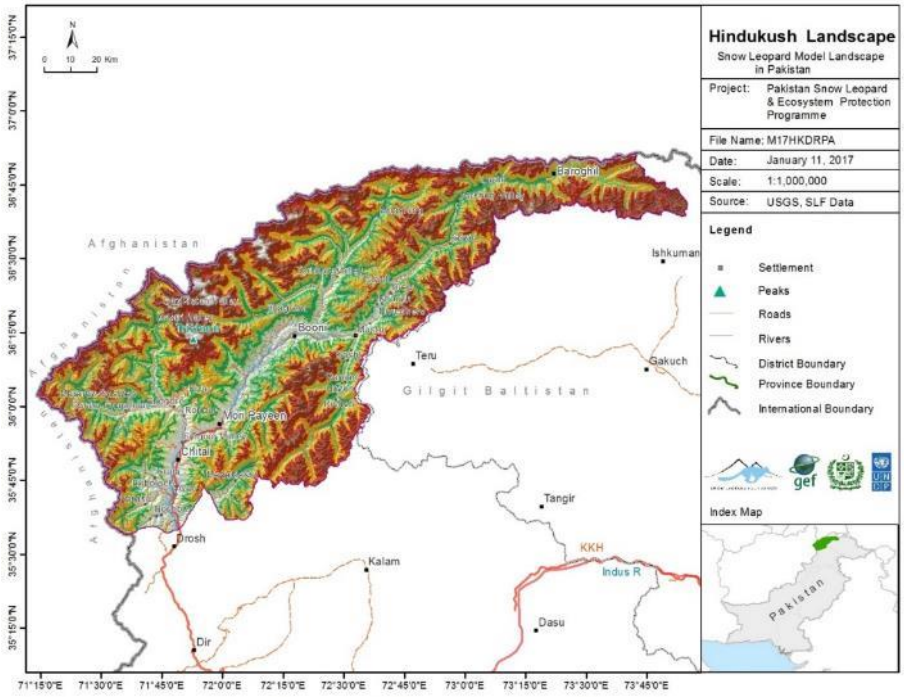


Figure 3: map of Hindu Kush Landscape

Climate of the landscape is distinctly continental. It is hot in summer, ranging from very hot in low lands to warm in the uplands and cool in the higher elevations. Spring weather is unpredictable with frequent rain and snowfall. Autumn has mild and pleasant temperature. The extreme maximum temperature recorded in Drosh is 36.8 C for the month of July while in Chitral it is 30.0 C for the same month. The summer at high altitude such as Broghil, Sorlaspur, Gobore, Bagusht, Kiyar, Arkari, Owir, Rech etc. are cold and windy with extremely cold nights. In winter most of the valleys are in the grip of northerly wind and blizzards. The winters are less severe in the lowlands as compared to the uplands. The extreme minimum temperature recorded at Drosh and Chitral stations have been -3.80C and -0.90C for the months of January and February respectively.

Socioeconomic attributes

The Hindu Kush Landscapes covers twenty-eight valleys with population of 0.4 million. Most of the settlements are found on the top of alluvial fans on river terraces, near streams/springs wherever soil coincides with easily available water. Agriculture and pastoralism are the principal means of livelihood in Chitral valley. The location of almost all settlement is determined by access to reliable sources of water, either natural streams or artificial; in fact, the settlement boundaries are defined and circumscribed by irrigation works. The total cultivated area is 22,552 hectares. Eighty percent of the farmers possess less than two hectares and only 1 percent has 2.5 hectares. Main crops are Wheat, Maize, Barley and Paddy. Vegetables and Fruits are also grown. Total livestock population of the landscapes is about 0.7 million with sheep (25%), goat (51%), cattle (23%) and other (1%). Livestock rearing is a key component of economy, providing food and allowing local communities to supplement their income by selling wool and hides and primarily managed by women. Very few people possess livestock more than their consumption. Some people have Sheep and Goats for sale. Some people have also started establishing poultry farms. Ponies are kept for carrying load. Cows are kept almost in every household for milk and milk products.

Eco-zones and Vegetation

Different ecological and forest zones are distinctly present in the landscape which represants different types of vegetation.

Dry temperate coniferous forest is the predominant forest type of Chitral district. It includes two sub-types: dry zone fir forest (*Abies pindrow* and *A. webbiana*) and dry zone deodar forest (*Cedrus deodara*). Dry-zone fir forests occur from approximately 2900 to about 3500 m elevation. They are generally open and pure with occasional stands of birch (*Betula utilise*), juniper (*Junipers macrocoda*) and kail (*Pinus wallichiana*) at higher elevation as well as scattered trees of spruce (*Picea smithiana*). Broad-leaved associates include bird cherry (*Prunus cornuta*), elm (*Ulmus dilatata*), horse chestnut (*Aesculus indica*), maple (*Acer caesium*), and walnut (*Juglans regia*). Dry-zone deodar forests extend from about 1830 to about 3050 m elevation over about 75% of the area under coniferous forests. They are generally pure with stands of chilghoza pine (*Pinus gerardiana*) on steep slopes. Heavily lopped and overgrazed forests of dry oak are struggling to survive from about 1200 to about 1800 m elevation. Occasionally, one comes across a good stand as at Domel Gol but such stands are fast disappearing. Dry oak is the predominant tree in this forest type, with a light admixture of chilghoza-pine at the higher elevations and on exposed slopes. Also encountered are sporadic trees of kau (*Olea ferruginea*), wild pomegranate (*Punica granatum*), and wild pistachio (*Pistacia khinjak*), at the lower elevations in the south of the district. Dry temperate scrub is left when tree growth of the dry temperate coniferous forest is destroyed. Such destruction has occurred gradually over centuries around Chitral town, leaving mountain slopes bereft of trees and often even without soil. The only survivor among the former tree vegetation is the wild ash and that too in stunted form. Its associates are shrubs such as *Artemisia maritima, Cappari spinosa, Delphinium saniculaefolium, Haloxylon grifithii, Hyoscyamus pusillus, Rheum tibeticum* and *Tamarix gallica*. Sub-alpine birch scrub occurs from about 3500 to about 3800 m in the Shishi, Domel and Arandu Valleys. Its main tree species is birch its associates, *Juniperus communeis* and *J.recurva*, and willow (*Salix hastata*). The moist deciduous alpine scrub develops in the otherwise dry valleys of the inner parts of upper Chitral. Its component species are: *Berberis vulgarizs, Betula utilis, Ephedra gerardiana, Heracleum thomsoni, Prunus jacquemontii, Ribes villosum, Rhamnus minuta,* and wild honeysuckle and wild rose. No trees grow above about 3500 m. The floors of U-shaped valleys in this zone have deep and loamy soils, which receive glacial melt water in summer. Their natural vegetation mostly comprises of Astragalus, Primula, Polygonum, Saxifraga, Oxytropis, Corydalis, and Potentiall. Some of the most popular plant species found in the landscape are Deodar, Spruce, Fir, Kail, Chilghoza pine, Willow, Birch, Juniper and Popular. Fruit trees like Mulberry, Walnut, Apricot, Apple, Grapes, etc., are found in the orchards of the peasants and growers. Some cold resistant aromatic species like sea buckthorn, hawthorn, low shrubs, sagebrush, wormwood, bulbous iris, low-lying cushion plants, and meadows grasses. Herbaceous flora consist of *Trachomitum venetum, Elaeagnus angustifolia, Chenopodium foliosum, Anthemis cotula, Prangos pabularia, Populus euphratica, Salix iliensis, Rehem emodi, Rumex lastatus, Capparis spinose, Linum perenne, Artemisia brevifolia, Artemisia maritima, Rosa webbiana, Ephedra gerardiana, Ephedra intermedia, Chenopodium foliosum, Anthemis cotula, Prangos pabularia, Astragalus psilocentros, Rumex alpinus Dalphinium nordhagenii, Psyllisotachys suworowii, Nepeta cataria, Sisymbrium irio and primula spp.*

Fauna

The Hindu Kush Landscape encompasses diverse habitats and is home to a number of animals including some large predator like the snow leopard, brown and black bear, wolf and lynx. Although extinct from the area, parts of the landscape fall in the historic range of common leopard. Ungulate species include Kashmir Markhor (*Capra falconeri falconeri)* and Himalayan ibex (*Capra sibrica ibex*) in good number. Markhor occur in lower reaches of the landscape while ibex dwell in the high mountains, mostly covered with snow. Markhor have recovered from the verge of extinction in the area, a great story of success of the conservation organization and the communities, from 125 animals to more than 2000 in the CGNP and surrounding areas. Other small mammals are cape hare, species of martens, palm civet, Chines Birch mouse, stout and Kashmir flying squirrels are important. The freshwater mammal like common otter (*Lutra lutra*) also occurs in the landscape. Bird species exceed 160 in number some important birds are Golden eagle, Monal Pheasant, chukar partridges, Snow-cock, rock pigeon, Koklas Pheasant, buzzard and Lammergeyer occur. Among the herpito-fauna 14 species of snakes, 12 species of lizards and 2 species of turtles are present. Fourteen species of fishes occur in the landscape that includes the common carp, rainbow trout and brown trout successfully introduced in the landscape. Other indigenous species belong to the schizothoracinae subfamily species, cat fish and few loaches.

Community based Conservation Committees

There are ten (10) community based conservation areas or community controlled game reserves that are managed by the communities in collaboration with Chitral Wildlife Division, KPK. In each community controlled game reserve, there are village and valley conservation committees registered with the Wildlife department. They are engaged in protecting the game species, executing the hunting process and distribution and utilization of the remittance gained from trophy hunting. The income from the trophy hunting is managed in a jointly managed account of VCC and wildlife department. The income is expended for the welfare of the communities.

Snow leopard Conservation Organizations

There are about 12 village level committees registered with the Snow Leopard Foundation (SLF) named as Snow Leopard Conservation Organization. These organizations are involved in different conservation activities in the landscape regarding snow leopard and its habitat. They are also instrumental in raising awareness about the snow leopard and associated ecosystem.

Threats from natural disasters and climate change

The landscape is a fragile area and prone to natural disasters such as flash floods, earthquake, landslides, rock fall and avalanches. Natural calamities have devastated some communities in particular during the previous years, impacting their financial conditions. Natural habitats are not excluded from these devastations. Flash floods have caused loss of precious habitats and wildlife species in the landscape for instance forest resources and several ungulate animals were lost inside the CGNP.

Issues within the existing protected areas

Along with the community controlled game reserves two national parks, Chitral Gol National Park (CGNP) and Broghil National Park (BNP) are present in the Hindu Kush Landscape. The BNP was established in 2010 but the implementation of management plan still awaited. The CGNP is a small area of 77 Sq. Km, where now the population of Markhor might exceed carrying capacity of the Park. The CGNP area needs expansion along the western and southern border of the Park. In the adjoining areas, forested areas are present along the border to the Kalash Valleys where illegal timber logging is prevalent and in some cases forest patches are set into fire to obtain timber in an easy way. CGNP is also a tourist and camping destination for many local, national and international tourists. Although very few tourists go beyond a particular distance, the solid waste and human induced changes to the Park area are serious threats to the Park's values. The BNP is a vast area of 1249.64 Km^2, in the northern most part of the landscape. It connects the Hindu Kush landscape to the Karakorum-Pamir Landscape at the QNP. Major problems of the Parks are grazing of large number of livestock, yak keeping in the areas which are always free grazing. In summer, migratory communities also arrive in the area and exploit resources of the Park. Along the border, security forces are reported to be involved in poaching ungulate species. The local communities have reservation that they are neglected in employment and non-local staffs are deployed in the area, and are unable to perform their duties in the area. The QNP in the Karakorum-Pamir and BNP have almost similar topography, fauna and flora, where co-management is needed. Lesson learnt from here would be used to promote trans boundary conservation and international collaboration along the Sino-Pak and Pak-Afghan borders.

Staff inadequacy and lack of wildlife knowledge

Field staffs of wildlife department are inadequate as compared to the large area of Hindu Kush Landscape. Moreover, they are not trained in monitoring the fauna and flora of the area and majority of the staff lack basic knowledge of wildlife. Almost all of the higher staff have no formal education of wildlife or wildlife management and are forestry graduates with very little knowledge of wildlife. Even the forestry subjects which they are taught have no or little relevance with the flora present in this part of the country. It's mandatory to have a wildlife institute where the field staff would be trained; manpower will be produced to manage the wildlife in future. Such an institute will not only

serve the KPK province but all provinces and particularly will be helpful for the management of fragile mountain ecosystem of the snow leopard range.

Illegal timber logging and deforestations

Lowe reaches of the landscape have coniferous and oak forest while in the higher elevations juniper and birch patches are the major forest types. Timber logging is a major problem in the Kalash Valleys and surrounding areas of CGNP for construction purposes. Where legal permits are issued to the timber contractors, log almost thrice the size of the legal permit. Branches of oak trees are cut to stall feed the livestock in winter season and the remaining parts are exploited for domestic use by the nomadic and local communities. In the higher elevations juniper and birch patches are cut and used in the similar manner. To reduce the fuel wood collection pressure on forest resources hydroelectric generations was envisaged but the current hydroelectric generation is insufficient to replace the forest exploitations. Yearly, huge amount is spent on plantation but very little number of plants actually survives and become viable forest due to various reasons. The process should be planned by identifying particular area(s) for plantation and setting a target to develop a forest patch directing all the resources towards that area annually. This is the only way to achieve viable forest patches instead of haphazard plantation.

Inadequacy to control wildlife poaching

Wildlife poaching is a challenging issue across the landscape particularly in the remote areas such as Zewar Gol, Ujnu Gol, in different areas of Mastuj Valley and Terich Valley. Similarly, in the Goleen Valley, Gehrait and Shishi Koh areas, ibex and markhor are illegally hunted by the communities and migratory herders. Lack of staff and lack of shelter facilities for the field staffs in the mountainous areas are major constrains in controlling poaching. Number of staff should be increased in these areas and shelter should be provided with incentive to perform their duties in the remote areas.

4. Himalayan Landscape

The Himalayan landscape is situated in the Himalayan orogenic belt in the western Himalaya including the areas in the Himalayan biodiversity hotspot and endemic bird area of the world. It's an area of 7055 Sq. Km in the eastern part of snow leopard range in Pakistan. The landscape is located at 43º to 36º 45' North and 74º to 75º East ranging in elevation from 2600 meters to 8,126 meters above sea level. The landscape falls in the administrative units of Astore district of Gilgit Baltistan and Sharda division of Neelum District Azad Jammu and Kashmir. The areas falling in Neelum Valley of AJK constitute 2037.403 sq. Km. Four different valleys namely Gurez, Shountar, Surgon and Ghamout are situated AJK area while the rest of 5017.597 sq. Km fall in Astore district comprising of important valleys like Duskin Mushkin, Bunji, Minimarg, Chilim, Darely Rupal and Astore. Some of remotest areas such as Minimarg and Gultari are situated in this landscape. The landscape forms watershed of Astore River flowing in south north direction and Neelum River on the southeast along with many large and small tributaries. It's bounded in the south east by the line of control along the Indian controlled Kashmir and Skardu district in the northeast while, Diamer and Gilgit districts of GB and some areas of KPK in the west.

Climatic conditions of the area are dominantly moist temperate with relatively pleasant summer with sporadic snowfall at higher elevation and harsh winter often snowfall, whereas, the higher areas remain under snow blanket from late autumn to early summer. Recorded temperature varies from 20-30 degree centigrade in summer and 4 to 0 in winter. However, the higher elevations may have lower temperatures during winter months. Annual precipitation i.e. merge in northern part is averaging 130mm and only above 3000m exceeds 500 mm.

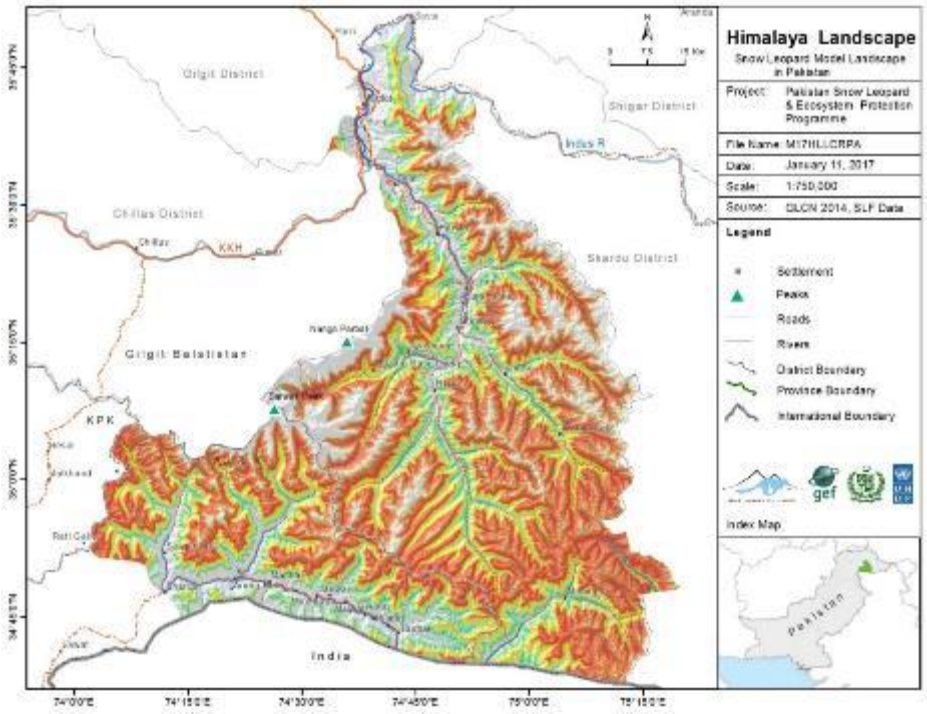


Figure 4: Map of Himalaya Landscape

Socioeconomic attributes

The Himalaya landscape has seventeen valleys, out of which four fall in AJK and thirteen in Astore District of GB. Total human population is about 0.28 million living in 29,626 households with average household size of 7.6. Livestock rearing and subsistence farming constitute major options of livelihood. Wheat, barley, maize, potato, and fruits are major agricultural products. About 18,270 hectares' area is under cultivation in Astore with net production of 0.1 million tons. Major livestock types include sheep, goat and cattle. Cattle are owned by almost all households in order to meet their milk requirements.

Vegetation

Evergreen broad-leaved forest and deciduous broad-leaved forests constitute characteristic forest types in the landscape. The landscape has a grading forest zones from subtropical pine forests, moist temperate forests, subalpine coniferous forests to alpine meadows. Sub alpine coniferous forests patches are dominating forests type in the landscape represented by blue pine, Chalghoza Pine and fir. Sub-tropical pine forests are represented by by Chir Pine. Birch forests represent the broad leaves vegetation particularly at higher elevations. *Salix alba* and *Pyrus* are representatives of deciduous forests. *Viburnum nervosum, Rhododendron* spp and Juniper spp are among the shrub types and evergreen vegetation. At the line of snow some mosses, grasses dominate the highland meadows. Some of the medicinal plants include *Aconitum chasmanthum, Angelica glauca, Aconitum chasmanthum, Aconitum heterophyllum, Carum carvi, Daphne mucronata, Fraxinus xanthoxyloidis, Rumexn apalensis, Urtica dioica, Rheum speciformae, Tamarixgallica* and *Artemisia maritima.*

Fauna

Fauna of the landscape is very diverse ranging from the top predators to the rarest and small animals. Snow leopard and common leopard dwell in the protected areas and the valleys around them. Musk deer occurs in the Musk Deer

National Park and Minimarg Valley of Astore and the adjoining valleys. Markhor, ibex, Ladakh urial and Kashmir stag (*Cervus Canadensis hanglu*) are other known ungulates from the landscape. After the Deosai National Park good population of brown bear present in these valleys of Himalayan landscape in Pakistan. Black bear, wolf, lynx are other apex predators. Monal Pheasants, Koklas Pheasant, Snowcock, Chukar, Peregrine falcon, Indian sparrow hawk, Himalayan Griffon Vultures and many other important bird species are present here. Snow trout and loaches are dominant fishes in the freshwaters of the landscape. A number of important reptiles and amphibians are also present.

Village Conservation Committees

There are three community conservation committees functional in the landscape and about five are in the process of registration with the GB Parks and Wildlife Department. The main purpose of these committees is to take their help in conservation and protection of wildlife by giving incentives in the form of trophy hunting. The income from trophy hunting is managed by local community members for the welfare activities for the community. This mechanism has reduced the poaching of ungulates in particular in many areas of the country and somehow other species are also benefiting from it.

Challenges and opportunities of conservation in the landscape

Most of the areas in the landscape are very remote and backward, many lack basic health and educational facilities and due to lack of infrastructure access to different areas is difficult for the communities thereby relying on natural resources is high. Other challenges mentioned for the other two landscapes are also present with high or low intensity.

Increasing Human settlements and activities inside the protected areas

Human settlements inside the Musk Deer National Park and Ghamout National Park are major conservation concern. The multitude of permanent human settlements inside the National Parks and other protected areas which are growing with the passage of time both in number and in terms of occupying the limited space of the protected areas. The communities are not only using the space but also involved in expanding agricultural lands by clearing forest patches which is posing continuous risk for the wildlife and associated ecosystems. To meet the requirements of communities' infrastructure development is necessary but the environment and wildlife friendly planning shouldn't be neglected. The National parks in this landscape are famous tourist destinations which although contribute to the local economy but the wild habitats are greatly fragmented and the values of the parks are degraded due to anthropogenic pressure and solid waste generations. Illegal timber logging is another major issue not only inside the national parks but other adjacent forested areas which are being used for construction and also supplied to other areas.

Lack of zonation plan and landscape management approach

Landscape level conservation management approach is lacking which is prerequisite to ensure integrity of the mountain ecosystems falling in this landscape.

Human Wildlife Conflict

The natural prey populations are very small in number inside the National Parks and many other adjoin areas and the apex predators are compelled to prey on the grazing livestock. The brown and black bears are depending on the maize and potato crops of the communities to fulfill their dietary requirements. Thus with the increasing human population co-existence of human and wildlife is becoming challenging with the passage of time.

Uncontrolled grazing of livestock

Grazing of huge number of livestock; belonging to the permanently resident communities and those of the migratory communities who visit the area in summer or go through these areas while enrooted to the higher pastures. Most of the livestock are grazed without any guard that increases the risk of predation by carnivores thus igniting human carnivore conflict.

Inability to control Wildlife poaching

Musk Deer National Park had been established to conserve Musk Deer (Moschus spp) but the species is declining in number due to prosecution for musk gland. During a period of 3 years eighteen (18) animals were killed only in Ghamout National Park (Khan et al., 2006). Another threat to the biodiversity of the area is human carnivore conflict resulting from livestock predation and crop damage from different carnivores and bears in and around the protected areas (Hameed et al., 2016).

Annex 2

Review of Policies and legal frameworks for natural resource management in the snow leopard range

Laws and regulations regarding wildlife and other natural resource management in the region dates back to early 1990s developed and implemented in the subcontinent under the British rule. Some of the Acts, were the Wild Bird and Animal Act of 1912 and the Forest Act of 1927. The Wild Birds and Animal Act 1912 remained effective in Pakistan until 1950. The Khyber Pakhtunkhwa province (then called NWFP) enforced the first wild bird and wild animal protection act in 1950. This was followed by the forest act of 1927, national framework for the protection of forest resources of the country. The aforesaid acts also applied to some portion of snow leopard range in Pakistan. These were the only available laws by that time that were also applicable in some parts of the snow leopard range. Major of portion of snow leopard range remained under the regional royal states with their own customary laws for regulating wildlife and forests. In 1955, the Pakistan National Forest Policy was approved and this was followed by different revisions in 1962**,** 1975, 1980, 1991, 2001 and finally 2015 as per needs and requirements of the time. The Wildlife Protection Ordinance 1959 and Wildlife Protection Rules 1960 were aimed at controlling hunting of some species, declare others as game species to be hunted under license and made provision for declaring game reserves and wildlife sanctuaries to improve quality of habitat and population of wildlife. In the 1970s, other laws and regulation evolved for wildlife protection and management in different provinces and the federally administered northern areas which include **Pakistan Wildlife Ordinance, 1971**, **Northern Areas (now called GB) Wildlife Preservation Act, 1975**, **Khyber Pakhtunkhwa Wildlife Protection Preservation Conservation and management Act, 1975** and **Azad Jammu & Kashmir Wildlife Act, 1975** to be enforced in the areas of **Snow leopard range** in Pakistan. The Azad Jammu and Kashmir government passed another **Act in 1985** with some improvements in the previous act. These Acts enlisted snow leopard in legally protected animals list.

In **July, 1976,** Pakistan became party to the **CITES** which necessitated protection of endangered species and the protected animals list was updated accordingly. The Khyber Pakhtunkhwa Province updated and amended the existing regulations of wildlife by a new Act entitled **'Khyber Pakhtunkhwa Wildlife and Biodiversity (Protection, Preservation, Conservation and Management) Act, 2015'** while, in the rest of the snow leopard range i.e. **Gilgit Baltistan the act of 1975 and in AJK**, **Azad Jammu and Kashmir Wildlife Act, 1985** is exercised with some limited changes and amendments. **Pakistan National Conservation strategy (NCS) was formulated in 1993**, focusing on biodiversity conservation, restoring and improving rangelands, protecting watersheds and wetlands and cultural heritage. The NCS achievements can be listed as awareness raising, institutional development and strengthening of civil society institutions in the country. While actual improvements in quality and productivity of natural resources and natural environment remained very limited due to lack of stakeholder's coordination for implementation and lack of proper evaluation and monitoring mechanisms.

The Government of Pakistan ratified the **Convention on Biological Diversity (CBD) in 1992**, at the earth summit in Rio de Janerio with 155 other nations and states. Recently, **National Biodiversity Action Plan, 2015** was developed with inputs from all state and provincial governments to achieve Aichi Biodiversity targets. The **National Climate Change Policy of Pakistan, 2012** has been in placed with the vision that climate change is mainstreamed in the economically and socially vulnerable sectors of the economy and to steer Pakistan towards climate resilient development. Pakistan also developed **National Environment Policy, 2005**, to protect, conserve and restore Pakistan's environment in order to improve the quality of life of the citizens through sustainable development. However, lack of homogeneity in the laws at sate and provincial levels, discrepancies in the laws, institutional weakness to implement laws and lack of coordination between different stakeholders are some of the bottlenecks that hinder the implementation. A periodic review and monitoring and evaluation of the targets set in the policies are needed.

Table 1.1: Policies and legislation relevant to the snow leopard range

Legislation/Policy	Brief description of legislation/policy	Legislation/policy gaps	Relevance to Snow Leopard Range Pakistan (H, M or L)
National Biodiversity Action Plan (2015)	Guiding document e to make available the benefits of biodiversity and ecosystem services to all segments of society, in particular the marginalized, poor, and vulnerable and future generations by restoring and conserving the rich natural biodiversity heritage of Pakistan, from genetic diversity to specific sites, and rendering its sustainable use based on the principles of equitable sharing of benefits.	A broad policy with 20 different targets set to monitor and evaluate the achievement of 8 different strategic goals. However, it doesn't take into account landscape level conservation approach, framework to curb poaching and trade in endangered species like snow leopard. Recently, the wildlife has been made provincial subject and thus has little influence management of wildlife at provincial level.	M
National Forest Policy 2015	Expansion, protection and sustainable use of national forests, protected areas, natural habitats and watersheds for restoring ecological functions, improving livelihoods and human health in line with the national priorities and international agreements.	The policy doesn't speak laud about the status, rate of degradation and protection and management measures of juniper and birch forests falling in snow leopard habitat.	M
Pakistan's National Conservation Strategy 1993	The national conservation strategy addresses 14 different core program areas including biodiversity, forests, rangelands, watershed protection etc. The NCS was approved in such a time when there was a high federal influence on decision making over the provinces.	The strategy was developed in 1993 for the period up to 2000, but the midterm review came in 2000. The review reveals that the NCS is lacking a clear implantation plan. Lacks monitoring and evaluating system was another loophole noticed. Major achievements were restricted to awareness raising.	M
National Rangeland Policy 2010	The overall goal of the national rangelands policy is to rehabilitate the degraded rangelands and pastures close to their potential for increased productivity, enhance their environmental and regulatory functions and services, increase and conserve rangeland biodiversity besides mitigating the negative impacts of global climate change through collaborative and holistic rangeland resources to contribute to the livelihood improvement of the rangelands dependent communities as well as to the national economy.	Implementation of the policy remains vague due to the lack of resources and coordination between national and provincial institutions.	M
National Environment Policy 2005	The policy is aimed to protect, conserve and restore Pakistan's environment in order to improve the quality of life of the citizens through sustainable development.	A relatively generic document which lacks proper implementation mechanism at micro levels.	M

National Climate Change Policy 2012	This policy aimed to ensure that climate change is mainstreamed in the economically and socially vulnerable sectors of the economy and to steer Pakistan towards climate resilient development.	A holistic policy for addressing the challenges of climate change. Special focus has been placed on the mountainous fragile ecosystem like the snow leopard range. Adaptation measures have not been formulated in context to specific areas. No mechanism has been developed to reduce carbon emission.	H
Azad Jammu & Kashmir (AJK) Wildlife Act, 1985	The act was adopted from the West Pakistan Wildlife Act, with some changes. New act was formed in 1985 amending the act of 1975. The law describes a large number of restrictions on the killing, capture of wild animals and birds throughout the state of AJK. Enforced through the wildlife authorities.	The law was formulated in 1975. Allows killing of animals and birds in self-defense, livestock defense and crop damage. The highest level of punishment is one thousand rupees and one-year punishment. The law also allows killing many wild animals with a permit issued by the department ranging from stone marten to black bear. Many other animals are categorized as vermin. The act is also not addressing encroachment to protected areas. Outdated looking into the present day requirements for wildlife protection.	H
Gilgit Baltistan Wildlife Act, 1975	The West Pakistan Wildlife Act, 1975 was extended to the Gilgit Baltistan region with the name of Northern Areas Wildlife Act, 1975. Some changes were made in the rules with the passage of time. After the transformation of Northern Areas administration to the province of Gilgit-Baltistan, the same rules and regulation were adopted for the conservation and protection of wildlife.	Idem	H
Khyber Pakhtunkhwa Wildlife Act, 2015	Khyber Pakhtunkhwa Wildlife and Biodiversity (Protection, Preservation, Conservation and Management) Act, 2015' enforced by the provincial wildlife department.	The Act allows killing of some top predators like wolf, common leopard, while considers jackal, porcupine and fruit bat as vermin. Although, the Act covers the present day needs of wildlife conservation but can be further improved by increasing penalties to curb illegal hunting.	H

Challenges

Despite the existence of a large number of policies and rules in the project landscapes, there are quite a few challenges and issues when it comes to their implementation and smooth natural resource governance. Some of the issues are as follows:

- Lack of data on high altitude forest species like juniper and birch
- Lack of framework to protect high altitude forest
- Lack of clear policy for alpine rangelands
- Loopholes in the wildlife acts to promoting persecution of endangered species like snow leopard
- Lack of resources hampering implementation of laws

- Mechanisms to address emerging threats to wildlife
- Lack of inter provinces coordination to protect biodiversity hotspot falling in interprovincial borders

Recommendations

- Most of the Acts especially the provincial wildlife acts are outdated and need to be updated keeping the current issues of climate change, environmental degradation, increased human-wildlife conflicts and changing socio-economic aspirations of the local communities.
- Measures to protect and manage high altitude forest species especially juniper and birch which are degrading at the accelerated rate should be incorporated in the relevant policies and acts.
- The wildlife policies were required to consider emerging threats to wildlife such a poaching and trade and climate change scenarios and encroachment to PAs among others.
- Mechanisms to promote interprovincial and between state and provinces and develop holistic approach to check merging threats to biodiversity and protect conservation hotspots falling on borders is highly suggestive.

Annex 3

Framework for Participatory Landscape Conservation

Introduction

The concept of landscape has emerged primarily out of the recognition that conservation activities that focused exclusively on protected areas, would not be sufficient to conserve much of the biodiversity that is of value in a biogeographic region. This is because protected areas can only effectively protect some elements of biodiversity and contribute to the conservation of nature and that strict protection is not possible over sufficient large areas within an individual biogeographic area, particularly in the Himalayan region (and India in general) where human occupation and resource use is extensive and widespread. Therefore an increase or extension of the scale of conservation activities is needed to address threats that originate from beyond the boundaries of protected areas. This calls for a landscape approach to conservation that tries to link people with resource conservation by empowering local communities who live within and outside the protected areas in the broader landscape to manage their resources and receive the benefits of conservation. Effective biodiversity conservation must therefore integrate use and protection across the entirety of the landscape.

A landscape approach to conservation is intended to ensure that the ecological integrity of a particular area is ensured. In a landscape approach to conservation it is necessary to try to *manage the biological, social and economic factors that impinge on the ecological integrity* of that area. This requires strategies that succeed in a mosaic of different land uses that not only conserve biodiversity and allows people living in these landscapes to make a living. These conservation strategies must therefore integrate land and resource uses in a myriad of diverse components within the landscape such as protected areas, forest production areas, agricultural zones, grazing lands, indigenous management areas and human habitations and other land uses.

Intent of Landscaping Conservation Planning

Because the Himalayan landscapes are spatially heterogeneous areas that are extensive in area, there is an inherent need to define the kinds of heterogeneity that most directly influence the parts of the landscape that are under threat. The goal of the landscape planning exercise and the particular features of the landscape, such plans need to focus on geographic or ecological distinctions within the landscape such as climate, topography or vegetation types. This approach must emphasize patterns of biodiversity over the landscape with the focus on conserving the most species rich places, such as specific habitats, vegetation types and ecological units, as well as enhance ecosystem services and the economic viability of local communities as a means towards biodiversity and ecosystem conservation. It must also ensure representation of species, communities and ecological aspects in the landscape. The approach of using a landscape species approach (e.g. Snow leopard) to conservation is based on the premise that meeting their needs will achieve the conservation of other species and ecosystems in the landscape and of the landscape as a whole.

The landscape framework is intended to provide a step-by-step guide for designing and implementing landscape conservation plans.

Formalizing the Priority Landscape

The three landscapes are portions of the trans- and greater Himalayan eco-regions that have already been defined (based on GSLEP and NSLEP) as 3 of the 20 global snow leopard landscapes (with adequate breeding populations of snow leopards) for project interventions, as being part of a much larger global snow leopard continuum that stretches across India, Nepal, Bhutan, China, Pakistan and Afghanistan. In delimiting or defining the priority landscape, a number of factors were considered. This include the following: (i) landscapes dominated by high altitude rangelands under agro-pastoral or pastoral production systems; (ii) landscapes supporting rich and unique assemblages of flora and fauna, and natural vegetation types, and representing rich socio-cultural value; (iii) landscapes containing a mosaic of protection, production and community use areas; and (iv) landscapes with

potential for conservation and livelihood improvement; and other socio-economic and political factors. While, it would not be possible to conserve and manage all of the biological and ecological processes within the defined landscapes, project planning would require the identification of specific areas or zones within the priority landscape which are critical for conservation of snow leopard and associated species, ecological process, community sustainable use and livelihood improvement. A spatial planning or zoning approach within the priority landscape is required to ensure that critical conservation objectives are met, while at the same time addresses socio-economic needs of the local population.

The next sections of this document provides a step by step guide to the defining a zoning plan that would meet the ecological requirements of the biodiversity in a priority landscape, that also takes into consideration the socio-economic needs of the local people living in and around the area.

Method for Prioritizing Landscapes

This outlines the process in characterizing the landscape for identifying priority target or focal areas where conservation, sustainable resource use and livelihood interventions are required. The mapping exercise is intended to help identify critical areas for biodiversity conservation within the landscape, key dispersal corridors, locations of high pressure and vulnerability, options for rationalizing and refining land use and protected area boundaries to improve ecological viability and conservation management, areas for sustainable resource use and restoration and locations of community livelihood and income activities. In particular, this would involve the definition of the biological landscape for either the landscape species (snow leopard), the identification of the human resource use and impact that occurs in these areas, and overlaying them to identify those places and times where human activity is more likely to threaten the landscape species population and then defining parts of the landscape that meets the needs of the landscape species populations given necessary conservation actions.

1. **Defining and zoning the biological landscape**: The three priority landscape areas have already been selected for conservation through a international filtering process. The next step is to define the biological elements within the general landscape that are important for the conservation of snow leopard and associated species. In the case of the use of a single or multi-species approach, this would involve the characterization of the habitats for the life requisites of the target species, such as breeding areas, feeding areas, water sources, dispersal corridors, etc. This would then able the prioritization of sites within the landscape that are critical or important for the conservation of the landscape species population.

   In Northern Pakistan, the three snow leopard landscapes have already been surveyed for key biological features (snow leopard distribution, snow leopard and prey species habitat suitability, threat surveys and land use and infrastructure). These priority biological elements also include all the important bio-geographical features for which the general landscape was selected for conservation support. In the case of the three landscapes, the Snow leopard represents the key landscape species and the area required for its conservation and its prey base, along with maintaining connectivity of habitats becomes important criteria for delineating the biological landscape. Maintaining connectivity allows the Snow Leopard and other species access to habitats they require to complete their life cycles, allows the movement of individuals among populations and the colonization of areas following disturbance, and permits the flow of water, nutrients and other materials across the system.

   The final output of this step would be a composite map (preferably 1:25,000) depicting the spatial and temporal distribution of the biological elements and priority status of the habitats required for the survival of the snow leopard and associated species and/or the minimum set of landscape cover types and their spatial distribution necessary to conserve the maximum amount of biological diversity within the landscape and maintain the integrity of the landscape itself.

2. **Defining the human resource use or socio-economic landscape**: As a simultaneous exercise, it would be necessary to collect socio-economic data on current and planned land and resource uses, and undertake an analysis of the stakeholder groups associated with them. It would define the location, type and intensity

of resource use, production (crop, agriculture, grazing, etc.), livelihood and resource dependencies and development activities that occur within the landscape. This would provide an overall landscape baseline that would summarize the socially, geographically and occupational (livelihood) disaggregated overview of the state of resource use and dependence in the landscape. This information would subsequently help in identifying areas where human activity significantly threaten the survival of the Snow leopard and associated species population. This would entail the mapping of village locations within the general landscape along with attributes such as demography, agronomic and livelihood patterns, human development elements, and resource use dependencies. The resource use patterns would include information on types of resources extracted, quantity and method of extraction, use purpose (subsistence or commercial), periodicity and seasonality of resource use, etc. In addition, this exercise should identify existing and proposed development activities that may adversely impinge or impact on the long-term sustainability of the biological values and well-being of the people in the landscape. As with the case of the biological characterization of the landscape, this information should be expressed spatially, so that it could be used in subsequent steps towards zoning of the landscape. The mapping of the socio-economic (production and livelihoods) and development activities could be a rapid assessment using secondary information and broad village level consultations) that would be subsequently revised and updated as more information becomes available through the community valley planning process and other more comprehensive socio-economic analysis.

Stakeholder needs and interests are closely interrelated with land use activities. The analysis of stakeholder groups provides information on who will need to be engaged later in negotiations and decision making and on what issues in subsequent steps. It is therefore necessary during this step to elicit the perspective of local communities within the landscape, and to ensure that they are later represented in the planning process. At this stage it is important to get an idea of the needs and interests of all stakeholders with regard to land and resource use, who has management responsibility over parts of the landscape, which stakeholders are affected by changes in land use and management, which stakeholders are likely to be willing to support conservation actions, and which stakeholders might be unwilling to support conservation goals. This would provide an assessment of how and when stakeholders might be interested in conservation, and what specific measures and incentives might be necessary build interest amongst all stakeholders in support of conservation.

3. **Intersecting the biological landscape with the human resource use and socio-economic landscape**: Maps created with the biological and socio-economic attributes should be over-laid to recognize areas within the landscape where human use or development activities intersect with the prioritized habitats of the snow leopard and associated species. This allows for the identification of the relationship between conservation and development oriented land use and livelihood activities and for analyzing options for integration of conservation with other land uses as well as trade-offs between them.

4. **Zoning of the Landscape for Conservation and Multiple Use:** The intent of this step is to prioritize the areas within the landscape to where the threats from human resource use and development activities significantly compete with the biological and ecological needs of the Snow leopard and other key species or the conservation of the prioritized or critical landscape land cover types. This would enable the zoning of the landscape to identify where conservation action is necessary to reduce the intensity and impact of human resource use and development impacts that would otherwise significantly compromise the sustainability of species, ecosystems and land cover types within the landscape, and ultimately the ecological integrity of the landscape as a whole. It would also help in identifying opportunities for conservation. All human activities may not be incompatible with biodiversity conservation, so this would help to sieve out those areas of the landscape where conservation actions might not be priority.

   The greatest challenge in prioritizing areas within the priority landscape for conservation is in reaching agreement on areas required for maintaining biological and ecological values, while addressing human

needs for land and resource use. It would require an analysis of options for integration of conservation with other land uses as well as trade-offs between them. Stakeholder consultation would be a critical step in defining the trade-offs. The zoning exercise would entail defining (i) priority areas for conservation (PAs, HCVFs, CMCAs, etc.) where threats are small or manageable and where the conservation potential is the greatest; (ii) zones where there is a conflict between development and conservation interests, and where further assessment and analysis is required; and (iii) low priority areas for conservation with intensive or semi-intensive human use.

The outcome of this step would be characterization of the landscape by zones of varying conservation and resource use potential.

5. **Identification of threats in each of the target zones in landscape:** Once the focal areas or zones for conservation intervention have been selected, an analysis should be undertaken to evaluate how each human use in the given focal area threatens the landscape species population requirements or of the conservation of the priority land cover types within the landscape. One way of addressing the threats would be to undertake a root cause analysis that then could be used to leverage support as part of the later negotiations process with stakeholders. Root cause analysis is founded on the recognition that biodiversity loss is often driven by underlying factors at some distance in space or time from the actual incidence of biodiversity loss. Such underlying root causes may include policies, especially economic development policies that may compete with conservation goals. It might also include governance, particularly processes by which decisions regarding resource use are made and enforced. It might also include market trends in global, regional and local demand for resources. This would be complemented by an institutional analysis that defines the institutional roles and responsibilities and coordination arrangements for development and conservation work in the landscape, identifies gaps in coordination, institutional capacity and expertise.

The final outcomes of the mapping exercise would likely be: (a) a map or series of maps showing landscape zones or focal landscape areas characterized by degrees of conservation potential, compatible development potential and presence of competing or conflicting interests based on threats and opportunities; and (b) recommendations regarding land uses and livelihood activities suitable for different zones of the landscape based on threats and opportunities analysis. In additional, there would be an outcome relating to recognition of institutional and coordination needs, capacity building and training required to enable convergence in planning and implementation of activities at the landscape level.

The participatory mapping exercise would require an inter-disciplinary team comprising of wildlife biologists, social scientists, geographers, land record officers, village representatives, GIS specialists, and other relevant experts based on the specific land uses and resource threats within the individual landscapes.

Planning and Implementation for Landscape Conservation

The series of next steps in the landscape planning process entails developing a shared vision and identification of strategies for mitigating threats to the biological elements within the landscape, improving opportunities for conservation, and supporting conservation friendly interventions to improve livelihoods and incomes of local communities living within the landscape.

6. **Negotiation of a shared vision for the landscape.** The intent of this step is to obtain broad agreement with the stakeholders (including local communities) for conservation or compatible development action within the landscape. While the stakeholders would vary from one landscape to another, it would need to include in the negotiation process landowners, resource users (including migrant graziers) and government agencies with management authority over priority areas in the landscape. The outcome of the negotiation process is to ensure that critical biological requirements developed through the biological assessment process (step 2) are maintained. This has to be achieved through a negotiation process that would require compromise, given that it may not always be possible to find complete agreement on a single plan with all stakeholders or development sector representatives that operate within the landscape. As reconciliation

of land use options into a conservation landscape design is often difficult and tedious given the conflicting demands, it will require the skills in conflict resolution.

The negotiated landscape vision statement will provide:

- A decision support (multi-sectoral, multi-stakeholder coordination and governance) framework for landscape level planning for biodiversity objectives;
- A platform for integration of multiple landscape level objectives for biodiversity conservation and sustainable resource use through agreements with sector entities and communities;
- An understanding of the trade-offs between conservation, resource use and socio-economic development objectives; and
- Definition of roles and responsibilities of key stakeholders within the landscape.

During the formulation of the participatory landscape vision, the following key steps that are felt relevant:

(A) Undertaking a number of sub-landscape or valley level workshops to develop the common vision. During the workshops the following activities are entailed:

i. Information generated through the mapping exercise are presented to the stakeholders using charts and maps;
ii. A participatory situation analysis is conducted;
iii. Stakeholder negotiation and agreements are reached on compromises and trade-offs for conservation actions within the sub-landscape. This process should transparent and reflect the interests, expectations, needs, priorities, strengths and weaknesses of each stakeholder group so as to lay the foundation for achieving broad consensus.
iv. An agreement on zonation of the sub-landscape;
v. Identification of uses within each of the zones within the sub-landscape, its intensity and extent; and
vi. Identification of broad approaches for each of the zones for management of land uses within the sub-landscape.

(B) Compilation of agreements on zonation, land uses and approaches from each of the sub-landscape workshops to provide a composite map of zonation and land use for the entire landscape; and

(C) Develop a vision statement for the landscape based on the agreements and information emanating from the sub-landscape level workshops and decisions.

7. **Identification of strategies for Implementation:** The desired output of this step is a conservation landscape design or landscape perspective strategy/agreement that has multi-stakeholder support regarding appropriate management options for different priority areas of the landscape (PA management, forest working plans, SEA/EIA, valley and/or village-level planning, etc.). The intent of these strategies is to secure effective management options for conservation in the protected areas and other conservation lands, and ensure compatible land use and livelihood development actions in areas outside the protected areas. The strategy for areas outside of the designated protected areas is to alleviate threats (direct and indirect) on species and habitats both within and outside of the protected areas.

   The outcome of this step would be (i) a flexible landscape conservation design, with maps, and indicating zoning agreements regarding land use and conservation practice for the different zones or parts of the landscape; and (ii) identification of clear and measurable actions/activities to mitigate or manage threats within each zone.

8. **Implementation of strategies and actions in the landscape:** Depending on the classification of the different zones within the landscape, management prescriptions would be formulated for each zone. The

management actions for each zone would depend on the primary objectives for which each individual zone has to be managed. Production forests would be managed to provide timber, NTFPs and other products to meet domestic needs; protected areas would be managed for conservation and tourism benefits, agricultural lands would be managed for providing products and livelihoods for local farmers, etc. However, within the broad vision statement for the landscape as a whole, strategies for management of the individual parcels of land or zones within the landscape would be modified, to the extent feasible to support the broader conservation agenda as well, without compromising too much on the social, economic and development needs of the local communities and regional development needs.

Specific implementation actions might include the:

(i) Revision and development of management plans for protected areas and high biological areas (HCVFs, CMCAs, etc.) with the purpose of incorporating better ecological and sustainability considerations for these areas, that might possibly entail rationalization of protected area boundaries, improving connectivity with better corridor management, and broadening the focus of conservation from species to cover ecosystems and ecosystem functions as well.
(ii) Revision of pasture and forest working plans to better integrate species and ecosystem considerations in production plans;
(iii) Defining management options for conservation zones, including corridors and other biologically important areas outside of the boundaries of the protected areas;
(iv) Sectoral environmental assessments and land use planning to assess opportunities for integration of development and conservation objectives; and
(v) Valley level planning to identify livelihood and resource management opportunities for local communities living within the landscape, etc.

Annex 5 provides guidance on key relevant steps for involving local valley-level communities in the planning and implementation of community based resource management and livelihood improvement activities.

The actions for implementation might include a range of environmentally friendly measures within the landscape that would also ensure human occupation and well-being and economic benefits to local communities. That is, these activities must add up to fulfill the ecological requirements for conservation of the biodiversity of the landscape. Some of the potential actions might include:

(a) Strengthened protected area and community-managed conservation areas management;
(b) Strengthened and effective land management in grassland and forests, community managed conservation areas;
(c) Changes in designated land uses (extension of protected areas, recognition of biologically rich areas or linking corridors, etc.);
(d) Agricultural practices that are compatible with conservation and livelihood practices that are not detrimental to conservation;
(e) Viable community resource use and income generation practices;
(f) Changes in tourism programs to support community managed ecotourism approaches and facilities; and
(g) Improved protection, enforcement and enforcement and governance of natural resources; etc.

Implementation of such strategies and activities is complex and requires capacity building of staff in all relevant agencies that operate in the landscape, policy advocacy, community participation, improved management, as well as financial resources and coordination.

9. **Monitoring of impacts or performance:** In order to assess if the strategies that are being implemented in the landscape are working, it is necessary to be able to monitor if the threats and pressures on the

biological resources within the landscape are decreasing, and if it is improving the landscape's biodiversity. This would require the establishment of a monitoring program either just prior, or at a very early stage in project implementation. For this purpose it is important to know what the current state of the biodiversity elements in the landscape and to be able to document progress throughout the life span of the project on how these elements are changing. Monitoring indicators should focus on a few parameters that would provide information to guide future decision-making on management of the landscape. A landscape results framework of monitoring framework should identify relevant and monitorable indicators, which specific targets that are to be achieved in the short, medium and long-term. The impact indicators should monitor reduction in threats or pressures and state of biodiversity, sustainable harvest of resources, etc.

Annex 4

Planning and management of investments for sustainable community based natural resources management, sustainable livelihood, climate adaptation and reduced wildlife-human conflicts (Output 3.2)

i) *Rangeland, pasture and livestock management*

Plans for managing natural resources like pastures will be integrated in the valley or village cluster conservation plans. All valley investments mentioned in the plans should be based on some minimum level of cost sharing by involving local communities. The purpose of the rangeland, pasture and livestock management activities will be to demonstrate sustainable multiple land use system that integrates biodiversity conservation into community land and resource based management. Based on the biological and socio-economic parameters, these valley conservation plans will indicate measures and interventions for sustainable use of the rangeland resources and optimizing livestock grazing pressure on the pastures without the risk of reduction in existing livestock products/income. The following is an indicative list of possible options sustainable rangeland, pasture and livestock management:

- Defining sustainable grazing management regimes, including social fencing, resource use pattern, carrying capacity and duration of use for natural rangelands;
- Sustainable agricultural land use practices,
- Management of overused and underused rangeland areas (current stocking and stocking capacity);
- Water harvesting techniques and potentials for improving grasslands and agriculture;
- Forest grazing management
- Climate adaptation measures in agriculture, livelihood and livestock management; and
- Agreement with communities on short, medium and long term rangeland, pasture and livestock management and monitoring regimes that ensure sustainable management of these resources to enhance conservation outcomes and reduce threats on snow leopard, prey species and other endangered species.

ii) *Environmentally-friendly land and forest resource use*:

Community-based land and forest management and resource use is intended to improve biological connectivity, habitat productivity and establishment of incentive-based sustainable use regimes. In the project landscapes, livestock production system is based on natural rangelands and forestlands that are also shared with snow leopard and other endangered and threatened species. The plains areas of deep soil are mostly used for staple and cash crops, while the sloping lands with shallow soils are used for either for fodder production or as grasslands. While livestock are generally stall-fed during severe winter months, different forest trees also serve as feed for livestock, fuel wood and timber for the villagers. The herders also collect large quantities of medicinal and aromatic plants for substantial monetary returns. The collection pattern and methods of the medicinal and aromatic plants by herders seems to be destructive and besides causing soil erosion change the biological composition of the vegetation communities and ecosystem services. This calls for institution of a community based management, monitoring and improvement approach to management of natural pastures and forests. The following menu of options would be considered (depending on the ground realities) to ensure sustainable management of land and forest resources:

- Grassland improvement through reseeding with suitable local grass varieties, water harvesting and vegetation management, etc.;
- Cost-effective soil and water conservation, formation of terraces and on-farm water management, etc.;
- Nurseries for distribution and planting of oak, willow, birch and other fruit and forest plants for meeting community timber, fodder and food needs;
- Sustainable lopping, trimming and management of forest and fodder trees;
- Community based forest conservation and protection committees to enhance sustainable management of forest resources and improve incomes from forest products;

- On-farm agro-biodiversity management and social forestry focused on individual and community lands to enhance biodiversity and meet local food and fuel needs;
- Renewable and energy efficiency systems for cooking and heating to reduce forest impacts; and
- Sustainable harvesting of NTFPs, including medicinal and aromatic plants.

iii) ***Sustainable community based livelihood improvements and reduced wildlife-human conflicts.***

Improving and diversifying farm and non-farm livelihoods and reduction of wildlife-human conflicts would entail helping community in improved access to technical and extension services, technology and agricultural practice (home gardens, vegetable and fruit production, intensive and semi-intensive agricultural production systems, integrated pest and agro-chemical management, etc.). The project will also support innovative strategies at the micro-level to maximize benefits and opportunities, improve processing and storage facilities, support seed improvement and high value chain development activities, support testing of new technologies for improving incomes and up-scaling, including alternate energy (micro-hydro, solar, etc.) for community based processing, drying and cooking, gravitational irrigation, improved village storage, packing, better transport methods to markets to reduce damage, as well as microfinance, etc. In terms of vegetable and fruit production, the project will promote better primary level processing and handling at the farm level to reduce labor costs, improve and introduce better livestock breeds and fodder management and improved feeding methods, and sustainable harvest methods to reduce damage to fodder trees. It will also support skills development for non-farm employment in the tourism and related sectors and improving the use and harvest of natural resources through community governance mechanisms. In order to reduce wildlife-human conflict and reliatory killings, the project will support the design and implement improved measures for reduction and management of wildlife-livestock/crop conflict such as improved corrals, better herding practices, wildlife deterent measures, crop fencing, etc.

A preliminary list of menu options might include:

- Livestock insurance schemes;
- Livestock vaccination, deworming and nutrition improvement programs;
- Construction of predator proof corrals and other livestock protection measures;
- Promotion of Snow Leopard Enterprise (SLE) projects;
- Promotion of traditional crops with niche market potential;
- Establishment of market linkages, post-harvest management and value addition crops and services for selected enterprises;
- Promotion of eco-tourism, including homestays, ecotourism products and services;
- Handloom and handicraft promotion; and
- Micro-finance

Annex 5

Valley Level Participatory Community Planning Framework

The Framework outlines the procedures and mechanism that should be followed to ensure that participation of local communities, including indigenous and marginalized communities through an informed, transparent and inclusive process in the planning and implementation of activities of the project so that a self-managed and governed system sustains even after completion of the project and people own the project.

Both conservation and livelihood institutions at the valley level have very specific roles under the project in order to develop and maintain a balance between conservation and use of natural resources and livelihood diversification, making it important that these institutions work in consonance with each other.

This framework, more specifically describes the participatory process by which: (a) specific components of activities at the valley level will be implemented; (b) the criteria for determining eligibility of investments are to be determined; (c) the measures to assist local community members improve conservation and sustainable natural resource management practices and (d) Appropriate and non-exploitative use of natural resources for livelihoods activities in real terms. It also more specifically incorporates details of the institutional arrangements for planning of valley level conservation, sustainable resource use and livelihood investments, the association and relationship of various community institutions and relationship with various government and non-government institutions in the planning, implementation and monitoring of the village investments and reciprocal commitments to conservation.

Institutional arrangements for integration of local communities into landscape conservation activities

For each of the three landscapes, a 'Landscape Planning and Implementation Team' (LPIT), consisting of Project Facilitation Officer (full-time officer, contract Social Participation Specialist and social mobilizers) will be constituted to provide technical and planning inputs for implementation of project activities. Technical specialists from line departments (including forest and wildlife) will be part of the LPIT and other sector entities, NGOs and research and development institutions will be contracted as and when required to provide specialized technical support in livelihood, value-chain and capacity building support. The core planning team will be responsible for: (i) undertaking *situational analysis* in the context of conservation and livelihoods, information dissemination, social mobilization, strengthening of local or valley level institutions and if required formation of new collectives/ institutions; (ii) designing and conducting *biological field surveys* as well as social and resource utilization surveys; (iii) *mapping of existing user rights* and facilitation of dialogue to resolve or manage use rights; (iv) formulation of *management strategies for conservation, sustainable natural resources management (pasture and forests), reduction of human-wildlife conflict, climate adaptation and livelihood improvement* at village levels in conjunction with local communities; (v) formulation of *community development, livelihood and value chain strategies*; (vi) supporting *participatory monitoring of community and conservation* activities; (viii) facilitating *resolution of conflicts* over resource use; (ix) and planning for any *infrastructural facilities* for the community proposed in the project.

With the help of Regional Management Units (RMUs), especially the Technical Support Specialist, the LPITs will facilitate in providing planning, capacity building and technical support for natural resources management, human-wildlife conflict reduction and livelihood development activities. The PITs will also coordinate with NGOs, line departments, private institutions, research and development organizations, various specialists and service providers to provide specialized services in the area of conservation or livelihoods promotion. In addition, the PITs will coordinate with other development sector partners such as NGOs, line department, private institutions, research and development organizations etc. under the guidance of RMUs to facilitate integration and convergence of development support within the landscapes. All management arrangements and community livelihood investments at the local level will be detailed in a legally binding Memorandum of Understanding between the local institutions (VCCs) or similar active institution, as appropriate depending on the situation within each of the landscape sites. The LPITs will also ensure that social and environmental screening and mitigation action are planned and implemented at the village level and ensure that local communities have access to technical support and capacity development in the implementation of livelihood or resource management strategies.

Planning and implementation of reciprocal commitments to conservation and investments at the community level will be implemented through existing community institutions (referred to as "Valley Conservation Committees or VCCs"), depending on conditions within the landscape site. Households in each valley/cluster of villages will be organized into user groups; such groups will be collectively responsible for formulation of community-level valley investment plans, prioritizations of investments, ensuring community reciprocal commitments and participatory monitoring of biodiversity and socio-economic impacts. Specific eligibility criteria would help prioritize community level investments and ensure their direct linkage with conservation objectives and reciprocal commitments to conservation. Local and national NGOs with appropriate expertise would be contracted to assist with valley conservation planning, and capacity building at the community level as well as for independent monitoring of social and economic impacts of the project interventions. Overlapping or conflicting claims to resources and rights are likely to surface during the participatory resource and social mapping and planning exercises. If such disputes cannot be settled by the LPITs and concerned VCCs, the project will pursue resolution through the RMUs and Provincial Coordinating Committees, as relevant or arbitration under an arrangement that closely resembles customary conflict resolution. In terms of rights, the LPITs and respective government institutions will initiate action with the concerned agencies for settlement of these rights, within the context of existing mechanisms that are available for this purpose

Planning and Implementation of Community Activities

The steps of bottom-up participatory community planning process are as follows:

Step -1: Community orientation and mobilization: As a first step, the project objectives and approach will be disseminated by the Landscape Planning and Implementation team (LPITs) comprising of Project Facilitation officer(s)/ Participatory Specialists and social mobilizers accompanied by technical specialists from line departments and other development institutions, on as and when required basis to all the local communities, existing community based organizations, valley conservation committees or village cluster organizations, both male and female in the landscapes. For most of the areas, separate male and female social mobilizers will be required. In addition to dissemination of the project objectives and approach, orientation meetings would seek to more accurately identify the perceptions of the local communities and other stakeholders regarding existing resource management practices, options for their better management, opportunities for livelihood and income improvements, and identify key representatives of the community or resource user groups for participation in subsequent resource mapping. In these meetings, the environmental, biodiversity, bio-physical and socio-economic profiles of the valleys will be obtained from the stakeholders in a format that can be easily retrieved for doing analytical review. This information will be quantitative as well as qualitative. The quantitative information will be further validated from various line departments and other relevant research institutions.

Step-2: Mapping of conservation value of community resources: A typical valley would include community forest, rangeland and agricultural lands in the lower reaches of the valley and components of adjacent protected area lands that are usually located in the higher reaches of the valley. Hence valley plans will address pressures and threats and management responses both within community and adjacent protected area lands, so as to provide a more holistic approach to management of the valley. A valley level landscape conservation mapping exercise will be carried out to identify and assign conservation values to individual components of the valley landscape so as to help determine appropriate management options for these individual components. The mapping exercise will help identify critical areas of biodiversity conservation around the village and locations of high pressure and vulnerability. This mapping would provide the basis for defining options for management of resources within the valley landscape, as well as options for sustainable resource management, livelihood improvement and diversification and value chain products and services that are relevant for development or enhancement.

Step-3: Mapping of community resources and resource utilization, community rights and climate impacts: The participatory resource mapping will constitute an input to the planning of activities within the valleys and will help establish the baseline for future monitoring. The socio-economic mapping will include the mapping of rights and resource dependencies of communities in the surrounding forests and natural habitats around the villages. Special

efforts would be directed at mapping resource utilization and dependencies of ethnic or minority groups. Information generated through this participatory mapping exercise will be used to facilitate the formulation of valley conservation plans and the initiation of a process for settlement of such rights. The mapping will draw on Participatory resource appraisal and planning (PRAP) techniques, site inspections, observations, transect walk etc. and provide information on (a) scale and seasonality of specific forms of resource utilization within the landscape including the protected areas (e.g. agriculture, grazing, fuel wood collection, non-timber forest resource collection, etc.); (b) key stakeholders analysis to identify the number, location and circumstances of the stakeholders utilizing specific resources, (c) customary rights and conflicts in resource use by different stakeholders within the landscapes, (d) specific resource use and dependencies of ethnic or minority groups; (e) climate impacts and (f) possible solutions analysis. In terms of customary rights the mapping would provide information on: (i) location and size of the area and condition of resource; (ii) primary users, including those belonging to ethnic and vulnerable groups, that currently use or depend on these common lands; (iii) secondary users and types of uses. This would provide the basis for initiation of settlements of rights within the landscape units on the basis of existing government legislation and regulations.

Step -4: Strengthening/ Formation of relevant local community organizations: During the orientation meetings and community mobilization process, the interest, capacity and skills of the communities and their institutions would be accessed. This will give opportunity to prepare a socio-economic profile that may later help in the social and environmental screening of projects proposed. New Community valley based organizations will be formed or existing organizations will be strengthened at the community, valley and/or village cluster levels. The project would also provide training in resource mapping, natural resource management evaluation, planning, construction supervision, maintaining of minutes of community meetings and basic account keeping, and monitoring of activities implementation as per terms of partnerships or agreements. Basically, most training will be on the job training as well as exchange visits to other sites where relevant solutions to problems have been implemented. Special efforts would be undertaken to ensure that ethnic and minority groups are well integrated into the local institutions and if necessary women conservation sub-committees would be established under the VCCs to ensure that women's needs and priorities are addressed.

Step -5: Development of valley conservation strategies and plans: Meetings will be held with valley communities to prepare the social and community resource utilization maps and to agree on its implications regarding natural resource and conservation strategies, resource access, mitigation and/or compensatory measures. During the planning exercise, the LPITs will take special attention to ensure that the needs and dependencies of ethnic and minority groups and women are specifically addressed in the valley conservation plans. To the extent necessary, depending on the dependency of ethnic and minority groups and women on natural resources in particular valleys, the valley conservation plans, would have specific investments for these groups and women. After identifying future interventions for the next five years, futuristic maps are over-layed on base year to show land-use changes proposed for the village. A smaller scale of the maps will help to describe the area in more details.

Community participation and contributions to conservation, sustainable resource use and livelihood diversification and development activities, including value chain products and services/activities that are selected for project support based on the following pre-requisites:

- All valley conservation investments must be based on some *minimum level of cost sharing* by/involving local communities;
- Preferably, a *clear and transparent linkage must exist between improving conservation and sustainable resource use and the proposed investment*, so that the valley project agreements between communities and local governmental institutions support sustainable practices by creating adequate incentives for local communities to take measurable action that supports conservation of natural resources and their sustainable use; and
- All valley investments, including restrictions on resource access (if any) must *evolve through a common understanding and consensus* amongst the local communities.

To be eligible for inclusion in the investments for the valley conservation plan funding, activities should comply with the following criteria:

- *Be identified as priorities through the Valley Conservation Planning process, and thus be assured of having been identified through a participatory process.*
- *Conserve and sustainably use land and other natural resources* either directly or indirectly by creating sufficient incentives to commit local people to specific, measurable actions that improve the sustainability of resource use.
- *Provide equitable share of benefits to local communities, including ethnic groups, minorities and women and mitigate any negative impacts* to women, poor and disadvantaged groups who are currently most dependent on the land
- *Be socially sound and institutionally feasible* ensuring that associated activities are culturally acceptable and do not impose an unnecessary heavy burden on individuals and that local institutional capacity is adequate to organize resource management, distribute benefits from common resources, provide physical maintenance, meet community agreements to resource use and access restrictions, ensure alternative livelihood benefits to affected members and monitor project impacts
- *Be low cost and financially feasible* so that costs are within local norms, returns are sufficient to compensate for resource use limitations, and, for all investments intended to produce cash revenue or benefits that can be monetized, market linkages are adequate, cash flow requirements are viable, and returns compare favorably with alternative investment options.
- *Be technically feasible and innovative* so that inputs and technical advice are adequate, physical conditions are suitable and the activity is technically sound.
- *Be environmentally sustainable in support of global environmental objectives*
- *Improve community resilience to climate change by diversification of livelihood, improving soil and water conservation, crop disease management and awareness*
- *Be selected and owned by local commun*ities as ensured by a budgetary constraint mechanism, community contribution or co-financing requirement, and a commitment by the community to bear maintenance costs of any infrastructure component
- *Be supported by training and capacity development* for strengthening all households.
- *Be supplemental or incremental in nature* to ensure that activities supported under the project are not a substitution for what should be supported by the government as part of their development responsibilities or not of global benefit.

The MoUs will be developed with various CSOs and sectoral entities to provide different type of activities and services will have some or all the above-mentioned criteria articulated well in the contracts. During early project implementation, the project will develop a checklist or questionnaire reflecting the criteria listed above to screen requested investments to ensure that they are technically feasible, are socially acceptable, including to ethnic and minority groups, have positive environmental impact and are part of a holistic approach to the local ecosystem management, likely to generate supplementary income, comply with sound social and environmental principles and are sustainable.

Lessons learned from other participatory conservation/development initiatives has validated the importance of requiring some form of cost sharing for investments intended to benefit local people, including extremely poor households, since it builds commitment and ownership on the part of stakeholders and strengthens the likelihood of sustainability. Therefore, the project would establish clear and transparent contribution requirements and will also promote creation of a 'Valley Common Fund'. To this end, the following norms are suggested:

- Local people would contribute to the costs of regular VCC investments, including community oriented activities, to be deposited in a Valley Common Fund (VCF);
- There will be no upper limit to the amount a community can contribute and deposit in the VCF;
- Community contributions will be matched up to a given amount per community, with the upper limit being decided at the initiation of the program;

- The total investment cost would be calculated as the sum of all resources, cash and non-cash; the value of labor, and other in-kind contributions would be calculated on the basis of local market value;
- To build ownership and long-term sustainability, all valley investments would flow through the VCF or other relevant community institution, thereby encouraging the beneficiary community to seek co-financing and leverage funds through the provision of loans for approved community investments and other needs. Over time, this financing management system can continue to build and sustain community fiscal resources.

The LPITs, with the help of Provincial sector institutions, will come out with various norms of contribution of community in various support activities provided under the project. This will enhance the ownership of the people in the project initiatives. These practices are already being used by various ongoing internationally funded projects in the selected landscapes.

Procedures should be established to screen requested resource development or income generating investments to ensure that they are technically feasible, have positive environmental impact and are part of a holistic approach to the local ecosystem management, likely to generate supplementary income, comply with sound social and environmental principles and are sustainable. The LPITs should be primarily responsible for such screening. Decisions regarding the priority investments will be made by mutual consent of the LPITs, local community institutions and the community, with subsequent endorsement Provincial Coordinating Committees, if relevant. If required by budgetary or implementation capacity constraints, proposed activities will be prioritized based on their expected positive impact on global environmental objectives, the conservation and sustainable utilization of the land and sustainable livelihood activities. The activities also need to be implemented in such a way that they create a learning situation and results that are of policy relevance. Examples of appropriate land management and livelihood activities might include: improved agricultural practices, improved livestock and pasture management, forest management and rehabilitation, including community forestry, environmentally friendly minor infrastructure rehabilitation (village irrigation and drinking water supply systems, minor erosion control structures, etc.), medicinal and non-timber product development, processing of agricultural practices, alternative livelihood options (handicrafts/handlooms enterprises, agricultural product processing and development, mushroom cultivation, marketing support, skills development, etc.), human-wildlife conflict mitigation and natural resource conflict management.

Step – 6: Implementation of Valley Conservation Plans: Activities discussed and agreed with the community would form the basis of the valley conservation plans. Once approved, an agreement would be signed with the relevant VCCs for carrying out the proposed activities. With technical support from the LPITs and provincial sector agency extension staff, and CSOs, the valley communities will implement the activities. The LPITs will convene periodic meetings (quarterly) to review implementation progress (including social and environmental compliance and action) and resolve any specific issues arising from project implementation and monitor implementation outcomes and impacts. In each village, VCCs will be playing key role in overseeing implementation and monitoring of the activities.

Step- 7: Monitoring and Evaluation: A Monitoring and Evaluation Framework will be developed for the Project. A monitoring system will also be designed to provide for continuous learning and adjustment of approach, and will involve participatory monitoring based on self-defined indicators (by community groups, LPITs, etc.), input and output monitoring data from the LPITs. A framework for monitoring will be developed and will include description of the institutional arrangements and processes incorporating participatory monitoring and learning systems, selection of indicators, sampling methods, interval and intensity of sampling and mechanisms for feedback and project improvement. The tools of monitoring the activities and outputs of the project will be formed so that both quantitative and qualitative information is captured regularly.

Three areas of significance for monitoring and achievement of project objectives will (i) the ecological aspects of field activities for biodiversity conservation and landscape management; (ii) community participation in conservation, sustainable use and livelihood improvement, community compliance with conservation and resource use agreements, and outcome of livelihood activities; and (iii) institutional aspects at the landscape levels and modalities for conflict resolution and new community-based agreements on resource use.

Since mobile connectivity is a problem in all the three landscapes in one way or the other, therefore the MIS and M&E systems in the projects will be developed keeping this fact in mind. Hence a system of Manual and IT based (online and off line) MIS and monitoring will be developed for the project. This will be done keeping in view the sustainability and withdrawal strategy of the project.

Arrangements for micro-grant allocation for village investments: Specific criteria and grant management mechanisms are proposed under the project. In particular, grant financing for natural resource management, livelihood and human-wildlife conflict mitigation activities would be performance-based and designed on basis of ensuring transparency and extensive consultations with local and district entities and other relevant stakeholders, be well coordinated and promoted through effective technical support, regular review of implementation arrangements and the use of monitoring and evaluation information to adjust and refine the system in consultation with the stakeholders.

Grants would be typically based on the following principles:

(i) Competitive assessment and tender to selected beneficiaries, in particular VCCs (those institutions that represents the interests of the villages and its households);

(ii) VCC institutions would be those that preferably have legal status

(iii) Valley investments should evolve through a transparent participatory process that have a *clear and transparent linkage with improving conservation and sustainable resource use* and must benefit a majority of the people in the village

(iv) All valley investments must be based on some *minimum level of cost sharing* by involving local communities;

(v) Valley investments must be meet criteria as discuss earlier in this Annex to be eligible for funding under the project

(vi) Valley investments must be included in a Valley Conservation that is approved by the Provincial Coordination Committee

(vii) All valley community institutions must establish a Valley Conservation fund in a banking institution with clearing designated signatories to the fund, including a representative from the SLF and/or forest or wildlife department and specific rules and regulations for operation of the fund

(viii) All members will pay a token amount of registration fee

(ix) The project will support the strengthening of the institutional capacity of the VCC in financial management, book-keeping and financial reporting

(x) A MOA/MOU would be signed between the VCC and the SLF that lays out (a) responsibilities of each party; (b) activities that are eligible for funding under the project; (c) outputs to be produced; (d) performance criteria for release of future grant tranches; (e) reporting arrangements for activities and expenditure

(xi) The SLF will be responsible for (a) ensuring the approval of the valley conservation plan and subsequent annual plans by the Provincial Coordination committee; (b) establishing the MOA/MOU with the VCC; (c) managing the release of funds into the VCF; and (d) monitoring and reporting on the implementation of grant activities and results

(xii) Initial release of funds or upfront payment as a percentage of payment will be defined in consultation with stakeholders

(xiii) Balance or subsequent payments would be made on successful completion and verification of work by the SLT

(xiv) Efforts will be made to try to identify additional funding support for this activity from existing government, local development programs and NGOs The convergence of government resources would be sought through the support of the Provincial Coordination Committees and by co-opting block, district and sector agency staff into Planning and Implementation teams during the valley conservation planning process.

Annex 6

Basic Contents of Valley Conservation Plan

Key Features	Description
Introduction	Introduction of planning objectives, Team, CBOs and collaborating agencies
Basic Valley/Village data	Basic demographic, socio-economic and biophysical data including GIS based maps, land and water suitability assessments, land capability classification etc.
Stakeholders information	CBOs history, trainings, savings and implemented activities particularly related to conservation of natural resources, line agencies and other stakeholders (lead & supporting), their activities, relevance and responsibilities in implementation & monitoring of activities.
Problems & proposed solutions	Identified problems, proposed actions and supporting activities related to project objectives and planned interventions, Capacity building and communication arrangements. Planned activities with GIS based maps of future planned interventions
Implementation and monitoring mechanism	Implementation mechanism including sample Terms of Partnerships defining role of CBOs, procedures for conflict resolution, procedures for implementing different activities, basics of benefit distribution, criteria & indicators for monitoring,

Annex 7

Indicative list of possible valley conservation plan investments and livelihoods

Type of investment[54]	Potential list of investments
Grassland improvement	➢ Reseeding with suitable grass varieties ➢ Cultivation of fodder varieties and their management
Rangeland improvement	Rangeland improvement through ➢ Water harvesting ➢ Vegetation management ➢ Improved herding practices
Soil and water conservation	Landslides control through bio-engineering structures: ➢ Vegetative loose stone check dams ➢ Formation of terraces ➢ On-farm water management
Integrated pest management	➢ Control of diseases, ➢ Weeds of crops
Home gardens	➢ Kitchen gardening, vegetable production ➢ Fruit production, ➢ Orchard and management • Fruit trees training • Pruning, • Budding, grafting and layering practices
Agro-based cottage industries	➢ Agro-based cottage industries like apiculture
Establishment of forest & fruit plant Nurseries	➢ Establishment of Nurseries • Nurseries for oak, willow, birch • Fruit plant nurseries developed
Sustainable lopping, trimming and management of forest and fodder trees	➢ Sustainable lopping, trimming and management of forest and fodder trees
Forest conservation and protection	➢ Forest conservation and protection through community forest protection committees
Sustainable harvesting of NTFPs	➢ Sustainable harvesting of NTFPs • Medicinal plants conservation • Other forest products, mushrooms, etc.
Livestock management	➢ Livestock insurance schemes ➢ Livestock vaccination & deworming ➢ Livestock nutrition improvement programs ➢ Construction of predator proof corrals
Snow Leopard Enterprise (SLE) projects	➢ Handicrafts from the raw wool of livestock – intricate felt rugs (Carpets, mates), hot pads (clothes), ornaments, pet toys etc. with conservation agreements for snow leopard and wild prey protection
Crop processing and storage	➢ Grain/ Fruit storage techniques ➢ Crop/ Fruit processing after harvesting as per market requirements and to increase shelf life

[54] The rangeland improvement, new fodder varieties, soil and water conservation, IPM, home gardens etc. will also contribute to improve climate resilience among these mountain communities

	➢ Crop and fruit storage rooms improvement
Promotion of wood alternatives	➢ Promotion of LPG ➢ House energy efficiency improvement
Market linkages	➢ Market linkages for the enterprises and crops

Annex 8

Capacity building and skills training for local level community institutions[55]

#	Potential Training topics
1	Community management Skills Training
2	Basic financial management and book-keeping
3	Participatory monitoring
4	Pasture management/ Restoration approaches for different pasture
5	Community-based surveillance, monitoring and prevention of wildlife crime
6	Human wildlife conflict management
7	Community Forestry management
8	Nursery development
9	Sustainable lopping, trimming and management of forest and fodder trees
10	Livestock Curative Preventive Measures/ Community Livestock Extension Workers
11	Dairy management, artificial insemination and veterinary services
12	Kitchen gardening
13	Apiculture
14	Management of livestock insurance and immunization schemes
15	Integrated crop pests management
16	Soil bio-engineering for soil and water conservation and landslide control
17	Improved energy efficiency cooking
18	Tour guides
19	Ecotourism
20	Design, product development, branding of handloom products
21	Wool-based products as snow leopard enterprises
22	Yak product making (butter, cheese etc.)
23	Value chain business plan development and enterprise management

[55] This is not a complete of training topics

Annex 9

Gender Analysis and Mainstreaming Action Plan

While Pakistan's constitution enshrines the principles of equality and non-discrimination, gender inequality persists in many areas of women's lives. High levels of gender inequality are reflected in global indexes and measures. Pakistan has adopted Sustainable Development Goals and women have a critical role to play in Sustainable Development Goal 5 that is known as the stand-alone gender goal because it is dedicated to achieving these ends and also in all of the remaining SDGs that make up the 2030 Agenda for Sustainable Development, with many targets specifically recognizing women's equality and empowerment as both the objective, and as part of the solution. According to the Global Gender Gap Report released by the World Economic Forum (WEF) in 2016 that measures gender equality in relation to economic participation and opportunity, educational attainment, health and survival and political empowerment, Pakistan was among the lowest ranked countries and ranked 143 on the Gender Gap Index (GGI) among 144 countries polled. The UN Gender Inequality Index, which measures gender inequalities in reproductive health, empowerment (combining measures on political empowerment and secondary education) and economic status, ranks Pakistan 121st of 155 countries.

Status, role and participation of men and women in project initiatives

The isolation of remote areas in the northern parts of Pakistan and its poor communication facilities with the rest of the country has tended to aggravate the problems of women. Due to the work of several NGOs the role of women participation in the development process have slightly improved except in some districts including Chilas.

Biodiversity conservation and management practices are social processes in which women and men across various classes, castes, ages, occupations, and power groups are important actors in helping to conserve, manage, and use biodiversity in a sustainable way. Therefore, diverse elements of gender analysis such as gender roles, responsibilities, division of labor, gender relations of power, and rights, ownership, access to, and control over, biodiversity are useful in analyzing the gender dynamics embedded in biodiversity conservation and management practices. Men and women undertake different roles, responsibilities and task in biodiversity conservation, management and livelihoods in the project landscapes. Despite the lack of women representation in local village committees and decision-making, women are more involved in natural resource related management aspects than men. In comparison, men are generally responsible for off-farm and cash-oriented activities such as contract work, daily wage labor, employment, and the marketing of high-value agriculture and forest products. This has been observed in all the landscapes.

Role in household chores: In Northern areas, women are mostly involved in household works like house cleaning, preparation of food for the family, looking after children, washing, disposal of waste; fetching of drinking water, kitchen gardening etc.

Role in fuel management: Women are also involved in collection of firewood, and feed for cattle.

Role in Natural Resources Management and Livelihoods: Generally speaking, women's activities in the project areas tended to be under-valued. Women play a crucial role in mountain societies as a very significant proportion of the work force in food production and as key players in managing and sustaining their natural resources and environments. There was no tradition of women's integration into wage labor. In Northern Areas, the inter-district differences in terms of natural environment, customs, languages, religion, literacy rates, and presence of local institutions (both formal and informal) have considerable impact on women's and men's roles and experiences. For example, in areas like Hunza region, women have acquired comparatively increased opportunities for taking active part in development of the area whereas in southern district of Diamer women's participation in development process is considerably limited due to conservative cultural norms. The differences across regions in terms of available social infrastructure, geographical remoteness of areas and climatic variations also reflect in the productive, reproductive and social roles played by women in NA.

Ploughing and shearing sheep is mostly done by the male and women are involved in other agricultural activities, sowing to storing of grains, collection and processing of fruits and vegetable growing, processing, packaging and packing. Women are also involved in livestock management including rearing cattle, grazing, stall-feeding, care of small livestock and poultry and harvesting of grasses and its storage for the winter season. About 80 to 90 per cent of the seed requirements for all farm-household crops are met through indigenous seed management and exchange practices, in which the role of women is crucial. Women's efforts to preserve, conserve, process, and manage agricultural seeds are significant.

Role in Community organizations: As far as involvement of women and men in biodiversity conservation initiatives are concerned, formation of Community Conservation Committees, community/village organizations and valley conservation committees and district conservation committees and training was provided to the committee members wherein issues of biodiversity and wildlife were covered. The committees are mostly composed of men, although in a few cases there are some women members.

Migration and women workload

The increased out-migration of men from rural farming households to urban areas in some parts of the landscapes has led to changes in gender roles, with women taking on an additional range of tasks. Men's out-migration has also meant that many rural women are becoming increasingly involved in subsistence and commercial production, as well as taking on much of the community and environmental management work which was formerly shared by women and men. On the economic front, more women are able to own and control incomes, which has increased the overall household income and well-being and helped improve attitudes and gender relations at the household level.

Access to basic human rights and necessities of life

In most of the cases, women do not have proper access to basic human rights and necessities of life. The status in this regard is as follows:

Access to education: Free and compulsory basic education is a fundamental right of every human being as guaranteed by the universal declaration of human rights. As most of the project areas are remote and faced with major geographical hindrances like long distances that discourage girls' school attendance and have limited educational institutions that lack the capacity to provide quality education. Due to the traditional and segregated nature of society and remoteness of the project area, there is an acute scarcity of skilled and literate women. The budget allocated to the gender specific education schemes for boys in Gilgit-Baltistan increased by 45% from Rs. 138 million in 2012-13 to Rs. 188 million in 2013-14. Contrarily, the total budget allocated to gender sensitive education schemes slightly decreased by 3.4% from Rs. 68 million in 2012-13 to Rs. 66 million in 2013-14[56]. Local people are aware of the importance of education, and villagers identify girls' schools as an urgent priority. Although they are willing to provide rent-free rooms for the school, they are mostly unwilling to accept male teachers if female teachers are not available. This is typical of the conservatism in many villages. However, the most significant change is taking place in access to primary education. AKRSP's study conducted in 2005 shows a steady increase in household income allocated to education. Across the Program area, the average proportion of household income allocated to education has increased from 10% in 2001 to 13% in 2005, with the highest increase recorded in Gilgit District, where it has gone up from 11% to 18% during the same period. Much of this increase is believed to be the result of greater investment in girls' education. This is clear from an increasing trend in the overall female literacy rate in northern areas, which is accelerating at a faster pace, relative to male literacy.

Access to water, sanitation and hygiene: Nearly half the population in northern areas of Pakistan does not have access to safe drinking water and adequate sanitation facilities. Women receive far lower levels of training than men for safe drinking water, sanitation and hygiene. Traditionally, women are responsible for collection, storage

[56] Daily Pamirtimes; 2015; Gender analysis of education sector budget allocation in Gilgit-Baltistan; 14 Oct 2015; http://pamirtimes.net/2015/10/14/gender-analysis-of-education-sector-budget-allocation-in-gilgit-baltistan/

and handling of water for household consumption. In many cases women have to travel 1-2 hours to collect the water for household usage. During winter, water collection from a glacier source is a hazardous job for the women as walking tracks to the water sources are covered with ice and snow, and many women receive injuries while fetching water.

Access to health facilities: Long distances to health facilities, damaged roads and pathways, high transport costs, lack of female doctors, and supporting facilities are the biggest contributing factor hindering access of women to health facilities, and this is worsened during emergencies. In a study it was noted that in the health sector, household income allocated to health increased from 6% to 10% in the program area between 1991 and 2001. The highest jump was in Chitral (from 3% to 10%), followed by Baltistan (6% to 11%), which shows that these farthest districts are now catching up with relatively more accessible areas of Gilgit and Ghizer.

Participation in community level consultation and planning for developmental activities: Due to cultural constraints, joint community organizations of male and female do not exist in most of the areas. Even though separate women organizations exist in a few areas, the major developmental decisions are taken in the meetings of male community members so the involvement of women in community level consultation, planning and decision making for developmental activities is negligible. In a few areas these are also involved in taking decisions of crops and seed selection, sale of fruit and vegetable products and livestock.

Access to developmental and social services, credit and information: Women have comparatively less access to development services, credit and knowledge facilities. Their work burden is often extremely heavy because of their multiple responsibilities in livestock herding, farming, water and forest management, house hold and community life. Due to the work of NGOs in the area the mobility and access of women to social services and information have increased, thus breaking the traditional barriers that excluded women from the public domain.

Proposed roles of women in projects' grassroots level activities

Gender Equality goals cannot be achieved by just bringing a change in the conditions of women but requires transformative processes within the structures and systems, e.g. presence in decision making positions, equitable distribution of resources, which are the main cause of inequality and subordination. Women and men themselves have to assume the role of change agents and therefore, empowerment becomes a central tenet to achieve gender equality goals.

There is a need for women to participate in proportionate numbers in the management of land and trading opportunities in the local markets. In the context of growing feminization of agricultural work and the informal sector, women need appropriate skills and unmediated control of land and related production inputs in order to successfully manage their lives and increase agricultural productivity. Women's ownership of land can enable them to control the use of household income for the well-being of themselves and other members of the household for child survival, education and health, than those owned only by men.

It is essential to incorporate gender perspectives into the ecosystem based conservation and livelihood approach. Assimilating gender perspectives into the ecosystem approach makes us more conscious of the impact of gender in defining roles and responsibilities, the division of labor, needs, knowledge, and inequalities, and the differences inherent in the unequal power relations between men and women in terms of resource use and access. This can help to improve the livelihoods of resource dependent social groups and results in improved gender positive impacts from interventions related to biodiversity resource management.

Gender integration provides a way to acknowledge the different roles that women and men play in resources planning and management, and to create opportunities that enhance women's exposure, networking, knowledge, and skills and give them a platform to share their concerns, needs, and indigenous and other knowledge. Ultimately it facilitates gender responsive policy solutions to promote equitable ecosystem-based adaptation and improvement

of livelihoods. In view of the above it has been proposed to involve women in most of the grassroots level project initiatives:

Table 16.2 Present status and proposed roles of men and women in projects' grassroots level activities

Activities/ Tasks	Present status/Observations from the landscapes of the project	Project intervention & proposed role of women
Pasture and rangeland management	Women are involved in grazing their livestock in pastures and rangelands near to the villages. Grazing livestock in upland pastures, away from population areas is basically responsibility of men. The family of Gujars involving men, women and children also graze livestock in pastures.	A strategy and plan for managing natural resources like pasture and rangeland will be developed involving local communities including both men and women. Women support will be elicited through encouraging and ensuring their participation in social surveys and village organizations. These plans will also be implemented in collaboration with local communities including both men and women for sustainable management of rangelands and pastures.
Sea buckthorn management and improvement	Sea buckthorn management operations involve women as well as men. Women are engaged in field-based activities especially sowing, weed control and harvesting while men are involved in ploughing, insect pests and disease control, transport and marketing of produce. The women also dry, preserve and add value by making jam out of the collected berries.	Sea buckthorn will be cultivated by involving both men and women for land stabilization, fuel wood, forage, fencing around farmlands to keep animals out and medicinal purposes. An effort will be made to ensure value addition and marketing, thus improving income to the family, that would help women overall meet livelihood needs of the family
Suitable Fodder varieties cultivation and management	Managing fodder for livestock is primarily the responsibility of women. In Gilgit-Baltistan and Khyber Pakhtunkhwa, fodder is cultivated largely in their own fields and dependency on forest is not high but in Azad, Jammu and Kashmir mostly fodder and grasses are collected from State forest area.	The project will promote cultivation of suitable fodder through demonstration plots and fodder seed banks so as to reduce the burden of fuel wood collection by women to some extent.
Soil and water conservation and barren land rehabilitation, afforestation and reforestation, social forestry	Women were involved by different NGOs working in the area for forest and fruit trees plantations for soil and water conservation and barren land rehabilitation but such activities were implemented on a limited scale.	Soil and water conservation, barren land rehabilitation, measures to control landslides and on-farm water management will be helpful in livelihood improvement, biodiversity conservation and environmental rehabilitation in the area, relieving the burden for women.
Home gardens	Home gardens, Kitchen gardening, vegetable and fruit production at household level is implemented by women.	Home gardens, Kitchen gardening, vegetable and fruit trees will be planted and managed in collaboration with women to improve house hold subsistence and income improvements.
Nurseries	Women as well as men are involved in establishing household level nurseries. However, the bigger commercial nurseries are managed by men.	Household level nurseries for oak, willow, birch and fruit plants will be for distribution in the selected valleys in collaboration with women.
Sustainable harvesting of NTFPs	Harvesting of NTFPs is done by men, women and children.	Trainings of sustainable harvesting of NTFPs will be given to men as well as women, to improve incomes of the family and ensure some food security.
Livestock vaccination, deworming and nutrition	Women mostly take care of the cattle. This is more in case of cattle. In case of sheep and goat, shepherds are mostly men however, it is seen that women go along with men to camps for taking animals for grazing.	Trainings of Livestock vaccination, deworming and nutrition improvement will be given to men as well as women.

improvement program		
Snow Leopard Enterprise (SLE) projects	Some NGOs initiated credit schemes whereby women are being introduced within micro enterprise development including embroidery products.	Participation of women will be preferred in snow leopard enterprise trainings and demonstrations.
Aqua-culture	Men are mostly involved in fish farming.	Trainings and demonstrations of aquaculture will involve men as well as women.
Fuel management	Wood collection for fuel has reduced to a large extent after introduction of LPGs and various efforts made by the government and NGOs to provide innovative fuel-efficient stoves. In the landscapes, women use forest wood as fuel and its use is much more in the winter season. In AJK, most of the forestland is managed by the Forest Department and locals have concessional rights for using State forests.	The project will promote LPGs, fuel-efficient stoves, solar cookers, solar lamps & energy efficiency measures in house construction and management through convergence with line department programs and awareness generation initiatives. This will further reduce the workload of women.
Water for drinking and Irrigation	In rural areas, women generally have the responsibility to transport water from far off places therefore workload is a relevant issue for these women. Water collection during winter is an extremely harsh exercise for women, as they also need to provide water for the livestock. During consultations, women unanimously agreed that workload related to water (in some areas also fuel wood collection) takes up most of their time as they walk distances back and forth for supplying sufficient amount. As a result, women are left with little time for other household chores and attending women organisation's meeting falls low on their agenda leading to limited participation in development process even if the opportunities exist. Arrangement for irrigation water is the responsibility of men, however In some areas, along with domestic water requirements; women also shoulder agricultural water management and irrigation of agricultural land. These women identified the health hazards due to extensive use of chemicals and fertilisers as their main concern.	The Project proposes the rejuvenation of pasturelands, water management and conservation and therefore arrangement for water lifting, tanks for water conservation (LPDE) tanks and solar water lifting arrangements will be considered for support, improving women's access to water
Food Preparation	It is the responsibility of women and girls to prepare the food for the family. However, in ceremonies and restaurants, men are involved in preparing the food.	Eco-tourism related activities are promoted through the project that will promote changing of trend. Men will start sharing the workload related to food preparation.
Child Care	Child-care is an activity that is primarily taken care of by women. Even at the work places, women are seen carrying the child and working.	This will continue, and since efforts will be made to reduce the workload of women through the activities described, this will free up time for women to perform their child care responsibilities
Work in farm land and post harvesting activities	Women are engaged in field-based activities especially sowing and harvesting. Field preparation i.e. ploughing is being done by men in all the landscapes wherein in agriculture activity is going on. Men also share workload in marketing of the produce.	Agricultural, especially vegetable and fruit cultivation trainings will be given to both men as well as women. Promotion of farm implements as a result of trainings and linkage with line agencies may reduce the workload of women.

Research by students	Limited opportunities for women	Provision of funding for students including female to undertake graduate research fieldwork on gender issues of biodiversity would enhance support for making biodiversity research and knowledge products more gender inclusive.
Community based organizations and conservation committees	Women are members of CBOs and conservation committees but there percentage membership is very limited.	To the extent feasible, landscape, valley and community level-planning teams will have local women community mobilizers who would be involved in social mobilization to encourage greater participation of women from local communities. This will help in increasing the percentage of women in conservation committees. Where necessary separate women conservation committees will be established to enhance the role of women

Other proposed initiatives for Gender mainstreaming

Capacity building of the Project Team on Gender

Strengthening of gender analytical capacity at organizational levels would go far in furthering understanding and building research capacity in gender issues of biodiversity at the local level. Tailor-made training on gender and social analysis would prove useful to conservation actors, including researchers, communities, and policy-makers. Gender balanced training is an important strategy to promote gender equality in skills and knowledge sharing.

The project recognizes that the best way to raise awareness of the gender issue, and to support incorporation of a gender perspective in planning is to develop – and implement – a gender mainstreaming strategy listing the steps to be taken in program planning and management. Project will use gender-sensitive indicators and collect sex-disaggregated data and this will be systemically recorded, reported and integrated into adaptive management responses. In addition, projects will use the GEF gender mainstreaming core indicators, which will be aggregated for portfolio level monitoring and reporting purposes.

Engagement of Human Resource

To ensure equal opportunity for employment, UNDP will encourage qualified women applicants for positions, including social mobilizers under the project as per UNDP rules and regulations.

Effect of gender mainstreaming on women equality in terms of workload

Under the GEF project, provision of innovative tools and implements for the livelihood and other household activities taken up by the women will reduce the drudgery of the women thereby enhancing the equality in terms of workload.

Periodic review and monitoring of gender streamlining

Finally, given that the knowledge base on gender and biodiversity management is still evolving and being collected, the project will monitor and undertake periodic reviews of the portfolio of activities, document gender roles in the management of resources in the region and in particular in the pasture and rangelands and highlight best practices in mainstreaming gender in the project. In addition, the project will promote technologies and practices to address women's practical needs, support women's empowerment, raise awareness of the institutions working in the project area about the different roles and issues women and men may face and the benefits of mainstreaming gender, and influence policy makers on gender issues.

Strategy/Action Plan for Gender Mainstreaming in project

Special mechanisms are envisaged under the project to promote the role of women in various activities. These include in particular the following:

Gender Mainstreaming Objective	Gender Mainstreaming Activity	Gender mainstreaming Target
To strengthen women based institutions and ensure women's participation and leadership	Support to strengthen Community Conservation Committees, community/village organizations and valley conservation committees and district conservation committees ensuring women participation. In some cases, it would entail establishing separate women community-based committees with the village to facilitate work that are largely women's responsibility, as well as set up women's self help groups	At least 30% of project beneficiaries are women in the target households and these are associated with community-based institutions and participate in the project initiatives. These will in some cases include separate women community-based committees.
Improve understanding of gender issues, capacity building needs of women and policy issues	Support action research to identify the issues related to gender so that capacity building and policy interventions can be planned in a specific manner.	Specific gender related issues and capacity gaps are identified and taken up as a part of the planning process in all the three landscapes of the project
To enhance capacity, skills and competence of women in technical aspects related to conservation and livelihood promotion	Technical training programs, study tours/exposure visits and other skills development activities involving women	At least 30% of technical and front-line staff and women leaders of grassroots institutions are trained
To reduce drudgery of the women and enhance conservation through technological interventions	Promote fodder demonstration plots and fodder seed banks, soil and water conservation, forest trees plantation, improvement of grasslands near to the houses, etc.	Drudgery of at least 25% of women members of CBOs reduced due to project interventions
To promote pro-women livelihood activities, alternative technologies to improve environment, biodiversity and health of women	Focus on women-dominant livelihoods and value chain activities like snow leopard enterprises, livestock management, home gardens, on-farm water management, sea buckthorn and ecotourism activities.	At least 5 alternative technologies introduced to reduce the workload of women, improve environment and household income.
To monitor and evaluate women's participation and their empowerment through the project interventions	Incorporating gender-sensitive indicators and collection of sex-disaggregated data for monitoring and evaluating project results	Gender disaggregated data included in monitoring and evaluation formats at various levels
To enhance role of women in implementation of the project	Engaging local women community mobilizers for social mobilization to encourage greater participation of women from local communities	At least 30% of the community mobilisers engaged in the project are women, preferably locals.
To enhance awareness about access and ownership of land and other productive resources by women	Interventions to enhance awareness related to policy issues through communication strategy and knowledge sharing initiatives	At least 30 % women members of CBOs among the target households are aware about their rights and contribute in the policy issues
To ensure high participation of women in project activities through innovative communication strategy and methods	Including specific efforts to encourage women's role in outreach and communication strategy of the project Keeping gender focus in awareness and communication campaigns	At least 50 % of the communication methods used in the project will be focused towards women
Improve women's role in decision-making	Promote adequate representation and active participation of women decision-making bodies.	At least 25% women representation in project specific committees at landscape, valley & grassroots levels or separate

		women committees at valley or village level

Annex 10

Protected Areas in the Project Landscapes

Karakoram Pamir Landscape			
No	**Name of Protected Area**	**Type of Protected Area**	**Area (ha)**
1	Central Karakoram National Park	National Park	1,055,700
2	Khunjerab National Park	National Park	226,913
3	Qurumbar National Park	National Park	74,000
4	Naltar Wildlife Sanctuary	Sanctuary	27,200
5	Klik-Mintika Game Reserve	Game Reserve	65,000
6	Nar/Goro	Game Reserve	33,400
7	Sikandarabad-Jaffarabad, Nagar	Community Managed Conservation Area	11,400
8	Shinaki Hunza	Community Managed Conservation Area	23,300
9	Khyber	Community Managed Conservation Area	32,400
10	Ghulkin	Community Managed Conservation Area	10,400
11	Bar Valley	Community Managed Conservation Area	90,600
12	Gulmit Minapin, Nagar	Community Managed Conservation Area	54,400
13	Hussaini	Community Managed Conservation Area	11,400
14	Passu	Community Managed Conservation Area	29,500
15	Sokhterabad Gojal	Community Managed Conservation Area	32,400
16	Shimshal	Community Managed Conservation Area	16,800
17	Kanday-Saling	Community Managed Conservation Area	27,200
18	Hushey	Community Managed Conservation Area	58,300
19	Qurumbar	Community Managed Conservation Area	54,700
20	Ishkoman	Community Managed Conservation Area	29,800
21	Passu	Community Managed Conservation Area	29,500
22	Hoper Valley	Community Managed Conservation Area	115,300
23	Hisper Valley	Community Managed Conservation Area	40,900
24	Bagrote Valley	Community Managed Conservation Area	48,200
25	Sassi-Haramosh	Community Managed Conservation Area	60,100
26	Danyore	Community Managed Conservation Area	43,800
Sub-Total	**Protected Area Network in The Karakoram Pamir Landscape**		**2,335,013**

Hindu Kush Landscape			
1	Chitral Gol National Park	National Park	77,500
2	Broghil National Park	National Park	134,744
3	Agram Basti	Community Managed Conservation Area	29,866
4	Gehrait Gol	Community Managed Conservation Area	4,800
5	Chinar-Purit Gol	Community Managed Conservation Area	6,446
6	Drosh Gol	Community Managed Conservation Area	2,060
7	Tooshi-Shasha	Community Managed Conservation Area	1,545
8	Arkari	Community Managed Conservation Area	100,000
9	Begusht	Community Managed Conservation Area	8,000
10	Goleen Gol	Community Managed Conservation Area	49,750

11	Manur	Community Managed Conservation Area	6,200
12	Madaklasht	Community Managed Conservation Area	14,500
Sub-Total	**Protected Area Network in Hindu Kush Landscape**		**435,411**
	Himalayan Landscape		
1	Musk Deer National Park	National Park	52,815
2	Ghamot National Park	National Park	27,271
3	Astore	Wildlife Sanctuary	41,440
4	Parisang	Community Managed Conservation Area	22,000
5	Gorikot	Community Managed Conservation Area	18,100
6	Doyan-DMT	Community Managed Conservation Area	69,700
Sub-Total	**Protected Area Network in Himalayan Landscape**		**231,326**
TOTAL (ha)	Northern Pakistan		3,001,750

Annex 11

Management Related Studies and Assessments

1. Monitoring to validate Snow Leoprad and Prey Species populations in Northern Pakistan
2. Assessment of gene flows and genetic diversity of Snow Leopard population in Northern Pakistan
3. Monitoring changes in Snow Leoprad and prey species population and distribution over time
4. Assessment of extent of human-wildlife conflict, poaching and trade in wildlife species to develop appriopriate management strategies
5. Assess extent of competition between prey species and domestic livestock to develop management strategies for management competition
6. Assess status of degradation of Juniper and Birch forests to develop restoration measures
7. Assess Protected Area network effectivess and coverage to provide recommendations for PA network improvements
8. Assess resilience and climate change impacts on rangelands to development coping mechanisms

Annex 12

Communication and Knowledge Management Strategy

The communication strategy is designed to create bridges between the stakeholders from the grass-root to the national and global level, for flow of information, exchange of ideas, knowledge management and implementation. It will also help build visibility to the conservation needs of the landscape by helping connect policy makers, media, research and academic institutes, private sector, NGOs and general public, through a comprehensive program, from consultations, brand building to outreach and awareness.

The core intent of the communication strategy is to instill within the stakeholders, an ownership to the goals of the project – shared knowledge, experiences, inputs and ideas for effective action. The idea would be to create systems that facilitate and generate a common vision for the project in the future.

The communication strategy will focus on strengthening, as well as creating the links that pertain to different dimensions of the project. The two primary areas of operation will be the Internal circle – which includes the key stakeholders who are directly associated with the project, and the Outer Circle which includes stakeholders who need to be included, involved and made aware of the significance of protecting the Karakorum Pamir, Hindu Kush and Himalayan Landscapes.

Approach to Developing Strategy

The approach to develop and implement the communication strategy will be step by step (i) developing insights (ii) developing intervention and tools and (iii) plan and implementation of communication strategy.

Developing insight for assessment of communication needs

A baseline will be established with regard to different aspects of communication and advocacy.

- Communication gaps between stake-holders (both internal and outer circles)
- Awareness of the concerns and needs from the local to national level
- Communication mediums available in the landscapes and at the outer scope

This baseline will help to design the intervention and set up markers for monitoring and evaluation of the strategy, and also measure to some degree the change in attitude, adoption of methodology, awareness about the different components and the extent of involvement among the stakeholders.

Some of the physical challenges across the landscapes are common such as accessibility, erratic communication network, vulnerability to natural disasters, water crisis and climate variability. In addition, to the physical barriers, the communication needs, specific to regions and stakeholders was also considered, such as the relationship between departments and communities, perceptions of conservation linked livelihood, presence of active NGOs or community collectives during the design of the strategy.

The key findings with regard to challenges and communication needs for different stakeholders are listed in the Table below:

Table 12.1: Challenges and Needs of the different stakeholders in the landscape

REGIONAL LEVEL		
Site	**Challenges**	**Specific Needs**
A. Local Communities		
Karakorum Pamir	• Villages in remote and distant locations • Accessibility affected by natural disaster/ landslides • Variable economic condition • Weak telephone connectivity • Youth moving out for education • Human carnivore conflict	• Improved communication between district administration and Forest department. • Improved information flow on conservation aspects, biodiversity, waste management, pesticide use, etc. • Participatory decisions and collective action • Engagement of youth • Recognizing livelihood in relation to conservation needs to be better understood, beyond just economic terms • Enhancing opportunities for responsible tourism training
Hindu Kush	• Water and Climate Variability • Villages in remote and distant locations • Accessibility affected by natural disasters/landslides • Weak telephone communications • Youth moving out to cities • Agro Pastoral communities are nomadic	• Need for convergence of traditional knowledge and scientific research • Improved documentation of traditional knowledge and good practices • Improved participation of youth in engagement with conservation • Collective talks and decisions on water issues and conservation • Communication improvement between community and Forest Department • Improved information and training on biodiversity to promote village home-stays • Improved connectivity with markets
Himalayas	• Water and Climate Variability • Villages in remote and distant locations • Accessibility affected by natural disasters/landslides • Weak telephone communications • Youth moving out to cities • Seasonal migration for economic needs • Agro Pastoral communities are nomadic • Increasing human settlements and activities inside the protected areas	• Infrastructure for basic health and educational facilities • Environment and wildlife planning • Communities' infrastructure development • Capacity building in livestock management and predation control • Improved connectivity with markets • Wildlife poaching control measures
B. State Level Departments, Forest and District Administration		
Karakorum Pamir	• Insufficient wildlife staff and resource limitations • Staff lack training on laws pertaining to protection of wildlife • Heavy pressure on landscape during tourist season	• Capacity building and training of wildlife department staff • Workshops and on ground training • Tourist education program • Enhancing information flow on tourism • Teachers training workshop for Nature Clubs

Hindu Kush	• Lack of training on monitoring fauna and flora • Poor control on illegal timber logging and deforestation	• Improving communication gap between forest department and communities • Improving training materials and knowledge tools • Enhancing information flow on conservation and tourism Teachers training workshop for Nature Clubs
Himalayas	• Insufficient wildlife health and conservation • Poor communication between wildlife and forest staff with communities	• Awareness through communication tools • Improving communication between departments • Active engagement of community groups in conservation • Teachers training workshop for Nature Clubs
C. State Level NGOs and other such agencies		
Karakorum Pamir	• Convergence of work of all NGOs in the landscape	• Improving information material and knowledge products on tourism and conservation
Hindu Kush	• Lack of coordination between government and non-government organizations	• Capacity building related communication tools and methods • Engagement of communities in the landscape for conservation improving education and outreach activities • Involvement in training, capacity building for communication interventions
Himalayas	• Lack of coordination between government and non-government organizations	• Engagement of NGOs with community and other key departments • Involvement in training, capacity building for communication interventions
D. Research Institutes, Universities		
Karakorum Pamir	• Convergence of research work with traditional knowledge • Research findings being translated to action on the ground	• Identification of relevant and actionable research subjects/topics • Engagement with community and other sector agencies
Hindu Kush	• Convergence of research work with traditional knowledge • Research findings being translated to action on the ground	• Identification of relevant and actionable research subjects/topics • Engagement with community and other sector agencies
Himalayas	• Convergence of research work with traditional knowledge • Research findings being translated to action on ground	• Identification of relevant and actionable research subjects/topics • Engagement with community and other sector agencies
E. Media		
All three landscapes	• Awareness and capacity building	• Information related to project

Stakeholder communication needs would vary depending on their roles and responsibilities of the individual stakeholders in the landscapes, the challenges they face in the discharge of their responsibilities and type and nature of communication and their role in the project.

Table 15.2: Communication Need and Responsibilities of Different Stakeholders

NATIONAL LEVEL	
Stakeholder	**Communication Responsibilities**
• Ministry of Climate Change	• Visibility of the project values at the national level • Review of policy and legal framework relevant to PSLEP

	• Communication between ministries and other departments to strengthen project goals and implementation of communication strategy • Engagement with media – government, private as well as freelance for awareness of project
• National Level NGOs and Institutes	• Integration of PSLEP outreach with other programs at the national level • Workshops on wildlife management and biodiversity conservation • Visitors and tourism management • Understanding and responding to climate change impacts
• Regional/ Provincial Law Enforcement Agencies / Border control agencies	• Combatting IWT, poaching, deforestation • Engagement with communities
• Media	• Understanding the significance of the project to national audience • Highlighting the success of project nation wide
• General Public	• Awareness about the significance of the landscapes in terms of biodiversity and conservation • Visitors and tourism management

Communication intervention and tools for SLEP

Table 12.2: Communication Interventions and Tools

REGIONAL	
Stakeholder	**Intervention**
A. Local community, CBOs, local NGOs, researchers, forest frontline staff	• Participatory Workshops and meetings using innovative methodologies like board games, video, theater, focus group discussion for engaging stakeholders in collective decision, sharpening perspectives on their natural resources and ideas for adaptive changes • Documentation of good practices • Training films, publications for the community • Policy framework for combatting wildlife crime • Exchange of information and updates with other countries including neighboring countries • Community Outreach activities, non-formal education and awareness programs
B. Youth and Women, Children	• Capacity building and training in communication and informing policy and advocacy • Nature Clubs, Education and awareness programs • Internships with organizations working on conservation, livelihood and enforcement • Training as nature guides, research assistants, etc. • Documentation at the regional level – biodiversity, traditional knowledge, local stories and narratives
C. NGOs and other institutes working at regional level	• Knowledge products for information and promotion • Supporting on-going Nature Club and communication projects for awareness • Capacity building and training in communication and informing policy and advocacy
D. Multiple Stakeholders – State Forest and other Departments, Local community, NGOs, Local level administration, forest department, travelers, researchers, general public, media	• Information Center located at suitable places and with a multi – purpose use of space – interactive tools for travelers, community space for meetings and engagement with other stakeholders. • Audio Visual tools - Short films and Radio programs • Websites – improving existing websites or creating new ones where

	required. - Home-stays and tourist destinations across the 3 landscapes - Promote good practices and build that into tourism - Market the products that are produced locally - Trekking routes and facilitators - Information about Conservation groups in the region
D. Regional/ Provincial Law Enforcement / Border Control Agencies	• Awareness workshops (wildlife crimes) • Communication with local communities
E. State level Departments – forest and other line departments	• Participatory Workshops, meetings to strengthen internal communication • Knowledge Products specific to department needs • Capacity Building for communication team at local level • Website support
F. Tourists and General Public	• Information Center with multiple inputs on the landscape • Information material on conservation, trekking routes, home stays, responsible tourism, waste management • National level competitions to engage general public • Training of local taxi unions, transporters and involved in tourism for dissemination of information on the region and responsible tourism
G. Regional Media	• Press Meet • Field Visit • Participatory Workshops and events

Table 12.3: Indicative Communication Tools

Tools	Implementation Considerations
Information Centers	Location and cost linked to ecotourism and knowledge sharing
Nature Clubs	NGO and Youth Groups
Website and social media channels	Contractual services, capacity building of local community
Video and films, Radio and print media	Contractual services and capacity building of local community
Knowledge products	Contractual services, specific to different components
Awareness events (street theatre, plays, campaigns, etc.)	Contractual services, and engagement with local groups
Awareness competitions (village art, essay, etc.)	Contractual Services, local communication team
Awareness workshops (exhibitions, museums, etc.)	Contractual Services
LEAP annual festival	Contractual Services in collaboration with multiple stakeholders
Mascots, taglines, theme songs	Contractual Services
PSLEP Branding (Brand themes, Brand ambassadors, celebrity endorsements, branding local products etc.)	Contractual Services
Participatory Workshops, Consultations, Baseline Study, Monitoring and Evaluation	Contractual Services, Local community participation
Policy Review, Project Report	Contractual Services, Capacity building at local level for advocacy

Table 12.4: Institutional Responsibilities for Communication

NATIONAL	
Stakeholder	**Intervention**
A. Ministry of Climate Change	• Annual Festival at the national level to connect all stakeholders • National Level competition to engage general public • Knowledge products for dissemination, training and workshops
B. National Level NGOs and Research Institutes	• Review of Policy report • Dissemination of knowledge products and awareness programs
C. Regional / Provincial Law Enforcement / Border Control Agencies	• Meetings for sharing Information on the conservation, human – wildlife conflict, illegal wildlife trade and how they can support in resolving these.

	• Enabling working with para- military/ border control agencies stationed at landscape
D. Media	• Press Meet, field visits and festivals • Programming for mainstream channels - television, radio and print • Media workshops related to understanding project values
E. General Public	• National level competitions • Films, website, knowledge products and social media • Festivals and knowledge center
F. Multiple stakeholders – national, state – local level	• Branding for PSLEP – Mascot, tagline • Celebrity endorsement – state level and national level • Common messaging

Table 12.5: List of Activities

Medium	Activity	Target Audience	Description
Events	Community Meetings (Frequent)	Local communities,	Meetings with community member of both genders and all ages. Sharing constraints, solutions and success stories with them. Engaging locals in discussions will subside the element of vested influence on these communities. Other objective is to build perspective that locals are part of conservation effort and they are given due importance. This may reduce the exploitation at the time of human animal conflicts.
	Training workshops	Local communities, staff members, government and private sector	National and regional workshops to facilitate dissemination of field lessons and help inform legal and policy reform relevant to landscape conservation practice. Media/communication training workshops for SLF field staff to help at the time of any human animal conflicts or otherwise. Training workshops for local communities about improving corals, livestock health.
	Exhibitions (Opportunity Based)	National	Participation in exhibitions and expos on wildlife/environment conservation. Setting up stalls and distributing info materials (posters, brochures, souvenirs).
	Seminars	Government departments, general public, social sector organizations.	Speaking engagements on various topics including the need for monitoring illegal hunting, deforestation, animal crimes etc.
	Schools	Student Grade 1 – 8	Learning with fun activities, painting competitions, jigsaw puzzles. All activities focusing importance of wildlife and snow leopard conservation.
	Colleges	Students	Painting competition, speech contest
	University	Students	Quiz shows, seminars, documentary shows.
Print Media	Press /photo Release	National / Global partners	Time to time issuance of press release and photo release of occasions/events.
	Newsletter	National / Global partners	Monthly or bi-monthly online newsletter for circulation through e-mails, website subscriptions. (2-4 pages)
	Magazine	National / Global partners	Bi-annual magazine is planned to carry stories from the online newsletters but in addition interviews, articles as well. (20-30 pages)

	Articles	National / Global partners	Success stories from landscapes, SLF role in policy/reform structuring by government departments.
	Interviews	National	Ministry, regional or local influential
	Posters	National/ educational institutions, local communities etc. Exhibitions	Covering visuals of landscapes, snow leopard, statistics etc. Event inspirational posters to encourage general public to participate in our efforts as volunteers or any other form.
	Flyers	National/ local/exhibitions/ educational institutions	Same as posters.
	Brochures	National/ local, seminars, other events	About the project components and sites
Electronic Media	Spot interviews	National	Spot interviews of SLF senior management on events and occasions
	Documentaries	National/ Global Partners / Educational institutions	Production of thematic documentaries of each landscape. Two to three versions of documentaries to be produced for airing on electronic media (local and international) as well as for showing on events or specific occasions.
	TV shows	National	Participation on specific days
	Radio	National	Drive time quiz, public service messages on FM channels
Social Media	Website	National/ Global Partners / Educational institutes / General public	Regular updates to inform project activities and achievements.
	SMS alerts		Need basis (campaign or disaster)
	Social networking channels		Picture posts and short stories
	Blogs, Vlogs		Interesting stories, and videos about the project and its achievements.
Social Responsibility	Shelters, clothing, food, water, medicines, etc.	Local communities	Our three landscapes are always at risk of natural disasters hence making the local communities vulnerable to face it. We need to have an extra budget readily available for such events so that we can take a lead role in providing any help they need. Not only humanity demands it but it can also play vital role in image building. Depending on the available funds, we can apply this activity at national level as well.
Media interaction	Media tours to landscapes	National media	Media relations play a delicate role in any organization. Regular interaction with media (print mostly) works as shield in case of any crisis or image-damaging situation.
Short Campaigns	Printed materials in the form of flyers.	Tourists visiting the landscapes	Seasonal campaigns in summers and winters for awareness on environment protection and wildlife protection. Printed materials to be distributed at petrol filling stations, motels, restaurants etc.
Site Signage		Tourists, Visitors	Signage at strategic locations will help advertise existence and potentials of the landscapes. The signage may cover location, boundary identification; orientation and interpretive. A signage program can

			be developed by the park management to rationalize this.

Implementation of Communication Strategy

The communication strategy implementation will be implemented over a period of five years. The main value embedded in the plan is to set systems that are effective, sustainable and long lasting; aiming to build capacities at the local level to create communication material that gives a voice and purpose to the local community, builds regional visibility and integrates concern and action across the outer circle. The communication plan should be able to create an effective network across the landscape representing diverse stakeholders both at the internal and outer circles. Simultaneously at the National Level, the branding will aim to build PSLEP as a conservation priority for the nation.

Table 12.6: Work Plan for Implementation of Communication Strategy

	Year 1				Year2				Year 3				Year 4				Year 5			
Baseline Survey																				
Participatory Workshops																				
Documentation of best practices																				
Knowledge Products and Information Material																				
Information Center																				
Annual National level Festival, Competition, Consultation																				
Events and Awareness Campaigns including Media Relations																				
Branding and endorsement																				
Capacity Building for communication at state level																				
Policy Review, Draft document, Final Report, Submission																				
Compilation of all communication outputs, Project Report																				
Knowledge Center at national level																				

Annex 13

Social and Environmental Screening Template

-See separate file-

Annex 14

Terms of Reference for Key Project Staff

-See separate file-

Annex 15

Multi Year Work Plan:

Task	Responsible Party	YR 0	Year 1				Year 2				Year 3				Year 4				Year 5			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Pre-Planning Phase (PPG Phase)																						
Constituting of Project Board and Provincial Coordination Committees	UNDP, MOCC and Provincial Government																					
Constituting of national and regional level management (National and regional PMUs)	SLF																					
Hiring of Contractual Staff for National and Regional PMUs and LPIT	SLF																					
Establishment of Project Special Accounts and Fund Flow Arrangements	UNDP and GoP																					
Signing of agreement with SLF for project Implementation	MOCC																					
Planning and Implementation Phase																						
National Steering Committee meetings	MOCC																					
Provincial Steering Committee meetings	Provincial Governments																					
Participatory mapping of conservation values of landscapes	SLF Regional Management Units (RMU)																					
Mapping of community resources, rights and utilization status	RMU																					
Defining landscape level vision and objectives	RMU																					
Development of broad strategies and actions for landscapes	RMU																					
Identification of degraded grazing lands and forest areas for assisted natural regeneration	RMU																					
Identification of areas for HCVFs, CMCAs, corridors, boundary re-demarcations, community-based conservation and forest management, restoration, etc.	RMU																					
Design research and monitoring framework and implementation plan for baseline surveys and monitoring changes in status of snow leopard and associated species	SLF																					

Surveys and assessment of snow leopard, associated species and monitoring population changes and dynamics	SLF																						
Management oriented research assessments	SLF and other CSOs																						
Training and technical support to enhance skills and capacity of other provinces and partners in replication of integrated landscape planning/practice	SLF																						
Development of replication and scaling up strategy and plan	SLF and MOCC																						
Development of a manuals/ handbooks /compendiums that would facilitate replication	SLF and MOCC																						
Mobilization of internal and external financial resources for replication.	SLF and MOCC																						
Assessment of adequacy of existing PA network and proposals for improvement	SLF																						
Establishment of new PAs, including CMCAs to improve connectivity	SLF, CSOs and Provincial Wildlife Depts.																						
Conservation investments undertaken in existing and new CMCAs	SLF, CSOs and Provincial Wildlife Depts.																						
Preparation of management plans for new PAs	Provincial Wildlife Depts.																						
Revision of METT baseline and monitoring changes for PAs	Provincial Wildlife Depts.																						
Capacity need assessment of the wildlife and forest department staff	SLF and Provincial Wildlife Depts.																						
Development of training modules/manuals	SLF																						
Conduct trainings for staff and others stakeholders	SLF and Provincial Wildlife Depts.																						
Develop syllabus and course contents for diploma course in ecosystem management	SLF																						
Arrange diploma courses in ecosystem management	SLF																						
Mapping hotspots and pathways of illegal activities	SLF																						
Data on poaching and illegal wildlife trade shared with law enforcement agencies	SLF																						
Implementation of law enforcement on IWT controls	Wildlife and law enforcement agencies																						

Establishment/strengthening of Valley Conservation Committees (VCCs).	SLF, CSOs and Provincial Wildlife Depts.																						
Mapping of socioeconomic and ecological profile and participatory resource assessments/surveys of the valleys	SLF , CSOs and Valley Conservation Committees (VCC)																						
Preparation of multi-year valley conservation plans	SLF, CSOs and VCCs																						
Endorsement of the valley conservation plans	Provincial Coordinating Committees																						
Implementation of the valley conservation plans, including sustainable management of 225,000 ha alpine pastures, 200,000 ha CMCAs, 1,000 ha degraded forests	VCCs																						
Design of community surveillance, monitoring and wildlife crime detection plans for 3 landscapes	SLF and CSOs																						
Mobilization of community groups in surveillance, monitoring and wildlife crime detection	SLF, CSOs and VCCs																						
Develop communication mechanism for information flow and management	SLF and CSOs																						
Develop sustainability plan for community surveillance, monitoring and wildlife crime detection and mobilize sustainable resource flows	SLF and Provincial Wildlife Depts.																						
Preparation of communication and awareness plans for each landscape	SLF and CSOs																						
Implementation of awareness programs	SLF, CSOs and Provincial Wildlife Depts.																						
Implementation of gender mainstreaming action plan	SLF and CSOs																						
Workshops to disseminate field lessons and inform policy	SLF and Provincial Wildlife Depts.																						
Design of Snow Leopard Brand Promotion programs and website	SLF and CSOs																						
Enhancement of existing database to include project best practices	SLF																						
Development of interprovincial and trans-boundary partnerships	SLF and MOCC																						
Implementation of interprovincial and trans-boundary partnerships	SLF and MOCC																						
Supervision, Monitoring and Evaluation																							

Monitoring social and environmental risks	SLF and UNDP																						
Supervision	UNDP																						
MTR tracking tool update	SLF																						
Final tracking tool update	SLF																						
Audits	UNDP																						
MTR Independent Review	UNDP																						
Final Project Review	UNDP																						

Annex 16

Monitoring Plan: The Project Manager will collect results data according to the following monitoring plan.

Monitoring	Indicators	Description	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Assumptions and Risks
Project objective To promote a landscape approach for the survival of snow leopard and its prey species by reducuing threats and applyiong sustainable land and forest management in critical habitats in Northern Pakistan	Indicator 1.Area of snow leopard habitat under integrated landscapes management[57]	At least 1,500,000[58] hectares effectively managed through participatory approaches	Regional Project Managers, consultation with community groups and remote sensing, GIS, ground surveys, inventories, etc.	Mid-term and end-of-project	Snow Leopard Foundation (in collaboration Provincial Forest and Wildlife Departments)	Management plan documents implementation status reports, Annual work plan completion reports, METTs	<u>*Assumptions:*</u> *-Local communities understand livelihood benefits and ecological security from cooperation with and sustainable management of landscape resources. Thus, they will participate in sustainable management and ecosystem restoration work.* *-The National and Provincial Governments consider it their priority to support integrated*
	Indicator 2 (Mandatory Indicator 1.3.2) Number of additional people benefiting from strengthened livelihoods through solutions for management of natural resources and ecosystem services	At least 4,000 households[59, 60] (25,000 people, 50% of which are women) directly benefit through sustainable resource management approaches	LPITs and consultation with community groups/participatory assessments, ethnographic records, community surveys, informant assessments	Annually	LPITs and Regional PMs	Valley Conservation Plans, Annual plan budget estimates and statement of expenditures. Survey records	

[57] As measured by (i) Effective and functional Provincial Coordination Committee with sector representation; (ii) Landscape Management Plans formalized and validated at provincial level; (iii) landscape effectively zoned with creation of CMCAs; (iv) community institutional arrangements in place for management of CMCAs; (v) partnership arrangements established with CSOs for collaborative actions in landscape.

[58] Based on the premise that about 25% of the area of the 3 landscapes would be effectively managed, including PAs, biodiversity rich areas, and community use areas.

[59] This constitutes about 30% of the HHs in the 17 target valleys

[60] Representing around 25,000 people (50% of which are women)

	Indicator 3 (Mandatory Indicator 2.5.1) Extent to which Institutional frameworks are in place for integration of conservation, sustainable natural resource use, control and management of wildlife crime and illegal wildlife trade and improved livelihoods into landscape planning and management	Multiple use and sustainable landscape approaches institutionalized by national legislative, policy, and institutional arrangements and planning and practice effected in three provinces	National PMU in consultation with Regional Project Managers	Mid-term and end-of-project	SLF supported by Independent Evaluations	National and Provincial Regulations; Coordination Committee meeting records; Independent Evaluation Reports	*planning of its landscape areas and implement target oriented activities with local communities to improve conservation and sustainable use of such resources.* *-The Provinces, CBOs and communities would work in close collaboration for preparation of landscape management frameworks* *<u>Risks:</u>* *-Natural disaster may affect the restoration work.* *-Lack of capacity in government and communities to meet obligations related to project.* *-Livelihood benefits from sustainable management may be low to give up current unsustainable practices* *-Conflicts over territorial issues between provincial and national entities could undermine efforts at promoting integrated planning approaches.*

Project Outcome 1 Improved management of snow leopard landscapes that integrates sustainable forest and land management and compatible conservation practice	Indicator 4: Level of institutional capacities for planning, implementation and monitoring integrated landscape plans as measured by UNDP landscape management capacity scorecard	At least 50% increase in UNDP Capacity Assessment Scores of existing baselines of: (i) National level-18 (ii) GB -18 (iii) AJK- 15 (iv) KP - 18	Regional Project Managers, Consultative meetings, interviews, monitoring data and surveys etc.	Annually	SLF in consultation with Provincial Forest and Wildlife Departments	Protected Area management plans, Annual approved budgets reports, expenditure statements, monitoring reports, etc.	*Assumptions* *-The national and provincial governments will develop appropriate legislative, policy, institutional and technical measures that facilitate integrated landscape planning and management in a timely manner.* *-Development strategies and management plans will be officially approved by Provincial governments with allocation of appropriate staff and funding for their implementation* *Risks:* *-Priorities of provincial governments and local communities might shift if development benefits* take long to manifest

	Indicator 5: Change in status of snow leopard and associated endangered species populations in landscapes	Stable or improved snow leopard and associated species populations in Northern Pakistan from existing baselines of Snow leopard population estimate at + 200 individuals in Northern Pakistan with associated species baselines[61] as follows: **Karakoram-Pamir LS**: Himalayan Ibex-4,900 Markhor -230 Blue Sheep – 750 Ladakh Urial -50 **Hindu Kush LS**: Markhor – 3,400 **Himalaya LS**: Musk Deer, Brown bear	Baseline and monitoring surveys of populations	Annually	Snow Leopard Foundation (in collaboration with State Forest and Wildlife Departments)	Survey and monitoring reports	*Assumptions:* *-SLF and provincial wildlife departments give high priority to monitoring of snow leopard and associated species* *-Adequate technical capacity and resources available for undertaking species monitoring* *Risks:* *-Catastrophic climatic events may greatly impact on snow leopard and associated species populations* *-Large-scale transboundary infrastructure developments would seriously impact on snow leopard and associated species habitat and species.*
Project Outcome 2 Increased representation of priority snow leopard ecosystems in Protected Area network	Indicator 6: Increase in extent of snow leopard habitat under PA network	At least 200,000 ha of additional priority snow leopard habitat, including 10,000 ha of high conservation value forests legally defined and included in PA resulting in 2.96 million tCO_2 over 10-year period	PA managers and Community groups/interviews, surveys, participatory workshops	Mid-term and end-of-project	SLF (in collaboration with Provincial Forest and Wildlife Departments)	New PA gazette notifications and management plans	*Assumption:* *-Adequate technical capacity available for undertaking preparation of management plans* *- Management plans will be officially approved by Provincial governments with allocation of appropriate funding for their implementation* *-The Provinces will take active part in developing the strategies and implementation using new*
	Indicator 7: Changes in Management Effectiveness of protected areas within landscape	Increase in METT score by at least of an average of 30 points from current baseline values of: Chitral Gol NP-30;	PA managers and Community groups/interviews, surveys, participatory workshops	Mid-term and end-of-project	SLF (in collaboration with Provincial Forest and	METT reports	

[61] Associated species where indicated will be verified and validated in Year 1, and where baseline values are unavailable (Himalaya LS) these will be determined in Year 1, and monitored subsequently

		Broghil NP – 12; Central Karokoram NP – 22; Qurumba NP- 13; Khunjerab NP -25; Musk Deer NP- N/A; Ghamot NP – N/A			Wildlife Departments)		*knowledge and skills provided by the project* *-Local communities are convinced that critical habitats in their vicinities will benefit livelihoods and ecological security to them and they will participate in conservation and restoration work.* *-Local community based institutions would establish an effective institutional mechanism to facilitate conservation outcomes* *<u>Risk:</u>* *-Administrative/political changes may undermine the implementation of the management plan strategies* *-Conflicts between national, provincial and local communities regarding management and access to natural resources may undermine integrated planning approaches*
	Indicator 8: Increase in number of management and financing plans for protected areas with adequate financial resources	At least 17 management and financing plans for existing and new critical protected areas (mainly CMCAs) developed, approved by government and operationalized with adequate financial support	Interviews with VCCs, PA and forest staff.	Annually	SLF (in collaboration with Provincial Forest and Wildlife Departments and VCCs)	Management and financing plans for CMCAs and annual budget plans	
	Indicator 9: Increase in number of forest and wildlife staff and community members actively engaged in wildlife crime monitoring and surveillance resulting in decrease of incidents of wildlife crime.	(i) At least 200 forest and wildlife trained and actively enforcing environmentally friendly management practices and wildlife crime prevention measures in snow leopard habitats (ii) At least 60 community members trained and actively engaged in wildlife crime monitoring and surveillance resulting in	Training interviews and consultations; Community interviews and consultation meetings,	Annually	Provincial Forest and Wildlife Departments	Training and Training evaluation reports; Community reports, Project progress reports, Wildlife Crime Monitoring reports	*<u>Assumption:</u> The Wildlife and Forest Department accepts responsibility for allocating staff to take responsibility as new crime surveillance and prevention and provide necessary funding for maintaining these programs* *The village youth and community workers are*

		25% decrease in incidents of wildlife crime from baseline to be developed in Year 1					*willing to take up the roles of anti-poaching watchers.* *Risk: The difficult terrain and climatic conditions may prevent the maintaining of adequate interest and commitment to crime surveillance and enforcement.*
Project Outcome 3 Participatory conservation in the targeted landscape enhanced to reduce human-snow leopard conflicts and improve livelihoods of community.	Indicator 10: Number of Valley conservation plans implemented with GEF and non-GEF funds	Valley conservation plans implemented in at least 17 valleys	Community interviews and consultation meetings,	Annually	Regional Project Managers	Valley Conservation Plans, Implementation progress reports	*Assumption: The Provincial Forest Departments take active part in developing strategies and implementation.* *Adequate degraded pasture lands available for restoration and rehabilitation* *Local community based institutions are convinced of merits of restoration and management of natural ecosystems* *Risk: -* *Lack of capacity in government and communities to meet obligations related to project.* *Conflicts between public institutions and local communities regarding access to natural resources, constrain designation of new critical wildlife habitats.* *Pastoralist may not want to participate because of lack of alternative livelihoods and long*
	Indicator 11: Average increase in community incomes from sustainable livelihood and resource management activities	Implementation of sustainable livelihood, NRM and wildlife deterrents systems ensures at least 15% average increase in incomes of participating communities from current levels, of which at least 30 % of households include women beneficiaries	Community consultations, participatory evaluations and monitoring,	Annually	Regional Project Manager, LPITs in consultation with VCCs	Annual valley plans, Annual Project Progress Reports, Field survey reports	
	Indicator 12: Reduced incidences of human-wildlife conflict as indicated by: (i) Decrease in livestock loss to snow-leopard and other predators; (ii) Reduce incidence of retaliatory killing of snow leopard and other predators	(i) At least 25% decrease in livestock lost/year to wildlife (ii) At least 50% decrease in retaliatory killings of snow leopard and other predators	Community groups, participatory evaluations and monitoring,	Annually	Regional Project managers using independent evaluations	Community livestock reports, Independent evaluation reports	

							gestation period for recovery of grazing lands *Delays in payment of compensation may result in community disengagement from such programs*
Project Outcome 4 Implementation, upscaling and replication of project approaches supported by effective knowledge management and gender mainstreaming	Indicator 13: Number of best practice conservation and sustainable natural resource management being implemented	At least 10 best practices of sustainable grazing and forest use, ecotourism, human-wildlife conflict management, financial instruments for livestock predation resolution, gender mainstreaming being up-scaled in 5 additional valleys with non-project funding.	Participatory assessments, interviews, review workshops	MTR and Project Completion	MOCC and SLF National Project Management	Best practice documents and proceedings of dissemination events and implementation reports	*Assumption:* *-Stakeholders willing to actively participate in the review process.* *-Project management will be able to identify, document and disseminate the best practices* *-Mid Term Review and End of Project Evaluation of the project will also contribute to identifying the best practices* *-Best practices on sustainable resource management readily available to resource users* *Risks:* *-Government priorities may change from due to political pressure from resource users* *-Actions among the assorted agencies and NGOs remain uncoordinated* *-Community diversity will not be a hindrance to outreach activities* *-Changing international political climate may constraint trans-boundary collaboration*
	Indicator 14: Increase in awareness of conservation and sustainable use and threats to snow leopard and biodiversity	At least 50% of participating households (at least 40% of households include women beneficiaries) in landscapes aware of conservation, sustainable resource use and wildlife crime prevention benefits	Household attitudinal surveys	Annually	LPITs	Attitudinal survey reports	
	Indicator 15: Number of effective inter-provincial or trans-boundary collaboration mechanisms negotiated and implemented	At least 3 inter-provincial collaborative agreements negotiated, joint patrolling and information regarding poaching and IWT shared to improve species conservation and reduce poaching, and trans-boundary agreements reached with at least two neighboring countries for sharing of information on IWT and genetic	Interviews, consultations,	Annually	MOCC	MOU's and progress reports	

		composition of snow leopard populations					
Mid-term GEF Tracking Tool (if FSP project only)	N/A	Completed in timely fashion	Standard GEF Tracking Tool available at www.thegef.org Baseline GEF Tracking Tool included in Annex.	After 2nd PIR submitted to GEF	Snow Leopard Foundation	Completed GEF Tracking Tool	*Assumption: MOCC and Provincial governments commitments to assessment*
Terminal GEF Tracking Tool	N/A	Completed in timely fashion	Standard GEF Tracking Tool available at www.thegef.org Baseline GEF Tracking Tool included in Annex.	After final PIR submitted to GEF	Snow Leopard Foundation	Completed GEF Tracking Tool	*Assumption: MOCC and Provincial governments commitments to assessment*
Mid-term Review (if FSP project only)	N/A	Completed in timely fashion	To be outlined in MTR inception report	Submitted to GEF same year as 3rd PIR	Independent evaluator	Completed MTR Report	*Assumption: MOCC and Provincial governments commitments to assessment*
Environmental and Social risks and management plans, as relevant.	N/A	Completed in timely and diligent manner	Updated SESP and management plans	Annually	Project Manager UNDP CO	Updated SESP	*Assumption: Provincial governments recognize and committed to manage social and environmental risks*

ANNEX 17

Evaluation Plan

Evaluation Title	Planned start date Month/year	Planned end date Month/year	Included in the Country Office Evaluation Plan	Budget for consultants[62]	Other budget (i.e. travel, site visits etc.)	Budget for translation
Terminal Evaluation	March 30, 2023 3 months before operation closure	September 30, 2023 To be submitted to GEF within three months of operational closure	Mandatory	USD 40,000	Included	USD 5,000
			Total evaluation budget	USD 45,000		

[62] The budget will vary depending on the number of consultants required (for full size projects should be two consultants); the number of project sites to be visited; and other travel related costs. Average # total working days per consultant not including travel is between 22-25 working days.

Annex 18

Complementary CSO Activities in Project Landscapes

Name of NGO/CSO	Activities	Relevance to GEF project
WWF Pakistan "Saving Wetlands Sky High Program" "Community-Based conservation of Snow Leopards and Improved Watershed Management" (USAID funded) "Pakistan Wetlands Project"	Working in Snow Leopard landscapes support: • Livestock vaccinations; • Corral improvements; • Livestock breed improvements; Fodder cultivation on barren lands; • Afforestation; • Community mobilization; Education and awareness campaigns; and • Research on Snow Leopard.	Complements Component 3 and 4
Wildlife Conservation Society	Major activities include: • Training community rangers to monitor wildlife • Community-based conservation for GB • Conservation and Development plan for Nanga-Prabat and Misghar Conservancies • Trans-boundary program with Wakhan region of Afghanistan	Complements Component 2, 3 and 4
Mountain Area Conservancy Fund (MACF) The MACF was only recently operationalized (12 years after the closure of MACP)	Major activities include: • Financial support to implement conservation and wild resource use in the MACP conservancy	Complements Component 3.
Baltistan Wildlife Conservation and Development Organization	Mainly working in the Baltisan region in supporting following activities • Community conservation program in Rondo valley • Resolution of wildlife-human conflict in 17 villages by providing community-based insurance and compensation programs • Snow leopard population studies based on genetic markers • Awareness campaigns in 23 villages • Vaccination of 20,000 livestock head, construction of corrals, predator-proof fencing and training on improved herding practices • Micro-insurance schemes	Complements Component 1, 3 and 4
Himalayan Wildlife Foundation	Works in AJK and Northern Areas in • Community livelihood development	Complements Component 1 and 2

	• Support and advocacy for rationalization of policy and legislative frameworks • Establishment and development of Deosai National Park in GB	
Snow Leopard Foundation	Snow Leopard Foundation has been involved in Northern Pakistan since 1990s, in particular in: • Snow leopard studies on status, distribution, abundance occupancy, and threat assessment • Community-based programs in 21 priority sites in Hindu Kush and Karakoram ranges • Training of government and NGO staff on snow leopard related research activities • Support for degree and post-degree research programs	Complements Component 1 and 3
Aga Khan Rural Support Program	Programs include the following: • Community rural development activities • Natural resources and social development programs • Village infrastructure development programs (e.g. micro-hydro schemes, village infrastructure and micro-financing	Complements Component 3
Aga Khan Planning and Building Service	Programs include the following: • Drinking water and sanitation • Environmentally friendly home improvements • Sustainable livelihoods	Complements Component 3
Mountain and Markets	Mainly focusing on: • Sustainable harvesting and marketing of medicinal plants	Complements Component 3
Ev-K2-Cnr Chartered Association	Promotes the following activities: • Development of the Management Plan of CKNP and establishment of Park Directorate • Management and operational plan for Deosai National Park • Conservation awareness • Valley conservation planning • Promotion of ecotourism	Complements Component 2, 3 and 4

Annex 19

UNDP Project Quality Assurance Report

-See separate file-

Annex 20

UNDP Risk Log

*-See separate file_*

Annex 21

Results of capacity Assessment of Project Implementing partner and HACT micro-assessment

-See separate file-

Annex 22

Any Additional Agreements, such as cost sharing agreements, project cooperation agreements signed with NGOs, letters of financial commitments, LOA with government in the case of DPCs

-See Separate Annexes (PCA)-

Annex 23

Summary of Key Consultants and Contractual Services Financed by the Project and Tasks & Qualifications[63]

Consultancy assignment	Main tasks	Required Qualification	W/Man months/ days	Total Costs (USD)
International				
Training Needs Consultant: Training needs assessment (TNA), module and course content development for wildlife and forest departments	Training needs assessment, ❖ Carry out stakeholder analysis on roles and responsibilities of the wildlife and forest departments officials in different project initiatives; ❖ Undertake desk research and analyze all necessary sectoral policy and legal documents and training materials to fully understand the current capacity of wildlife and forest departments officials and existing training resources available for training in different project initiatives as per current training guidelines of the UNDP, particularly as related to the responsibilities of the concerned officials; ❖ Assess training needs in different project initiatives after consultation with sectoral heads and concerned officials using techniques like survey questionnaires, key informant interview and group discussion; ❖ Produce a training needs assessment report based on the above activities, which includes but not limited to a desk review, situation report, stakeholders mapping, competency requirements and competency gap based on the assessment. The report shall recommend possible options for: (i) Priority training needs in project initiatives; (ii) Selection of training sites/venues; (iii) Schedule for trainings and proposed training agenda; (iv) Training content; (v) Suitable training delivery method; (vi) Identify key resource persons and participants; (vii) Pre- and post-training evaluations and impact assessment; ❖ Based on this assessment, develop a comprehensive 6-months training module in English language for wildlife and forest departments officials on monitoring of indicator species, sustainable pasture and forest management and land restoration; ❖ Share the draft training module with key technical experts of the Project and concerned departments for their review; incorporate comments and finalize the module; ❖ Prepare course contents for the 6-month training course work and decide duration and contents of on-the-job training; ❖ Share the draft training course and on-the-job contents with key technical experts of the Project and concerned departments for their review; incorporate comments and finalize the draft training course and on-the-job contents.	Masters in Wildlife, Forestry or related fields, at least 5 years' experience working similar assignments for international organizations or public sector, previous working experiences with the UNDP is an advantage; Intensive knowledge in research and assessments; proven experience in development cooperation field especially in training and/or developing training curriculum/manual and course contents; knowledge of gender dimensions and community participation; Analytical, computer writing and verbal communication skills	2 months	30,000

[63] Briefly described, the detailed TORs will be developed during project implementation

National				
Landscape Planning Consultancy: Assess and mapping of snow leopard and associated species, threats and development of landscape management plan	❖ Assess, analyze socioeconomic values of the three landscapes and map biodiversity including snow leopard and associated species; ❖ Collect and analyze ecological information and draw maps, and through a consultative process with local communities and relevant stakeholders, zoning the landscapes into: (i) priority conservation area for the conservation of biodiversity, in particular for snow leopard and other endangered species and their habitat and dispersal and biological connectivity, corridors and crossings; and (ii) multiple use areas for sustainable natural resource management and community resource use, including community based conservation and forest management, range management and climate risk management; ❖ Identify major threats to snow leopard & associated species & the associated ecosystem in each core and multiple use areas within the landscapes; ❖ Propose management prescriptions for each core and multiple zones; ❖ Study guidelines and procedures of GSLEP; ❖ Develop landscape management plans based on guidelines and procedures of GSLEP in consultation with stakeholders; ❖ Arrange stakeholder workshops for the purpose; ❖ Draft and validate the landscape management plans in validation workshop of stakeholders.	Institutions/Firms with more than five years experiences in protected area and biodiversity management and conservation planning, GIS, remote sensing, documentation of wildlife and natural resources, environmental management, etc.; knowledge of gender dimensions and community participation; Analytical, computer writing and verbal communication skills	400 days	60,000
Research Design Consultant: Design of research and monitoring framework and implementation plan to monitor changes in snow leopard and associated species populations	❖ Design of research and monitoring framework on priority conservation and development priorities to conduct baseline surveys and monitor changes in status of snow leopard, wild prey and associated species and habitats that will help guide and inform future management of the landscapes, and ❖ Implementation plan defining methodology, monitoring frequency, and staffing and financial resource requirements to monitor changes in snow leopard and associated species populations ❖ Share the draft framework and plan with key technical experts of the Project and concerned departments for their review; incorporate comments and finalize the draft framework and plan.	Institutions/Firms with more than five years experiences in protected area and biodiversity management and conservation planning, GIS, remote sensing, designing of research and monitoring framework and implementation plan, etc; knowledge of gender dimensions and community participation; Analytical, computer writing and verbal communication skills	30 days	4,587
Snow Leopard Monitoring Consultancy: Validate existing snow leopard and prey populations and monitor changes in Snow	❖ Conduct fifteen studies of camera trapping and twenty studies for assessment of wild prey in collaboration with provincial wildlife departments, other conservation organizations and local communities in the 3 landscapes in the three provinces/ territories targeted under the project to validate existing estimates of snow leopard and prey species and	Independent consultants and students with Bachelor's degree in wildlife, forestry, or natural resource	1,600 days	240,000

leopard and prey population over time each year for genetic diversity, limitations etc. through camera trapping, assessment of wild prey & genetic analysis.	❖ Monitor population changes in Snow leopard and prey population over time (at least each year, during 5 years of project life) for understanding genetic diversity and genetic limitations etc. of snow leopard and prey populations; ❖ Take at least 500 Mitochondial DNA samples and conduct genetic analysis/ gene sequencing to resolve taxonomic uncertainties and evolutionarily significant units ❖ Validate existing resource use, gene flow, and landscape level population structure of snow leopards ❖ Determining diversity in snow leopards and gene flow across landscapes to help wildlife managers protect biodiversity by identifying a series of conservation units;	management or related fields and more than five years experiences in protected area and biodiversity management and conservation planning, Monitoring of wildlife population especially snow leopard and prey population, and gene flow; knowledge of gender dimensions and community participation; Analytical, computer writing and verbal communication skills		
HWC Management consultancy: Improve understanding of human-wildlife conflict, poaching, trade etc. to develop strategies for management	❖ Collect and analyze necessary data to understanding of human-wildlife conflict, poaching, trade etc.; ❖ Develop intelligent information gathering system for collection of information on poaching and wildlife trade within the landscapes and guidelines for developing close liaison with police, security and custom personnel and others for regular review and enforcement; ❖ Establish baselines and improve understanding in terms of o Poaching and wildlife trade, o Wildlife-human and wildlife-livestock conflict, etc. in each of the three landscapes to develop strategies for management. ❖ Investigate existing routes, past and current trends of illegal wildlife trade, middle men involved and elements dealing with sale of illegal arms, snares, traps etc. and develop strategies for deterring such activities; ❖ Map hotspots and pathways of illegal activities.	Institutions/Firms with more than five years experiences in protected area and biodiversity management and conservation planning, designing of research and monitoring framework, human-wildlife conflict, poaching, trade etc.; knowledge of gender dimensions and community participation; Analytical, computer writing and verbal communication skills	133 days	20,000
Wildlife-Livestock Management Consultancy: Study on competition for food between prey species & domestic livestock	❖ Study competition for food between prey species & domestic livestock in the three landscapes in the three provinces/ territories; ❖ Assess its impacts on the socio-economic conditions of the local communities; ❖ Suggest measures to improve the feeding of domestic livestock	Institutions/Firms with more than five years experiences in protected area and biodiversity management and conservation, GIS, remote sensing, designing of research and monitoring	93 days	14,000

		framework, human-wildlife conflict, poaching, trade etc.; knowledge of gender dimensions and community participation; Analytical, computer writing and verbal communication skills		
<u>Rangeland Management Consultancy:</u> Assess resilience and carrying capacity of rangelands, pasture and retrogressive factors such as climate change impacts on the integrity, sustainability and resilience of fragile mountain ecosystems and develop rangeland, pasture and livestock management strategy and plan	❖ Assess resilience and carrying capacity of rangelands & pasture; ❖ Assess retrogressive factors such as climate change impacts on the integrity, sustainability and resilience of fragile mountain ecosystems ❖ Develop rangeland, pasture and livestock management strategy and plan through following steps: o Assess and map biodiversity including snow leopard and associated species and socioeconomic values of the area; o Assess soil type and its analysis; o Assess vegetation cover and types of vegetation in the pastures and rangelands; o Identify major threats to snow leopard and associated species and the associated ecosystem in the area; o Divide the area into zones based to ecological conditions; o Propose rangeland, pasture and livestock management strategy for different zones in the area; o Develop rangeland, pasture and livestock management plan based on above parameters in consultation with stakeholders; o Arrange stakeholder workshops for the purpose; o Draft and validate the strategy plans in validation workshop of stakeholders.	Institutions/Firms with more than five years' experience in protected area and forest management and conservation, GIS, remote sensing, designing of research and monitoring framework, human-wildlife conflict, poaching, trade etc.; knowledge of gender dimensions and community participation; Analytical, computer writing and verbal communication skills	200 days	30,000
<u>Documentation Consultant:</u> Documentation of best practices	❖ Review through relevant literature on best practices in biodiversity conservation particularly snow leopard & its prey species in Pakistan and neighboring countries; ❖ Develop a situation analysis of ongoing at least 10 best practices implemented by development and implementing partners including NGOs in the biodiversity conservation particularly snow leopard and its prey species; ❖ Document best practices in terms of: (i) Development issues addressed (biodiversity conservation and Climate change mitigation and adaptation); (ii) Benefits and impacts at household and community level (production, economic, ecological and socio-cultural); and (iii) Key factors for adoption. ❖ Work out emerging trends of change in practices and new opportunities for adoption in the project areas. ❖ Share the draft report with key technical experts of the Project and concerned departments for their review; incorporate comments and finalize the draft report.	Independent consultants with Masters' degree in wildlife, forestry, agriculture or natural resource management or related fields and more than five years experiences in protected area and biodiversity management and conservation, Monitoring of wildlife population especially snow leopard and prey population, and gene	200 days	30,000

		flow; knowledge of gender dimensions and community participation; Analytical, computer writing and verbal communication skills		
Sustainable Plan Development Consultant: Develop sustainability plan	❖ Literature review to study sustainability plans of different interventions related to identified project interventions; ❖ Formulation of Development Vision for different project interventions and project as a whole & Conceptual sustainability Plan; ❖ Initial Environmental Examination (IEE) of different project interventions; ❖ Develop project Implementation Scheme and Business Plans of different project interventions; ❖ Share the draft plan with key technical experts of the Project and concerned departments for their review; incorporate comments and finalize the draft plan.	Independent consultants with Masters' degree in business administration, economics, sustainable development, wildlife, forestry, agriculture, natural resource management or related fields and more than five years experiences in sustainable development, business planning, protected area and biodiversity management and conservation, GIS, remote sensing, Monitoring of wildlife population especially snow leopard and prey population, and gene flow; knowledge of gender dimensions and community participation; Analytical, computer writing and verbal communication skills	100 days	15,000
PA management effectiveness consultant: Assess existing PAs in the model landscapes for their coverage and effectiveness to support endangered species such as snow leopard and revisit PA boundaries	❖ Assess adequacy of existing PAs in the model landscapes for their coverage and effectiveness to support endangered species such as snow leopard and other key species; ❖ Conduct habitat suitability modeling; ❖ Study PA boundaries and its surroundings' species of flora and fauna and habitat; ❖ Revisit PA boundaries based on ecological information	Institutions/Firms with more than five years' experience in GIS, remote sensing, protected area and forest management and conservation, designing of research and monitoring framework, human-wildlife conflict,	100 days	15,000

based on ecological information		poaching, trade etc.; knowledge of gender dimensions and community participation; Analytical, computer writing and verbal communication skills		
Community PA Management Plan Consultant: Preparation of participatory conservation management plans, for existing and new Community managed PAs, HCVF's, corridors and KBAs and tested under various governance, management and enforcement regimes	❖ Assess and map biodiversity including snow leopard and associated species and flora and socioeconomic values of the PAs; ❖ Identify major threats to snow leopard and associated species and the associated ecosystem in each PA; ❖ Propose management prescriptions for 60 existing and new Community managed PAs; ❖ Develop participatory conservation management plans, for existing and new Community managed PAs, HCVF's, corridors and KBAs based on guidelines and procedures of sustainable forest management in consultation with stakeholders; ❖ Arrange stakeholder workshops for the purpose; ❖ Draft and validate the participatory conservation management plans in validation workshop of stakeholders.	Institutions/Firms with more than five years' experience in protected area and biodiversity management and conservation planning, GIS, remote sensing, documentation of wildlife and natural resources, environmental management, etc.; knowledge of gender dimensions and community participation; Analytical, computer writing and verbal communication skills	666 days	100,000
Wildlife Crime Assessment Consultant: Develop wildlife monitoring tools for crime investigation	❖ Literature review and meetings with relevant stakeholders in the 3 landscapes and use of GIS and remote sensing to prepare wildlife crime baseline report; ❖ Develop wildlife monitoring tools and user friendly crime mapping software for crime investigation; ❖ Share the draft wildlife monitoring tools for crime investigation with key technical experts of the Project and concerned departments for their review; incorporate comments and finalize the participatory monitoring tools; ❖ Develop reporting formats and communication systems for information flow and management to assist the communities in wildlife crime surveillance and monitoring; ❖ Identify equipment and other relevant support required for surveillance and monitoring of wildlife crime	Independent consultants having Masters' degree in wildlife, forestry, or natural resource management and more than five years experiences in protected area and biodiversity management and conservation planning, Monitoring of wildlife population especially snow leopard and prey population, and gene flow; knowledge of gender dimensions and community participation;	33 days	5,000

		Analytical, computer writing and verbal communication skills		
Community Conservation strategy Development Consultant; Develop format and guidelines of Valley Conservation plans	❖ Literature review to identify best Valley conservation plans having greatest impact in the relevant valleys, developed in Pakistan or neighboring countries; ❖ Develop format and guidelines of Valley Conservation plans in consultation with relevant departments and local communities; ❖ Share the draft formats and guidelines with key technical experts of the Project and concerned departments for their review; incorporate comments and finalize the formats and guidelines.	Institutions/Firms with more than five years experiences in protected area and biodiversity management and conservation planning, GIS, remote sensing, documentation of wildlife and natural resources, environmental management, etc.; knowledge of gender dimensions and community participation; Analytical, computer writing and verbal communication skills	33 days	5,000
Conservation Plan Development Consultant: Developing valley conservation plans	❖ Meetings with Valley Conservation Committees (VCCs) to discuss locally perceived developmental and resource management needs and identify key community activists to act as motivators for conservation and play a strong role in institutional networking to realize the objectives of ecosystems management; ❖ Engaging community members through VCCs in the planning exercise leading to the development of valley conservation plans (VCPs), for overseeing implementation of the VCPs, and for building and maintaining cluster-level linkages at the landscape level to ensure wider ecosystem management. Women and disadvantaged communities will be specially targeted, wherever possible. ❖ Assess and map biodiversity including snow leopard and associated species, flora, socioeconomic and ecological values of the 19 valleys; ❖ Assess soil, water, natural resource management and agricultural conditions and its threats in each valley in consultation with local sectoral departments and communities; ❖ Identify major threats to snow leopard and associated species and the associated ecosystem in each Valley; ❖ Identify extent of specific conservation, sustainable natural resource use and alternative livelihood needs. Key stakeholders including government line departments and local communities will be involved during assessment and mapping exercises; ❖ Provide training to VCC members and other stakeholders in conservation management planning techniques;	Institutions/Firms with more than five years experiences in protected area and biodiversity management and conservation planning, GIS, remote sensing, documentation of wildlife and natural resources, environmental management, etc.; knowledge of gender dimensions and community participation; Analytical, computer writing and verbal communication skills	253 days	38,000

	❖ Support local CSOs/VCCs to conduct participatory resource assessments/surveys and planning to be used as the basis for identifying the problems and conservation needs of each valley, particularly in terms of SLM and SFM; ❖ Provide backstopping/assistance in GIS-based mapping by collecting and analyzing remote sensing data and satellite imageries. Train local communities and local level stakeholders and involved them in ground-truthing of the maps; ❖ Review national and regional best SLM and SFM practices in restoration of alpine and sub-alpine pasture and sub-alpine and temperate forests for snow leopard and wild prey conservation; ❖ Propose management prescriptions for conservation of natural resources and production systems in 17 valleys; ❖ Institute participatory community-based planning processes to define options (based on community preferences) for improving conservation, sustainable natural resource use and livelihood outcomes and develop multi-year (at least 5 years) participatory Valley conservation plans for 17 valleys based on guidelines of Valley conservation plans to provide the road map for project support and be owned by the VCCs and local line agencies. ❖ Arrange stakeholder workshops for the taking inputs of stakeholders including communities. The plans will include valley level plans and village and community groups level micro-plans containing interventions focusing on biodiversity conservation, SLM and SFM, agroforestry and soil conservation practices, and community protection and maintenance measures; establishment and maintenance of a suitable mix of protection, herding and other sustainable measures such as social fencing to reduce grazing, wood collection and forest product extraction pressures; zoning for conservation and sustainable resource use; management prescriptions for various components of the protected area; options of livelihood improvement and diversification and effective monitoring and law enforcement governing wildlife poaching and trade; ❖ Draft and validate the participatory conservation management plans in validation workshop of stakeholders. ❖ Take necessary measures to get endorsement of the valley conservation plans by government agencies and presented to the District Conservation Committee (DCC) forums to evaluate and get them endorsed by the component government authorities			
<u>Community Fund Management Consultant:</u> Developing guidelines for establishment and utilization of revolving funds at valley level	❖ Review the project document of Pakistan snow leopard and ecosystem protection project to understand the concept of revolving fund and the outputs to be achieved from the fund; ❖ Literature review to identify the revolving funds already operational in Pakistan and the success of these funds; ❖ Draft guidelines for establishment and utilization of revolving funds as revolving sources of funding to support activities beyond the life of the project at 19 valleys in the 3 landscapes of the project in consultation with local communities; Draft check	Independent consultants with Masters' degree in finance, business administration, economics, sustainable development, wildlife, forestry, agriculture, natural resource management or related	33 days	5,000

	disbursement, check and balance, accounting, management information, monitoring and auditing system for the funds; ❖ Share the draft formats and guidelines with key technical experts of the Project and concerned departments for their review; incorporate comments and finalize the formats and guidelines for establishment and utilization of revolving funds at valley level.	fields and more than five years experiences in sustainable development, business planning, protected area and biodiversity management and conservation, GIS, remote sensing, Monitoring of wildlife population especially snow leopard and prey population, and gene flow; knowledge of gender dimensions and community participation; Analytical, computer writing and verbal communication skills		
<u>Value Chain Development Consultant:</u> Identify potential for value chain of crops and enterprises	❖ Identify crops and enterprises in the project areas in the three landscapes having maximum potential of value chain to increase income of the farmers; ❖ Identify different actors in the value chain, systemic constraints, and value shares accrued at different stages on the chain. ❖ Identify and analyze the value chain options and methods for the identified crops and enterprises; ❖ Identify constraints that limit market expansion. ❖ Estimate market potential of the prioritized products within the value chains. ❖ Identify local/external end markets including cross-border trade for the identified products. ❖ Assess the utility and potential for improving market efficiency through collective marketing and propose ways of achieving this; ❖ Recommend process for institutional formation to facilitate collective marketing perspective for the prioritized products. ❖ Suggest improvements in the value chain system to ensure direct linkages of the farmers with the major markets and increased incomes from their products.	Independent consultants with Masters' degree in business administration, economics, sustainable development, wildlife, forestry, agriculture, natural resource management or related fields and more than five years experiences in marketing of agricultural products, sustainable development, business planning, community participation; Analytical, computer writing and verbal communication skills	66 days	10,000
<u>Wildlife Surveillance and Monitoring Consultant:</u> Design of community based surveillance,	❖ Design community based surveillance, monitoring and crime detection plans for each landscape; ❖ Design of community based surveillance, monitoring and wildlife crime detection strategy involving mobilization of community groups for wildlife crime surveillance and monitoring; provide equipment and other relevant support for	Institutions/Firms with more than five years experiences in protected area and biodiversity	53 days	8,000

monitoring and wildlife crime detection strategy	surveillance and monitoring and communication mechanism information flow and management system; ❖ Design of long-term plan for sustaining community surveillance and monitoring system beyond the project in consultation with the local communities; and ❖ Engagement and extension of financial support to community wildlife guards as temporary basis	management and conservation planning, Monitoring of wildlife population especially snow leopard and prey population, and gene flow; knowledge of gender dimensions and community participation; Analytical, computer writing and verbal communication skills		
Communication Consultant 1: Provincial/ Territorial communication program	❖ Conduct meeting with National Program Manager and Regional Program Coordinators to chalk out a Communication program of activities for each of the provinces/ territories as per communication strategy of the project; ❖ Undertake different activities planned under the communication program for the Khyber Pakhtunkhwa, Gilgit Baltistan and AJK in collaboration with project stakeholders including line agencies, NGOs and local communities; ❖ Undertake Provincial/ Territorial communication program in such a way to achieve project mid-term targets of "At least 20% of participating households have good awareness of conservation, sustainable natural resource use and wildlife crime prevention benefits"; and end of project target of "At least 50% of participating households in landscapes aware of conservation, sustainable resource use and wildlife crime prevention benefits"	Institutions/Firms with more than five years experiences in implementing communication program particularly related to protected area and biodiversity management and conservation planning, Monitoring of wildlife population especially snow leopard and prey population, and gene flow; knowledge of gender dimensions and community participation; Analytical, computer writing and verbal communication skills	46 months,	210,000
Communication Consultant 2: National communication program	❖ Conduct meeting with National Program Manager to chalk out a Communication program of activities for the federal component as per the requirements of project document and needs of the stakeholders as per communication strategy of the project; ❖ Undertake different activities planned under the communication program for the federal component of the project in collaboration with project stakeholders including line agencies, NGOs and local communities; ❖ Provide necessary assistance for Provincial/ Territorial communication program as required by NPM.	Institutions/Firms with more than five years experiences in implementing communication program particularly related to protected area and biodiversity management	6 months,	30,000

		and conservation planning, Monitoring of wildlife population especially snow leopard and prey population, and gene flow; knowledge of gender dimensions and community participation; Analytical, computer writing and verbal communication skills		
<u>Conservation Policy Consultant:</u> Policy level assessments	❖ Conduct assessment of current sectoral policies related to project initiatives at the national and provincial level and give recommendations regarding the following actions: ❖ Procedures and processes for identification, setting aside and management of Community managed conservation areas (CMCAs) based on ecological principles; ❖ Methodology for integrating community participatory grazing or sustainable NTFP and agro-forestry-pastoral systems into the protected area and forest management planning process; ❖ Procedures for assessment of trade-offs between conservation and economic use: ❖ Guidelines for management of mass tourism in conservation areas; and ❖ Identification and supporting value addition products and services as incentives for conservation, etc.	Institutions/Firms with more than five years experiences in protected area and biodiversity management and conservation planning and policy formulation and assessment, GIS, remote sensing, documentation of wildlife and natural resources, environmental management, etc.; knowledge of gender dimensions and community participation; Analytical, computer writing and verbal communication skills	133 days	20,000

Annex 24

UNDP Capacity Development Scorecard

(A) National Level

Capacity Result / Indicator[64]	Staged Indicators	Score	Comments	Next Steps	Contribution to which Outcome
CR 1: Capacities for engagement					
1.1. Degree of legitimacy/ mandate of lead environment organizations	Authority and legitimacy of lead organization responsible for environmental management recognized by stakeholders	**3**	The National Implementing agency i.e., Ministry of Climate Change, Government of Pakistan is the highest and legitimate authority for overseeing and coordinating biodiversity, sustainable land management and climate change related activities at national level. Similarly the Province/Territorial Forest and Wildlife Departments are the mandated agencies for forest and wildlife conservation.	Constitution and early notification of a National Project Steering Committee and Provincial Coordinating Committees under the leadership of the mandated agencies with clear Terms of Reference would help in supervision, oversight, monitoring and ensure project outcomes are met.	All
1.2 Existence of operational co-management mechanisms for rangeland or forest management	Some co-management mechanisms between government and communities are formally established through legal concessions, etc. Co-management mechanisms for joint use of community lands exist at most of the areas.	**1**	Provincial level operational co-management arrangements within departments and between the department and the community exist, but collaboration is limited. Local village co-management mechanisms, although existing to some extent are weak and unstructured	Coordination and convergence of sector agency programs for an integrated conservation and development of the identified project landscapes and co-management would be established through (i) Provincial/Landscape level multi-sectoral, multi-stakeholder coordination committees; (ii) definition of collective roles and responsibility of partnerships for conservation and livelihoods and signing of agreements;(iii) convergence of programs and	1 and 3

[64] All capacity result/indicators follow standard template

				resources for conservation and socio-economic outcomes at landscape level	
1.3. Existence of cooperation with stakeholder groups for land and forest management, biodiversity conservation & livelihood initiatives	Stakeholders are identified, but their participation in decision-making is limited	**1**	In some of the PAs there is resentment among the buffer zone villagers over rights to extraction of bio-resources and livestock grazing. Their involvement and participation in the decision-making varies from site to site.	Based on landscape level collaborative planning efforts, institutional arrangements to engage local stakeholders and build commitment and ownership would strengthen cooperation through appropriate incentive mechanisms such as through (i) participation of stakeholders in landscape and valley planning and decision-making; (ii) allocation of roles and responsibilities to different stakeholders; (iii) agreements with communities for valley level conservation planning and wildlife crime surveillance and monitoring and (iv) investment support for sustainable grazing and livelihood improvements.	3
CR 2: Capacities to generate, access and use information and knowledge					
2.1. Degree of Environmental awareness of stakeholders	Some stakeholders are aware about environment issues but not about most of the possible solutions [65]	**1**	Degree of environmental awareness among stakeholders is low at local level, and most local stakeholders are unaware of the linkages between unsustainable practices in the landscape and the productivity of their grazing, forestry and agricultural practices and lack of incentives or knowledge to participate in resource solutions. At Province and national levels, awareness is better on account of access to education and media.	Local stakeholders especially the Valley Conservation Committees (VCCs) and other CBOs require tailored environmental awareness to help create awareness of linkages between their actions and environmental degradation as well as revitalization of their traditional ecological knowledge so as to mitigate the impacts of environmental changes. This would entail (i) environmental outreach ; (ii) skills developed for sustainable ; resource use; and (iii) increased emphasis on traditional practices and products	**3 and 4**

[65] This indicator is slightly modified from standard template. The standard template ranking are as follows: Stakeholders are not aware about global environmental issues and their related possible (0); Some stakeholders are aware about environment issues but not about the possible solutions (1); Stakeholders are aware about global environment issues and the possible solutions but do not know how to participate (2) and Stakeholders are aware about global environment issues and are actively participating in the implementation of related solutions (3)

2.2. Access and sharing of environmental information by stakeholders	The environmental information needs are identified but the information management infrastructure is inadequate	**1**	Landscape sites are remotely located, hence there is limited access and sharing of environmental information among the site managers and local stakeholders. Further there is no comprehensive informational sources developed at the national level, provincial or local level on good practices and experiences on sustainable grazing and resource extraction practice, sustainable harvest regimes for NTFPs, traditional cultivation practices etc. Hence promotion of sustainable practice remain under capacitated as existing knowledge and information will not be readily accessible to all stakeholders and no comprehensive source of information exist.	Development and implementation of communication strategy for improving access to information and sustainable resource management practice; and documentation and dissemination of lessons and best practice. Secondly, policy analysis and knowledge events will allow both managers and policy makers to better understand environmental aspects in the Himalayas and improve development and implementation of regulations, policy and field actions throughout the country to address conservation, sustainable use and livelihood improvement	**4**
2.3. Existence of Environmental awareness and educational programs	Environmental education programs are partially developed and partially delivered	**1**	Environmental awareness programs are available at the local level, but only at a few places – at school level. For majority of local stakeholders there is no such awareness program. Environmental awareness programs exists at the Provincial and national levels	Implementation of project communication and outreach strategy with targeted awareness and education programs and material would help reach local stakeholders (pastoral and agro-pastoral and communities), general public and school children and policy makers.	**3, 4**
2.4. Extent of the linkage between environmental research/science and policy development	Research needs for environmental policy development are identified but are not translated into relevant research strategies and programs	**1**	Most of the project landscapes have not been studied comprehensively in terms of integrated conservation and development and hardly any attempts have been made to establish linkages among conservation science, policy and practice.	Targeted efforts in the form of demonstrations, training and awareness raising to bridge the gap between the conservation science, livelihood needs and policies at the Provincial level**.**	**All**
2.5. Extent of inclusion/use of traditional knowledge in environmental decision-making	Traditional knowledge is identified and recognized as important but is not collected and used in relevant participative decision-making processes	**1**	Traditional livestock herding practices in almost all the project landscapes are said to be sustainable. In recent decades due to sedentary nature of local herders and influx of migratory herders from other areas have led to degradation of pastures. At present there is limited attempt to use such traditional knowledge in decision-making. Further, the introduction on improved crop varieties has	While demonstrating the improved technologies, traditional knowledge of the communities will also be taken care of. Further, the value chain component of the project would seek to identify and promote markets for traditional products and services like ecotourism. Communication strategy will promote interest in traditional rangeland,	**3 and 4**

			eroded traditional cropping practices and varieties.	forestry, agricultural and livestock practices helpful in conservation.	
CR 3: Capacities to strategy, policy and legislation development					
3.1. Extent of environment planning and strategy development process	The environmental planning and strategy development process does produce adequate environmental plans and strategies but there are only partially implemented because of funding constraints and/or other problems.	**2**	While environmental (forest and wildlife) planning is done at the provincial level, and partially limited, capacity and financial constraints prevent full implementation. At the community level, VCCs and community based organizations in all project sites have been consulted in detail about the project goals and objectives. They have shown keen interest in working for a holistic environmental planning and strategy development.	Preparation of a comprehensive multi-stakeholder developed strategy for landscapes and valley, management plans and protocols for sustainable management of land units, creation of multi-sectoral coordination mechanisms and project funding to provide enabling environment for planning and implementation	**1 and 3**
3.2. Existence of an adequate environment policy and regulatory frameworks	Adequate environmental policy and legislation frameworks exist but there are problems in implementing and enforcing them	**2**	Implementing environmental policies and regulatory frameworks in the project landscapes is a challenge in the absence of adequate alternatives and better livelihood options. Similar gaps in legislation and policy preclude specific actions	Establishment of national and provincial level coordination mechanisms, review of policy and regulations will improve mechanisms for comprehensive action. Support for identification of potential gaps in existing policy, legislation and regulation in regards to management of the project area provides an opportunity for negotiating changes.	**4**
3.3. Adequacy of the environmental information available for decision-making	Relevant environmental information is made available to environmental decision-makers but the process to update this information is not functioning properly	**2**	There is comprehensive environmental informational sources developed at the national level, but it is variable across provinces and project landscapes	The development, population and enabled access to the national databases will support environmental management across multi-sectorial efforts and allow both managers and policy makers to better understand environmental issues, particularly at the local and Provincial levels.	**4**
CR 4: Capacities for management and implementation					
4.1. Existence and mobilization of resources by relevant organizations	The resource requirements are known but are not being addressed	**1**	While there are some resources available through national and provincial programs, these are only partly resourced, and that particularly only for a few PAs.	Concerted efforts to leverage additional revenue to support PAs and surrounding lands will be made through; (i) identification of Provincial and local level programs that could complement efforts in the landscape; (ii) Project Steering and Provincial coordination committees to help	**All**

				leverage and channel these funds; (iii) ensure complementarity of efforts through multi-stakeholder and multi-sector efforts, etc.	
4.2. Availability of required technical skills and technology transfer	The required skills and technologies needs are identified as well as their sources	**1**	Project sites lack adequately trained field staff and skills for implementation of conservation and development programs.	Training of frontline staff and local volunteers on basic tools and techniques of habitat assessment, population monitoring and record keeping needed, as well as use of expertise within national, provincial and local agencies and NGOs to supplement existing skills	**1, 2 and 3**
CR 5: Capacities to monitor and evaluate					
5.1. Adequacy of the project monitoring process	Irregular monitoring is being done without an adequate monitoring framework detailing what and how to monitor a particular activity or program	**0**	Institutional mechanisms for monitoring are not in place. Any monitoring data records are at best scattered in notebooks or non-existent	Establishment of an institutional mechanism (with the support of SLF) for monitoring the key biological and environmental parameters (including snow leopard and wild prey populations) as well as management actions in the field. Development of community monitoring networks to monitor wildlife and wildlife crime. Establishment of a project steering committee at national and provincial coordination committees to monitor project performance	**1, 2 and 3**
5.2. Adequacy of the project evaluation process	Presently none or no evaluations are being conducted without an adequate evaluation plan; including the necessary resources	**0**	There is no comprehensive system to evaluate impacts and outcomes in the landscapes	Project evaluation and performance would be undertaken through independent mid-term and terminal evaluations	**All**
Total Score		**18/45**			

UNDP Capacity Development Scorecard

(B) Gilgit Baltistan Province

Capacity Result / Indicator[66]	Staged Indicators	Score	Comments	Next Steps	Contribution to which Outcome
CR 1: Capacities for engagement					
1.1. Degree of legitimacy/ mandate of lead environment organizations	Authority and legitimacy of lead organization responsible for environmental management recognized by stakeholders	**2**	Department of Forests and Wildlife and Environmental Protection Agency, Government of GB are the highest and legitimate authorities for overseeing and coordinating biodiversity, sustainable land management and climate change related activities at the GB level.	Constitution and early notification of a Provincial/Territorial Coordination Committee under the leadership of the mandated agencies with clear Terms of Reference would help in supervision, oversight, monitoring and ensure project outcomes are met.	All
1.2 Existence of operational co-management mechanisms for rangeland or forest management	Some co-management mechanisms between government and communities are formally established through legal concessions, etc. Co-management mechanisms for joint use of community lands exist at most of the areas.	**1**	Local village co-management mechanisms, although existing to some extent are weak and unstructured. The GB-level operational co-management arrangements within departments and between the department and the community exist, but collaboration is limited.	Sectoral programs for an integrated conservation and development of the identified project landscapes and co-management would be coordinated and converged through (i) GB level multi-sectoral, multi-stakeholder coordination committees; (ii) definition of collective roles and responsibility of partnerships for conservation and livelihoods and signing of agreements;(iii) convergence of programs and resources for conservation and socio-economic outcomes at landscape level	1 and 3
1.3. Existence of cooperation with stakeholder groups for land and forest management, biodiversity	Stakeholders are identified, but their participation in decision-making is limited	**1**	There is resentment among the buffer zone villagers in some of PAs over rights to extraction of bio-resources and livestock grazing. Their involvement and participation in the decision-making varies from site to site.	Institutional arrangements to engage local stakeholders and build commitment and ownership would strengthen cooperation through appropriate incentive mechanisms such as through (i) participation of	All

[66] All capacity result/indicators follow standard template

conservation & livelihood initiatives				stakeholders in landscape and valley planning and decision-making; (ii) allocation of roles and responsibilities to different stakeholders; (iii) agreements with communities for valley and village level micro-planning and wildlife crime surveillance and monitoring and (iv) investment support for sustainable grazing and livelihood improvements.	
CR 2: Capacities to generate, access and use information and knowledge					
2.1. Degree of Environmental awareness of stakeholders	Some stakeholders are aware about environment issues but not about most of the possible solutions [67]	**2**	At GB level, awareness is better on account of access to education and media. Degree of environmental awareness among stakeholders is low at local level, and most local stakeholders are unaware of the linkages between unsustainable practices in the landscape and the productivity of their grazing, forestry and agricultural practices and lack of incentives or knowledge to participate in resource solutions.	The GB level departments, NGOs and local stakeholders especially the VCCs and other CBOs require tailored environmental awareness to help create awareness of linkages between their actions and environmental degradation as well as revitalization of their traditional ecological knowledge so as to mitigate the impacts of environmental changes. This would entail (i) environmental awareness and outreach ; (ii) skills developed for sustainable resource use; and (iii) increased emphasis on traditional practices and products	**3 and 4**
2.2. Access and sharing of environmental information by stakeholders	The environmental information needs are identified but the information management infrastructure is inadequate	**1**	Target landscapes and valleys in the landscape are remotely located, hence there is limited access and sharing of environmental information among the site managers and local stakeholders. Further there is no comprehensive informational sources developed at the GB or local levels on good practices and experiences on sustainable grazing and resource extraction practice, sustainable harvest regimes for NTFPs, traditional cultivation practices etc. Hence	For improving access to information and sustainable resource management practice; and documentation and dissemination of lessons and best practice, communication strategy will be implemented. Secondly, policy analysis and knowledge events will allow both managers and policy makers to better understand	**4**

[67] This indicator is slightly modified from standard template. The standard template ranking are as follows: Stakeholders are not aware about global environmental issues and their related possible (0); Some stakeholders are aware about environment issues but not about the possible solutions (1); Stakeholders are aware about global environment issues and the possible solutions but do not know how to participate (2) and Stakeholders are aware about global environment issues and are actively participating in the implementation of related solutions (3)

			sustainable practices remain under capacitated because existing knowledge and information will not be readily accessible to all stakeholders and no comprehensive source of information exists.	environmental aspects in the Himalayas and Karakorum. Improve development and implementation of regulations, policy and field actions throughout the GB to address conservation, sustainable use and livelihood improvement	
2.3. Existence of Environmental awareness and educational programs	Environmental education programs are partially developed and partially delivered	**2**	Environmental awareness programs are available at the GB and local levels, but only at a few places – at government departments, NGOs, school, VCCs and CBO levels. For majority of local stakeholders there is no such awareness program.	Implementation of project communication and outreach strategy with targeted awareness and education programs would help reach local stakeholders (pastoral, agro-pastoral and communities), VCCs, NGOs, general public and school children and policy makers.	**3, 4**
2.4. Extent of the linkage between environmental research/science and policy development	Research needs for environmental policy development are identified but are not translated into relevant research strategies and programs	**1**	Most of the project valleys have not been studied comprehensively in terms of integrated conservation and development and hardly any attempts have been made to establish linkages among conservation science, policy and practice.	Targeted efforts in the form of demonstrations, training and awareness raising to bridge the gap between the conservation science, livelihood needs and policies at the GB level**.**	**All**
2.5. Extent of inclusion/use of traditional knowledge in environmental decision-making	Traditional knowledge is identified and recognized as important but is not collected and used in relevant participative decision-making processes	**1**	At present there is limited attempt to use traditional knowledge in decision-making. Further, the introduction on improved crop varieties has eroded traditional cropping practices and varieties. In recent decades due to sedentarization of local herders and influx of migratory herders from other areas have led to degradation of pastures.	Communication strategy will promote interest in traditional rangeland, forestry, agricultural and livestock practices helpful in conservation. While demonstrating the improved technologies, traditional knowledge of the communities will also be taken care of. Further, the value chain component of the project would seek to identify and promote markets for traditional products and services like ecotourism.	**3 and 4**
CR 3: Capacities to strategy, policy and legislation development					
3.1. Extent of environment planning and strategy development process	The environmental planning and strategy development process does produce adequate environmental plans and strategies but there are	**2**	Environmental (forest and wildlife) planning are done at the GB level. Capacity and financial constraints prevent full implementation. At the community level, VCCs and community based organizations have been consulted in detail	Preparation of a comprehensive multi-stakeholder environmental plan and strategy for the landscape and valleys, creation of multi-sectoral coordination mechanisms for relevant	**1, 4**

	only partially implemented because of funding constraints and/or other problems.		about the project goals and objectives. They have shown keen interest in working for a holistic environmental planning and strategy development.	sectoral departments and CBOs. Resource mobilization to provide enabling environment for planning and implementation	
3.2. Existence of an adequate environment policy and regulatory frameworks	Adequate environmental policy and legislation frameworks exist but there are problems in implementing and enforcing them	**1**	Environmental (forest and wildlife) policy for the GB is not yet approved by the government. Implementing environmental regulatory frameworks in the project landscape is a challenge in the absence of adequate alternatives and better livelihood options. Similar gaps in legislation and policy preclude specific actions	Review of draft policy and regulations and establishment of a GB level coordination mechanism will improve mechanisms for comprehensive action. Support for identification of potential gaps in existing draft policy, legislation and regulation in regards to management of the project area provides an opportunity for negotiating changes.	**3 and 4**
3.3. Adequacy of the environmental information available for decision-making	Relevant environmental information is made available to environmental decision-makers but the process to update this information is not functioning properly	**1**	Environmental information available to decision makers is very limited and the process to update this information is not functioning properly.	Enabled access to the national and GB databases will support environmental management across multi-sectorial efforts and allow both managers and policy makers to better understand environmental issues, particularly at the local and GB levels.	**4**
CR 4: Capacities for management and implementation					
4.1. Existence and mobilization of resources by relevant organizations	The resource requirements are known but are not being addressed	**2**	While there are some resources available through national and GB programs, these are particularly only for a few PAs.	Concerted efforts to leverage additional revenue to support PAs and surrounding lands will be made through; (i) identification of National, GB and local level programs that could complement efforts in the landscape; (ii) Project Steering and GB coordination committees to help leverage and channel these funds; (iii) ensure complementarity of efforts through multi-stakeholder and multi-sector efforts; (iv) Identification and accessing international funding organizations like Green Climate Fund, and development finance institutions like IFAD, KfW, etc.	**All**

4.2. Availability of required technical skills and technology transfer	The required skills and technologies needs are identified as well as their sources	**1**	Project sites lack adequately trained field staff and skills for implementation of conservation and development programs.	Training of frontline staff and local activists on basic tools and techniques of habitat assessment, population monitoring and record keeping needed, as well as use of expertise within national, GB and local agencies and NGOs to supplement existing skills	**1, 2 and 3**
CR 5: Capacities to monitor and evaluate					
5.1. Adequacy of the project monitoring process	Irregular monitoring is being done without an adequate monitoring framework detailing what and how to monitor a particular activity or program	**0**	Institutional mechanisms for monitoring are not in place. Any monitoring data records are at best scattered in notebooks or non-existent	Establishment of an institutional mechanism (with the support of Wildlife department at GB level) for monitoring the key biological and environmental parameters (including snow leopard and wild prey populations) as well as management actions in the field. Development of community/ participatory monitoring networks to monitor wildlife and wildlife crime. Establishment of a GB level coordination committees to monitor project performance	**1, 2 and 3**
5.2. Adequacy of the project evaluation process	Presently none or no evaluations are being conducted without an adequate evaluation plan; including the necessary resources	**0**	There is no comprehensive system to evaluate impacts and outcomes in the landscape	Project evaluation and performance would be undertaken through independent mid-term and terminal evaluations	**All**
Total Score		**18/45**			

UNDP Capacity Development Scorecard

(C) Azad Jammu Kashmir Province

Capacity Result / Indicator[68]	Staged Indicators	Score	Comments	Next Steps	Contribution to which Outcome
CR 1: Capacities for engagement					
1.1. Degree of legitimacy/ mandate of lead environment organizations	Authority and legitimacy of lead organization responsible for environmental management recognized by stakeholders	**2**	Department of Forests, Wildlife, Fisheries and Azad Kashmir Logging and Sawmill Corporation (AKLASC) and Climate Change Center, Government of AJK are the highest and legitimate authorities for overseeing and coordinating biodiversity, sustainable land management and climate change related activities at the State level.	Constitution and early notification of a Territorial Coordination Committee under the leadership of the mandated agencies with clear Terms of Reference would help in supervision, oversight, monitoring and ensure project outcomes are met.	All
1.2 Existence of operational co-management mechanisms for rangeland or forest management	Some co-management mechanisms between government and communities are formally established through legal concessions, etc. Co-management mechanisms for joint use of community lands exist at most of the areas.	**1**	Local village co-management mechanisms, although existing to some extent are weak and unstructured. State-level operational co-management arrangements within departments and between the department and the community exist, but collaboration is limited.	Programs for an integrated conservation and development of the identified project landscape and co-management would be coordinated and converged through (i) State level multi-sectoral, multi-stakeholder coordination committee; (ii) definition of collective roles and responsibility of partnerships for conservation and livelihoods and signing of agreements;(iii) convergence of programs and resources for conservation and socio-economic outcomes at landscape level	1 and 3
1.3. Existence of cooperation with stakeholder groups for land and forest management, biodiversity	Stakeholders are identified, but their participation in decision-making is limited	**1**	There is resentment among the buffer zone villagers in some of PAs over rights to extraction of bio-resources and livestock grazing. Their involvement and participation in the decision-making varies from site to site.	Institutional arrangements to engage local stakeholders and build commitment and ownership would strengthen cooperation through appropriate incentive mechanisms such as through (i) participation of stakeholders in landscape and valley	All

[68] All capacity result/indicators follow standard template

conservation & livelihood initiatives				planning and decision-making; (ii) allocation of roles and responsibilities to different stakeholders; (iii) agreements with communities for valley and village level microplanning and wildlife crime surveillance and monitoring and (iv) investment support for sustainable grazing and livelihood improvements.	
CR 2: Capacities to generate, access and use information and knowledge					
2.1. Degree of Environmental awareness of stakeholders	Some stakeholders are aware about environment issues but not about most of the possible solutions [69]	**1**	At State level, awareness is better on account of access to education and media. Degree of environmental awareness among stakeholders is low at local level, and most local stakeholders are unaware of the linkages between unsustainable practices in the landscape and the productivity of their grazing, forestry and agricultural practices and lack of incentives or knowledge to participate in resource solutions.	State level departments, NGOs and local stakeholders especially the CBOs require tailored environmental awareness to help create awareness of linkages between their actions and environmental degradation as well as revitalization of their traditional ecological knowledge so as to mitigate the impacts of environmental changes. This would entail (i) environmental outreach ; (ii) skills developed for sustainable resource use; and (iii) increased emphasis on traditional practices and products	**3 and 4**
2.2. Access and sharing of environmental information by stakeholders	The environmental information needs are identified but the information management infrastructure is inadequate	**1**	Target valleys in the landscape are remotely located, so there is limited access and sharing of environmental information among the site managers and local stakeholders. Further there is no comprehensive informational sources developed at the State or local levels on good practices and experiences on sustainable grazing and resource extraction practice, sustainable harvest regimes for NTFPs, traditional cultivation practices etc. Hence, sustainable practices remain under capacitated as existing knowledge and information will not be readily accessible to	For improving access to information and sustainable resource management practice; and documentation and dissemination of lessons and best practice, communication strategy will be implemented. Secondly, policy analysis and knowledge events will allow both managers and policy makers to better understand environmental aspects in the Himalayas and improve development	**4**

[69] This indicator is slightly modified from standard template. The standard template ranking are as follows: Stakeholders are not aware about global environmental issues and their related possible (0); Some stakeholders are aware about environment issues but not about the possible solutions (1); Stakeholders are aware about global environment issues and the possible solutions but do not know how to participate (2) and Stakeholders are aware about global environment issues and are actively participating in the implementation of related solutions (3)

			all stakeholders and no comprehensive source of information exists.	and implementation of regulations, policy and field actions throughout the State to address conservation, sustainable use and livelihood improvement	
2.3. Existence of Environmental awareness and educational programs	Environmental education programs are partially developed and partially delivered	**1**	Environmental awareness programs are available at the State and local levels, but only at a few places – at government departments, NGOs, school and CBO levels. For majority of local stakeholders there is no such awareness program.	Implementation of project communication and outreach strategy with targeted awareness and education programs and material would help reach local stakeholders (pastoral and agro-pastoral and communities), general public and school children and policy makers.	**3, 4**
2.4. Extent of the linkage between environmental research/science and policy development	Research needs for environmental policy development are identified but are not translated into relevant research strategies and programs	**1**	Most of the project valleys have not been studied comprehensively in terms of integrated conservation and development and hardly any attempts have been made to establish linkages among conservation science, policy and practice.	Targeted efforts in the form of demonstrations, training and awareness raising to bridge the gap between the conservation science, livelihood needs and policies at the State level.	**All**
2.5. Extent of inclusion/use of traditional knowledge in environmental decision-making	Traditional knowledge is identified and recognized as important but is not collected and used in relevant participative decision-making processes	**1**	Traditional livestock herding practices in the project landscape are said to be sustainable. At present there is limited attempt to use such traditional knowledge in decision-making. Further, the introduction on improved crop varieties has eroded traditional cropping practices and varieties. In recent decades due to sedentarization of local herders and influx of migratory herders from other areas have led to degradation of pastures.	Communication strategy will promote interest in traditional rangeland, forestry, agricultural and livestock practices helpful in conservation. While demonstrating the improved technologies, traditional knowledge of the communities will also be taken care of. Further, the value chain component of the project would seek to identify and promote markets for traditional products and services like ecotourism.	**3 and 4**
CR 3: Capacities to strategy, policy and legislation development					
3.1. Extent of environment planning and strategy development process	The environmental planning and strategy development process does produce adequate environmental plans and strategies but there are only partially implemented	**2**	Environmental (forest and wildlife) planning is done at the State level. Capacity and financial constraints prevent full implementation. At the community level, community based organizations have been consulted in detail about the project goals and objectives. They have shown keen interest in working for a	Preparation of a comprehensive multi-stakeholder environmental plan and strategy for the landscape and valleys, creation of multi-sectoral coordination mechanisms for relevant sectoral departments and CBOs. Resource mobilization to provide	**1, 4**

	because of funding constraints and/or other problems.		holistic environmental planning and strategy development.	enabling environment for planning and implementation	
3.2. Existence of an adequate environment policy and regulatory frameworks	Adequate environmental policy and legislation frameworks exist but there are problems in implementing and enforcing them	**1**	Environmental (forest and wildlife) policy for the State is in the process of approval by the government. Implementing environmental regulatory frameworks in the project landscape is a challenge in the absence of adequate alternatives and better livelihood options. Similar gaps in legislation and policy preclude specific actions	Review of draft policy and regulations and establishment of a State level coordination mechanism will improve mechanisms for comprehensive action. Support for identification of potential gaps in existing draft policy, legislation and regulation in regards to management of the project area provides an opportunity for negotiating changes.	**3 and 4**
3.3. Adequacy of the environmental information available for decision-making	Relevant environmental information is made available to environmental decision-makers but the process to update this information is not functioning properly	**1**	Environmental information available to decision makers is very limited and the process to update this information is not functioning properly.	Enabled access to the national and State level databases will support environmental management across multi-sectorial efforts and allow both managers and policy makers to better understand environmental issues, particularly at the local and State levels.	**4**
CR 4: Capacities for management and implementation					
4.1. Existence and mobilization of resources by relevant organizations	The resource requirements are known but are not being addressed	**1**	While there are some resources available through national and State programs, these are particularly only for a few PAs and not fulfilling actual conservation needs of any PA..	Concerted efforts to leverage additional revenue to support PAs and surrounding lands will be made through; (i) identification of National, State and local level programs that could complement efforts in the landscape; (ii) Project Steering and State coordination committees to help leverage and channel these funds; (iii) ensure complementarity of efforts through multi-stakeholder and multi-sector efforts; (iv) Identification and accessing international funding organizations like Green Climate Fund, and development finance institutions like IFAD, Asian Development Fund and World Bank, KfW, etc.	**All**

4.2. Availability of required technical skills and technology transfer	The required skills and technologies needs are identified as well as their sources	**1**	Project sites lack adequately trained field staff and skills for implementation of conservation and development programs.	Training of frontline staff and local activists on basic tools and techniques of habitat assessment, population monitoring and record keeping needed, as well as use of expertise within national, State and local agencies and NGOs to supplement existing skills	**1, 2 and 3**
CR 5: Capacities to monitor and evaluate					
5.1. Adequacy of the project monitoring process	Irregular monitoring is being done without an adequate monitoring framework detailing what and how to monitor a particular activity or program	**0**	Institutional mechanisms for monitoring are not in place. Any monitoring data records are at best scattered in notebooks or non-existent	Establishment of an institutional mechanism (with the support of Wildlife and Fisheries department at State level) for monitoring the key biological and environmental parameters (including snow leopard and wild prey populations) as well as management actions in the field. Development of community/ participatory monitoring networks to monitor wildlife and wildlife crime. Establishment of a State level coordination committee to monitor project performance	**1, 2 and 3**
5.2. Adequacy of the project evaluation process	Presently none or no evaluations are being conducted without an adequate evaluation plan; including the necessary resources	**0**	There is no comprehensive system to evaluate impacts and outcomes in the landscape	Project evaluation and performance would be undertaken through independent mid-term and terminal evaluations	**All**
Total Score		**15/45**			

UNDP Capacity Development Scorecard

(D) Khyber Pakhtunkhwa Province (KP)

Capacity Result / Indicator[70]	Staged Indicators	Score	Comments	Next Steps	Contribution to which Outcome
CR 1: Capacities for engagement					
1.1. Degree of legitimacy/ mandate of lead environment organizations	Authority and legitimacy of lead organization responsible for environmental management recognized by stakeholders	**2**	Department of Forests and Wildlife and Environmental Protection Agency, Government of KP are the highest and legitimate authorities for overseeing and coordinating biodiversity, sustainable land management and climate change related activities at the provincial level.	Constitution and early notification of a Provincial Coordination Committee under the leadership of the mandated agencies with clear Terms of Reference would help in supervision, oversight, monitoring and ensure project outcomes are met.	All
1.2 Existence of operational co-management mechanisms for rangeland or forest management	Some co-management mechanisms between government and communities are formally established through legal concessions, etc. Co-management mechanisms for joint use of community lands exist at most of the areas.	**2**	Province level operational co-management mechanisms for rangeland or forest management within departments and between the department and the community exist, but collaboration is limited. Local village co-management mechanisms for rangeland or forest management, although existing to some extent are weak and not formal.	Integrated conservation and development of the identified project landscape and co-management would be coordinated and converged through (i) definition of collective roles and responsibility of partnerships for conservation and livelihoods and signing of terms of partnerships; (ii) Province level multi-sectoral, multi-stakeholder coordination committee; (iii) convergence of programs and resources for conservation and socio-economic outcomes at landscape level	1 and 3
1.3. Existence of cooperation with stakeholder groups for land and forest management, biodiversity conservation & livelihood initiatives	Stakeholders are identified, but their participation in decision-making is limited	**1**	Involvement and participation of local communities and community groups in the decision-making is limited and varies from site to site. Resentment of the buffer zone villagers in some of PAs over rights to extraction of bio-resources and livestock grazing is a hurdle in their active cooperation with the forest and wildlife department.	Institutional arrangements to engage local stakeholders including communities and build commitment and ownership would strengthen cooperation through appropriate incentive mechanisms such as through (i) allocation of roles and responsibilities to different	All

[70] All capacity result/indicators follow standard template

				stakeholders; (ii) participation of stakeholders in landscape and valley planning and decision-making; (iii) signing terms of partnerships with communities for valley and village level micro-planning and wildlife crime surveillance and monitoring and (iv) investment support for sustainable grazing and livelihood improvements.	
CR 2: Capacities to generate, access and use information and knowledge					
2.1. Degree of Environmental awareness of stakeholders	Some stakeholders are aware about environment issues but not about most of the possible solutions [71]	**2**	Degree of environmental awareness among stakeholders is low at local level, and most local stakeholders are unaware of the linkages between unsustainable practices in the landscape and the productivity of their grazing, forestry and agricultural practices and lack of incentives or knowledge to participate in resource solutions. At Province level, awareness is better on account for access to education and media.	Tailored environmental awareness of province level departments, NGOs and local stakeholders especially the VCCs and other CBOs is require to create awareness of linkages between their actions and environmental degradation as well as revitalization of their traditional ecological knowledge so as to mitigate the impacts of environmental changes. This would entail (i) increased emphasis on traditional practices and products; (ii) environmental outreach activities; (iii) skills developed for sustainable resource use.	**3 and 4**
2.2. Access and sharing of environmental information by stakeholders	The environmental information needs are identified but the information management infrastructure is inadequate	**1**	There is limited access and sharing of environmental information among the site managers and local stakeholders as the target valleys in the landscape are remotely located. Further there is no comprehensive informational sources developed at the province or local levels on good practices and experiences on sustainable grazing and resource extraction practice, sustainable harvest regimes for NTFPs, traditional cultivation practices etc. Hence	Communication strategy will be implemented for improving access to information and sustainable resource management practice; and documentation and dissemination of lessons and best practice. Secondly, policy analysis and knowledge events will allow both managers and policy makers to better understand environmental aspects in the Hindu	**4**

[71] This indicator is slightly modified from standard template. The standard template ranking are as follows: Stakeholders are not aware about global environmental issues and their related possible (0); Some stakeholders are aware about environment issues but not about the possible solutions (1); Stakeholders are aware about global environment issues and the possible solutions but do not know how to participate (2) and Stakeholders are aware about global environment issues and are actively participating in the implementation of related solutions (3)

			sustainable practices remain under capacitated as existing knowledge and information will not be readily accessible to all stakeholders and no comprehensive source of information exists.	kush and improve development and implementation of regulations, policy and field actions throughout the province to address conservation, sustainable use and livelihood improvement	
2.3. Existence of Environmental awareness and educational programs	Environmental education programs are partially developed and partially delivered	**1**	Environmental awareness programs are available at the province and local levels, but only at a few places – at government departments, NGOs, school and CBO levels. For majority of local stakeholders there is no such awareness program.	Communication strategy implementation with targeted awareness and education programs will help reach local stakeholders (pastoral and communities), general public, NGOs, school children and policy makers.	**3, 4**
2.4. Extent of the linkage between environmental research/science and policy development	Research needs for environmental policy development are identified but are not translated into relevant research strategies and programs	**1**	Enough attempts have been made to establish linkages among conservation science, policy and practice. Many project valleys have not been studied comprehensively in terms of integrated conservation and development.	Targeted efforts in the form of demonstrations, training and awareness raising to bridge the gap between the conservation, livelihood needs and policies at the Province level**.**	**All**
2.5. Extent of inclusion/use of traditional knowledge in environmental decision-making	Traditional knowledge is identified and recognized as important but is not collected and used in relevant participative decision-making processes	**1**	At present there is limited attempt to use traditional knowledge in decision-making. Further, the introduction on improved crop varieties has eroded traditional cropping practices and varieties. In recent decades due to sedentarization of local herders and influx of migratory herders from other areas have led to degradation of pastures.	During improved technologies demonstrations, traditional knowledge of the communities will be considered. Communication strategy will promote interest in traditional rangeland, forestry, agricultural and livestock practices helpful in conservation. Further, the value chain component of the project would seek to identify and promote markets for traditional products and services like ecotourism.	**3 and 4**
CR 3: Capacities to strategy, policy and legislation development					
3.1. Extent of environment planning and strategy development process	The environmental planning and strategy development process does produce adequate environmental plans and strategies but there are only partially implemented	**2**	Environmental (forest and wildlife) planning are done at the Province level. Capacity and financial constraints prevent full implementation. At the community level, VCCs and community based organizations have been consulted about the project goals and objectives. They have shown	Preparation of a comprehensive multi-stakeholder environmental (forest and wildlife) plan and strategy for the landscape and valleys, creation of multi-sectoral coordination mechanisms for relevant sectoral	**1, 4**

	because of funding constraints and/or other problems.		keen interest in working for a holistic environmental planning and strategy development.	departments, VCCs and CBOs. Resource mobilization to provide enabling environment for planning and implementation	
3.2. Existence of an adequate environment policy and regulatory frameworks	Adequate environmental policy and legislation frameworks exist but there are problems in implementing and enforcing them	**1**	Environmental (forest and wildlife) policy for the province is being considered by the government. Implementing environmental regulatory frameworks in the project landscape is a challenge in the absence of adequate alternatives and better livelihood options. Similar gaps in legislation and policy preclude specific actions	Support for identification of potential gaps in existing draft policy, legislation and regulation in regards to management of the project area will provide an opportunity for negotiating changes. Review of draft policy and regulations and establishment of a province level coordination mechanism will improve mechanisms for comprehensive action.	**3 and 4**
3.3. Adequacy of the environmental information available for decision-making	Relevant environmental information is made available to environmental decision-makers but the process to update this information is not functioning properly	**1**	Relevant environmental information available to decision makers is limited and the process to update this information is not functioning properly.	Enabled access to the national and Province databases will support environmental management across multi-sectorial efforts and allow both managers and policy makers to better understand environmental issues, particularly at the local and Province levels.	**4**
CR 4: Capacities for management and implementation					
4.1. Existence and mobilization of resources by relevant organizations	The resource requirements are known but are not being addressed	**2**	While there are some resources available through national and Province programs, these are particularly only for a few PAs.	Concerted efforts to leverage additional revenue to support PAs and surrounding lands will be made through; (i) identification of National, Province and local level programs that could complement efforts in the landscape; (ii) Project Steering and Province coordination committees to help leverage and channel these funds; (iii) ensure complementarity of efforts through multi-stakeholder and multi-sector efforts; (iv) Identification and accessing international funding organizations.	**All**
4.2. Availability of required technical skills and technology transfer	The required skills and technologies needs are	**1**	Project sites lack adequately trained field staff and skills for implementation of conservation and development programs.	Training of frontline staff and local activists on basic tools and techniques of habitat assessment, population	**1, 2 and 3**

	identified as well as their sources			monitoring and record keeping needed, as well as use of expertise within national, Province and local agencies and NGOs to supplement existing skills	
CR 5: Capacities to monitor and evaluate					
5.1. Adequacy of the project monitoring process	Irregular monitoring is being done without an adequate monitoring framework detailing what and how to monitor a particular activity or program	**0**	Institutional mechanisms for monitoring are not in place. Any monitoring data records are at best scattered is in notebooks or non-existent	Development of community/ participatory monitoring networks to monitor wildlife and wildlife crime. Establishment of a Provincial coordination committee to monitor project performance. Establishment of an institutional mechanism (with the support of Wildlife department at Province level) for monitoring the key biological and environmental parameters (including snow leopard and wild prey populations) as well as management actions in the field.	**1, 2 and 3**
5.2. Adequacy of the project evaluation process	Presently none or no evaluations are being conducted without an adequate evaluation plan; including the necessary resources	**0**	There is no comprehensive system to evaluate impacts and outcomes in the landscape	Project evaluation and performance would be undertaken through independent mid-term and terminal evaluations	**All**
Total Score		**18/45**			

Annex 25

Carbon Calculation Overview

The FAO EXACT tool was used to calculate the avoided CHG emissions benefit accruing from the project using the following details and assumptions:

- The creation and improved protection of 200,000 ha of high value snow leopard areas as Community Managed Conservation Areas (CMCAs) as against a PIF target of 20,000 ha.
- The 200,000 ha of CMCAs to be created and/or under improved management will consist of 10,000 ha of sub-tropical alpine forests and 190,000 ha of sub-alpine and alpine meadows
- The PIF assumed an annual deforestation rate of 2.2% in Pakistan based on FAO Forest Resources Assessment (2010). This was replaced by an updated estimate of 3% per year[72]. The forest loss is largely due to fires created by local communities to improve new growth for livestock
- The 190,000 ha of alpine and sub-alpine meadows within the CMCAs are considered as severely degraded.
- At PIF stage, the C calculation was only based on an estimate of 7,000 ha of forests that were to be set-aside as PAs. This is replaced by a C calculation based on 10,000 ha of sub-alpine forests and 190,000 of sub-alpine and alpine forests set-aside (covering a total of 200,000 ha) and under improved management through establishment of CMCAs.
- 10 year project period (5 year implementation phase and 5 year capitalization phase)

Table 25.1: Extent of Project Coverage

Forests	Meadows	
Protection of sub-alpine forests in community managed conservation areas	Protection and Sustainable Management of alpine and sub-alpine Meadows	**Total**
10,000 ha	190,000	200,000 ha

The increased protection afforded through CMCAs is expected to reduce deforestation of sub-alpine forests from current 3% to 1%. Using change of annual deforestation rate from 3% to 1% that translates to 200 ha of deforestation that will be prevented annually or a total of 2,000 ha over 10 year of deforestation prevented.

The forest type selected for the calculation is Temperate mountain systems consisting mainly of *Abies spectabilis* and *Betula utilis*, with shrubby growth of *Viburnum* spp., *Salix* spp. and dwarf junipers. In calculation of the C estimate it was estimated that 50% (or 5,000 ha) of this forest was in "extremely' degraded condition and 50% (or 5,000 ha) in "largely" degraded condition. Over a period of 10 years, it is anticipated that these forests would have been converted to "largely" degraded and "moderately" degraded condition respectively resulting in 805,447 tCO_2 sequestration over a 10 year period.

The sub-alpine and alpine grasslands that would be protected within the CMCAs and it is anticipated that through improved SLM and grazing and herding practices that the grasslands that are currently in "severely" degraded condition will be converted into "moderately" degraded condition within the 10 year period resulting in 2,155,313 tCO_2 sequestration over a 10 year period.

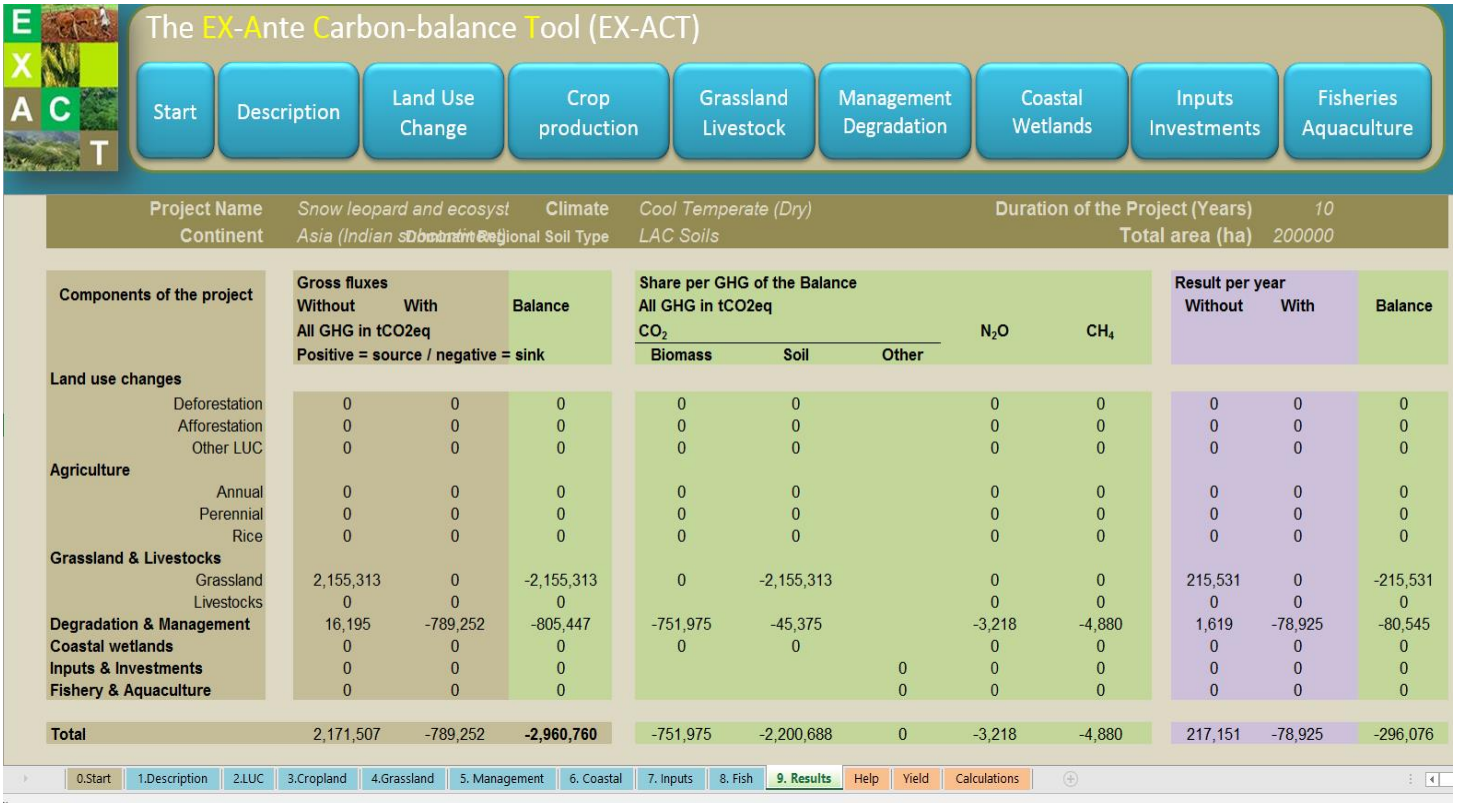
Explanation of difference in figures between PIF and GEFCEOER: The change in figures from the PIF is attributed to the following:

- The PIF used a figure of 20,000 ha of new PAs created as against the new target of 200,000 ha (as CMCAs)
- The PIF used a figure of 7,000 ha of forests set-aside within the new PA as against the new target of 10,000 ha of forests within the 200,000 ha of CMCAs

The PIF did not consider the value of C sequestrated within alpine and sub-alpine pastures/meadows as against the new target of 190,000 ha (within the CMCAs)

[72] Based on estimates communicated by the Forest Department of Azad Jammu and Kashmir in Northern Pakistan .

The total carbon gain from the project is estimated at ~2,960,760 tCO_2 equivalent over a 10-year period.


The EX-Ante Carbon-balance Tool (EX-ACT)
Start
Description
Land Use Change
Crop production
Grassland Livestock
Management Degradation
Coastal Wetlands
Inputs Investments
Fisheries Aquaculture
Project Name
Snow leopard and ecosyst
Climate
Cool Temperate (Dry)
Duration of the Project (Years)
10
Continent
Asia (Indian s
Dominant Regional Soil Type
LAC Soils
Total area (ha)
200000
Components of the project
Gross fluxes
Without
With
Balance
All GHG in tCO2eq
Positive = source / negative = sink
Share per GHG of the Balance
All GHG in tCO2eq
CO2
Biomass
Soil
Other
N2O
CH4
Result per year
Without
With
Balance
Land use changes
Deforestation 0 0 0 0 0 0 0 0 0 0
Afforestation 0 0 0 0 0 0 0 0 0 0
Other LUC 0 0 0 0 0 0 0 0 0 0
Agriculture
Annual 0 0 0 0 0 0 0 0 0 0
Perennial 0 0 0 0 0 0 0 0 0 0
Rice 0 0 0 0 0 0 0 0 0 0
Grassland & Livestocks
Grassland 2,155,313 0 -2,155,313 0 -2,155,313 0 0 215,531 0 -215,531
Livestocks 0 0 0 0 0 0 0 0 0
Degradation & Management 16,195 -789,252 -805,447 -751,975 -45,375 -3,218 -4,880 1,619 -78,925 -80,545
Coastal wetlands 0 0 0 0 0 0 0 0 0 0
Inputs & Investments 0 0 0 0 0 0 0 0 0 0
Fishery & Aquaculture 0 0 0 0 0 0 0 0 0 0
Total 2,171,507 -789,252 -2,960,760 -751,975 -2,200,688 0 -3,218 -4,880 217,151 -78,925 -296,076
0.Start
1.Description
2.LUC
3.Cropland
4.Grassland
5. Management
6. Coastal
7. Inputs
8. Fish
9. Results
Help
Yield
Calculations

Annex 26

MINUTES OF THE VALIDATION WORKSHOP
PAKISTAN SNOW LEOPARD AND ECOSYSTEM PROTECTION PROGRAM
GEF 6 ALLOCATION FOR PAKISTAN

Date: July 13, 2017

Venue: Hill View Hotel, F-7 Markaz, Islamabad

A validation workshop of Pakistan Snow Leopard and Ecosystem Protection Program was convened in Islamabad on July 13, 2017 which was attended by all relevant stakeholders including Ministries of Climate Change; Planning, Development and Reforms; and Science and Technology; Pakistan Museum of Natural History; Forest and Wildlife Departments of Khyber Pakhtunkhwa, Gilgit Baltistan and AJK, UNDP; academia and NGOs. List of participants is placed as Appendix-I.

The workshop started with the recitation of few verses from the Holy Quran. On the onset, Syed Mahmood Nasir, Inspector General of Forests welcomed the participants of the workshop. He appreciated the efforts of Snow Leopard Foundation (SLF) in conserving snow leopards and putting together a vibrant project proposal for GEF funding. The UNDP is supporting the process as an implementing partner. Global Snow Leopard and Ecosystem Protection Program (GSLEP) is facilitated by Snow Leopard Foundation (SLF) in collaboration with relevant provincial and federal departments. The Convention on Biological Diversity signed by Pakistan, suggests the sustainable management of mountain ecosystem and its dwellers. While, designing programs, we should also keep in mind the traditional lifestyle and cultural of local communities and declare the rights of indigenous people. The policies and legislation of other countries from CITES perspective and with a better impact on snow leopard conservation may also be reviewed. Large home range of snow leopard and its interaction with the ecosystem demands proper landscape level management of its range that covers movement of the animal.

While delivering his remarks, Mr. Usman Manzoor thanked all departments on behalf of the UNDP-Pakistan. He said, keeping all the relevant stakeholders on board while designing the project is a good initiative. We will need support from all the participants, particularly during brainstorming sessions. We also need to follow the timelines as agreed with the GEF. Co-financing commitments need to be fulfilled. The UNDP is ready to provide the support in this regard. Due to certain anthropogenic pressures the population of snow leopard has declined and there is need to sustain its population through comprehensive conservation measures at landscape level.

Dr. Ali Nawaz, Director, Snow Leopard Foundation gave a presentation on project background, objectives, and area. He presented key challenges in snow leopard conservation, SLF's multi-pronged approach, conservation models, tools to accomplish conservation research, need, background and introduction to GSLEP (Global Snow Leopard and Ecosystem Protection Program). He informed that Pakistan Snow Leopard and Ecosystem Protection Program (PSLEP) is being developed to tap resources from GEF 6 allocation to Pakistan. During implementation of the project, the NGO Implementation will be applicable. Brief of the presentation is attached at Annex-II.

Mr. Malcolm Jensen, International Consultant, presented project outcomes, outputs, activities, organogram and co-financing requirements. He elaborated project objectives, duration, implementing mechanism, key conservation issues that the project intends to address, project organogram and co-financing requirements. Mr. Jansen highlighted that National Project Steering Committee will be Chaired by Secretary MOCC with representation from Planning, Finance and from Provincial / Territorial Wildlife Departments of Khyber Pakhtunkhwa, GB and AJK. The UNDP will be the Senior Supplier and Ministry of Climate Change, the Senior Beneficiary. As a representative of Executing agency, Ministry of Climate Change, the Inspector General (Forest) will be the National Project Director of the project. National Program Management Unit housed in SLF will have positions like National Program Manager, Monitoring and Evaluation Specialist, Accounts Officer and Coordinators/ Technical Specialists. The Landscape Coordination Committee will be Chaired by provincial Heads of relevant Entity and will have representation of Wildlife, Forest, Livestock, Agriculture, Tourism, relevant NGOs, CBOs and Research Institutes. The ToRs of the Committee will be worked out during group discussion in this workshop. Regional Program Management Units will consist of technical specialists forming Provincial Landscape Planning and Implementation Teams comprising of Landscape Planning Coordinator/ Facilitator, Social Organizers, NRM Specialists and Livelihood/ Participatory Specialists,

some of the Wildlife field staff members (co-opted as required). Valley Conservation Committees/Social Organizations will be established to participate in implementation of on-the-ground interventions. Outline of the presentation is placed at Annex-III.

During question answer session, Conservator Wildlife Department, Government of Gilgit Baltistan was of the view that in the project objective the word northern Pakistan may be replaced with the names of the provinces/ territories. Mr. Ashiq Ahmad Khan highlighted that it does not make any difference so there is no need to change the word. Dr. Amjad Virk, Wildlife Conservation Society (WCS) appreciated the efforts of SLF and Ministry of Climate Change in biodiversity conservation and offered that WCS is ready to share some of the responsibilities of the project and willing to provide co-financing. The WCS has good interaction with local communities and it has done work in about 22 valleys. He was ready to share their work so that it may benefit the project. In his opinion, the project activities are overambitious in terms of its applicability and adoption and project duration is small. He suggested toinclude foreign training component in the project. Mr. Ashiq Ahmad Khan suggested that if the project forms an Advisory Committee, experts like Dr. Amjad may be invited as the members of the Committee. Mr. Faisal Ali, Ministry of Planning, Development and Reforms suggested that there is a need to synchronize activities like zoological survey and wildlife resources and capacity of institutions needs to be improved. Mr. Akhtar Mehmood Cheema, Country Directory, IUCN suggested that it is a wonderful initiative there is a need to look at the possible contributions of local level provincial governments. They have set social participatory infrastructure at village, valley and landscape levels. Already available such structures particularly at the valley level needs to be considered in project preparation and implementation. The objectives of the project will be best achieved through landscape level approach. He further suggested to increase the project duration and serious considerations to co-financing, not just as on-going coupling of resources. The Green Climate Fund's project support may also be looked into. There is a need to have a Technical Advisory Board at landscape and valley levels. Involvement of local line agencies and departments and indigenous people is also important. Establish benchmarks and monitoring mechanisms and then strategy and project outcomes for the project. Asia Protected Areas Partnership may also be looked into. We are ready to provide any possible support.

Mr. Ashiq thanked Mr. Cheema for his offer. Dr. Muhammad Raffique, Director General, Pakistan Museum of Natural History appreciated quality of data regarding snow leopard available with SLF and descried that the project funds seem to be less for the needed activities in the area. He foresees that the CPEC's physical infrastructure activities will affect the environment of the area so while preparing and approving environmental impact assessment, the government need to negotiate with the CPEC authorities to chip in some funds for biodiversity conservation. He assured and offered support of his institute for the project. Mr. Ashiq Ahmad Khan thanked him for this support. Mr. Umeed Khalid, Conservator, Ministry of Climate Change was of the view that the natural status of snow leopard needs to be highlighted as this animal is on IUCN's red list, it is part of the Conservation of Migratory Species of Wild Animals (CMS) and Pakistan is a member of Central Asian Mammals Initiatives that focuses on its conservation. There is a need to bring new knowledge in habitat of snow leopard.

Inspector General (Forests) highlighted the importance of the role of nomadic people and connectivity of biological corridors. He informed that Pakistan has committed to increase its Protected Areas. Representative of WCS suggested to show link of activities with current policies and laws regarding biodiversity conservation. Secretary, Forests & Wildlife, Government of GB mentioned the importance of graduate scholarship program for the Wildlife Staff in biodiversity conservation. He stressed to increase the project duration. Chief Conservator, Wildlife Department, Khyber Pakhtunkhwa informed that conservation status of species has improved over time and in his province the predation of livestock from wildlife like snow leopard has decreased. He was of the view that there is a need for compensation policy for predation losses and establishment of a Bio-diversity Fund. Director, Wildlife Department, AJK highlighted that baseline studies are very necessary. He informed that 12% of snow leopard range is under Protected Areas network and was of the view that existing National Parks need support for biodiversity conservation and new Protected Areas may be established. The CPEC can provide some support if followed up. The nomads' needs may be considered in project preparation for biodiversity conservation. Mr Ghazanfar Ali Langah highlighted awareness raising and the role of primary school teachers, media and religious leaders. They may be motivated to speak about the protection of species. Dr. Inam-ur-Rahim highlighted that range management activities of the project will follow bottom up approach.

For group discussions, the participants were divided into two groups to give their inputs on the following: (I) Community Based Surveillance, Monitoring and Wildlife Crime Prevention System and (II) Landscape Management Committee, Composition, Mandate & Operational Modalities. Dr. Amjad made presentation for Group I. It was suggested that in community based surveillance important points include: (i) awareness of religious leaders and local level school groups; (ii) community based watch and ward system, (iii) the

system of community involvement and herds as established by WCS in 2 valleys needs to be replicated, (iv) there may be some monitoring incentives, (v) community means and mechanisms may involve Community Conservancy Committee and community based watch and ward system with the support of Wildlife Department, (vi) there may be some incentives for farmers who give information, (vii) establishing mechanism for documentation especially for human wildlife conflicts. Important points in monitoring wildlife resources include: (i) Joint mechanism for wildlife survey, (ii) involvement of academia and research, (iii) periodic habitat assessment using GIS technology, (iv) using modern technologies like camera trap for monitoring wildlife species. In wildlife crime prevention system there is a need of (i) identification of wildlife poaching and hot spots, (ii) identification of hot spots of trade routes, (iii) capacity building among law enforcement agencies including police and custom, (iv) awareness creation among public on wildlife crime, (v) capacity building of wildlife protection staff in techniques of monitoring for example by identification of body parts through techniques like DNA testing, (vi) establishing wildlife rescue centers, (v) establishing reporting mechanism of wildlife trade (CITIES management authority).

Group II presentation on Landscape Management Committee, Composition, Mandate and Operational Modalities was given by Syed Safdar Ali Shah. He informed that the Chair of the committee may be Additional Chief Secretary (Development)/Secretary (Planning and Development Department) in GB and AJK, and as snow leopard project activities are focused on a part of Chitral district so District Nazim may Chair the committee in Khyber Pakhtunkhwa. Its composition may include relevant line departments and key NGOs working in the area, Secretary of committee may be Regional Project Manager of Snow Leopard and Ecosystem Protection Program. The Mandate/Operational Modalities may include: (i) endorsement of the project work-plan, (ii) coordination with other government & non-government departments, (iii) endorsement/ approval of landscape management plan, (iv) resolve issues not settled at Dist. Conservation committee (For GB) and (v) any other issue with the approval of the Chair. It was suggested that the Committee will meet bi-annually.

Mr. Jansen gave the way forward. He informed that final draft of the project document will be ready by 15th September 2017 for review by the Ministry and UNDP. It is expected that after review by UNDP regional and New York offices, it will be submitted to GEF by 1st December 2017. Hopefully by January 15, 2018, we will be able to respond to GEF comments on the project and get their approval by January 31, 2018.

Syed Abu Ahmad Akif, Secretary Ministry of Climate Change, Government of Pakistan gave the concluding remarks and thanked Mr. Jansen for sharing details and main features of this project. He informed that he is looking forward to the project because snow leopard is an iconic species found in Pakistan and inputs from stakeholders will be helpful in conservation of this specie. We are available for any support in this project. Human beings have killed millions of animals. There should be emergency rescue centers and resources for wildlife protection. Making the domestic tourism eco-friendly aspect may also be taken into consideration. I look forward for earlier formation and implementation of this project.

Decisions:

1. It was appreciated that UNDP will serve as the GEF Implementing Agency for the project, and SLF will be the Implementing Partner;
2. Project Results framework (Outcomes, outputs and activities) (Annex-III) was approved with some suggestions presented by workshop participants during discussion.
3. The following project implementation arrangements were agreed:
    - National Project Steering Committee will be Chaired by Secretary MOCC with representation from Planning, Finance and from Provincial / Territorial Wildlife Departments of Khyber Pakhtunkhwa, GB and AJK.
    - UNDP will be the Senior Supplier and Ministry of Climate Change, the Senior Beneficiary.
    - As a representative of Executing agency, Ministry of Climate Change, the Inspector General (Forest) will be the National Project Director of the project.
    - National Program Management Unit housed in SLF will have positions like National Program Manager, Monitoring and Evaluation Specialist, Accounts Officer and Coordinators/ Technical Specialists.
    - The Landscape Coordination Committee will be Chaired by Additional Chief Secretary (Development)/ Secretary (Planning & Development Department) in GB and AJK and District Nazim in Khyber Pakhtunkhwa and it will have representation of Wildlife, Forest, Livestock, Agriculture, Tourism, relevant NGOs, CBOs and Research Institutes.

- Regional Program Management Units will consist of technical specialists forming Provincial Landscape Planning and Implementation Teams comprising of Landscape Planning Coordinator/Facilitator, Social Organizers, NRM Specialists and Livelihood/ Participatory Specialists, some of the Wildlife field staff members (co-opted as required).
- Valley Conservation Committees/Social Organizations will be established to participate in implementation of on-the-ground interventions.
- Project staff to be hired as per NGO implementation modality and in line with signed PCA and they will be housed in SLF.

4. The project will be implemented in close collaboration with Wildlife departments of relevant provinces/ territories.
5. Provincial/ Territorial governments of Khyber Pakhtunkhwa, GB and AJK will provide their full cooperation in project preparation and implementing the conservation efforts of the project.
6. Project duration shall be increased from 4 years to 5 years.

The workshop ended with a vote of thanks to and from the Chair.

Annex 26, Appendix 1

List of Participants

S.No	Name	Designation / Department
Federal Government		
1 - 1	Syed Abu Ahmad Akif	Federal Secretary – Ministry of Climate Change, Government of Pakistan
2 - 2	Syed Mahmood Nasir	Inspector General Forests – Ministry of Climate Change
3 - 3	Umeed Khalid	Conservator – Zoological Survey Department, Ministry of Climate Change
4 - 4	M. Samar Hussain Khan	Ministry of Climate Change
5 - 5	Dr. Muhammad Raffique	Director General – Pakistan Museum of Natural History
6 - 6	Dr. Khalid Mehmood	Pakistan Museum of Natural History
7 - 7	Dr. S. Aneel Gillani	Pakistan Museum of Natural History
8 – 8	Faisal Ali Baloch	Ministry of Planning, Development & Reforms
Provincial Government		
9 - 1	Sajjad Haider	Secretary - Forest & Wildlife Dept. Government of Gilgit Baltistan
10 - 2	Yaqoob Ali	Conservator – Parks & Wildlife Dept. Government of Gilgit Baltistan
11 - 3	Safdar Ali Shah	Chief Conservator – Wildlife Dept. Government of Khyber Pakhtunkhwa
12 – 4	Abdul Rauf Qureshi	Chief Conservator – Forests Dept. Government of Azad Jammu and Kashmir
13 - 5	Naeem Iftikhar Dar	Director – Wildlife Dept. Government of Azad Jammu Kashmir
14 – 6	Bilal Ahmed	District Forest Officer – Forest Dept. Government of Azad Jammu Kashmir
UNDP – Pakistan		
15 - 1	Usman Manzoor	Program Officer
16 - 2	Mohammad Saleem	Program Associate
NGOs		
17 - 1	Mayoor Khan	Country Program Manager – WCS – Pakistan
18 - 2	Dr. Amjad T. Virk	Technical Advisor – WCS - Pakistan
19 – 3	Haider Raza	WCS-Pakistan
20 - 4	Faiz Ali	Mountain and Market Project
21 - 5	Mahmood Akhtar Cheema	Country Representative – IUCN - Pakistan
22 - 6	Fauzia Malik	Manager Islamabad Program Office – IUCN - Pakistan
23 - 7	Jamshed Chaudhry	Manager Research & Conservation - WWF - Pakistan
24 - 8	Ghazanfar Ali Langah	President – Save Wildlife & Nature (SWAN)
25 - 9	Riaz Ul Hassan	Resident Representative – EvK2CNR - Pakistan

26 – 10	Aurangzaib Buzdar	EvK2CNR – Pakistan
Other Donors		
27 – 1	Safia Shafeeq	Asian Development Bank
Academia		
28 – 1	Dr. Asma Jabeen	Fatima Jinnah Women University - Rawalpindi
29 – 2	Naureen Fatima	Pakistan Institute of Development Economics
SLF – Team		
30 – 1	Dr. Muhammad Ali Nawaz	Director – SLF
31 – 2	Malcolm Jansen	International Consultant
32 – 3	Ashiq Ahmad Khan	Technical Advisor, SLF
33 – 4	Dr. Inam Ur Rahim	Rangeland and livestock expert, SLF
34 – 5	Tayyab Shahzad	Consultant, SLF
35 – 6	Jaffar Ud Din	Assistant Director SLF
36 – 7	Moiz Rafi	Communication & Outreach Specialist – SLF
37 – 8	Fathul Bari	Research Associate – SLF
38 – 9	Razia Saleem	Program Associate – SLF

Annex 26, Appendix 2

Presentation on Global Snow Leopard and Ecosystem Protection Program
Why we are here today?

Dr. Ali Nawaz informed that the range of Snow leopard movement is several hundred kilometers so there are several challenges for its conservation including its decreasing population, conflicts with human beings, trade and climate change. The range of snow leopard is 1600 square kilometers and at some places Snow leopards and humans have overlapping habitats. For a viable sub-population, probably more than 30,000 square kilometers of area is needed and it is nearly impossible to have many such areas. Snow leopard Foundation's multi-pronged approach involves (i) reduce depredation by increasing wild prey and improving livestock herding practices; (ii) offset economic losses through community based livestock insurance program; (iii) increase social carrying capacity for carnivores through education and outreach program and (iv) understand ecological needs of the species through management oriented research. Among the conservation models: Eco-system health program improves livestock productivity; livestock insurance schemes reduce predation related economic burden; predator proof-corrals reduce predation losses and snow leopard enterprise enhance local skills and provide market for improved livelihoods. Tools to accomplish conservation research include occupancy, trail cameras and molecular Genetics. In camera trapping, there were 800 camera stations, 17083 camera trap days and 11000 km^2 was spatial coverage. About 1500 fecal samples including 111 fecal samples of snow leopard were collected for genetic analysis. The analysis showed that these samples relate to 30 individual snow leopards. A GPS collar was fitted on a snow leopard in Chitral Gol National Park, Pakistan, in November 2006 as part of a study on home-range size, habitat use, and movements. During the 14-months, the snow leopard, traversed a 1,563 km^2 area, splitting her time between winter in Pakistan and summer in Afghanistan. Several studies have indicated that the snow leopard population is decreasing with the passage of time. This new information underscores the critical need for international cooperation in the form of GSLEP to protect snow leopards. The GSLEP offers a coordinated global approach and provide a comprehensive operational and resource mobilization framework for the conservation of the endangered snow leopards and our unique heritage and fragile mountain ecosystems it symbolizes.

Launch Workshop for the Preparation of the 2013 Snow Leopard Conservation Forum was held on December 1-3, 2012 at Bishkek, Kyrgyz Republic. Pakistan Delegation included Syed Mehmood Nasir (MoCC), Khadim Abbas (WD-GB), and Ali Nawaz (SLF). This workshop was attended by twelve snow leopard range countries and donor community. The IGF presented National Input Document (NID) prepared in consultation with provinces.

Working Meeting on National Preparations for the 2013 International Forum on Snow Leopard Conservation was held on March 9, 2013 at Queen Sirikit National Convention Center, Bangkok Thailand. Pakistan Delegation was comprised of Syed Mahmood Nasir (IGF, MoCC), Dr. Ali Nawaz (SLF). The IGF presented update on Pakistan's preparation for NSLEP, including consultations with provinces. Timeline and quality standards for NSLEP were defined. Drafting meeting for Global snow leopard forum was held in Moscow on May 29-30, 2013. Pakistan Delegation included Mr. Umeed Khalid (MoCC) and Dr. Ali Nawaz (SLF). Mr. Khalid presented initial draft of NSLEP.

Global Snow leopard conservation Forum, Bishkek was held on October 22-26, 2013. Pakistan Delegation included Mr. Hamza Shahbaz Sharif, Syed Mehmood Nasir (MoCC), Mr. Shaukat Ali (Khyber Pakhtunkhwa), Mr. Khadim Abbas (Gilgit Baltistan), Muhammad Razzaq (AJK) and Dr. Ali Nawaz (SLF). The GSLEP was endorsed by 12 range countries, and international donor community. Bishkek declaration contained commitment of 12 range countries for snow leopard conservation. National Focal Points Workshop was held on June 5-11, 2014, Issyk-Kul Region, Kyrgyz Republic. Twenty model landscapes from the Snow Leopard Range and two years program activities were finalized in the workshop. Out of the twenty, three model landscapes are in Pakistan. Maps of camera locations from 2006 to 2016; snow leopard habitat suitability and probability of snow leopard movement were also shown to the participants.

National goals of Pakistan in the GSLEP included the promotion of a landscape-level approach to snow leopard conservation; initiation of participatory conservation to enhance tolerance and build support for snow leopards; enhancement of scientific knowledge on snow leopards, prey species, and habitat; expansion and improvement of the management of the PA network in Pakistan; institutional strengthening and capacity building and trans-boundary cooperation. Key actions are to identify priority landscapes and implement community-based conservation programs to enhance snow leopard acceptance while improving the livelihood conditions of local communities; implement scientific research to assess snow leopard population and other aspects of its ecology, using robust and modern techniques such as molecular tools and camera trapping for individual identification; initiating education, awareness and training programs to build the capacity of the stakeholders, Government line departments. As a follow up on Global Forum, the GSLEP Secretariat was established at Bishkek with the support from USAID and US$ 1 million were provided from GEF-5 to the Global Secretariat for trans-boundary and monitoring activities.

Annex 26, Appendix III

Presentation on Pakistan Snow Leopard and Ecosystem Protection Program being prepared under GEF 6 allocation

Project Outcomes, outputs, activities, Organogram & Co-financing requirements

Mr. Malcolm Jansen, International Team Leader gave the presentation on UNDP/GEF 6 Project: Snow Leopard and Ecosystem Protection Program in Pakistan. He informed that the objective of the project is to promote landscape approach for the survival of snow leopard and its prey species by reducing threats and applying sustainable land and forest management in critical habitats in northern Pakistan. Its duration is four years, GEF Implementing Agency is UNDP and other executing partners include Ministry of Climate Change and SLF. On-the-ground implementation will be through provinces and local communities.

Key barriers that the project intends to address include: (i) Inadequate capacity, knowledge and proven models for conserving snow leopard and wildlife species at a landscape level; (ii) Inadequate representation and protection of important habitats, including forests, in the existing protected area network; (iii) In sufficient economic incentives and alternatives to current practices of unsustainable land and forest use by local communities; and (iv) Lack of awareness and skills necessary for wildlife monitoring, wildlife crime prevention and detection and effective conservation decision-making.

Recognizing that these landscapes underpin the lives and livelihoods of a large number of local communities and that implementation of coherent strategy to promote conservation and sustainable livelihood options that are biodiversity friendly is an integral part of the solution. The proposed alternate project strategy included (i) Promoting a holistic and integrated landscape management approaches against current exclusive PA centric practice; (ii) Encouraging a participatory/consultative bottom-up de-centralized planning and implementation approach that focuses on provincial and community priorities; (iii) Strengthening capacities of all stakeholders for the effective enhancement of conservation, sustainable use, and improved and diversified livelihood options in support of conservation; (iv) Adopting an integrated multi-sectoral approach as a strategy for improving the planning and management of landscapes in Northern Pakistan; (v) Building an effective knowledge base on successful lessons and experiences from previous/on-going programs; (vi) Ensuring an adaptive management approach that considers ecological, demographical, market, technological and economic factors in the landscape; and (vii) Being selective in terms of project interventions and locations to serve as a demonstration model of the landscape approach, rather than spread “thinly”; and (viii) Being strategic in terms of developing foundational activities at first (coordination, mapping and planning) as tools to inform on-the-ground actions to support conservation.

He highlighted that the GEF requires the project to demonstrate an impact on the ground from implementation of the landscape approach in conserving snow leopard and its habitat. So there is a need to select demonstration valleys. Criteria for selecting project valleys comprised of: Valleys selected for intervention on the basis of snow leopard habitat suitability index; and (ii) extent of threat and conflict. Valleys are clustered rather than distributed across the landscape for maximum impact. Valleys and villages where there is willingness to participate in conservation action. Valleys that are accessible to enable inputs to be delivered. Limit number of valleys and villages as funds are limited and avoid spreading resources thinly.

Mr. Jansen was of the view that co-Finance is the commitment of provinces and relevant NGOs to participate in the project. It could be in cash or in-kind, but these co-financing activities should be aligned with the project. An estimate of how much of their own funds will be spent on project activities (or activities that support project activities) that will need to be tracked and reported through the project. He highlighted that the SLF need co-financing commitment letters on early basis.

Image Gallery









Annex 27

Co-financing Letters

-See Separate file-

Annex 28

Tracking Tool

-See Separate file-

Annex 29

LPAC and Provincial Consultation Meeting Report

-See Separate file-