



**Government of the Islamic Republic of
Afghanistan**



National Environmental Protection Agency (NEPA)

National Snow Leopard Ecosystem Priority Protection(NSLEP) forAfghanistan



2014-2020

Acronyms

AWEC	Afghan Wildlife Executive Committee
BACA	Band-e Amir Community Association
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
ISAF	International Security Assistance Force
IUCN	International Union for the Conservation of Nature
GEF	Global Environmental Facility
GIS	Geographical Information System
GPS	Global Positioning System
MAIL	Ministry of Agriculture, Irrigation and Livestock
MoIA	Ministry of Interior Affairs
NEPA	National Environmental Protection Agency
NGS	National Geographic Society
NSLEP	National Snow Leopard Ecosystem Priority Protection
UNEP	United Nations Environment Program
USAID	United States Agency for International Development
WCS	Wildlife Conservation Society
WFP	World Food Program
WPA	Wakhan Pamir Association

Importance of Snow Leopard Conservation and Snow Leopard Ecosystem

The snow leopard (*Panthera uncia*) is sparsely distributed across an area that exceeds 1.2 million square km (Jackson, et al., 2005) and extends across twelve countries: Afghanistan, Bhutan, China, India, Kyrgyzstan, Kazakhstan, Mongolia, Nepal, Pakistan, Russia, Tajikistan and Uzbekistan (Hussain, 2003). Afghanistan encompasses the far western range extent of the snow leopard's distribution. Included within Afghanistan's range is the Wakhan Corridor, the narrow panhandle of land in Badakhshan province (in the far northeast of the country) that connects Afghanistan with China (Figure 1). Wakhan is renowned for its wildlife, being home of Afghanistan's only populations of Marco Polo sheep (*Ovis ammon polii*) and various other threatened species, including snow leopards. Wakhan is also the "corner" of Asia's great mountains, and connects snow leopard ranges in the east such as the Pamirs, Karakorams, and Himalayas with the Altai, Kunlun, Tien Shans and other ranges to the north. At the international snow leopard conservation conference in 2008, Wakhan was identified by experts as a global priority Snow Leopard Conservation Unit.

Previous estimates for snow leopards in Afghanistan placed the number at only around 100 animals, but this was based entirely on an estimate of appropriate habitat in the country and the likely density of snow leopards, not actual data. Since 2009, the National Environmental Protection Agency of the Government of the Islamic Republic of Afghanistan with the cooperation of Wildlife Conservation Society (WCS) and community rangers has used camera traps, which have documented snow leopards in Wakhan. The surveys have produced a high frequency of photos, to-date; over 1,300 capture events have been recorded across 20 different locations in the landscape. This suggests that Wakhan is a particularly rich area for snow leopards and a global priority site for their conservation (Simms et al. 2011).

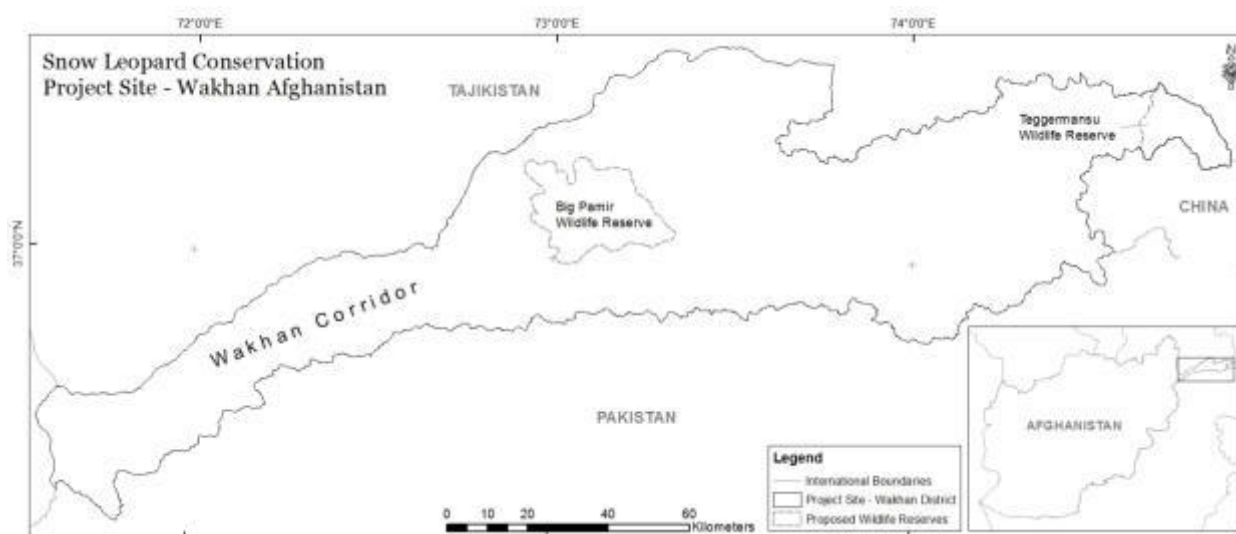


Figure 1: Geographical location of the Wakhan Corridor

The snow leopard is threatened and listed as Endangered (C1) on the IUCN Red List (IUCN, 2010) and it is also included in the Afghanistan Protected Species List. The snow leopard is an apex predator of the high mountain ecosystems and as such is an indicator of ecosystem health. There must be robust populations of prey species (mountain ungulates as well as smaller species such as marmots) and in turn healthy plant communities to support these if snow leopards are still present. Snow leopard habitat range intersects with the distribution range of the Marco Polo argali, Siberian ibex (*Capra sibirica*), urial (*Ovis vignei*), markhor (*Capra falconeri*) and other small and medium size mammals. In addition to this Wakhan is home for other predator species such as brown bear, high altitude bird species, medicinal plants and local communities who have shared the area with snow leopards for thousands of years. Healthy snow leopard ecosystems also mean rich biodiversity and a healthy and well-functioning ecosystem for other wildlife present in the area. As Afghanistan is in conflict for over three decades now, and because of this and

other resources constraints as a least developed country, there have been very limited studies on the ecosystems of Afghanistan and almost no studies on the value of ecosystem services to local communities and the nation. However the Environment Law of Afghanistan mandates NEPA to carry out research and studies on ecosystem services and quantify the value of such services to promote the realistic cost benefit analysis of the impact of development projects on ecosystem and set priorities for their protection and conservation.

A large number of communities living in snow leopard area and high mountain area of Afghanistan are comparatively economically poor and heavily reliance on the local ecosystem for their livelihood, particularly for pasturelands for their livestock and traditional medicines for trading. The presence of snow leopard indicates the healthy ecosystems which is equally important for rural communities for their livelihood. However, excess use of the pasture by communities poses a threat to the snow leopard in some areas. High mountain ecosystems where snow leopards exist are the primary water source with large glacial areas feeding major rivers that are the source of drinking water, irrigation, and electricity for millions of Afghan and their future prosperity. Healthy mountain ecosystems with good vegetation cover play an important role in regional climate regulation, water balance of the Mountain Rivers, and clean source of water for Afghanistan and downstream countries. Mountain ecosystem including snow leopard ecosystem carry great cultural and religious importance to Afghan and the value of this cannot be quantified in the economic terms. Further, the presence of snow leopards living in healthy ecosystems can be a considerable attraction for the development of eco-tourism industries not only benefiting local communities but also more revenues and employment at national level.

The snow leopard ecosystem is vulnerable to climate change, human disturbance and excess livestock grazing. Conservation and careful management of the snow leopard and its ecosystem can ensure the sustainability and future protection of the ecosystem, for the benefit of communities in the region.

Disseminating Information on the Value of the Snow Leopard Ecosystem and Generating Support for Conservation

Three decades of war and civil conflict kept wildlife issues as low priorities in Afghanistan. However, in the recent years, following the end of the Taliban regime, conservation initiatives have started and are beginning to yield positive results for wildlife conservation. In the past 6 – 8 years NEPA with the cooperation of WCS has undertaken major activities in the field of snow leopard conservation in Afghanistan. These activities are not limited to but include:

- Research and monitoring of the snow leopard and the large prey species in the Hindu Kush and Pamir ranges
- Community outreach programs
- Environmental education programs in the snow leopard distribution range
- Workshops and seminars for the community leaders, stakeholders and local governmental authorities
- Public awareness about the Environment Law and the Presidential Decree banning hunting
- Celebration of snow leopard day and other environmental oriented events in schools in the rural areas
- Environmental social awareness campaigns wildlife posters, dramas, and brushers
- Engaging communities and strengthening governance in the snow leopard range areas
- Establishing social organizations such as the Wakhan Pamir Association (WPA) which has proven very active in snow leopard conservation in the Wakhan Corridor
- Employment of community rangers who regularly patrol wildlife protection areas
- Training border police and customs officers in how to prevent smuggling of snow leopards and wildlife parts out of the country
- Education of spiritual and religious leaders on the importance of snow leopard and its ecosystem so that they can influence and promote conservation in their local communities

- Initiating the establishment of important areas for snow leopard conservation as protected areas
- Raising public awareness through numerous national and international media outlets including TV, radio, newspaper and magazines
- Celebration of the Environment Week at national level

Goals of the National Snow Leopard Ecosystem Protection Priorities (NSLEP)

The primary goal of the NSLEP is to increase the snow leopard and prey population through initiatives at national and regional level in the protection and conservation of mountain and snow leopard ecosystems in Afghanistan by mitigating various threats for the benefits of local communities and preservation of the associated cultural, religious and economic importance of snow leopard and snow leopard ecosystem for generations to come. Taking into consideration the social and political dynamics of Afghanistan in the coming years and with support from international communities, the following most realistic secondary objectives for snow leopard conservation are set to achieve this long-term primary goal.

- Enhance the knowledge base on the population-size, distribution and ecology of snow leopards and their prey species so as to better inform communities and implement conservation interventions through communities participation
- Identify the critical areas for snow leopard conservation and secure them within the protected area system
- Monitor regularly the threats to snow leopards and their prey and ensure that identified mitigation measures are effectively implemented; and
- Make Wakhan-Corridor as a global priority Snow Leopard Conservation Unit, and also a well-known eco-tourism place of Afghanistan.

Major Threats: Traditional and Emerging, in terms of Area Covered, Severity, Urgency, and Impact on Snow Leopards and their Ecosystems

The major threats to the survival of the snow leopard in Afghanistan are human disturbances (including hunting), declines in prey species, and livestock conflict. Snow leopards are hunted for a number of reasons. Pelts and body parts are sold for significant sums of money in domestic markets. In the 1970s, Rodenburg (1977) estimated that 50-80 skins were produced and sold in Afghan markets per year and recent excursions into the fur markets of Kabul indicate that snow leopard pelts are still available. Whole snow leopard pelts may sell for as much as USD \$1,000 in tourist markets and coats may sell for between USD \$500-1,000.

Snow leopards are also hunted in retaliation for livestock depredation (Hussain 2003, Habib 2006). Depredation by snow leopards causes economic losses among the local communities. These losses fuel negative attitudes towards large predators, especially the snow leopard, which is considered to be a primary predator of domestic livestock. Habib (2008) reported a 0.65% total stock mortality within one year in the Wakhan Corridor due to snow leopard predation that constituted around 11% of snow leopard diet (percent occurrence) whereas around 89% of its diet consisted of wild species. More research is required to understand the extent to which livestock depredation affects local communities across the snow leopard range in the country.

Decline in prey species is another major threat to the survival of the snow leopard in the country. Although, the total snow leopard habitat range is not known and sufficient data on snow leopard and its prey species is lacking for most snow leopard range, very recent surveys conducted show that prey populations have shrunk in specific areas. Decreases among prey populations will not only increase snow leopard-human conflict but will also have a negative impact on the reproduction of the snow leopard. This will result in a significant decline in snow leopard populations. According to local communities from northern Badakhshan, in the border areas with Tajikistan, wild ungulates face a serious decline in their

numbers when compared to the 1970s (Moheb and Mostafawi 2011, 2012 & 2013). In the 1970s, most of the areas along the Amu Darya River in Darwaz region were home for ibex, markhor and urial but recent surveys show a significant decline or even local extinction of some of these mountain ungulates, which led to a corresponding decline in large predator species such as snow leopard.

The table below indicates the major threats to snow leopard in terms of area, intensity, urgency and impact on snow leopard ecosystems.

Table 1: Major threats to snow leopard in terms of area, intensity, urgency and impact on snow leopard ecosystems				
Major threats to snow leopard	Area	Intensity	Urgency	Impact on SL Ecosystem
Category 1: Habitat & Prey Related				
Habitat Degradation	4	4	3	4
Habitat Fragmentation	3	3	4	4
Prey Reduction due to Illegal Hunting	5	4	4	3
Prey Reduction due to Competition with Livestock	3	3	5	5
Category 2: Direct Killing or Removal of Snow Leopards				
Retribution for Livestock Depredation	5	4	4	2
Poaching for Trade in Hides or Bones	2	3	4	2
Secondary Poisoning and Trapping	1	1	1	1
Capture of the cubs for pet trade	4	2	1	2
Category 3: Policy and awareness issues affecting conservation of snow leopards, prey and habitat				
Lack of Appropriate Policy	5	4	4	3
Lack of Effective Enforcement	5	4	5	3
Lack of Transboundary Cooperation	5	2	2	2
Lack of Institutional Capacity	5	5	4	3
Lack of Awareness Among Local People	2	3	3	4
Lack of Awareness Among Policy Makers	5	4	5	4
Category 4: Other Issues				
War and Related Military Activities	5	2	2	5
Human Population Growth (rapid) / Poverty (indirect threat)	5	3	2	5
Poaching by military personnel	5	4	4	2
Emerging Threats				
Climate Change	5	3	2	3
Growing Livestock Populations & Intensifying Human-Wildlife Conflict	5	3	3	4
Other:				
Snow leopard is considered as a pest species	5	3	2	3
Threat Values: 0 or 1 = no & low threats; 2 or 3 = intermediate threat level; 4 or 5 = high threat level AREA: Rank each threat according to how wide-spread it is (where 5 indicates it occurs across most or all snow leopard range within country; and where 1 indicates it is extremely limited in areal extent) INTENSITY: Threats ranked from 5 = the most destructive impact to 1 = the least negative impact URGENCY: Rank each threat identifying if it needs immediate & urgent attention (very time sensitive) (value = 5) to being of least concern or urgency (value = 1) IMPACT ON SNOW LEOPARD ECOSYSTEM: Rank each threat according to the degree of its negative impact on the snow leopard ecosystem; 1 shows the lowest while 5 shows the highest impact				

Isolation or Fragmentation: Snow leopard populations may be isolated but more research is required to understand regional population dynamics.

Afghanistan population trends: Trends for the snow leopard in Afghanistan are unknown but it is not likely to be less than a 20% decline over 2 generations.

Mitigating the Snow Leopard Threats based on Successful past Conservation Activities

- Expansion of the protected area network to include key areas for snow leopard and its prey species. This will automatically protect other wild species in accordance with Afghanistan's Environmental Law
- Increase scientific research on the snow leopard and its prey species. This could act as a baseline for the monitoring of population trends and the effectiveness of conservation activities in short and long terms
- Grazing and pasture management in important snow leopard areas in order to reduce the forage competition between livestock and wild ungulates
- Construction of predator-proof corrals in the snow leopard-livestock conflict zones, would mitigate the depredation events, which will eventually reduce incidents of human retaliation
- Conducting environmental education programs and public awareness in the mountainous areas where snow leopards exist. This will mitigate the negative feelings of the local communities towards this large predator species
- Increasing local knowledge about the status, distribution, ecology and behavior of the snow leopard and its prey species, which will increase the capacity of the local communities for better management of the snow leopard and its prey species
- Enhancement of law enforcement
- Control illegal hunting of snow leopard prey species
- Generation of job opportunities through natural resource management for the local communities, which automatically reduces snow leopard and wild prey species poaching activities in the snow leopard range areas
- Creation of self-sustainable community development projects that could act as an alternative for natural resource use across some of the priority snow leopard habitats in the country
- Design of community based climate change adaptation projects for the communities in the snow leopard range areas with co-benefits in resilience to the impact of climate change and biodiversity protection
- Prioritize the snow leopard ecosystem protection and conservation as regional program of biodiversity protection and conservation in the NBSAP

Snow Leopard Conservation Management

The National Environmental Protection Agency (NEPA) has so far conducted numerous snow leopard conservation activities in Afghanistan since 2006. These activities include policy and legislation, trans-boundary actions, research and monitoring including eco-system health program and wildlife trade monitoring in order to manage and protect snow leopard and other wildlife of the Afghan Wakhan.

Moreover, the creation of community governance structures, deployment of 65 community rangers, building of predator-proof corrals and environmental education programs and community capacity development are among the activities so far conducted aiming to conserve the snow leopard in the Wakhan, northeastern Afghanistan.

The establishment of Afghanistan Wildlife Executive Committee (AWEC) that evaluate the wildlife based on IUCN criteria which enlisted the snow leopard into the protected species list of Afghanistan after specialized scientific evaluation, prevention of snow leopard hunting and smuggling, as well as, prevention of the sale and trade in their physical body parts, including pelts.

The presidential Decree to prevent the trafficking, trapping, causing habitat disturbance and illegal trade of wildlife, including snow leopards and other protected species which are now in the protected species list of Afghanistan have been announced through the mass media and educational programs for Afghan National Police and the Afghan Border Police, as well as, the Customs Department of the Ministry of Finance.

The National Environmental Protection Agency has informed all customs entry/exit points at airports, border crossings and other routes to interdict all illegal export/import of wildlife according to the Environment Law and its Bylaws with the assistance of relevant Ministries.

A. Policy and Legislation

The policy and legislation for snow leopard conservation includes the adoption of the Environmental Law, Afghanistan Protected Species List, National Biodiversity Strategy and Action Plan, National Protected Area System Plan, preparation of a Wildlife Regulation Law and CITES Regulation for consideration by the National Assembly. The National Environmental Protection Agency (NEPA) is currently working to create the Big Pamir Wildlife Reserve comprising 57,664 ha, the Teggermansu Wildlife Reserve covering 24,851 ha, and the Wakhan Conservation Area covering 1,145,678 ha, to increase intactness and improve connectivity across the landscape to protect snow leopards and other biodiversity. In order to support effective implementation of the regulatory system through use of economic instruments the development of the methodologies and tools for the valuation of the ecosystem services will also be the part of strengthening of legal system.

B. Trans-boundary Actions

The Government of Afghanistan attended the Urumqi conference in 2006 in which the four neighboring countries (Afghanistan, China, Pakistan and Tajikistan) defined and agreed to declare a Trans-boundary Protected Area in their respective border areas.

The mentioned countries have not signed any formal agreement as of yet. We did, however, agree that we will continue our discussions in the near future. Those discussions, while very important, have not produced any binding agreement. This will include the Afghan Wakhan Corridor, so far considered the hot spot for snow leopard in Afghanistan.

Following the 2006 conference, in 2011 another transboundary workshops took place in Dushanbe and a further three –country ecosystem health project workshop was conducted in 2011.

The National Environmental Protection Agency is actively trying to engage all Snow Leopard Range Countries in order to prevent the threat of extinction of the snow leopard with the assistance of Wildlife Conservation Society (Afghanistan).

Afghanistan is party to the UNCBD, CITES and UNFCCC and regularly participating and contributing to the objectives of these conventions, trans-boundary actions will also be developed and implemented in line with the objectives and obligations of these conventions among the range countries.

C. Research Activities

The National Environmental Protection Agency (NEPA) with the coordination of Wildlife Conservation Society (WCS), has surveyed the north and northeastern parts of Badakhshan Province (including Wakhan Corridor) that intersect with the snow leopard range in the northeastern parts of Afghanistan. Camera trap surveys have been conducted in the Wakhan Corridor; snow leopard prey-base studies as well as a depredation survey have been conducted in the Wakhan Corridor.

In June 2012 two male snow leopards were captured and collared with GPS collars and were successfully released back to the wild. Soon after, in September 2012 a female snow leopard that was followed by two cubs was captured and fitted with a third GPS collar. These three collared snow leopards continue their normal movements in the north-facing foothills of the Hindu Kush range in Wakhan. The collars send their locations regularly (Figure 1) and camera traps have photographed the collared leopards several times (Figure 2). This research aims to discover the snow leopard's movement, habitat use, home range and eventually population estimation for snow leopard Through GIS habitat modeling. This study is in progress and the final results are expected by the end of summer 2013.

Since April 2009 camera trap surveys for snow leopard have been conducted in the Hindu Kush range in Wakhan. Twenty nine Reconyx plus 6 Bushnell photo and video cameras respectively have been used which have so far captured around 1300 snow leopard pictures (figure 2). The camera trapping is ongoing.

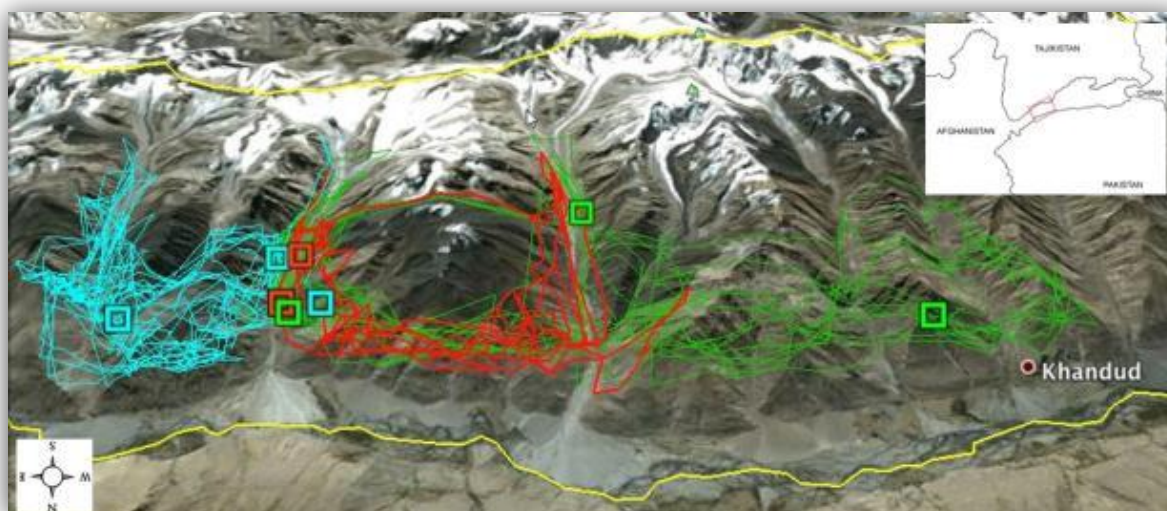


Figure 2: Tracks of the three satellite collared snow leopards

Wild ungulates such as urial, ibex, Marco Polo sheep (argali) constitute the major prey base species for snow leopard in the area, with marmots, hares and other small mammals also present in the snow leopard range in the northeastern part of Afghanistan. Comprehensive prey base surveys have been conducted in the Hindu Kush (Moheb et al. 2012) and Pamir ranges (Habib 2006; Habib 2008; Moheb 2009; Harris et al. 2010).

The WCS Ecosystem Health program in coordination with the National Environmental Protection Agency (NEPA) works in Wakhan carries out research on disease factors that may spill over from livestock to wild ungulates and they have trained local paravets who vaccinate livestock in Wakhan and monitor the domestic stock disease trends across the landscape. With funding support from USAID, which vaccinates thousands of the sheep, goats, cattle and yaks in Wakhan every year? The livestock vaccination program aims to decrease the spillover of contagious disease between the livestock and wild ungulates that are the primary prey species for snow leopard in the area. It also supports local communities by increasing their livestock productivity, which will automatically decrease their dependency on the available natural resources and will ultimately have positive impact on snow leopard conservation in the region.

A Himalayan Climate Change Adaptation Programme (HICAP), with support from Norway and implemented by ICIMOD in partnership with the Center for International Climate and Environment Research – Oslo (CICERO), and UNEP/GRID-Arendal is ongoing which will help to develop knowledge and enhance capacities to assess, monitor, and communicate the impacts of and responses to climate change (compounded with other drivers of change) on natural and socioeconomic environments at local, national, and regional levels.

D. Wildlife Trade Monitoring

The National Environmental Protection Agency (NEPA) with the Cooperation of Wildlife Conservation Society (WCS) developed a trade monitoring system for the International Security Assistance Force (ISAF) that regularly inspected on-base bazaars for snow leopard products this commenced in 2008 and continues today. Recognizing the success of this program, the US Department of Defense supported the making of a film about the dangers of trade for military personnel in products of endangered species such as snow leopard. This is now in use in ISAF bases.

The development of the community ranger program has also led to effective on-ground protection in Wakhan such that authorities such as National Environmental Protection Agency (NEPA) are now quickly informed of any illegal hunting incidents.

E. Community Engagement

With assistance from National Environmental Protection Agency (NEPA) and Wildlife Conservation Society (WCS) the local community developed a governance structure that enables functionality across

the geographical area. A legally recognized social organization, the Wakhan-Pamir Association (WPA), has been established. The WPA belongs to the people of Wakhan and is managed by a Board of Directors (BoD), a Chairman and a Secretary, who are elected by the community. The WPA is mandated to oversee sustainable natural resource management and socio-economic development in Wakhan. The National Environmental Protection Agency and Wildlife Conservation Society work in partnership with the WPA. The WPA receives support and training in conservation management and livelihood development. The WPA is helping to link the communities across the region, which in turn gives them additional strength and a better ability to protect their snow leopards.



Figure 3: Snow leopards photographed by the camera traps in the Wakhan Corridor

Snow leopards are directly protected through the development of a ranger program in the Wakhan Corridor. Since 2008 sixty-five community rangers plus ten government rangers have been appointed who regularly patrol the area to protect the snow leopard and other wildlife in the landscape. The rangers have been recruited from the local communities throughout the landscape. As a result of this network there are now seldom instances where wildlife crimes are committed and not reported.

Predator-proof corrals have been piloted in predation trouble spots determined through an analysis of past predation data collected from earlier surveys throughout the Wakhan Corridor. Livestock (up to 500 sheep and goats) are corralled communally in each of these structures. Depending on circumstance, the corrals are owned by a single village or cluster of villages. The recipient villages enter into a conservation agreement, formally committing them to not hunting snow leopards and other wildlife.

The National Environmental Protection Agency (NEPA) in collaboration with WCS and the WPA has also enacted a comprehensive Environmental Education Program that reaches all 15 schools in Wakhan and has a focus on snow leopard conservation initiatives.

Time-phased implementation program:

A. Implementation Bodies involved in the Snow Leopard Conservation Programs in Afghanistan

- National Environmental Protection Agency (NEPA)
- Ministry of Agriculture Irrigation and Livestock (MAIL)
- Afghan Wildlife Executive Committee (AWEC)
- Ministry of Interior Affairs (MoIA)
- International counterparts such as Wildlife Conservation Society (WCS), UNEP
- Local community structures such as Wakhan Pamir Association (WPACustoms Department)
- Government's focal points for the International Conventions

The National Environmental Protection Agency (NEPA) acts as leading and coordinating body for the implementation and monitoring of the NSLEP in Afghanistan. However, the NSLEP working group is consisted of the representatives of the other organizations including WCS.

B. Priority Activities and Costs for the implementation of the Snow Leopard Conservation Actions

Cost Structure of the Snow leopard Conservation Management in the recent past

Table 2: Cost Structure of Snow Leopard Conservation Management in Afghanistan									
No	Donor Organization	Implementer Organization	Duration of the project	Cost Structure in USD \$					
				Operation	Infrastruct ure	Staff	Training	Equipment	Total
1	USAID	WCS	2006 - 2013	557,148	87,646	564,090	34,613	104,059	1,347,556
2	USAID	ECODIT+ NEPA	2009-2010	-	-	-	-	-	125,066
3	NGS	WCS+WPA	2012 - 2013	-	-	-	-	-	75,000
4	WFP	WCS+WPA	2010 - 2013	-	-	-	-	-	144,000
5	Gov. of Afghanistan	NEPA	Up to 2013	-	-	-	-	-	100,000
		MAIL	Up to 2013	-	-	-	-	-	200,000
Total Expenditure									1,991,622

Major Financing Sources

The major financing source for snow leopard conservation in Afghanistan includes the Government of Afghanistan, the United States Agency for International Development (USAID), the Global Environment Facility (GEF) the United Nations Environment Program (UNEP), and the National Geographic Society. However, up to the present USAID has remained the major funding source for snow leopard conservation in Afghanistan. The Government of Afghanistan hopes that World Bank and other donor agencies will contribute to funding of these initiatives not only for snow leopard but also other conservation-valued species throughout the country.

Monitoring the Implementation of the Snow Leopard Program through Key Indicators

- Major threats to the snow leopard and their prey species have been identified throughout the snow leopard range in Afghanistan
- Threats to snow leopards and their prey species have been mitigated throughout the snow leopard range in the country
- Local communities have been educated about the importance of the species within the snow leopard range
- Some of the key areas where this animal is abundant are identified and included in the protected area system of the country
- Population size and density of the snow leopard as well as the prey species in priority areas are known
- Management plans for snow leopard and major prey species e.g. Marco Polo sheep (argali), ibex, markhor and urial conservation have been provided
- Human-snow leopard conflict has decreased
- Snow leopard is declared as Afghanistan's National Animal

Table 3: Cost Structure of the Snow leopard Conservation Management in the future [First 3-year Action Plan (2014-16)]

Table 3: Cost Structure of the Snow leopard Conservation Management in the future [First 3-year Action Plan (2014-16)]					
Actions	Threats	Actions	Measurable Outcomes	Estimated Costs, \$m	Expected Donors
Institution	Lack of Knowledge regarding snow leopard and its prey species population	Engage appropriate research	Status of the snow leopard and the major prey species are known; Better management of the species/areas based on the available monitoring data; creation of a Database of the gathered data	1.95	USAID, GEF and WB
Policy	Habitat degradation, over grazing, poaching and retaliatory killing	Adopt, draft and enforce new laws, regulations and policies	Educate related agencies through workshops, conferences and trainings; draft and enforce laws, regulations and policies, reduction on illegal trade	1.5	USAID, GEF and WB
Conservation	Excess livestock population, retaliation, poaching, illegal trade, poor law enforcement in remote areas, lack of education and awareness	Identification and declaration of protected areas and key snow leopard habitats;	National Protected Area System Plan are implemented; Protected Areas are declared; Management Authorities are established; communities are educated and empowered, benefit sharing systems are set up;	7.1	USAID, GEF and WB
Transboundary	Illegal trade across borders; weak transboundary cooperation; lack of institutional capacity	Re-establish Oromchi Conference on Transboundary Protected Area	Cooperation among the range countries; establishment of transboundary management plan; establishment of transboundary management authority	0.1	USAID, GEF and WB
Monitoring	Lack of knowledge about snow leopard and prey species; lack of institutional capacity; lack of data on habitat degradation, fragmentation, poaching and illegal trade	Scientific monitoring of snow leopard, habitat, and threats: current practice and areas for improvement	Technical reports; development of research center; institutional capacity development; successful prosecution of poachers and smugglers	0.25	USAID, GEF and WB
Communication Strategies	Lack of Knowledge regarding snow leopard and its prey species population; lack of institutional capacity; lack of data on habitat degradation, fragmentation, poaching and illegal trade	Dissemination of the reports/articles; media and press releases; Environmental education programs for schools throughout the snow leopard range	Increase knowledge and understanding among the stakeholders; enhance better coordination among the conservation bodies; increase local knowledge and capacity in the snow leopard distribution range; mitigate the illegal poaching and trade	0.5	USAID, GEF and WB

Major Cross Border Collaboration Needs and Actions

- Establish an effective mechanism for the exchange of available data on the snow leopard throughout the species' range. Creation of database by range countries to improve data sharing on monitoring, scientific research, poaching and smuggling of snow leopard and its prey species. Afghanistan may not be able to take the lead on such an initiative but can be part of the efforts together with other range countries.
- Agreement on regional standardized monitoring methods for the species. This is only possible if all the range countries agree to create a GSLEP Secretariat that could monitor and control all the scientific and management activities for snow leopard conservation throughout the region.
- Provide legal protection tools for the border areas. The Government of Afghanistan is working to bring the entire Wakhan Corridor under legal protection by declaring it as protected area. However, progress towards this goal is subject to security conditions within the country.
- Sign a formal transboundary cooperation agreement with the neighboring countries lay under the snow leopard range
- Development of the International Transboundary Protected Area in the area between Afghanistan, China, Pakistan and Tajikistan (as defined and agreed upon at the 2006 Urumqi Conference)
- Development and implementation of regional programs that generates benefits for snow leopard ecosystem protection and conservation, climate change adaptation and mitigation, and biodiversity conservation exploring related MEAs financial mechanisms.

Effective Communication Strategies

- Snow leopard survey reports are prepared and widely disseminated to Government and local authorities.
- Press releases on snow leopard conservation efforts are regularly produced.
- The environmental education program in local schools continues to reinforce the messages about snow leopards and the importance of their conservation.
- Snow leopards remain a major source of interest to all media bodies for their proactive participation in awareness creation.

Awareness is given, on a continuous basis, about the Protected Species Program to the Law Enforcement Agencies, which include but is not limited to, the Afghan National Police, National Border Police, Directorate of National Security, Customs Department of the Ministry of Finance), as well as, Ministry of Agriculture, Irrigation and Livestock (MAIL).

Awareness about the Protected Species Program is continuing for entire police stations, border police stations and sub-stations about the religious and scientific value of biodiversity and specially the snow leopard in order to prevent the smuggling and the illegal trade of wildlife.

Local Community Leaders, Elders, Volunteers, Environmentalists, Ecologists, Wildlife Specialists in the snow leopard hot spots are actively assisting the National Environmental Protection Agency and its national and international partners to conserve, rehabilitate and protect the snow leopard and its natural habitat.

When caring individuals from different nations, languages, cultures, walks of life, join hands together as part of a greater team to protect God's Majestic Creations, success can surely be achieved.

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