



United Nations Development Programme  
Country: Tajikistan



PROJECT DOCUMENT

<b>Project Title:</b>	<b>Conservation and sustainable use of Pamir Alay and Tien Shan ecosystems for snow leopard protection and sustainable community livelihoods</b>
<b>Country Programme Outcome(s) and Output(s):</b>	Outcome 6: <i>Improved environmental protection, sustainable natural resources management, and increased access to alternative renewable energy</i> Output 6: <i>Government is provided with capacity building support to negotiate, ratify and implement major international conventions, trans-national policy and legal frameworks on sustainable natural resources management (including climate change, water management and biodiversity).</i>
<b>Executing Entity/Implementing Partner:</b>	National Biodiversity and Biosafety Centre (NBBC)
<b>Implementing Entity/Responsible Partners:</b>	UNDP

Programme Period:	5 years	Total budget	USD 23,791,370
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Start date:	April, 2016	UNDP	USD 6,410,000
End Date	April, 2021	NGOs	USD 500,000
Management Arrangements	NIM	Private sector	USD 1,500,000
PAC Meeting Date	TBD		

Agreed by (Government):

\_\_\_\_\_  
Date/Month/Year

Agreed by (Executing Entity/Implementing Partner):

\_\_\_\_\_  
Date/Month/Year

Agreed by (UNDP):

\_\_\_\_\_  
Date/Month/Year

## Brief Description

Situated in the far west of the species distribution range, the total habitat of the snow leopard in Tajikistan is reported to be about 85,700 km<sup>2</sup>. Tajikistan forms an important link between the southern and northern range 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 estimates for snow leopards is around 220 individuals - significantly lower than the approximately 1,000 individuals prior to the 1980's.

The Government of Tajikistan is a party to *The Bishkek Declaration on the Conservation of Snow Leopards* (2012). Within the framework of the 'Bishkek Declaration', the *Global Snow Leopard & Ecosystem Protection Program* (GSLEP, 2013) seeks to bring together governments of snow leopard range countries to collectively recognize the threats to snow leopards, and commit to coordinated national and international action. The foundation of the GSLEP is a set of 12 *National Snow Leopard and Ecosystem Priorities* (NSLEP) developed by each range country government.

This project will directly support the implementation of the priority actions contained in the NSLEP for Tajikistan. It seeks to: (i) prevent the further fragmentation of snow leopard and prey landscapes in Tajikistan; (ii) maintain and/or restore the quality of key snow leopard and prey habitats within these landscapes; (iii) improve the conservation status of, and sustainability of pasture and forest use in, these key snow leopard and prey habitats; and (iv) reduce the direct threats to the survival of snow leopards and prey populations living in these key habitats.

The project strategy is focused around four strategic areas of intervention as follows:

*Conservation areas* – improving the conservation tenure and conservation security of protected areas and community-based conservancies by building the institutional and individual capacities to implement a smart patrol system;

*Livestock pasture areas* – improving sustainable management of pasture lands across the snow leopard range by incentivising changes to unsustainable practices and reducing the extent and intensity of conflicts between pastoralists and snow leopard and their prey by enhancing the survival rate of livestock;

*Forest areas* – improving the ecological integrity of forests in the snow leopard range by: (i) rehabilitating degraded forests; and (ii) reducing the extent and intensity of harvesting of wood from these forests by encouraging the adoption of other fuel sources; and

*Knowledge* – expanding the reach of research, monitoring and planning efforts about snow leopard, snow leopard prey and their habitats by building institutional capacities, resources and partnerships.

The project is structured into three components, with each component comprising a complementary suite of two to four outputs which will collectively contribute to realizing the targeted outcome for the component.

The first component will support the development and implementation of a smart patrol system in two sections of the Tajik NP, a World Heritage Site. Work under this component will be focused around four key areas of project support: (i) Secure the conservation status and boundaries of protected areas (Output 1.1); (ii) Develop the capacity to implement a smart patrolling system in protected areas (Output 1.2); (iii) Improve the equipment and infrastructure to support the implementation of a smart patrolling system in protected areas (Output 1.3); and (iv) Enhance community involvement in, and beneficitation from, protected areas (Output 1.4).

The second component will assist in improving the planning and management of the high altitude livestock pastures and indigenous forests located along, or immediately adjacent to, the key snow leopard migration routes within the *Hissar-Alay* and *Vakhsh-Darvaz* areas. Work under this component will be focused around three key areas of project support: (i) Reduce impacts on, and improve the management of, livestock pastures (Output 2.1); (ii) Reduce impacts on, and improve the management of, forests (Output 2.2); and (iii) Strengthen wildlife monitoring and enforcement capacities (Output 2.3).

The third component will strengthen the state of knowledge of, and collaboration in, the conservation of snow leopard and their ecosystems. Work under this component will be focused around two key areas of project support: (i) Enhance the state of knowledge on snow leopard and prey populations (Output 3.1); and (ii) Improve the coordination of, and cooperation in, snow leopard conservation and monitoring (Output 3.2).

The total cost of investment in the project is estimated at US\$23,791,370, of which US\$ 4,181,370 constitutes grant funding from GEF and US\$19,610,000 comprises co-financing from national government, local government, the private sector, NGOs and UNDP.

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## ACRONYMS

ABT	Access Bank of Tajikistan
ADB	Asian Development Bank
ALRI	Agency for Land Reclamation and Irrigation
APO	Annual Plan of Operation
APR	Annual Progress Report
APW	Annual Plan of Work
AWP	Annual Work Plan
CAREC	Regional Environmental Centre for Central Asia
CBD	Convention on Biological Diversity
CEP	Committee on Environmental Protection
CITES	Convention on International Trade in Endangered Species
CMS	Convention on Migratory Species
CO	(UNDP) Country Office
COP	Conference of Parties
CP	Country Programme
EBRD	European Bank for Reconstruction and Development Bank
ERCA	Ecological Restoration and Biodiversity Conservation in Central Asia
EURECA	Environmental Program of the European Union for Central Asia
FLERMONECA	Forest and Biodiversity Governance Including Environmental Monitoring
FLEG	Forest Law Enforcement and Governance in Central Asia
FMFB	First Micro Finance Bank of Tajikistan
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIS	Geographical Information System
GIZ	<i>Deutsche Gesellschaft für Internationale Zusammenarbeit</i>
GoT	Government of Tajikistan
GPS	Global Positioning System
GSLEP	Global Snow Leopard Ecosystem Protection (Programme)
HDI	Human Development Index
IBA	Important Bird Area
INTERPOL	International Police Organisation
IT	Information Technology
IUCN	International Union for the Conservation of Nature
JFM	Joint Forest Management
M&E	Monitoring and Evaluation
MEWR	Ministry of Energy and Water Resources

MONECA	Environmental monitoring in Central Asia
MOU	Memorandum of Understanding
MSME	Micro, Small and Medium-sized Enterprise
NAPCSL	National Action Plan for the Conservation of Snow Leopards
NBBC	National Biodiversity and Biosafety Centre
NBSAP	National Biodiversity Strategy and Action Plan
NEAP	National Environmental Action Plan
NEST	National Environmental Security Task Force
NGO	Non-Government Organisation
NIM	National Implementation
NP	National Park
NSLEP	National Snow Leopard Ecosystem Protection (Portfolio)
PAA	Project Administrative Assistant
PA	Protected Area
PFM	Participatory Forest Management
PIR	Project Implementation Report
PM	Project Manager
PMU	Project Management Unit
PPCR	Pilot Program for Climate Resilience
PPR	Project Progress Report
PUU	Pasture User Union
RSC	Regional Service Centre
RTA	Regional Technical Adviser
SBAA	Standard Basic Assistance Agreement
SC	Steering Committee
SLSS	Snow Leopard Survival Strategy
SO	Strategic Objective
SP	Strategic Programme
SPCR	Strategic Program for Climate Resilience
SPNA	Special Protected Nature Area
TBWP	Total Budget and Work plan
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNDP CP	UNDP (Tajikistan) Community Programme
UNFCCC	United Nations Framework Convention on Climate Change
WB	World Bank
WHS	World Heritage Site
WWF	World Wide Fund for Nature

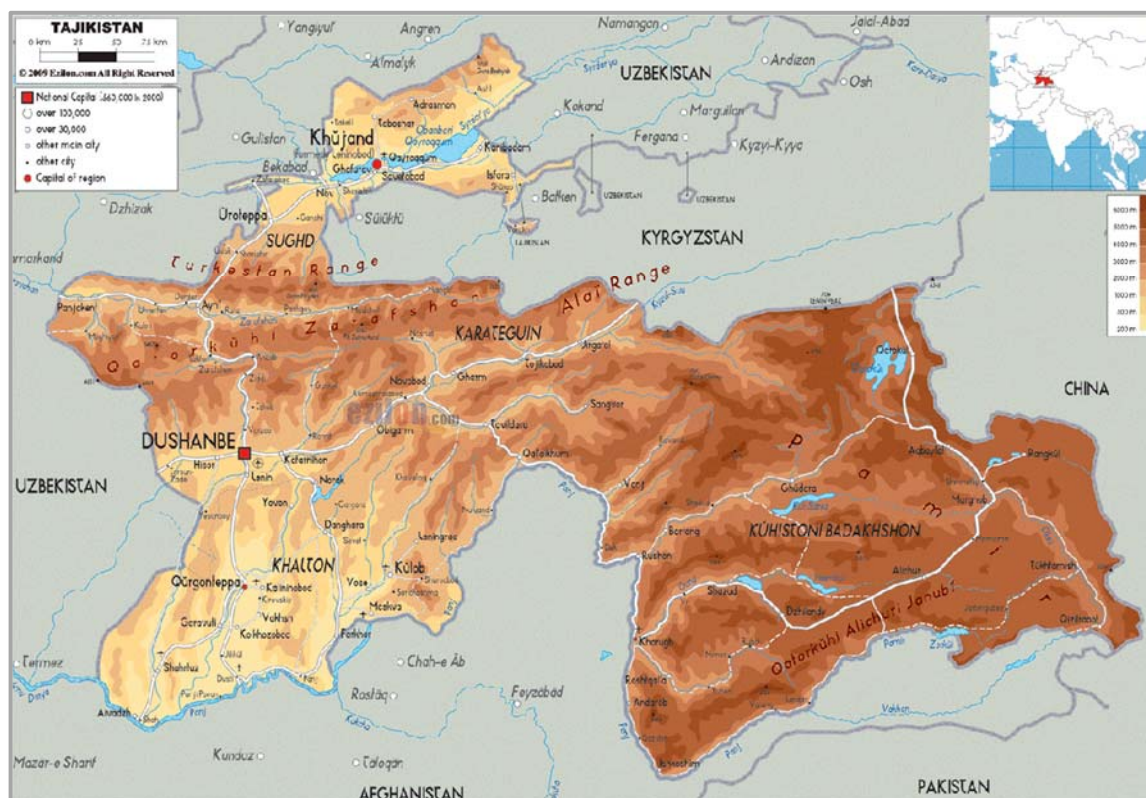
# SECTION I: ELABORATION OF THE NARRATIVE

## PART I: Situation Analysis

### CONTEXT AND GLOBAL SIGNIFICANCE

#### *Geographical context*

1. Tajikistan, the smallest of the Central Asian countries, is landlocked and shares its boundaries with Uzbekistan and Kyrgyzstan to the west and north, Afghanistan to the south, and China to the east (see Map 1 below).



**Map 1: Physical map of Tajikistan**

2. The topography of Tajikistan is characterized by the prominence of mountains and rivers. Mountains include the towering ranges of the Pamir and Tien Shan, containing peaks ranging from 1,300 m - 7,495 m. The Pamirs are the source of several torrential rivers that have carved out gorges and canyons. The Hissar-Alai (southern Tien Shan) ridges are central to Tajikistan geography, with numerous mountains exceeding 5,000m. The mountains are noted for their glaciers, probably the largest in Asia. The Fedchenko Glacier is the largest in the Pamir (77 km long and 1,700 m - 3,100 m wide) while the Zeravshan Glacier is also noteworthy. The country has about 1,200 rivers, with a total length of about 30,000 km. The longest rivers in the country include the Amu Darya, Syr Darya, Zeravshan, Vakhsh, and Panj rivers. Tajikistan also contains numerous lakes, the biggest of which is the saline Lake Karakul (in the eastern Pamirs), with a surface area of 380 km<sup>2</sup>. The freshwater Lake Sarez (in the western Pamir) is the deepest (490 m), with a surface area of 86.5 km<sup>2</sup>.

3. Tajikistan's climate ranges between continental, subtropical, semiarid and arid. It generally has cold winters and hot summers, with temperatures that can reach 45°C. Temperature differences at high and low elevations can be huge. Annual rainfall is influenced by topography, and is often a constraining factor for agriculture. At lower elevations, the average temperature range is from 23° to 30°C in July and from 1° to 3°C in January. In the eastern *Pamirs*, the average July temperature is 5° to 10°C, while January's average temperature drops to between -15° and -20°C. Average annual precipitation for most of the *Pamir* mountain range is between 700 and 1,600 millimetres. Most precipitation falls at the Fedchenko Glacier, which averages 2,200 mm per year; the lightest precipitation is in the eastern Pamirs, which average less than 100 mm per annum. Most precipitation occurs during winter and spring.

4. The major ecosystems in Tajikistan include forests, woodlands, rangelands (steppe and grasslands), deserts and wetlands. The vegetation changes from steppe communities in the west to semi-desert and desert-like formations in the south. Towards the east, the land rises above the plains with several peaks above 5,000 m and is enveloped by broadleaf and coniferous forests, sub-alpine and alpine meadows, glaciers and snowfields. The eastern and southern regions of the country are characterized by open, rocky slopes having extensive woodlands dominated by juniper (*Juniperus*) and pistachio (*Pistacia*) species. Lowland forests are found on the floodplains and low river terraces, generally growing on alluvial, swampy, or moist soils. Very few lowland forests have been preserved, although some stands remain. High mountain meadows are dominated by herbaceous species. Alpine habitats are dominated by dense low-lying perennial plants. Unique communities of cliff and rock vegetation are distributed throughout the high mountains. Wetland ecosystems are found throughout and include river deltas, marshes, swamps, lakes, and streams in alpine regions. A variety of lakes are scattered throughout Tajikistan, from small alpine lakes to large bodies of water.

### ***Biodiversity context***

5. Much of Tajikistan falls within the Mountains of Central Asia biodiversity hotspot, one of Conservation International's 34 global biodiversity hotspots and one of WWF's Global 200 priority ecoregions for global conservation. There are five wetlands of international importance (Ramsar sites) and 18 Important Bird Areas (IBAs) in Tajikistan. The flora and fauna of is represented by more than 23,000 species of which approximately 1,900 are endemic.

6. Some 9,771 plant species have been recorded from the country, of which 1,132 are endemic and 226 are listed in the Red Data Book of Tajikistan. About 1,000 vascular plant species are reported from the high mountains, with high levels of endemism. Approximately 80% of the plant species found in rock and scree communities on limestone ridges are endemic.

7. Tajikistan is also home to more than 1,350 species of animals, about 800 of which are considered endemic. Twenty-two of the 46 reptile species and 2 of the 14 amphibian species in Tajikistan are endemic to the region. More than 52 species of fish are found in the rivers and lakes, more than a third of which are found nowhere else. Rare and endangered mammals include various gazelles (*Procapra* spp.), the argali (*Ovis ammon*), snow leopard (*Panthera uncia*), peregrine falcon (*Falco peregrinus*), paradise flycatcher (*Terpsiphone paradise*), mountain goose (*Anser indicus*), Menzbier's marmot (*Marmota menzbieri*), Siberian ibex (*Capra siberica*) and others. The Bukhara red deer (*Cervus elaphus*), the Persian gazelle (*Gazella subgutturosa*), and the markhor (*Capra falconeri*) are also listed in the Tajikistan Red Data Book as vulnerable species.

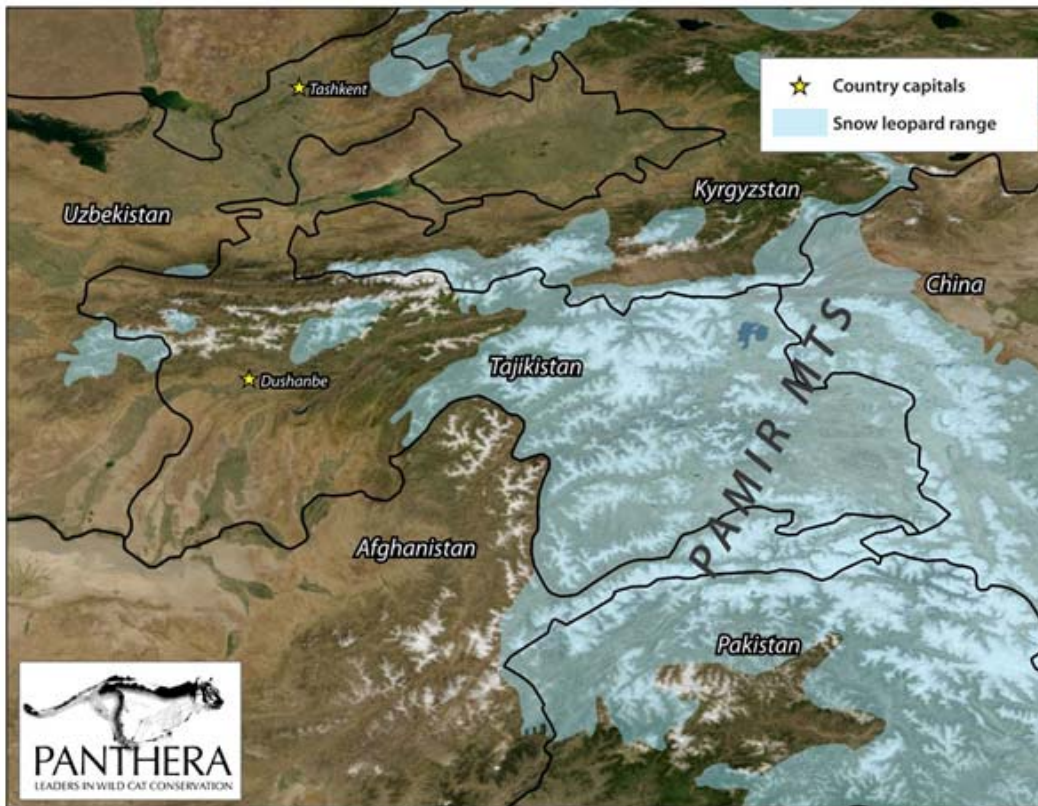
### ***Snow leopard and prey***

8. The snow leopard occupies the high mountains of twelve countries in central and southern Asia, covering an area of 1.7 million km<sup>2</sup>. 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 found at lower elevations (900–1,500 m) in northern parts of the range and in the Gobi Desert, and may range up

to 5,800m in the Himalaya and Qinghai-Tibetan Plateau region. In most of their range, snow leopards favour steep, rugged terrain, well broken by cliffs, ridges, gullies, and rocky outcrops. They show a strong preference for steep irregular slopes (in excess of 40°) and well-defined landform edges, such as ridgelines, bluffs and ravines, along which to travel about their home range. They may migrate to lower elevations during the winter to avoid deep snow and follow movements of their primary prey species. Home ranges vary from 12-39 km<sup>2</sup> in productive habitats, to over 500km<sup>2</sup> in areas of low prey density. Individual snow leopards move between 1 and 25 km per day on average, depending on prey density and terrain.

9. 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 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 IUCN red list.

10. Sited in the far west of the species distribution range, the total habitat of the snow leopard in Tajikistan is reported to be about 85,700 km<sup>2</sup> (see Map 2 below). Tajikistan forms an important link between the southern and northern range 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 180-220 individuals (significantly lower than the ~1,000 individuals prior to the 1980’s). Snow leopards are closely associated with the alpine and sub-alpine zones above the tree line, but they are known to also frequent open coniferous forest. The distribution of snow leopard in Tajikistan includes the Western and Eastern Pamir, Darvaz, Academy of Sciences, Peter the Great, Vanj, Yazgulem, Rushan, Shakh dara, Pshart, Muzkul, Sarykol, South Alichur, North



Alichur, Wakhan and Alay mountain ranges. Snow leopards are also known to occur in the Turkestan, Zeravshan, Hissar, Karategin, Hazratishoh and Vakhsh mountain ranges.



### **Map 2: Location of the snow leopard range in Tajikistan**

11. Medium-sized (55 – 65 kg) mountain ungulates - especially the Siberian ibex (*Capra sibirica*), Marco Polo sheep (*Ovis ammon polii*) and markhor (*Capra falconeri*) - serve as the primary prey species for snow leopards in Tajikistan. They also reportedly prey on Urial (*Ovis vignei*), red marmot (*Marmota caudata*), Tolai hare (*Lepus tolai*), wild boar (*Sus scrofa*), Royle's pika (*Ochonota roylei*), Chukar Partridge (*Alectoris kekelik*) and Himalayan snowcock (*Tetraogallis himalayensis*).

12. The population densities of most snow leopard prey species (Marco Polo sheep, ibex and markhor) are not yet fully monitored across the entire country. The current information available for ungulate prey species suggests that the numbers of animals are declining rapidly. For example, from 1960 to 2002 the Marco Polo sheep declined from 70,000 to 10,000; the Siberian ibex from 72,000 to 17,000; and the urial from 2,500 to 300<sup>1</sup>. The Marco Polo sheep is currently listed as Near Threatened in the IUCN red list.

#### ***Socio-economic context***

13. Tajikistan, with a population of about 8.2 million, is not a densely populated country. The population density varies significantly due to the mountainous geography, with the lowlands of northern and western Tajikistan the most densely populated areas. More than 70% of the population live in rural areas. The country is faced with a young and rapidly growing population - recent estimates suggest that 40 percent of the population in Tajikistan is under the age of 17.

14. Tajikistan's HDI value for 2012 is 0.622—in the medium human development category—positioning the country at 125 out of 187 countries and territories (UNDP Human Development Report, 2013). It is estimated that approximately 21% of the population live below the international poverty line

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<sup>1</sup> These figures are however rough estimates and need to be improved, as does the understanding of the cause of the decline which is thought to be a mixture of poaching and poorly managed trophy hunting concessions.

(i.e. less than US\$1.25 per person per day). A significant number of citizens (estimated to be 10-13 %) seek work in other countries (over 90% in Russia) and send remittances home to support families.

15. Tajikistan's economy is based on cotton, aluminium and electricity, from which Tajikistan derives three quarters of its total export earnings. The migration of workers from Tajikistan (and their consequent remittances) is unprecedented in their magnitude and economic impact. Migrant workers have played an important role as one of the drivers of Tajikistan's robust economic growth during the past several years.

16. The Gross Domestic Product (GDP) of the country was US\$8.5 billion in 2013, with a GDP per capita of US\$481. Economic growth has moderated to 6.7% in the first half of 2014 (from 7.5% in 2013) as activity slowed in almost all sectors. Weaker world economic growth and lower prices for cotton and aluminium have adversely affected the major export-oriented industries, pushing total industrial growth below 3 %, from nearly 7% a year earlier. Lower inflows of remittances, due to the slowdown of the economy in Russia, have also translated into lower domestic demand and slower growth in services and housing construction. Tajikistan's economic situation remains fragile and is further hampered by uneven implementation of structural reforms, corruption, weak governance, seasonal power shortages and a large external debt burden.

17. Responsible for more than 46% of total employment and 21% of GDP, agriculture is an important economic sector in Tajikistan. Less than 6% of the land area of the country is arable (~730,000 ha) with ~1% used for planting of perennial crops (e.g. fruit, nuts and coffee) and the remaining 5% used for planting staple foods such as wheat, maize and rice. Though growth in agricultural output weakened due to heavy rains and low temperatures, it was still a healthy 6% in 2014.

18. In an attempt to increase the levels of food production (and hence self-sufficiency and food security) of people in the rural districts, a process of land reform has been initiated and implemented by both civil society and government structures. These changes, which have a focus of reforming the Soviet collective farms towards a system with greater private stewardship of land, are being promoted along with efforts to increase the amount of arable land.

### ***Land tenure***

19. There is no private legal ownership of land in Tajikistan, as land and other natural resources are owned exclusively by the government, which is responsible for their effective use. The Land Code (1996, as amended) sets forth several tenure options for agricultural land, distinguishing primary use rights from secondary use rights. Primary use rights include the following: (i) *perpetual use* - this right has no fixed term and is granted to legal entities (e.g. state and cooperative agricultural enterprises, public and religious organizations and charities, industrial and transportation needs, public enterprises, defence, etc.); (ii) *limited or fixed-term use* - this right may be granted to legal or physical persons for either a short-term (up to 3 years) or long-term (3–20 years); and (iii) *life-long inheritable tenure* - this right may be assigned to physical persons or collectives and applies to land-shares used to organize a *dekhan* farm, as well as household plots. The only secondary use-right established in the Land Code is the *right to lease* in which a primary rights holder may lease out their plots for a term not exceeding 20 years.

20. All use-rights are subject to state-imposed land-use standards. Household farms are primarily leased, with 67% of the land leased from farm enterprises and about 12% leased from other individuals. The remainder (about 21%) holds use-rights received directly from the state.

### ***Forests and pastures***

21. The total area of pasture land in Tajikistan - including grasslands, alpine meadows, woodlands and wetlands - used for livestock grazing is estimated at 3.9 million ha. Most of these pastures are located in

hilly and mountainous areas<sup>2</sup> above 2,000 m. Traditionally pastures have formed the basis of Tajikistan's livestock sub-sector and have been utilised for centuries through an altitude- and season- based transhumance grazing system (see Table 1 below). In recent times, much of the pastures at lower elevations (<1,500 m) have been used for year-round grazing by local communities whose access to more distant pasture lands has been restricted due to changes in tenure arrangements as a result of population increase in most places. There have also been changes in livestock holding patterns and most families typically now own only 2-5 livestock per household.

**Table 1: Areal extent (ha) of rangelands, altitudinal distribution and season of use in Tajikistan (from: Squires and Safarov, 2013)**

Attribute	Season of use			
	Winter	Spring/Autumn	Summer	All year
Altitude (m)	500-1,200	900-1,500	2,200-3,400	500-1,200
Use (months)	Nov-Mar	Mar-May Sept-Nov	Jun-Aug	Jan-Dec
Use (days)	120-150	90-110	80-90	300-330
Total area (ha)	699,000	675,000	2,081,000	400,000+
Percentage (%) of total rangeland area	18	18	54	10
Distance from villages	0.8-1.4, 4-5	1.2-1.8 to 30	200-600*	<1

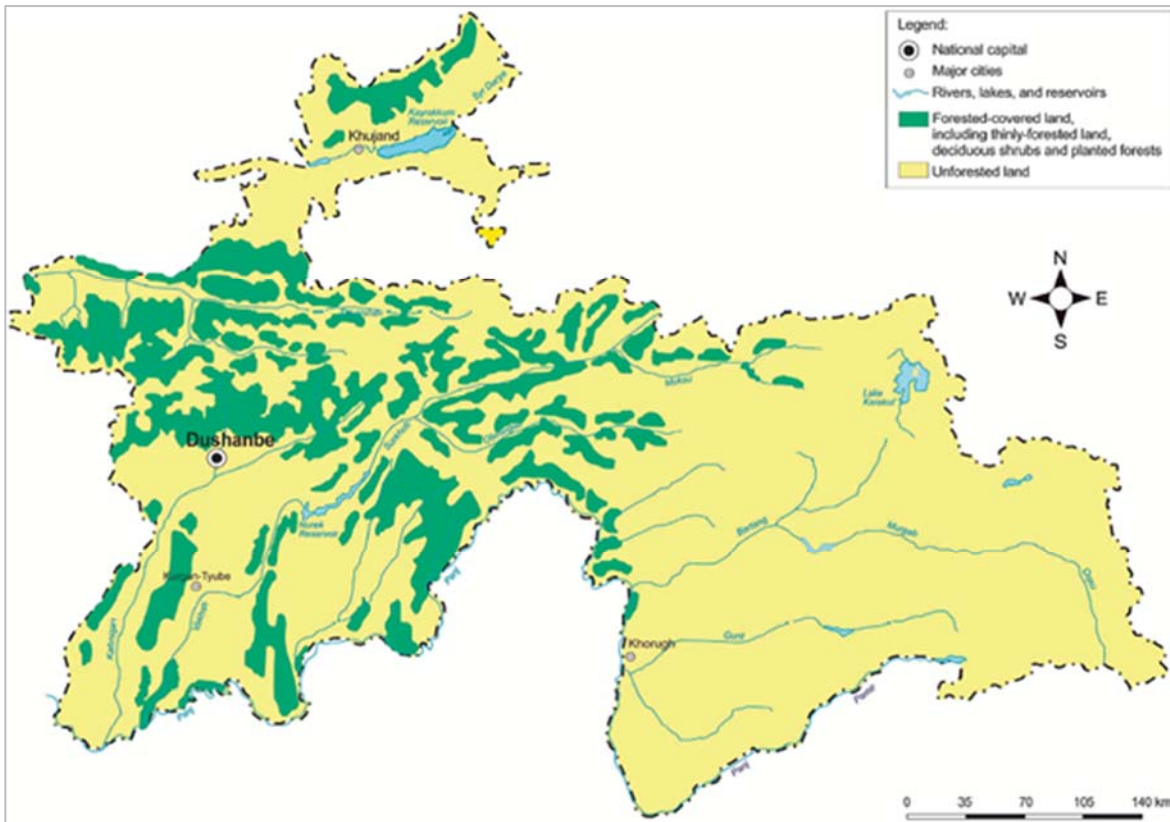
\* 6-8 weeks per year are spent travelling between summer and winter pastures.

22. Access to grazing rights may be obtained through lease agreements with the *dekhan* farms (typically for a period up to 10 years), certificates of use from the local offices of the Land Committee (typically for a period up to 20 years) and rental (typically short-term) from the local forest enterprises (*leskhoz*).

23. With 410,000 ha (or less than 3%) of the country's territory covered by forests, Tajikistan currently has the lowest forest coverage in Central Asia. This is the outcome of a prolonged deforestation process, particularly in the plains and foothills of Tajikistan, which reduced forest cover from possibly as much as 25% of the country over the 20th century<sup>3</sup>. The remaining forests are concentrated in mountainous areas in the western part of the country (see Map 3 below).

<sup>2</sup> Other areas such as lower-lying woodlands and wetlands are however also used for seasonal grazing.

<sup>3</sup> It is estimated that total forest cover has decreased about 15% over the last five years.



Map 3:  
Dist

### ribution of forested areas in Tajikistan

24. Almost all the forests in Tajikistan are classified as *protective forests*. Officially, felling is forbidden; only so-called ‘sanitary cuttings’ are permitted. Natural forests are divided into five types: broadleaved *mesophilous* forests; hard-leaved *xerophilous* light forests (*shibliak*); small-leaved *microthermous* mountain forests; *juniperus* forests; and *tugai* forests.

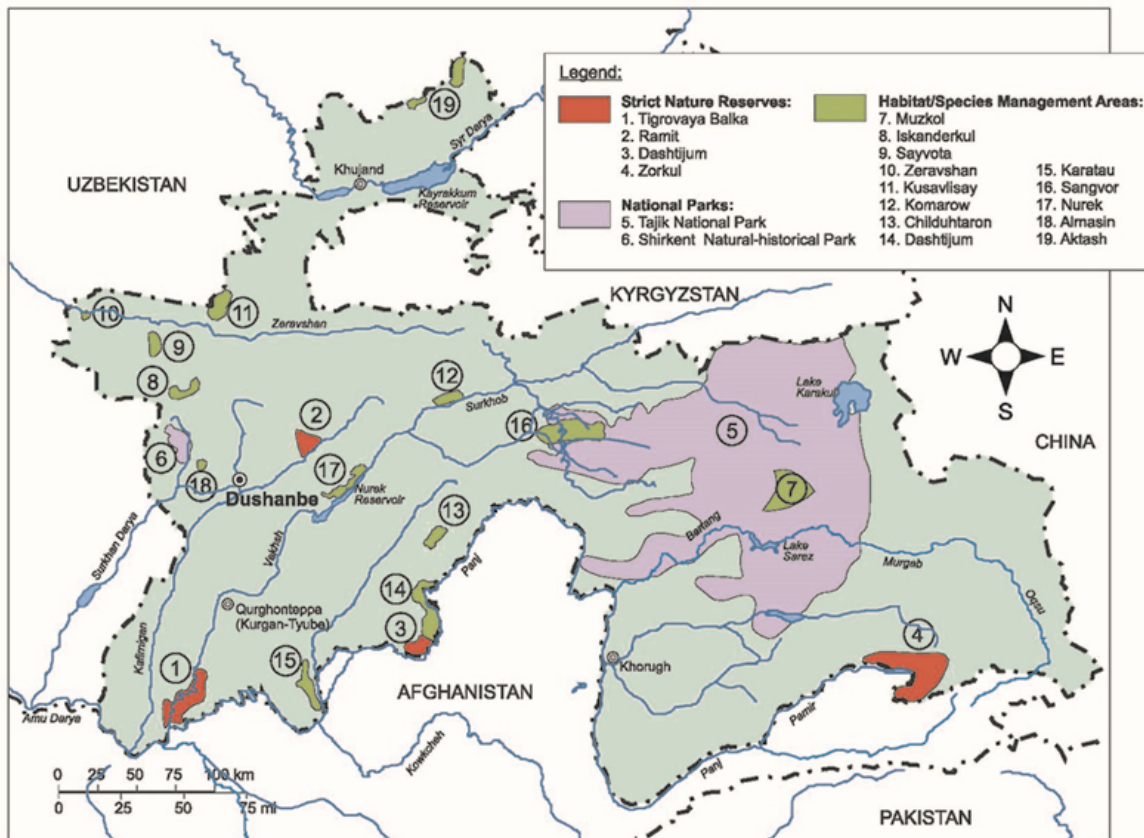
#### **Protected areas**

25. The Law on Special Protected Nature Areas (2011) makes provision for eight categories of Special Protected Nature Areas (SPNA’s) – Wilderness Areas/ Biosphere Reserves<sup>4</sup>; National/ Provincial Parks; Special Nature Reserves<sup>5</sup>; Natural Monuments; Ecological and Heritage Areas; Forest Parks and Botanical Gardens; Natural Health Treatment Territories and Resorts; and Natural Recreational Areas – of which only the four Wilderness Areas (IUCN Category I), two National Parks (IUCN Category II) and thirteen Special Nature Reserves (IUCN Category IV) are administered as *de facto* protected areas (PAs). The Wilderness Areas, National Parks and Special Nature Reserves – along with the twenty-six Natural Monuments (IUCN Category V/VI) - cover a total area of 3,116,440 ha, more than 21% of the territory of Tajikistan. About 2.6 million ha of the network of SPNAs is represented by a single SPNA, the Tajik National Park (2,611,674 ha). Tajik NP, encompassing almost the entire Pamir Mountains, was also inscribed as a World Heritage Site in 2013.

<sup>4</sup> Previously termed *Zapovedniks* or Strict Nature Reserves.

<sup>5</sup> Previously termed *Zakazniks* or Habitat/ Species Management Areas

26. Map 4 below shows the distribution of the IUCN Category I-IV protected areas in Tajikistan:



**Map 4: Distribution of IUCN Cat. I, Cat. II and Cat IV. Protected Areas in Tajikistan**

27. No new SPNAs have been established in Tajikistan since 2004, and there are currently no immediate plans to declare any additional protected areas in the country. Although considerable research has been conducted into the biodiversity of Tajikistan, the configuration of the protected area system has not been designed in a systematic manner to optimise representivity or persistence of biodiversity.

28. Approximately 75% of the country's snow leopard population have been recorded in the SPNAs. Snow leopards have been recorded in the following SPNAs: Tajik (~140 cats); Muzkul (15-20); Sangvor (10-12); Zorkul (6-7); Dashtidzhum (3-4); Iskanderkul (3-4); Kamarov (2-3); Nurek (2-3); Shirkent (2); Saryhosor (2); and Romit (2).

### ***Institutional context***

29. The National Biodiversity and Biosafety Centre (NBBC), established by Government Decree (No. 392 of 2003), was created to coordinate activities aimed at facilitating, monitoring and reporting on the implementation of the Convention on Biological Diversity (CBD) in Tajikistan. Its activities include: mainstreaming the NBSAP into sectoral action plans; developing fiscal incentives for biodiversity conservation; and developing and maintaining a national biodiversity database. The NBBC is structured into three departments: (i) Territorial Planning and Ecological Network; (ii) Implementation of the NBSAP and Priority Projects; and (iii) Monitoring, Research and Information Management. The NBBC works closely with the Research Laboratory for Nature Protection and the National Center on Implementation of National Environmental Action Plan.

30. The Committee on Environmental Protection (CEP) under the Government of the Republic of Tajikistan is the central executive body of the Republic of Tajikistan responsible for: (i) the regulation of nature protection and conservation activities; (ii) the development and implementation of nature protection and forestry policies; (iii) the regulation of natural resource use (land, water, air, flora, fauna, forests and fish) and management; and (iv) the development preparation of medium and long-term state programs for nature protection and sustainable use of natural resources.

31. The CEP shares its functions with the Executive Office of the President that is responsible for the environment and emergencies. The CEP has four inspectorates - flora and fauna; air pollution; water resources; and waste management - to regulate the sustainable use and protection of natural resources. The departments work under the guidance of the CEP chairman, in close cooperation with the offices for environmental policies and environmental standards and norms. The control departments are responsible for the compliance with national environmental standards and norms. At the local level, the CEP inspectorates are represented in the *khukumats* of all *oblasts* (regions) and *rayons* (districts).

32. The Forestry Agency, established by Government Decree (No. 132 of 2014), is the executive body responsible for the preparation and administration of state forest policy and regulations. It is directly accountable for the planning and management of state forests and forest resources, the supervision of recreational and commercial hunting activities and the planning and management of all SPNAs. Operationally, the Forest Agency is structured into three Divisions: (i) Division for Afforestation; (ii) Division for Forestry, Fauna and Flora Protection and Hunting; and (iii) Division for Agriculture and Wild-Growing Forest Products.

33. The Division for Forestry, Fauna and Flora Protection and Hunting is further organised into four units: (i) Forestry and Hunting Inspectorate (regulates and enforces forestry and hunting legislation); (ii) Department of Special Protected Natural Areas (administers National Parks and Wilderness Areas; (iii) State Forest Institution (implements forestry activities in state forests and administers special nature reserves); and (iv) Scientific Institute of Forestry (undertakes forestry research).

34. The State Forest Institution currently comprises 40 *leskhoz* (forest business units), 5 tree nurseries and 13 special nature reserves (usually located within the administrative area of the *leskhoz*). The *leskhoz* are engaged in forest protection, restoration, conservation and management throughout the country. The *leskhoz* are also in charge of wildlife (including hunting and fisheries) in the forests. The number of staff varies from *leskhoz* to *leskhoz* and depends on the area's size. Personnel include technical staff, administrative staff and workers and forest guards. Between 20 and 40 staff members are typically assigned to each *leskhoz*.

35. The Department of Special Protected Natural Areas is functionally further divided into four divisions: (i) Park Management; (ii) International Relations and Tourism; (iii) Monitoring, Research and Public Relations; and (iv) Finance and Human Resources. The Department has a total staff complement of 207, including nine park directors, 8 Deputy Park Directors, 117 rangers/ senior rangers, 41 fire-fighting staff and 25 technicians.

36. The Scientific Institute of Forestry, with a staff complement of 55 scientists and technicians, is active in four key areas: genetic research on forest species, forest cultivation technologies; pest control and rare forest species conservation. The institute works closely with the Academy of Sciences (see below)

37. The Academy of Sciences incorporates 20 research institutes and three territorial groupings: the Pamir Branch in the eastern part of the country (with 2 institutes), the Khujand Scientific Center in the north, and the Khatlon Scientific Center in the south-west. The Academy is structurally organized into three thematic scientific divisions/departments: (i) Physico-mathematical, Chemical, Geological and Technical sciences division; (ii) Biological and Medical sciences division; and (iii) Social Sciences department. The Division of Biological and Medical Sciences incorporate three research institutes: Institute

of Botany, Plant Physiology and Genetics; Institute of Zoology and Parasitology; and Pamir Biological Institute. The Institute of Zoology and Parasitology currently collates and maintain information on the distribution and density of snow leopard and prey populations.

38. At the regional government level, Tajikistan consists of four administrative divisions; one autonomous region (Sughd); two regions or *oblasts* (Khatlon Region and Gorno-Badakhshan Autonomous Region); and the Region of Republican Subordination. Each region is divided into 58 district<sup>6</sup> (or *rayon*) governments, which are further subdivided into 367 local government jamoats, and then villages/settlement administrative structures (*deha's*). In addition, sub-regional units include 17 towns and 54 urban-type settlements. Local government is typically divided into representative and executive branches. The representative branch in provinces, towns, and districts is the assembly (*majlis*) of people's deputies, who are elected locally for a five-year term. The executive power in provinces, towns, and districts is vested in the head of local administration, who is directly appointed by the President, with the approval of the local *majlis*.

### ***Legislative and policy context***

39. Tajikistan has a reasonably well developed environmental legislative framework. The key laws and regulations relevant to this project are briefly summarised in Table 2 below:

**Table 2: Relevant environmental legislation in the Republic of Tajikistan**

<b>Law</b>	<b>Date of adoption</b>	<b>Description</b>
<b>Law on Hunting</b>	2014	Provides the legal basis for the regulation and control of hunting activities and the protection of game species.
<b>Law on Pastures</b>	2013	Provides the legal framework for the conservation, sustainable use, tenure rights and administration of pasture lands. Makes provision for the establishment of Pasture User Unions (PUUs) to institutionalize communal grazing, pasture management and rehabilitation.
<b>Law on Environmental Protection</b>	2011	Provides the legal framework for the development of national legislation and policy in conservation and sustainable use of natural resources.
<b>Law on Special Protected Nature Areas</b>	2011	Provides the legal basis for the planning and management of a network of special protected nature areas (SPNAs). It makes provision for different categories of SPNAs in accordance with their management objectives.
<b>Law on Environmental Monitoring</b>	2011	Defines the institutional roles and responsibilities for environmental monitoring activities.
<b>Law on Environmental Information</b>	2011	Provides the legal framework for the management of, and access to, environmental information.
<b>Forest Code</b>	2011	Regulates the protection, rehabilitation and sustainable use of forests, forest species and forest products.
<b>Law on Environmental Education</b>	2010	Provides the legal and institutional foundation for the implementation of environmental education activities.
<b>Law on 'Dekhan' Farms</b>	2009	Makes provision for the establishment of a collective, individual or family 'dekhan farm' on state land. It sets forth the right of land-shareholders to transfer their land parcels to others, and to use their land-shares as collateral.
<b>Law on Soil Protection</b>	2009	Establishes the basic legal and institutional framework for the sustainable use of soils; soil conservation; the improvement of soil fertility; and the prevention of soil degradation.
<b>Law on Wildlife</b>	2008	Regulates the protection, rehabilitation and sustainable use of

<sup>6</sup> Not including the 4 districts of the capital city, Dushanbe.

		wildlife.
<b>Law on the Protection and Use of Flora</b>	2004	Regulates the protection, rehabilitation and sustainable use of plants.
<b>Water code</b>	2001 (amended 2011)	Provides the legal framework to support the development and use of water, and the protection of the national water resources.
<b>Land Code</b>	1996 (amended 2011)	Makes provision the ownership, tenure, administration, sustainable use and rehabilitation of land and the natural resources associated with that land.

40. A number of strategies and state programs on environmental protection and sustainable development have recently been adopted, as well as several sectoral documents that include environment-related provisions. The key programs relevant to this project are briefly summarised in Table 3 below:

**Table 3: Relevant state programs in the Republic of Tajikistan**

<i>State Program</i>	<i>Implementation period</i>	<i>Description of environmental aspects</i>
<i>Living Standards Improvement Strategy</i>	2013-2015	In the social sector, the strategy envisage ensuring environmental protection and sustainable development by: (i) ensuring environmental and sustainable development and institutional capacity building on sustainable environment management; (ii) building capacities for preparedness against natural disasters and the effective management of natural resources; and (iii) maintaining and managing biodiversity and environmental systems.
<i>National Development Strategy</i>	2007- 2015	Seeks to improve environmental sustainability through: (i) strengthening institutional capacities for environmental management; (ii) addressing problems associated with natural disasters through their prevention and the effective management of natural resources; and (iii) promoting conservation and proper management of biodiversity and ecosystems.
<i>State Environmental Program</i>	2009-2019	A framework programme that seeks to improve the state of environmental management and environmental cooperation in Tajikistan. Its priority focus includes: reduction of harmful emissions (water, atmosphere and soil); information-exchange and international support; cooperative environmental governance; and implementation of environmentally-friendly technologies.
<i>Program on improvement of conditions and rational use of pastures</i>	2009-2015	Seeks to increase the stock of pasture forage by cultivation of natural grasses, and improvement of productivity up to 1,500-2,000 kg of forage.
<i>Program on development of forestry in the Republic of Tajikistan</i>	2006-2015	Provides an implementation framework for forest planning; cultivation of commercial forest plantations (e.g. Walnut and Pistachio); rehabilitation and afforestation of degraded forests; and the protection and sustainable use of natural forests and forest products.
<i>State Program on development of natural protected areas</i>	2005-2015	Sets out the general objectives for the development of the protected area system, with a particular focus on infrastructure and capacity development.
<i>State Program on Environmental Monitoring</i>	2013-2017	Establishes the implementation framework for environmental monitoring activities, with specific reference to monitoring the threats to and impacts on the natural environment.



## THREATS, ROOT CAUSES AND IMPACTS

41. Snow leopard, wild prey and their ecosystems face a variety of direct and indirect threats that vary in intensity and prominence.
42. With growing human populations, livestock herds are growing and in many parts of the country they now exceed the capacity of the land to support them in a sustainable manner. The number of sheep grazing on the winter ranges and steppes and semi-desert areas of Tajikistan has, for example, nearly tripled over the past two decades. The estimated carrying capacity of the pasture land in the country is 1.36 million head of sheep, while the actual number of sheep is estimated at 4-5 million head. Similarly, as new economic incentives - particularly production of cashmere - encourages farmers to increase their goat herds, they are expanding their range and moving stock into more remote mountains which, until recently, have served as a refuge for the snow leopards and their prey. While this phenomenon is clearly evident in the more populated regions of Tajikistan, it is also becoming apparent in the more remote mountainous areas and along international boundaries.
43. Overgrazing is causing significant environmental damage over much of the Tajikistan rangelands, especially in the autumn-winter ephemeral and absinthe pastures and in the summer steppe pastures of the Kuramin range (in the north-eastern part of the country). Secondary plant communities now occupy 80% of the rangelands in the sub-alpine belt. Grazing of cattle in forested areas is also disturbing the undergrowth and affecting forage availability for wild ungulates.
44. The competition for food with large and growing domestic livestock populations is resulting in a reduction of wild prey numbers, which already live at relatively low densities due to the low productivity of the habitat. Moreover, with lower prey numbers, snow leopards are increasingly resorting to killing domestic livestock. Livestock have been reported as providing as much as 40–70% of the snow leopards diet (although it is generally thought to be more in the order of 15–30%<sup>7</sup>) in Tajikistan. This shift has resulted in increased human-snow leopard conflicts, where snow leopard depredation frequently results in retaliatory killings by farmers. Unofficial records suggest that at least 10 individual cats are killed per year by local people in livestock corrals.
45. Conflict between humans and snow leopards is likely to intensify as people seek to increase their use of more of the higher altitude pastures, and for longer periods of time. Increased numbers of people moving into previously remote areas is further resulting in an increase in the frequency of incidents of roadkill's, snaring and poaching of both snow leopard and their prey. In addition, snow leopards are being hunted for trophies as well as for their pelts. Extensive poaching by local communities of species that naturally form the prey base of snow leopard (e.g. Siberian ibex, Marco Polo sheep and markhor) is a further threat to the survival of snow leopards.
46. The limited availability of agricultural land, combined with its uneven distribution, has also led farmers to attempt cultivation of wheat for subsistence on fragile, steeply sloping and unsuitable lands, much of which was once forested. Some good-quality spring pastures have also, for example, recently been converted to crop production.
47. Some 60-70% of agricultural land is now considered to be severely affected by soil erosion resulting from poor agricultural practices and overgrazing. Although only limited data are available, it is clear that every year millions of tons of fertile soil are lost. For example, in the mountainous Surkhob river basin (the Boljuvan and Dangara districts), annual sediment runoff is estimated to be 6-8 tons/ha/year. An increase in gullying is also evident, as well as is the incidence of landslides.

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<sup>7</sup> Statistics for the number of livestock killed by snow leopards in Tajikistan are generally poor and unreliable.

48. Illegal logging and harvesting of fuelwood is threatening biodiversity in the region's forests. While officially-sanctioned logging has decreased in some areas over the past few years, illegal logging persists. Rural populations are also largely dependent on fuelwood for heating and cooking, with harvesting of fuelwood increasing nearly three-fold in some areas (when compared to a decade ago) as a result of energy shortages and the economic crisis. Illegal logging, accompanied by unsustainable levels of fuelwood collection, is leading to the degradation and loss of forest habitats and a decline in forest-dependent plant and animal species.

49. Numbers of large native herbivores such as wild sheep, goats and deer have dropped dramatically over the past century as have carnivores such as red marmot (*Marmota caudata*), muskrat (*Ondatra zibethica*), fox (*Vulpes vulpes*), badger (*Meles meles*), snow leopard (*Uncia uncia*), and wolf (*Canis lupus*), which are being over-hunted and placed at risk. Data on reptiles, birds, and fish are not easy to obtain, but doubtless many species have been lost or are in danger of extinction (at least locally).

50. Tajikistan is also highly vulnerable to the impacts of climate change. The greatest concern in Tajikistan has been an increase in air temperature. Ground air temperatures are increasing in most districts and high altitude zones. There has also been an increase of the number of days' maximum temperatures have reached 40<sup>0</sup> C or higher. There has been an increase in east and south-east (warm) winds, and a decrease in west and south-west (cold) winds. Thunderstorms and hailstorms, both associated with cold fronts, have decreased. Tajikistan's vulnerability—and that of the entire region—hinges on the availability of water, primarily from glaciers, and how those water resources are managed. More than 90% of the nation's energy comes from small and large hydropower facilities, and two-thirds of the region's water resources originate in Tajikistan. About 20% of the country's 8,492 glaciers are in retreat and 30% more are likely to retreat or disappear by 2050<sup>8</sup>. Droughts will likely be more intense and frequent in the future and climate change will worsen a long-term spiral of intensifying aridity in the region. A legacy of environmental mismanagement, under-investment in basic infrastructure, and limited institutional capacity is hampering the country's ability to cope with the projected impacts of climate change.

## **LONG-TERM SOLUTION AND BARRIERS TO ACHIEVING THE SOLUTION**

51. The Global Snow Leopard and Ecosystem Protection Program (GSLEP, 2013) – a collaborative programme between the governments of 12 snow leopard range countries and other partner organisations – provides the overarching implementation framework for improving the conservation status of snow leopards, wild prey, and their ecosystems across the entire snow leopard range. The long-term solution sought by the GSLEP (and the individual participating countries) is characterised by *inter alia*: (i) the maintenance or increase in snow leopard numbers to form viable populations; (ii) the maintenance or increase of prey numbers to support viable snow leopard populations; (iii) a reduction in the predation and mortality of livestock, and decreased killing of snow leopard and prey; (iv) the maintenance or restoration of habitat quality and connectivity to ensure the gene flow between snow leopard and prey populations; (v) a reduction in the rate of degradation of snow leopard and prey landscapes; (vi) reduced poaching and smuggling of snow leopard and prey, and their products; (vii) baselines that are established to track progress and effectiveness of conservation programs, enable adaptive management and enable identification of priority areas for protection; (viii) an enabling policy environment, and capacitated institutions, to deter wildlife crime and enact incentives for local communities to protect and conserve; (ix) a general public, resource users and decision-makers who are informed and educated about snow leopard ecosystems and the values associated with them; and (x) an increased capacity for better trans-boundary coordination between national and local institutions across the snow leopard and prey range.

52. Although the National Snow Leopard Ecosystem Protection (NSLEP) portfolio for Tajikistan (under the framework of the GSLEP) and the draft *National Action Plan for Conservation of Snow Leopard in*

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<sup>8</sup> The largest glacier – Fedchenko - has lost 44 sq km, or 6% of its volume, in the last 35 years

Tajikistan<sup>9</sup> (NAPCSL) collectively identify a suite of national and local actions that would be required to effectively conserve snow leopard, wild prey and their ecosystems in Tajikistan, there are however a number of significant barriers to the country's ability to contribute to achieving the long-term solution described above. The key barriers are briefly outlined below:

***Barrier 1: Limited resources for, and capabilities in, the planning and management of SPNAs***

53. While the IUCN Category I, II and IV protected areas (i.e. Wilderness Areas, National Parks and Special Nature Reserves) in Tajikistan should provide a safe haven for snow leopards and their prey, and secure the preservation of their natural habitats, in practice the conservation status of an SPNA does not imply effective protection on the ground. The SPNAs are collectively suffering from a severe lack of human and financial resources<sup>10</sup>, and conservation actions are only being partially implemented (if at all) in most of the *de facto* protected areas.

54. There is poor and inconsistent enforcement of the existing laws and regulations. Law enforcement and ranger patrol activities in SPNAs are extremely limited, leading to many poachers evading arrest and prosecution. Even when offenders are apprehended, the levels of prosecution are generally low. This situation is further compounded by the poor infrastructure (e.g. ranger stations, ranger lookout posts) and limited availability of equipment (e.g. binoculars, uniforms, back packs, weapons) and transport (e.g. vehicles) for SPNA ranger staff. Ranger staff salaries are also low, and there are limited financial (or other) incentives to retain staff and maintain their morale. There is a general lack of management, technical and professional skills in the staff complement of most SPNAs. The working conditions for SPNA staff are relatively harsh, and the risk of injury while on patrol is not uncommon. Law enforcement efforts in SPNAs are further hampered by the ineffectual demarcation of protected area boundaries. There is also no integrated approach to wildlife crimes by targeting traders and trade chains and including the judiciary, police and prosecutors as key partners in tackling syndicated poaching problems.

55. There are very low levels of awareness prevailing among communities living in adjacent villages about the real need to protect snow leopard and prey habitats and corridors, and the means to do this. There are few examples of meaningful collaboration between the SPNAs and adjacent communities in the protection of snow leopard, their prey and key habitats. Limited efforts are being made to support the social and economic development of local communities living in and around SPNAs (mostly being implemented by NGOs) - most of whom still rely on access to natural resources for part of their livelihood - despite the fact that proactive measures to improve the living conditions in these communities may significantly reduce the extent and intensity of threats to the ecological integrity of the sanctuaries ecosystems, habitats and species. There is a critical need for SPNAs to move away from the approach where local communities largely experience conservation efforts through law enforcement operations, to a more collaborative approach where financial and technical support provided to support the social and economic development of villages (such as nature-based tourism development, improved productivity of crops and pastures, development of community-based hunting packages and improved access to markets, etc.) is linked to specific pre-determined conservation outcomes (such as better control over poaching, more sustainable levels of fuelwood collection, reduction of livestock numbers in sensitive areas, adoption of non-destructive measures to control predators, etc.) in SPNAs.

56. The administration of most SPNAs is not being guided by contemporary strategic and operational management plans, with most management plans - where they exist - already more than 10 years old and increasingly irrelevant to the existing and emerging management challenges facing SPNAs. The

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<sup>9</sup> The National Action Plan has not yet been formally adopted by the Government of Tajikistan.

<sup>10</sup> By example, the Tavildara section (~360,000 ha) of Tajik National Park has a staff complement of 15 and an annual budget (including HR, operating and capital costs) of less than US\$26,400 per annum (equivalent to ~0.08 US cents/ha). The section management has only one vehicle, which at the time of the site visit, was not functional. Park staff are not uniformed and have no park-funded equipment.

management planning system for SPNAs is also not performance-based, and there is no objective mechanism to regularly monitor, review and document the financial and operational performance of SPNAs.

57. The administration of SPNAs in Tajikistan is predominantly financed from government budget allocations. The annual budget allocations for the operational and staff budgets (currently estimated at <US\$250,000 /annum) of the SPNAs are not sufficient to meet even the most basic management requirements. Intermittent funding for capital expenditure makes little or no provision for the replacement of ageing infrastructure, equipment and vehicles in SPNAs. Where there are other regulated sources of income for SPNAs – such as the allocation of a portion of the income from pasture tax and from hunting fees – these are however not being enacted (for a variety of reasons). The SPNAs are thus heavily dependent on periodic short- to medium-term funding and technical support from a range of development partners to supplement the shortcomings in their capital, operational and human resource budgets. Indications are that government budget allocations are, in the light of other more pressing demands on the national budget, not likely to increase over the medium-term to fill any financing gaps in SPNAs. SPNAs are generally considered a financial ‘drain’ on national, regional and district government resources, and there is a reluctance to allocate scarce funds to improve the planning and management of SPNAs. There is no compelling business case to motivate an increase in government funding of the SPNA network, notably through investments in nature-based tourism infrastructure and facilities that could contribute to improving the long-term financial sustainability of the SPNAs.

58. There also appears to be a general lack of business, economic and finance skills and technologies in the Forestry Agency to support a more business-oriented approach to the planning and management of SPNAs. The financial management system tends towards compliance and adherence to procedure rather than cost and implementation efficiency, and rarely cultivates the requisite business management skills within the SPNAs. Most SPNAs are run by forestry, enforcement and administrative staff who have limited or no training in budgeting, strategic planning, financial management systems or cost-effective approaches to protected area operations.

59. Of the 11 SPNAs covering the snow leopard range, only one – Tajik National Park – is large enough to ensure the long-term persistence of viable populations of snow leopards and their prey. Even in Tajik National Park, the recent construction of an international highway bisecting the park has impacted snow leopard and prey habitats, created a barrier to the safe movement of snow leopard and prey and opened up a previously remote area to poachers. The remaining SPNAs are too small, and typically only support a few individual cats, leading to lower genetic variation and an increased vulnerability to the principal stochastic factors influencing snow leopard population size and dynamics. Many of the existing SPNAs are also becoming biologically isolated - as a consequence of the conversion of forests, overgrazing and crop agriculture in the surrounding areas - effecting snow leopard and prey movement corridors, reducing potential dispersal areas of snow leopard and prey, compromising water yields from catchment areas, increasing the risk of erosion, and reducing the viability of snow leopard and prey population sizes.

### ***Barrier 2: Unsustainable land use management practices outside the SPNAs***

60. Snow leopards naturally range widely through the landscape, and any effort aimed at securing their long-term survival needs to ensure that they are able to move safely between the formal protected areas. Preventing the further fragmentation of landscapes - in order to ensure connectivity corridors between protected areas - as well as protecting and rehabilitating critical habitats is crucial for the sustainable conservation of snow leopard in Tajikistan. However, the size, remoteness, and harshness of snow leopard territories make this particularly challenging. Weak wildlife law enforcement is a chronic problem across the snow leopard’s range, with no capacity for anti-poaching efforts outside the network of SPNAs. Further, as human use of snow leopard landscapes increases and intensifies – driven by social and

economic imperatives - unsustainable levels of use is further degrading the quality and productivity of habitats, making the safe movement of snow leopard and prey increasingly difficult and less likely.

61. With the livestock industry being the main subsistence livelihood of rural populations living in the snow leopard distribution range, the livestock numbers - and associated demand for access to highly productive pastures - is growing. However, the available mountain pastures are coming under increasing grazing pressure, resulting in the incremental degradation and loss of productivity of these pastures as a result of overstocking and a reliance on the same mountain areas every season for grazing. While there are already well-established traditional (e.g. seasonal grazing systems, seasonal burns) and modern approaches (e.g. rotational grazing, supplementary feeding, stock number controls, rehabilitation of degraded areas) to address this challenge, there is however no strategic approach to coordinate efforts to improve the management of pasture lands across the snow leopard landscapes. There is no clear public institution directly responsible for the strategic planning and operational oversight of pastoral farming. There is also limited cooperation between the *rayons* and *jamoats* (the *de facto* institutions responsible for administering pasture land use) and the individual/corporate pasture use rights holders and pasture leaseholders in improving the management and rehabilitation of pastures. While the *rayons* are responsible for the administration of the pasture (and other) land use designated in the territorial plans, in practice there are no agricultural-pasture support staff within the *jamoats* or *rayons* to fulfil this function. Traditional knowledge of sustainable livestock ranching systems is increasingly being lost in rural communities, and there are few pasture management training programs and technical skills development initiatives available for commercial and subsistence livestock farmers.

62. Farmers and herders have not yet established adequate mechanisms to effectively protect livestock from predation. Livestock are not adequately monitored by herders during the day, and the use of dogs to secure livestock is not prevalent. The overnight corrals for livestock are often sub-standard and not predator-proof, creating opportunity for predation by snow leopard, bears and wolves. The efficacy of predator-proof collars for livestock has not yet been properly tested. Access to veterinary services and appropriate medication and vaccinations is also generally poor, further contributing to the loss of domestic livestock. There is no ready access to low-cost livestock insurance for pastoralists, leading to significant financial hardships for rural families when livestock are lost. Just 16% of households have access to formal financial services and small businesses lack financing especially in rural Tajikistan. Livestock farmers increasingly rely on second-tier banks and microfinance companies - whose lending ability is constrained by small market share, limited deposit mobilization, constrained and costly overseas borrowing due to Tajikistan's perceived high country risk, a dearth of qualified staff, and governance issues - for funding support.

63. There is limited understanding and knowledge of the current state of pastures in the snow leopard range, and hence no clear indication of the specific extent of the need for rehabilitation and restoration of montane grasslands and meadows. There is also no practical experience of the technical requirements for rehabilitating different grassland and meadow habitats, particularly in respect of increasing the productivity of, and expanding availability of land for, pastures. There are currently no successful grassland rehabilitation projects in the region that could serve as demonstration projects for scaling up of efforts to rehabilitate degraded grasslands for pasture use. The role of fires in the regeneration of, and as a mechanism for rehabilitating, grasslands for pasture use is still largely unknown.

64. The lack of implementation of sustainable pasture management practices is - in part - driven by inadequate knowledge, low technical skills and capabilities and limited resources (equipment, financing, infrastructure). While there are some agricultural subsidy and micro-credit schemes, these tend to be focused on crop agriculture and do not provide sufficient incentive for a shift towards more sustainable forms of pastoralism. There is virtually no technical or extension support provided by public agencies to local livestock farmers. There is thus a critical need to provide both technical and financial support to facilitate and incentivise the adoption of more sustainable pasture management approaches, including *inter*

*alia*: improved stocking rates; selective seasonal grazing; effective rotational grazing systems; supplemental feeding; adaptation of natural fire regimes; improved veterinary services; and value-added infrastructure and equipment.

65. It has been estimated that more than 90% of the rural population use solid fuels (wood, coal or dung) for heating and cooking, and that almost 70% used wood as their principal fuel. Assuming that approximately 5 million people rely on wood as their principal fuel source, national fuel wood demand would be in the region of 15-20 million m<sup>3</sup> per annum. This is however far beyond the production capacity of the country's remaining natural forests, many of which are located in the snow leopard landscapes. No fuel wood is currently being imported into Tajikistan, and the only legal domestic source of fuel wood (or indeed any wood) is sanitary cutting and forest clearing operations. There is however no official market for fuel wood, so potential buyers must approach the *leskhoz* to buy wood or use 'unofficial' ways to procure it. In 2009, sanitary cutting and forest clearing operations yielded a scant 9,245 m<sup>3</sup>/annum, less than 0.1% of the projected annual demand for fuel wood. There is also limited adoption of affordable, more-efficient technologies (e.g. energy-efficient stoves) and fuels (e.g. liquid fuels, bio-fuels) for heating and cooking in the rural communities immediately adjacent to, or living in snow leopard landscapes.

66. While the Forest Code conceptually provides for all the main elements of sustainable forest management, few of these are actually being implemented in practice because of a lack of technical knowledge, limited experience of forest staff and/or institutional resource (e.g. funding, equipment) constraints. The existing forestry regulations are complex and often contradictory - and do not actively prevent illegal cutting of, and poaching in, forests. Little attention is being paid to mitigating the effects of forest wood-cutting on the ecological integrity and functioning of forest ecosystems, and there are few ecosystem-based forest rehabilitation and restoration efforts being tested and implemented in the country<sup>11</sup>. Most state afforestation initiatives are currently limited to the planting of fruit tree plantations<sup>12</sup>.

67. Current livestock farming practices are an important factor in the ongoing degradation and destruction of forests, but there are no measures in place (e.g. pasture management plans) to mitigate the effects of unsustainable levels of livestock grazing and browsing in natural forests. Some snow leopard prey species are linked to (e.g. Urial, Markhor and Chukar Partridge), or have a preference for (e.g. Bukhara deer) forest and shrub habitats, but the impacts of forest degradation on populations of these species is currently unclear.

68. There is a significant lack of awareness and understanding of the plight of the snow leopard; the value of snow leopards, prey, and habitat; and the local and regional consequences of the ongoing degradation of ecosystems. This is true at all levels of society within and outside the snow leopard range, from local people to leaders of governments and from the private sector to the general public.

***Barrier 3: Incomplete information and knowledge management systems for management decision-making and trans-boundary cooperation***

69. The challenge of conserving snow leopards is further exacerbated by the lack of adequate scientific information about many aspects of their, and their prey's, ecology and behaviour in Tajikistan. This is in part due to the difficulties of studying them in their remote and rugged environment, but also because of limited funding, equipment and technical capacity within the responsible state institutions. The baseline information on the distribution, abundance, seasonality and recruitment rates of snow leopards and prey is wholly inadequate to guide objective planning and decision-making. The capacity to regularly monitor snow leopard and prey populations, understand the impacts on the integrity of their habitats, and assess the effectiveness of conservation interventions has not yet been established. While some excellent localised

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<sup>11</sup> A notable exception is the rehabilitation of river floodplain forests in Gorno-Badakhshan supported by the German Federal Ministry for Environment, Nature Conservation and Nuclear Safety (BMU).

<sup>12</sup> Fruit-tree plantations are counted as 'forests' in Tajikistan

monitoring activities are being undertaken by a number of institutions and organisations, it is typically sporadic - often linked to donor-funded initiatives - and the data produced from these monitoring efforts is highly fragmented and in multiple formats. There are currently only a limited number of camera traps deployed, while there is infrequent use of radio collars or analysis of snow leopard scats. The size and distribution of snow leopard and prey are thus, at best, still a rough estimate. The current state of knowledge of snow leopards, their prey species and their ecosystems is not being properly collated or actively maintained and updated in a centralised database.

70. There are no formal landscape-scale plans and 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 a ‘National Action Plan on the Conservation of Snow Leopard’ has recently been drafted, the plan has not yet been formally approved or officially adopted by the government. The current draft of the National Action Plan is also completely uncoupled from the available (or potential availability of the) resources and capacity required to implement it. A more pragmatic, realistic plan may be required.

71. A significant portion of the snow leopard’s range in Tajikistan is located on, or proximate to, the international borders of five other range countries – Kyrgyzstan, China, Pakistan, Afghanistan and Uzbekistan. There is a real need for knowledge-sharing about biodiversity and cultural resources and exchange of skills and experience, including cooperative research and information management. Poaching and illegal trade across boundaries needs to be better controlled, including joint patrols and border inspections to stem illegal wildlife trafficking. Although there are many opportunities to collaborate with the five adjacent range countries to create trans-boundary landscapes or conservation areas, these opportunities remain largely unrealised (some as a result of unresolved political tensions). While there has been some progress – with the support of international NGOs – in planning a transfrontier ‘Pamir Peace Park’ (between Tajikistan, Afghanistan, Pakistan, and China) the initial efforts have now stalled due to capacity and resource constraints. The scientific and management institutions in Tajikistan are often working in relative isolation from their counterparts from other home range countries as a result of the low levels of inter-governmental cooperation in snow leopard conservation. Where there is occasional collaboration it remains informal and largely opportunistic and *ad hoc*.

## STAKEHOLDER ANALYSIS

72. During the project preparation stage, a stakeholder analysis was undertaken in order to identify key stakeholders and assess their prospective roles and responsibilities in the context of the proposed project (see also the profile of institutions in description of the *Institutional Context* above). The table below lists the key stakeholder organisations; provides a brief summary of the responsibilities of each of these stakeholder organisations (specifically as it applies to the conservation of snow leopard and snow leopard habitats); and broadly describes the anticipated role of each of the stakeholder organisations in supporting or facilitating the implementation of project activities:

Stakeholder	Roles and Responsibilities	Proposed involvement in the Project
<b>National Government</b>		
<b><i>Committee on Environmental Protection (CEP)</i></b>	The role of the Committee is to: (i) regulate nature conservation functions and activities; (ii) develop and implement nature protection and forestry policies; (iii) regulate the use and management of natural resources; and (iv) develop medium and long-term state programs for nature protection and	The Committee will play an oversight and guidance role in the project particularly as it pertains to conservation and sustainable management of key protected areas and ecosystem resilience and connectivity outside of protected areas. This will be achieved through representation on the project steering committee and

<b>Stakeholder</b>	<b>Roles and Responsibilities</b>	<b>Proposed involvement in the Project</b>
	sustainable use of natural resources.	consultation with officials from the local level offices.
<i>Ministry of Agriculture</i>	Ministry of Agriculture is responsible for the development and implementation of state policy relating to agriculture and rural economic development.	The Ministry will be represented on the steering committee of the project to ensure effective consultation relating to project activities pertaining to ecosystem resilience and connectivity outside of protected areas.
<i>Ministry of Economy and Trade</i>	Ministry of Economy and Trade is responsible for drafting and implementing state strategy, policy and regulations to do with social and economic development in all sectors, including the environmental arena.	The Ministry will be represented on the steering committee of the project to ensure effective consultation relating to project activities pertaining to the development of incentives for alternative livelihood opportunities to reduce the impacts on grasslands and forestry.
<i>Committee for Land Management, Geodesy and Cartography</i>	The Committee develops and implements land policy and manages the process of land reform and land-use planning.	The Committee will serve as a reference to and provide guidance on matters relating to land use and land use planning.
<i>The Forestry Agency</i>	The role of the Forestry Agency is to: (i) prepare and administer state forest policy and regulations; (ii) plan and manage state forests and forest resources (including reforestation and seed harvesting); (iii) oversee hunting activities; and (iv) plan and manage all SPNAs. There are three divisions, of which the Division for Forestry, Fauna and Flora Protection and Hunting is most concerned with this project.	The Forestry Agency will play a leading role as an institution in implementing the project through its four operational units which fall under the Division for Forestry, Fauna and Flora Protection and Hunting within the Agency. These units are the Forestry and Hunting Inspectorate; the Department of Special Protected Natural Areas; the State Forest Institution; and the Scientific Institute of Forestry.
<i>National Biodiversity and Biosafety Center</i>	The Center is responsible for the implementation of monitoring and reporting activities related to the obligations of Tajikistan in relation to the UN Convention on Biodiversity.	The Center has been identified as the lead executing agency of this project and will take overall responsibility for co-ordinating, monitoring progress and reporting on the project.
<i>The Academy of Sciences of the Republic of Tajikistan</i>	The Academy provides the scientific expertise and capability to underpin decisions and actions in the field of sustainable natural resource use.	The Academy will play the role of providing a scientific perspective to project decisions and actions as well as being the beneficiary of a number of the project interventions.
<b>Regional and local government</b>		
<i>Regional government (Hukumat)</i>	The Hukumat has overall responsibility for the economic and development activities within the region. There are a number of Regions within the project domain.	A representative of the Hukumat will sit in the project steering committee and will mediate two-way communication between national policy directives and local project activities and actions to ensure that there is good alignment between them.
<i>District Government (Jamoat)</i>	The District level Government provides support for local economic activities and regulates land use and supervises land use decision making.	The district government will play an important role in supporting the implementation of the project in selected areas (in the project domain). They are likely to be direct beneficiaries of capacity development activities.
<b>Local NGO and NPOs</b>		



<b>Stakeholder</b>	<b>Roles and Responsibilities</b>	<b>Proposed involvement in the Project</b>
<i>Jamoat Resource Centres</i>	The role of the Jamoat Resource Centres is to provide support for the local management of the micro-credit institutions as well as providing technical support.	Individuals will be direct beneficiaries of capacity development activities.
<i>Micro-financial institutions</i>	Micro-financing institutions provide financial support to communities in rural areas to support, in a sound and transparent manner, the development of the rural economy.	Individuals will be direct beneficiaries of capacity development activities.
<i>Local and national NGOs such as Zan va Zamin, Bars Consulting, Noosfera</i>	The NGOs will provide specific communication and awareness support to ensure that the project is clearly understood and to encourage active involvement and participation in the project and its activities.	
<b>Local communities</b>		
<i>Local farmers (communities in the buffer zones of protected areas)</i>	Local farmers will be consulted through the project in relation to potential conflict mitigation techniques, alternative livelihoods, and land uses. They are likely to be direct beneficiaries of capacity development activities. They will be involved in the planning related to aspects of the project and will contribute to the implementation of the needs and priorities of local and national decision-making processes.	
<b>International Partners</b>		
<i>Secretariat of the Global Snow Leopard and Ecosystem Protection programme (Bishkek, Kyrgyzstan)</i>	These partners will participate in knowledge sharing and technology transfer exercises as well as communications on data collection and sharing, best practices for planning and priority-setting.	
<i>Panthera</i>	Panthera conduct research as well as providing a connection between communities and the state in relation to snow leopard conservation.	Communication and awareness raising. Support for activities and interaction (communication) and raising awareness in favor of the rural community / farmers.
<i>Development partners (e.g. German Government, World Bank, FAO)</i>	Development partners supporting snow leopard and prey conservation projects and initiatives to improve the sustainable management of snow leopard habitats in Tajikistan will be important project partners. They will share, coordinate and collaborate with the project as and where relevant. May be represented on the Project Steering Committee.	

## **BASELINE ANALYSIS**

73. Without the GEF investment in the proposed project, the ‘business-as-usual scenario’ for the conservation of snow leopards, their prey and their natural habitats is one where: (i) the numbers of indigenous medium-sized mountain ungulates continue to decrease as large domestic livestock populations use more of the higher altitude pastures, and for longer periods of time; (ii) the snow leopards - in the absence of their natural prey species - progressively resort to killing domestic livestock, leading to an increase in retaliatory killings by farmers; (iii) the ecological integrity of the snow leopard and prey’s alpine and sub-alpine natural habitats further degrades as a consequence of increasingly unsustainable agricultural practices and high levels of wood harvesting and fuelwood collection; and (iv) the low levels of monitoring, enforcement and prosecutions of illegal activities continue to undermine the effectiveness of localised conservation efforts across the snow leopard range.

74. Despite the challenges, the Government of Tajikistan has - with noteworthy support from development partner agencies and other stakeholder organisations – committed considerable resources, capacity and financing to address some of the barriers to the conservation of snow leopards, their prey and their natural habitats in Tajikistan. It is conservatively estimated that the current annual baseline funding (from all sources) available for the conservation of snow leopard and their natural habitats equates to a total

amount of approximately US\$7.6 million per annum. The breakdown of this baseline funding is briefly summarised below:

75. The total state budget allocated for environmental protection and management in 2015 is estimated at ~US\$10 million<sup>13</sup>, of which 72% comprises staff costs (salaries and associated taxes) and 28% operational costs. This state budget allocation is distributed across a number of different mandated public institutions, including: CEP (US\$3 million); Forest Research Institute (US\$0.1 million); Forestry Agency (US\$3.4 million); Agency for Hydrometeorology (US\$1.8 million); National University - Department of Biology (US\$0.6 million); Institute of Botany, Plant Physiology and Genetics (US\$0.4 million); Hydrometeorology Department at the University of Technology (US\$0.2 million); and other associated research and educational organizations (US\$0.5 million). Assuming that this state budget allocation will remain relatively constant (i.e. only adjusted for inflation), the government commitment to environmental protection and management in Tajikistan equates to at least US\$60 million for the full period of the project implementation.

76. Of the overall total budget allocation, US\$500,000<sup>14</sup> is directly committed to the management of the protected area system for 2015. Thus, assuming that the budget allocation for protected areas will remain relatively constant (i.e. only adjusted for inflation), the government commitment to protected areas equates to ~US\$ 2.75 million for the period of the project implementation.

77. The regional *Programme for sustainable use of natural resources in Central Asia* (until 2016) seeks to ensure that pastures, forests and wildlife resources are being more sustainably managed across the central Asian region (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan).

78. Within the overarching framework of the regional programme, GIZ in partnership with the Forestry Agency, is implementing the €2.8 million project '*Adaptation to climate change through sustainable forest management*' (until 2018). The project is facilitating the negotiation and conclusion of Joint Forest Management (JFM) contracts with local communities. In the first year of the project (2014-2015) approximately 60 JFM contracts have been signed. In cooperation with - and with further financial support from, KfW development bank - a total of 1,500 JFM agreements are being targeted by 2018. The project will also strengthen the capacities of the Forestry Agency and the forest enterprises and their staff to improve the planning, implementation and monitoring of forestry activities (including JFM). It will seek to facilitate the development and implementation of vocational training for foresters. Finally, it will enable the establishment of seed management and seedling production systems for climate-resistant tree species and varieties.

79. As part of its co-financing support for the regional programme, GIZ is further promoting the establishment and networking of local Pasture User Unions and facilitating improved dialogue between pasture users and the staff of the local authorities and relevant ministries (*Pasture Management Networking Platform in Tajikistan*). To date 177 Pasture User Unions (PUUs) have been registered - 62 in Shurobod, 32 in Muminobod, 39 in Temurmaliq, 22 in Baljuvon, 9 in Khovaling, 2 in Jirgatal, 2 in Tavildara, 2 in Varzob, 2 in Roghun, 2 in Vahdat, 2 in Fayzobod and 1 in Rudaki<sup>15</sup>.

80. The *Pilot Program for Climate Resilience* (PPCR) is being implemented in two phases in Tajikistan: Phase 1, implemented from 2010 to 2012 with a grant of \$1.5 million, included six technical assistance (TA) activities to strengthen Tajikistan's capacity and analytical evidence base, and to prepare projects for

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<sup>13</sup> An increase of 20% compared to the previous year. This amount is included in the state budget allocation for the Forestry Agency.

<sup>14</sup> Of which 70% is for staff costs (172 staff) and 30% for operating costs (16% for technical work, 2% for research and monitoring costs and 12% for equipment and other running costs).

<sup>15</sup> There also: (i) 28 semi-independent Village Livestock Committees (VLCs) which were established under the GREAT/GIZ/FFPSD and SDC/IWSM projects in Muminobod, Shurobod and Khovaling; and (ii) 30 informal Village Natural Resource Management Committees (NRMC) in four districts of the Rasht valley.

Phase 2. Building on Phase 1 activities, the *Strategic Program for Climate Resilience (SPCR)*<sup>16</sup> outlined six potential investment and capacity development activities to be carried out under Phase 2 (see table below). The Climate Investment Funds' (CIFs') Trust Fund Committees approved \$50 million initially, which, along with co-financing from three multilateral development banks (MDBs), were to support the pilot program. The CIFs' contribution has subsequently been increased to \$60 million.

Phase	Intervention	Lead MDB
1	Review of Tajikistan's Climate Change Institutional Arrangements and Capacity Needs	World Bank
	Tajikistan's Climate Science and Impact Modeling Partnership	ADB
	Raising Awareness of Climate Change in Tajikistan	World Bank
	Identifying Options for Enhancing Climate Resilience of Tajikistan's Energy Sector	EBRD
	Analysis of Sustainable Land Management Approaches for Changing Climatic Conditions in Tajikistan	World Bank
	Analysis of River Basin Approaches to Climate Resilience	ADB
2	Building Capacity for Climate Resilience	ADB
	Improvement of Weather, Climate and Hydrological Service Delivery	World Bank
	Climate Science and Modeling Program	ADB
	Enhancing Climate Resilience of Energy Sector	EBRD
	Agriculture and Sustainable Land Management	World Bank
	Building Climate Resilience of Pyanj River Basin	ADB

81. Within the framework of the PPCR, the *Environmental Land Management and Rural Livelihoods Project* (2014–2018) is financed through a US\$9.45 million grant from the World Bank and a US\$5.4 million grant from the Global Environment Facility (GEF) Trust Fund. The objective of the project is to enable rural people to increase their productive assets in ways that improve natural resource management and resilience to climate change in selected climate vulnerable sites. The project, under implementation by the Committee on Environmental Protection, will specifically: (i) provide financing and grants for village-based, and larger-scale, initiatives in sustainable rural production and land management; and (ii) provide facilitation services and technical and institutional support for rural populations to plan, implement and manage rural investments.

82. Within the framework of the PPCR, the US\$6.7 million project '*Strengthening the capacity to adapt to climate change*' (2009-2015) is financed by the Asian Development Bank (ADB) and implemented by the Committee on Environmental Protection. The project includes five areas of support: (i) improving access to information on climate change; (ii) incorporating the risk of climate change into development planning and implementation; (iii) strengthening knowledge management systems; (iv) monitoring and management reporting; and (v) establishing linkages between the secretariat of the PPCR and national organizations.

83. Within the framework of the PPCR, the US\$18 million project *Increasing Employment for Sustainable Agriculture and Water Management* (2012-2020) is financed by the World Bank and implemented by the Ministry of Energy and Water Resources (MEWR)<sup>17</sup>. The project seeks to: (i) provide employment to food insecure people through the rehabilitation of irrigation and drainage infrastructure, (ii) increase crop production in response to improved irrigation and infrastructure, and (iii) support the development of improved policies and institutions for water resource management, as a means to improve food availability and food access for low-income people in poor rural areas supported by the project.

<sup>16</sup> The World Bank, European Bank for Reconstruction and Development Bank (EBRD) and Asian Development Bank (ADB) are actively engaged in framing the Strategic Program for Climate Resilience (SPCR) under the PPCR.

<sup>17</sup> Through the Agency for Land Reclamation and Irrigation (ALRI)

84. The US\$10 million World Bank IDA grant for the *Land Registration and Cadastre System for Sustainable Agriculture* project (until 2015) for Tajikistan is supporting the Government of Tajikistan's efforts to expand farmland restructuring activities under the *Farm Privatization Support Project*, and to enable more rural people to become independent farmers and take management decisions in response to market forces. It is: (i) supporting the integration of registry and cadastral information in selected areas; (ii) expanding farmland restructuring and issuance of use rights certificates for family farms and other types of immovable property; and (iii) supporting activities that complement farmland restructuring and certificate issuance.

85. The First Micro Finance Bank (FMFB) of Tajikistan is a licensed commercial bank with micro-credit lending as its principle focus. The FMFB, will – through the Small and Medium Enterprises (SME) Unit of the bank - continue to provide loans<sup>18</sup> to support small-scale agricultural production initiatives (sole proprietors companies, family companies, partnerships or incorporated companies) for the purchase of seeds, fertilizers, livestock, farm equipment and other capital investments such as irrigation equipment or building facilities. These loans are aimed at segments of Tajikistani population who have difficulty providing collateral to the Bank. FMFB has established a network of district offices serving peri-urban and rural areas and an established client base. FMFB will also offer credit products to large and small-scale farmers.

86. The Access Bank of Tajikistan (ABT) is a ‘greenfield bank’ serving low-income and micro, small and medium-sized enterprises (MSMEs) customers. The Asian Development Bank (ADB) has recently approved a package of equity and loans for Access Bank Tajikistan (ABT) to boost financing for MSMEs, and services in the regions outside Dushanbe. The approved ADB financing of up to \$11 million equivalent includes an equity investment of up to \$3 million equivalent and loans of up to \$8 million. Over the period of the project implementation, the ABT will - with the support of a further ADB technical assistance grant of \$500,000 - boost services to MSMEs and farmers by widening its regional branch outreach.

87. Panthera, an international NGO, is actively supporting a range of snow leopard conservation initiatives in Tajikistan. Its activities include: conducting broad snow leopard population surveys and threat assessments in the Pamirs; piloting community-managed hunting concessions for Marco Polo sheep and Ibex in the Eastern Pamirs; field training for conservation biologists; assessing the conservation status of snow leopards and their prey in selected areas; and supporting local conservancies to reduce farmer-snow leopard conflict. The collective financial commitment to these activities is conservatively estimated at ~US\$100,000 per annum.

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<sup>18</sup> As of 2009 the average loan size was US\$1,100 and with a repayment rate of over 99 percent.

## PART II: Strategy

### PROJECT RATIONALE AND POLICY CONFORMITY

#### *Fit with the GEF Focal Area Strategy and Strategic Programme*

88. The project is thus consistent with the objectives of, and will contribute to the outcomes and outputs of, GEF's Biodiversity (BD), Land Degradation (LD) and Sustainable Forest Management (SFM) Focal Area Strategies.

89. For the *Biodiversity Focal Area*, the project will contribute to the expected outcomes and indicators of Program 2 of BD-1 and Program 9 of BD-4 as follows:

GEF-6 Biodiversity Results Framework			
Objective	Program	Outcome	Indicator (and project contribution to indicator)
<b>BD-1</b> Improve sustainability of protected area systems	<b>Program 2:</b> Nature's Last Stand: Expanding the reach of the global protected area estate	<b>Outcome 2.2:</b> Improved management effectiveness of protected areas	<b>Indicator 2.2:</b> Protected area management effectiveness score.  <u>Project contribution to indicator:</u> The METT score for Tajik NP increases from a baseline of 20 to 42
<b>BD-4</b> Mainstream biodiversity conservation and sustainable use into production landscapes and seascapes and production sectors	<b>Program 9:</b> Managing the human-biodiversity Interface	<b>Outcome 9.1</b> Increased area of production landscapes and seascapes that integrate conservation and sustainable use of biodiversity into management.	<b>Indicator 9.1</b> Production landscapes and seascapes that integrate biodiversity conservation and sustainable use into their management.  <u>Project contribution to indicator:</u> At least 100,000ha (from a baseline of 5,000ha) of high altitude pastures, and 15,000 ha of high altitude forests integrate biodiversity conservation and sustainable use into their management.

90. For the *Land Degradation Focal Area*, the project will contribute to the expected outcomes and indicators of Program 4 of LD-3 as follows:

GEF-6 Land Degradation Results Framework			
Objective	Program	Outcome	Indicator (and project contribution to indicator)

<p><b>LD-3 Integrated Landscapes:</b> Reduce pressures on natural resources from competing land uses in the wider landscape</p>	<p><b>Program 4:</b> Scaling-up sustainable land management through the landscape approach</p>	<p><b>Outcome 3.2:</b> Integrated landscape management practices adopted by local communities based on gender sensitive needs</p>	<p><b>Indicator 3.2:</b> Application of integrated natural resource management (INRM) practices in wider landscapes.</p> <p><u>Project contribution to indicator:</u> At least 100,000ha of high altitude pastures (from a baseline of &lt;5,000ha), and 15,000ha of high altitude forests (from a baseline of &lt;2,000ha) are under an INRM regime. At least 10,000ha (from a baseline of 0ha) of degraded high altitude pastures are under active rehabilitation/restoration.</p>
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82. For the *Sustainable Forest Management Focal Area*, the project will contribute to the expected outcomes and indicators of SFM-1 and SFM-3 as follows:

<b>GEF-6 Sustainable Forest Management Results Framework</b>			
<b>Objective</b>	<b>Program</b>	<b>Outcome</b>	<b>Indicator (and project contribution to indicator)</b>
<p><b>SFM-1 Maintained Forest Resources:</b> Reduce the pressures on high conservation value forests by addressing the drivers of deforestation.</p>	<p>N/A</p>	<p><b>Outcome 1:</b> Cross-sector policy and planning approaches at appropriate governance scales, avoid loss of high conservation value forests</p>	<p><b>Indicator 1:</b> Area of high conservation value forest identified and maintained.</p> <p><u>Project contribution to indicator:</u> At least 15,000ha (from a baseline of &lt;100ha) of forests of high conservation value are identified and maintained.</p>
<p><b>SFM-3 Restored Forest Ecosystems:</b> Reverse the loss of ecosystem services within degraded forest landscapes</p>	<p>N/A</p>	<p><b>Outcome 5:</b> Integrated landscape restoration plans to maintain forest ecosystem services are implemented at appropriate scales by government, private sector and local community actors, both women and men.</p>	<p><b>Indicator 5:</b> Area of forest resources restored in the landscape, stratified by forest management actors</p> <p><u>Project contribution to indicator:</u> At least 6,000ha of degraded high altitude forests are restored.</p>

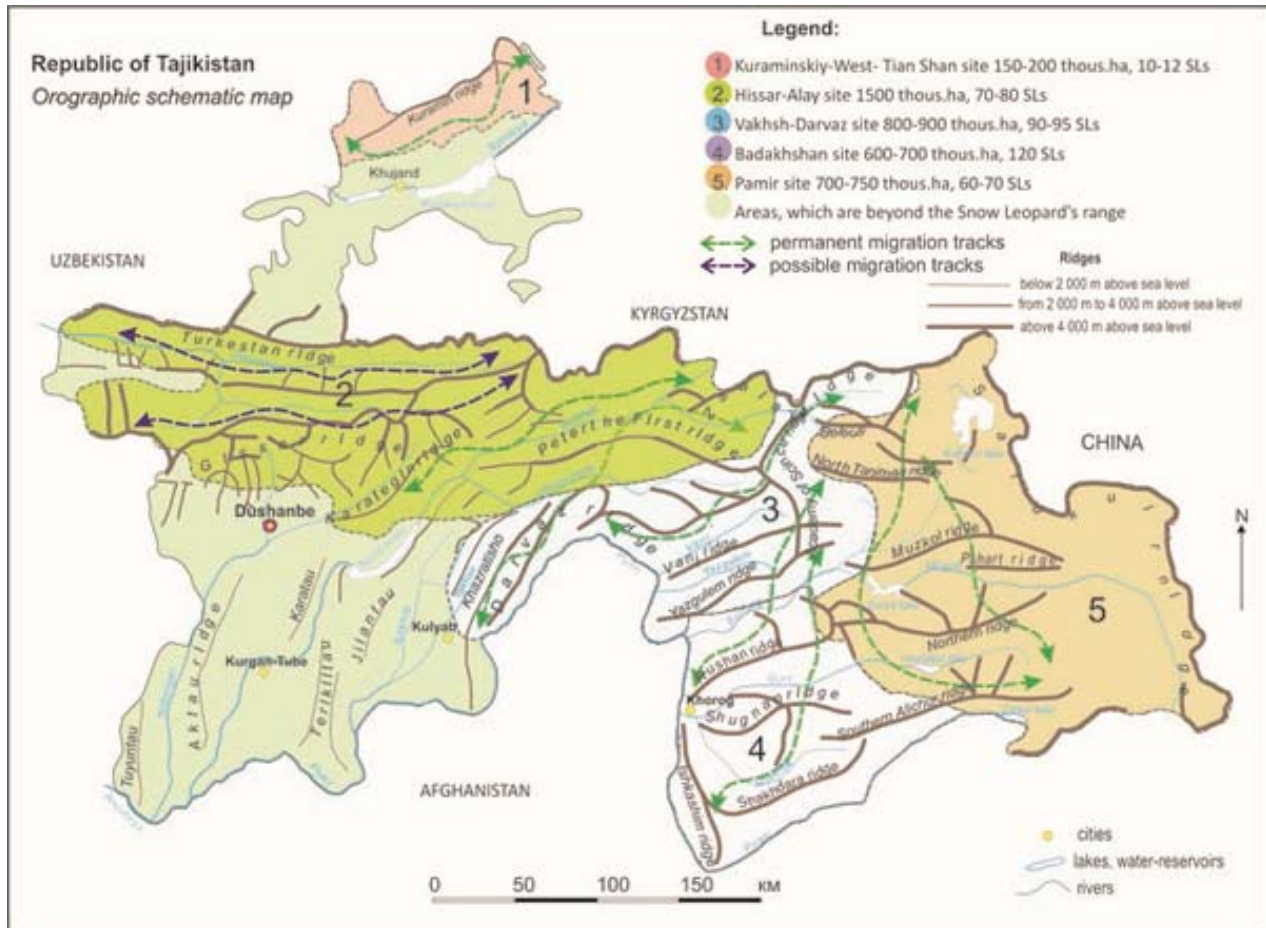
## ***Rationale and summary of GEF Alternative***

91. The Global Snow Leopard and Ecosystem Protection Program (GSLEP, 2013) provides the strategic context for this GEF-funded project. Within the overarching framework of this GSLEP, this project will support the Government of Tajikistan in the implementation of the National Snow Leopard Ecosystem Protection (NSLEP) portfolio for Tajikistan.

92. The ‘alternative scenario’ that the project seeks to contribute to is characterised by: (i) preventing the further fragmentation of snow leopard and prey landscapes in Tajikistan; (ii) maintaining and/or restoring the quality of key snow leopard and prey habitats within these landscapes; (iii) improving the conservation status, and sustainability of pasture and forest use, in these key snow leopard and prey habitats; and (iv) reducing the direct threats to the survival of snow leopards and prey populations living in these key habitats.

93. Project outputs and activities will be spatially contained to a ‘planning domain’ for the project. The selection of the projects planning domain was premised on the following criteria: (i) it includes a significant proportion of the snow leopard range in Tajikistan; (ii) it includes all SPNAs where the presence of snow leopard have been recently documented; (iii) it includes the natural dispersal and migration routes for snow leopard and their prey, with specific consideration of linkages to the north-east through the Tien Shan range and to the south and east through the Pamir range; (iv) it includes known areas of conflicts between pastoralists and snow leopards; (v) it includes forest areas used by snow leopard and/or their prey; (vi) it includes relatively intact snow leopard and prey habitats and ecosystems; and (vii) it includes sufficiently large and intact landscapes so that they will contribute to achieving wider trans-boundary conservation objectives for snow leopards, their prey and associated ecosystems.

94. The project planning domain selected for the project during the PPG phase, comprises 5 discrete areas – *Kuraminsky-West-Tien Shan*; *Hissar-Alai*; *Vakhsh-Darvaz*; *Badakhshan*; and *Pamir* – and is shown in Map 4 below. The planning domain extends from the far east of Tajikistan along the border with China to the Uzbekistan border in the far west, and along much of the northern border with Kyrgyzstan and significant parts of the south-eastern border with Afghanistan. The planning domain incorporates all the high mountain ranges and habitats of the country. A separate satellite area – the *Kuraminsky-West-Tien Shan* area – in the northern part of Tajikistan is also included in the planning domain to facilitate potential snow leopard movement between the Tien Shan range and the Pamir Mountains through Kyrgyzstan. Most of the countries lower-lying, heavily populated and intensively used areas, are however not included in the project planning domain.



**Map 4: Map of the project planning domain showing: (i) the five discrete areas making up the planning domain; (ii) the snow leopard migration routes; and (iii) the major ridges.**

95. The geographic and biological features of each of the 5 discrete areas making up the project planning domain are briefly summarised in Table 4 below:

**Table 4: Summary of the key features of the five discrete areas making up the project planning domain**

Area	Key features	Contribution to snow leopard range
<i>Kuraminskiy-West-Tien Shan</i>	Contains the Bobo mountains and includes the small Aktash Special Nature Reserve.	At the southern extent of the Tien Shan range, and important for migration to the north.
<i>Hissar-Alai</i>	Extensive east-west lying, medium altitude mountain ranges with intervening valleys. Includes all, or part of, eight small SPNAs.	At the western extent of the snow leopard range, and an important corridor connecting the Uzbekistan snow leopard population with the Pamirs.
<i>Vakhsh-Darvaz</i>	Significant altitudinal range from 4500m to <2000m. Partially within the Tajik National Park. Includes two small SPNAs.	Core snow leopard range, with some marginal forest areas used by snow leopard prey
<i>Badakhshansk</i>	Medium altitude area, partially within the Tajik National Park.	Core snow leopard range
<i>Pamir</i>	High altitude area, partially within the Tajik National Park. Includes Muzkol Special Nature Reserve.	Core snow leopard range



96. A more detailed profile of the socio-economic status (including administrative areas; demographics; local economy; natural resource use; employment and income levels; regional GDP; and local development programs) of the area making up the planning domain is appended in [Section IV, Part VI](#) of the Project Document.

97. The project strategy is focused around four strategic areas of intervention as follows:

98. *Conservation areas* – improving the conservation tenure and conservation security of SPNAs and community-based conservancies by building the institutional and individual capacities to implement a smart patrol system<sup>19</sup>;

99. *Livestock pasture areas* – (i) improving sustainable management of pasture lands across the snow leopard range by incentivising changes to unsustainable practices; and (ii) reducing the extent and intensity of conflicts between pastoralists and snow leopard and their prey by enhancing the survival rate of livestock;

100. *Forest areas* – improving the ecological integrity of forests in the snow leopard range by: (i) rehabilitating degraded forests; and (ii) reducing the extent and intensity of harvesting of wood from these forests by encouraging the adoption of other fuel sources; and

101. *Knowledge* – expanding the reach of research, monitoring and planning efforts about snow leopard, snow leopard prey and their habitats by building institutional capacities, resources and partnerships.

102. The project is structured into three components, with each component comprising a complementary suite of two to four outputs which will collectively contribute to realizing the targeted outcome for the component.

103. The first component will support the development and implementation of a smart patrol system in targeted specially protected natural areas (SPNAs) Work under this component will be focused around four key areas of project support: (i) Secure the conservation status and boundaries of protected areas (Output 1.1); (ii) Develop the capacity to implement a smart patrolling system in protected areas (Output 1.2); (iii) Improve the equipment and infrastructure to support the implementation of a smart patrolling system in protected areas (Output 1.3); and (iv) Enhance community involvement in, and beneficiation from, protected areas (Output 1.4).

104. The second component will assist in improving the planning and management of the high altitude livestock pastures and indigenous forests located along, or immediately adjacent to, the key snow leopard migration routes within the *Hissar-Alay* and *Vakhsh-Darvaz* areas. Work under this component will be focused around three key areas of project support: (i) Reduce impacts on, and improve the management of, livestock pastures (Output 2.1); (ii) Reduce impacts on, and improve the management of, forests (Output 2.2); and (iii) Strengthen wildlife monitoring and enforcement capacities (Output 2.3).

105. The third component will strengthen the state of knowledge of, and collaboration in, the conservation of snow leopard and their ecosystems. Work under this component will be focused around two key areas of project support: (i) Enhance the state of knowledge on snow leopard and prey populations (Output 3.1); and (ii) Improve the coordination of, and cooperation in, snow leopard conservation and monitoring (Output 3.2).

106. The total cost of investment in the project is estimated at US\$23,791,370, of which US\$ 4,181,370 constitutes grant funding from GEF and US\$19,610,000 comprises co-financing from national government, local government, the private sector, NGOs and UNDP.

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<sup>19</sup> The term ‘smart patrol system’ has been developed to reflect the integration of science and technology into field-based law enforcement and monitoring in protected areas.

107. The anticipated long-term benefits of the GEF investment may be summarised as follows:

Business-as-usual	GEF alternative	Benefits
<b><i>Snow leopard and prey populations</i></b>		
<ul style="list-style-type: none"> <li>- Extensive poaching by local communities of species that naturally form the prey base of snow leopard continues;</li> <li>- Human-snow leopard conflicts increase, leading to further retaliatory killings by farmers.</li> <li>- Enforcement of wildlife laws outside the network of protected areas continues to be very weak or non-existent; and</li> <li>- Efforts to control poaching of, and illegal trade in, snow leopard and prey species between neighbouring countries remains uncoordinated and poorly controlled.</li> </ul>	<ul style="list-style-type: none"> <li>- Develop and implement an in-service wildlife enforcement program for staff of all the key responsible government agencies;</li> <li>- Procure key equipment for local field-based environmental (CEP) and forestry (Forestry Agency) monitoring and enforcement staff.</li> <li>- Pilot the staffing, training and equipping of a local community ranger corps;</li> <li>- Update and formally adopt the <i>National Action Plan for Snow Leopard Conservation in Tajikistan</i>; and</li> <li>- Establish and maintain a cooperative governance structure to coordinate the efforts of partner institutions in the implementation of the National Plan;</li> <li>- Develop a framework for transboundary collaboration in combatting poaching and illicit trade; and</li> <li>- Strengthen the capacity of border and customs officials to implement trans-boundary poaching and wildlife trade agreements.</li> </ul>	<p>The snow leopard population continues to grow, albeit modestly - increasing to more than 220 cats across the country - as fewer snow leopards are being trapped, hunted or poached; The population of key medium-sized ungulates that form the prey base of snow leopards continue to grow:</p> <ul style="list-style-type: none"> <li>- Marco Polo sheep population increases from 1,125 to more than 1,400 animals;</li> <li>- Siberian Ibex population increases from 4,190 to more than 5000 animals; and</li> <li>- Heptner's markhor population increases from 1,018 to more than 1,400 animals</li> </ul> <p>The responsible government institutions, and community-based conservancies, are better capacitated and resourced to monitor wildlife crime:</p> <ul style="list-style-type: none"> <li>- at least 100 personnel/annum participate in wildlife enforcement training and skills development programs; and</li> <li>- at least 55 field-based wildlife enforcement staff in the Forestry Agency and CEP, and 5 rangers in the community-based conservancies, are fully equipped - including uniforms, rations, GPS, communications, transport, etc. - and operational.</li> </ul> <p>The capacity for collaboration and coordination between international, national and local institutions in the conservation of snow leopard, their prey and their ecosystems is significantly improved:</p> <ul style="list-style-type: none"> <li>- a National Environmental Security Task Force for wildlife is constituted and operational;</li> <li>- at least three trans-boundary agreements addressing collaboration in the management of wildlife crime are under implementation;</li> <li>- the <i>National Action Plan for Snow Leopard Conservation in Tajikistan</i> is under implementation; and</li> </ul>

Business-as-usual	GEF alternative	Benefits
		<ul style="list-style-type: none"> <li>- the snow leopard Conservation Committee is constituted and operational.</li> </ul>
<b>Protected areas</b>		
<ul style="list-style-type: none"> <li>- The formal conservation tenure, and security of boundaries, of many SPNAs and community conservancies remains unsecured;</li> <li>- Most SPNAs and conservancies are still too small to conserve viable snow leopard and prey populations and not configured to secure safe movement corridors for snow leopards and prey;</li> <li>- Low levels of monitoring, enforcement and prosecution of illegal activities continues to compromise the management effectiveness of SPNAs and conservancies across the snow leopard range;</li> <li>- Outdated planning systems and ineffectual operational approaches fail to effectively address the emerging management challenges facing SPNAs and conservancies;</li> <li>- Funding for the administration of SPNAs and conservancies remains insufficient to meet basic management requirements; and</li> <li>- Limited meaningful and sustained collaboration between the SPNAs and adjacent communities (most of whom still rely on access to natural resources for part of their livelihood) in the protection of snow leopard, their prey and key habitats.</li> </ul>	<ul style="list-style-type: none"> <li>- Change the conservation status of Sangvor to a higher level of legal protection and integrate its planning and management into the adjacent Tavildara section of Tajik NP;</li> <li>- Strengthen the medium-term and annual management planning and budgeting systems Tajik NP (Jirgital and Tavildara sections);</li> <li>- Improve the boundary demarcation of, and the security of entry points to, Tajik NP (Jirgital and Tavildara sections);</li> <li>- Design a smart patrol system for Tajik NP (Jirgital and Tavildara sections);</li> <li>- Establish and deploy a core of professionally trained and fully equipped rangers across Tajik NP (Jirgital and Tavildara sections);</li> <li>- Establish and maintain a smart patrol database and data collection system in Tajik NP (Jirgital and Tavildara sections);</li> <li>- Improve the park infrastructure (ranger outposts, data centre) and equipment (communications, transport) to support the implementation of the smart patrol system in Tajik NP (Jirgital and Tavildara sections);</li> <li>- Raise awareness levels in communities around Tajik NP (Jirgital and Tavildara sections) of the benefits of snow leopard and prey conservation;</li> <li>- Improve extent and scale of economic involvement of communities in the conservation, monitoring and use of Tajik NP (Jirgital and Tavildara sections);</li> <li>- Support the establishment and functioning of joint local management committees for Tajik NP (Jirgital and Tavildara sections).</li> </ul>	<p>The extent of IUCN Category I and II protected areas in Tajikistan increases from a baseline of 2,777,018ha to 2,837,018ha;</p> <p>The annual government budget allocations to IUCN Category I and II protected areas in Tajikistan increases from less than US\$250,000/annum to more than US\$450,000/annum;</p> <p>The conservation values of at least 440,000 ha of snow leopard and prey habitats are secured, and effectively monitored and enforced in the Tavildara and Jirgital sections of Tajik NP:</p> <ul style="list-style-type: none"> <li>- the average METT scores for Tajik NP increases from 20 to 42;</li> <li>- at least 85% of the Jirgital section of Tajik NP, and 60% of the Tavildara section of Tajik NP, are fully covered by a smart patrol system; and</li> <li>- the number of illegal incidents detected and resolved in the Jirgital and Tavildara sections of Tajik NP increases to more than 60/annum, from a baseline of less than 15/annum;</li> </ul> <p>Rural communities living in villages adjacent to Tajik NP (Tavildara and Jirgital sections) are increasingly involved in (from a baseline of less than 100 individuals to more than 2,000 individuals, of whom at least 1,100 are women), and financially benefit from (from a baseline of less than 10 individuals to more than 150, of whom at least 80 are women) the planning and management of Tajik NP (Jirgital and Tavildara sections).</p>
<b>Pastures and forests</b>		
<ul style="list-style-type: none"> <li>- Implementation of sustainable pasture and forest management practices is limited due to poor technical skills, limited knowledge and a severe lack of</li> </ul>	<ul style="list-style-type: none"> <li>- Profile the high altitude pastures in the <i>Hissar-Alay</i> and <i>Vakhsh-Darvaz</i> areas that overlap with the critical habitats and movement corridors for snow leopard and prey;</li> </ul>	<p>The extent of high altitude pastures under a more sustainable management regime in the Hissar-Alay and Vaksh-Darvaz areas increases from less than 5,000ha to more than 100,000ha</p>

Business-as-usual	GEF alternative	Benefits
<p>funding;</p> <ul style="list-style-type: none"> <li>- An upsurge in domestic livestock populations using higher altitude pastures, and for longer periods of time, leads to an increase in competition for forage with indigenous medium-sized mountain ungulates;</li> <li>- The continued increase in livestock populations in high altitude areas leads to further killing of snow leopards by pastoralists to ensure protection of their livestock;</li> <li>- The ecological integrity of the natural alpine and sub-alpine habitats further degrades as a consequence of increasingly unsustainable pastoral practices and high levels of wood harvesting and fuelwood collection; and</li> <li>- A lack of awareness and understanding of the plight of the snow leopard; the value of conserving snow leopards, prey, and habitat; and the local and regional consequences of the ongoing degradation of ecosystems.</li> </ul>	<ul style="list-style-type: none"> <li>- Support the establishment and functioning of PUUs in these high altitude pastures;</li> <li>- Prepare pasture management plans for a sub-selection of priority high altitude pastures;</li> <li>- Provide technical and financial support to PUUs and individual pastoralists in the implementation of more sustainable pasture and livestock management practices in these priority high altitude pastures;</li> <li>- Restore and/or rehabilitate degraded high altitude pastures in the <i>Hissar-Alay</i> and <i>Vakhsh-Darvaz</i> areas;</li> <li>- Profile the high altitude <u>forests</u> in the <i>Hissar-Alay</i> and <i>Vakhsh-Darvaz</i> areas that overlap with the critical habitats and movement corridors for snow leopard and prey;</li> <li>- Facilitate the participative development and implementation of measures to ensure the sustainability, and reduce the environmental impacts, of the harvesting of wood from these high altitude forests;</li> <li>- Restore and/or rehabilitate degraded high altitude forests in the <i>Hissar-Alay</i> and <i>Vakhsh-Darvaz</i> areas; and</li> <li>- Demonstrate alternatives to wood for the delivery of energy and fuel needs in a selected <i>jamoat</i> resource centre and provide technical and financial support in the adoption of these alternatives.</li> </ul>	<ul style="list-style-type: none"> <li>- the number of days of intensive grazing in high altitude pastures reduces from an average of 88 days in Spring/Autumn and 95 days in summer to 48 days and 65 days respectively;</li> <li>- the productivity of high altitude pastures increases from less than 0.3 t/ha of dry fodder mass to greater than 1 t/ha;</li> <li>- the % of palatable and edible species in high altitude pastures increases from less than 30% to more than 50%;</li> <li>- at least 10 pasture management plans are under implementation by Pasture User Unions;</li> <li>- at least 40 households benefit from technical and grant funding support for sustainable pasture management practices; and</li> <li>- 10,000ha of degraded pastures are under active rehabilitation;</li> </ul> <p>The extent of high altitude forests under a sustainable management regime in the <i>Hissar-Alay</i> and <i>Vaksh-Darvaz</i> areas increases from less than 2,000ha to more than 15,000ha;</p> <ul style="list-style-type: none"> <li>- an enabling policy and regulatory framework for the sustainable harvesting and use of forest products from high altitude forests is consultatively developed and enforced;</li> <li>- 6,000ha of degraded forests are under active restoration and/or rehabilitation;</li> <li>- at least 3 PFM committees are actively involved in the ongoing planning, management, rehabilitation and monitoring of high altitude forests; and</li> <li>- more than 10 households benefit from technical and grant funding support for the adoption of alternative fuel and energy technologies.</li> </ul>
<b>Knowledge management</b>		
<ul style="list-style-type: none"> <li>- Baseline information on the distribution, abundance, seasonality and recruitment rates of snow leopards and prey remains incomplete;</li> </ul>	<ul style="list-style-type: none"> <li>- Develop, implement and maintain a consolidated national snow leopard monitoring and reporting system;</li> <li>- Develop, implement and maintain a consolidated national snow leopard</li> </ul>	<p>A strong scientific base for the conservation of snow leopard and their prey is established:</p> <ul style="list-style-type: none"> <li>- a national snow leopard monitoring and reporting system, and a</li> </ul>

Business-as-usual	GEF alternative	Benefits
<ul style="list-style-type: none"> <li>- No national program in place to coordinate the monitoring of snow leopard and prey populations and habitats;</li> <li>- No formally adopted, and properly resourced, National Action Plan on the Conservation of Snow Leopard in place; and</li> <li>- National scientific and management institutions continue to work in relative isolation from their counterparts from other home range countries as a result of the low levels of inter-governmental cooperation in snow leopard conservation.</li> </ul>	<ul style="list-style-type: none"> <li>information management system;</li> <li>- Host specialist training sessions for all researchers, scientists, academics, volunteers, students, NGO staff, government field staff, etc. on the snow leopard monitoring and reporting system and the snow leopard information management system;</li> <li>- Increase the coverage of camera traps, aerial surveys and aerial photography for monitoring and reporting on snow leopard and/or medium-sized ungulate populations;</li> <li>- Facilitate the opportunistic fitting of radio collars to individual cats and evaluate the cost-effectiveness of fecal DNA analysis; and</li> <li>- Facilitate the participation and involvement of national scientists, researchers, managers and academics in regional/international snow leopard conservation initiatives.</li> </ul>	<ul style="list-style-type: none"> <li>national snow leopard information management system, is established and operational;</li> <li>- the national coverage (as a % of the total snow leopard range) of snow leopard and prey monitoring activities increases from a baseline of less than 10% for snow leopard, and 5% for snow leopard prey, to more than 25% and 20 % respectively; and</li> <li>- at least 15 managers, scientists, researchers or academics participate in regional snow leopard conservation initiatives, and at least 10 attend and participate in regional monitoring and report-back meetings of the GLSEP.</li> </ul>

## PROJECT GOAL, OBJECTIVE, OUTCOMES AND OUTPUTS/ACTIVITIES

108. The project **objective** is the: *Conservation and sustainable use of Pamir Alai and Tian Shan ecosystems for snow leopard protection and sustainable community livelihoods.*

109. In order to achieve the project objective, and address the barriers (see [Section 1, Part I](#)), the project’s intervention has been organised into three **components** (this is in line with the components presented at the PIF stage):

Component 1: Conservation and sustainable management of key biodiversity areas

Component 2: Ecosystem resilience and habitat connectivity in wider landscape outside protected areas

Component 3: Support to international cooperation

110. The outputs and activities under each of the three components are described in more detail below.

### COMPONENT 1: *Conservation and sustainable management of key biodiversity areas*

111. Work under this component will be spatially focused in two key conservation areas – Sangvor Special Nature Area (*Zakaznik*) and the portion of Tajik National Park (NP) located in the Jirgital Rayon (Tavildara section of Tajik NP). It is envisaged that the project will support the incorporation of Sangvor into Tajik NP, under the management jurisdiction of the Tavildara section of Tajik NP. The characteristics of these two SPNAs are briefly summarised in the table below:

	<b>Tajik National Park</b>	<b>Sangvor Special Nature Area</b>
<b>Location</b>	Located in the central part of the Pamir-Alai. The largest portion of the park (~90%) is situated in the Eastern Pamir.	Located in the central part of the Pamir-Alai between Gissar-Alai and Badakhshan. Sangvor is located directly adjacent to the <u>Tavildara section</u> of the Tajik National Park.
<b>Date of establishment</b>	Established in 1992, later extended in 2002.	Established in 1972.
<b>Extent</b>	The extent of the park in 1992 was 1.2 million hectares. The park was later expanded to 2.6 million hectares in 2002. The portion of the park in the <u>Jirgital rayon</u> covers an area of 69,912 ha. The portion of the park in the <u>Tavildara rayon</u> covers an area of 306,613 ha.	The nature area is 59,000 ha in extent.
<b>Snow leopard population estimate</b>	The permanent snow leopard population is estimated at approximately 140 cats, approximately 64% of the country’s snow leopard population.	The permanent snow leopard population is estimated at approximately 10-12 cats. The nature area is also located on an important snow leopard migration route between Tajikistan and Kyrgyzstan.
<b>Conservation challenges</b>	The weak staffing complement, limited equipment and infrastructure, dangerous mountainous topography and extreme weather conditions constrains the effectiveness of the monitoring and enforcement capabilities of both SPNAs. As a result, poaching, cutting of forests, overgrazing by livestock and unlawful expansion of crop agriculture is commonplace.	

112. The outputs and activities under this component are specifically directed at the development and implementation of a *smart patrol system*<sup>20</sup> in the Tavildara and Jirgital sections of Tajik NP. The smart patrol system will comprise the following basic elements: (i) a secure legal status and clearly demarcated boundaries; (ii) adequate numbers of patrol staff; (iii) suitably equipped ranger patrol staff; (iv) fully trained ranger patrol staff; (v) regular monitoring of ranger patrol performance; and (vi) full integration of patrol data into park planning and management.

113. It is envisaged that the lessons learnt in the development of a smart patrol system will then guide the incremental future roll-out of smart patrol systems in other SPNAs across the snow leopard range.

114. The proposed suite of activities, and broad implementation arrangements, for each of the four outputs are described in more detail below.

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***Output 1.1: Secure the conservation status and boundaries of protected areas***

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115. Work under this output will focus on: (i) reproclaiming Sangvor, to be included into Tajik NP (under the management of the Tavildara section); (ii) updating the management plan, zonation plan and regulations for the Tavildara section of Tajik NP; and (iii) improving the demarcation of the boundaries of, and security of the entry points to the Jirgital and Tavildara sections of Tajik NP.

116. The specific activities to be undertaken in this output will include the following:

- (i) Prepare an application for the change in conservation status of the Sangvor Special Nature Reserve<sup>21</sup> (in terms of Article 16 of the Law on Special Protected Nature Areas);
- (ii) Survey the boundaries and prepare survey diagrams for the boundaries of the area to be included into Tajik NP (Tavildara section).
- (iii) Relocate all surveyed boundary markers (typically in the form of concrete beacons or stone cairns) and - as required - replace or repair any missing markers in the Jirgital and Tavildara sections of Tajik NP;
- (iv) Prepare the requisite documentation for the assignment of Sangvor as part of Tajik NP;
- (v) Update the state land cadaster and the land use register (in terms of Article 3 of the Land Code) for Sangvor;
- (vi) In consultation with affected stakeholders, prepare a zonation plan for Sangvor;
- (vii) In consultation with affected stakeholders, update the existing Park Management Plan, and associated annual operational plans and budgets<sup>22</sup>, for Tajik NP to reflect the incorporation of Sangvor;
- (viii) Wherever practicable, establish and maintain some form of boundary delineation – such as stone cairns, concrete markers, fencing, etc. - in order to clearly demarcate the borders of the Jirgital and Tavildara sections of Tajik NP;
- (ix) Install boom gates and checkpoints (temporary or permanent hut, supplied with basic furnishing and bulk services) at key control entry points to the Jirgital (at least 2 checkpoints) and Tavildara sections (at least 2 checkpoints), of Tajik NP as required; and
- (x) Design, produce and install signage at all entry points and along the reserve boundaries of the Jirgital and Tavildara sections of Tajik NP.

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<sup>20</sup> The term ‘smart patrol system’ has been developed to reflect the integration of science and technology into field-based law enforcement and monitoring in protected areas.

<sup>21</sup> It is anticipated that the SPNA category for Sangvor will be upgraded from Special Nature Area to National Park. Should Sangvor be incorporated into the adjacent Tajik National Park then the management of the area will be subsumed into the Tavildara section of the Tajik National Park.

<sup>22</sup> As part of the annual planning and budgeting process, it is envisaged that the annual budget for the Tavildara section of Tajik NP will be later piloted as a separate ‘cost centre’, with discrete cost codes, within the Forestry Agency.

117. The Project Management Unit (PMU) will - in close consultation with the Division for Forestry, Fauna and Flora Protection and Hunting in the Forestry Agency - coordinate the implementation of this output. The PMU will contract the services of a team of local experts from the Academy of Sciences, the Forestry Agency, the Committee for Environmental Protection, the NBBC and/or the Committee for Land Management, Geodesy and Cartography to provide the requisite professional, technical and scientific support to activities under this output (e.g. motivation and application for change of conservation status of Sangvor, zonation plan for Sangvor, stakeholder consultations, updating management plan for Tajik NP, etc.). The PMU will contract a surveying company or institution to survey the cadastral boundaries of the Jirgital and Tavildara sections of Tajik NP, physically locate and demarcate the boundary corner beacons of the SPNAs and prepare survey diagrams for the state land cadastre and land use register. The PMU will also contract short-term labour from local communities, and procure the materials required, to physically demarcate (e.g. stone cairns, concrete markers, fencing, etc.) the boundaries of the Jirgital and Tavildara sections of Tajik NP, install boom gates and erect signage. Finally, the PMU will procure the necessary materials and signage required for controlling access to, and identifying the boundaries of, the Jirgital and Tavildara sections of Tajik NP. Local building contractors may be contracted to install boom gates and check points and to design, produce and construct the signboards. The management staff of the Jirgital and Tavildara sections of Tajik NP will be directly responsible for supervising all the on-ground works and labour deployed in the park.

***Output 1.2: Develop the capacity to implement a smart patrolling system in protected areas***

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118. Work under this output will focus on: (i) designing a data collection and database management system for smart patrols in Sangvor and Tajik NP; and (ii) establishing a core of professionally trained and fully equipped rangers to implement a smart patrol system in the Jirgital and Tavildara sections of Tajik NP.

119. The specific activities to be undertaken in this output will include the following:

- Patrol staff

  - (i) Contract additional rangers to supplement the current patrol complement in the Jirgital and Tavildara sections of Tajik NP;
- Patrol staff equipment, security and supplies

  - (ii) Procure high quality summer and winter staff uniforms (replaced annually) and staff safety and camping equipment (including tents, sleeping bags, backpacks, water bottles, ice picks, first aid kit, utensils, weapons, binoculars, cameras and torches) for all patrol staff in the Jirgital and Tavildara sections of Tajik NP;
  - (iii) Supplement the daily patrol rations for patrol staff in the Jirgital and Tavildara sections of Tajik NP; and
  - (iv) Procure basic monthly insurance cover (injury and life) for patrol staff in the Jirgital and Tavildara sections of Tajik NP.
- Patrol staff training

  - (v) Design and develop a comprehensive smart patrol training program (including patrol planning, mapping, GPS technology, data collection, animal and plant identification, search and arrest, use of firearms, communications, first aid, physical strength) - comprising basic training, advanced training and refresher training - for all patrol and selected management staff of the Jirgital and Tavildara sections of Tajik NP;
  - (vi) Implement the basic (~2 weeks) and advanced (2-4 days) smart patrol training for all patrol staff in the Jirgital and Tavildara sections of Tajik NP;



- (vii) Maintain regular (annual) short (1-2 days) refresher smart training courses for all patrol staff in the Jirgital and Tavildara sections of Tajik NP; and
- (viii) Implement a ‘train-the-trainer’ project for nominated staff in the Forestry Agency (and/or the CEP) who will be responsible for initiating the smart patrol training in other sections of Tajik NP and in other SPNAs.

Smart patrol information technology

- (ix) Update the baseline GIS database for the Jirgital and Tavildara sections of Tajik NP (e.g. ortho-corrected aerial photography, park boundaries, data capture grid system, etc.);
- (x) Design a patrol database that will collate and present the spatial and attribute data (including information on patrol effort, patrol coverage and intensity, poaching distribution and intensity, incident reports, key species distribution, etc.) to be collected by patrol staff in the Jirgital and Tavildara sections of Tajik NP<sup>23</sup>;
- (xi) Procure and install the hardware, software and networks required to maintain the patrol database in the Jirgital and Tavildara sections of Tajik NP;
- (xii) Procure GPS-enabled data collection devices (e.g. cybertracker, mobile tablets, smartphones, etc.) for patrol staff in the Jirgital and Tavildara sections of Tajik NP; and
- (xiii) Develop an application for the GPS-enabled data collection devices to capture the spatial and attribute data collected by patrolling rangers in the Jirgital and Tavildara sections of Tajik NP.

Smart patrol performance assessment

- (xiv) Maintain regular patrol coverage and intensity of patrol teams across the Jirgital and Tavildara sections of Tajik NP;
- (xv) Facilitate regular meetings and/or workshops between managers, patrol staff, communities and other stakeholders in and around the Jirgital and Tavildara sections of Tajik NP to discuss and analyse smart patrol data outputs, and collaboratively identify ways to address ongoing threats; and
- (xvi) Document the lessons learnt from, and good practices in, the development and implementation of smart patrols in the Jirgital and Tavildara sections of Tajik NP to guide the future expansion of smart patrols to other SPNAs.

120. The Project Management Unit (PMU) will - in close consultation with the Department of Special Protected Natural Areas in the Forestry Agency - coordinate the implementation of this output. The PMU will contract the services of an international service provider or NGO (e.g. WCS, WWF) to: (a) provide strategic and technical guidance in the overall planning, development and implementation of the smart patrol system; (b) develop and implement the smart patrol training programme; (c) design and develop the patrol database; (d) identify the optimal data collection devices and software for the smart patrol system; (e) analyse smart patrol data outputs and facilitate regular report-back meetings; and (f) document the lessons learnt from, and good practices in, the development and implementation of smart patrols. The PMU will support the Department of Special Protected Natural Areas in: (a) the selection and appointment of additional ranger patrol staff; (b) procurement of all staff uniforms, equipment, supplies and computer hardware, software and networking; and (c) providing insurance cover for patrol rangers. The management staff of the Jirgital and Tavildara sections of Tajik NP will be directly responsible for the daily administration of the smart patrol system and the deployment of ranger patrol staff.

***Output 1.3: Improve the equipment and infrastructure to support the implementation of a smart patrol system in protected areas***

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<sup>23</sup> Examples of existing patrol databases that could be adapted for this purpose are MIST (spatial Management Information SysTem) and SMART (Spatial Monitoring and Report Tool).

121. Work under this output will focus on: (i) procuring essential communications equipment and transport for the patrol and management staff in the Jirgital and Tavildara sections of Tajik NP; and (ii) constructing, furnishing and equipping a smart patrol planning and data centre, and a number of patrol staff outposts, in the Jirgital and Tavildara sections of Tajik NP.

122. The specific activities to be undertaken in this output will include the following:

- (i) Upgrade the communications network for the Jirgital and Tavildara sections of Tajik NP (including procuring or replacing cell phones, satellite phones, satellite transmitter dishes, base-radio stations, radio antennae, VHF/FM hand-held radios and/or VHF/FM vehicle radio units), as and where needed;
- (ii) Procure essential transport for patrol and management staff in the Jirgital and Tavildara sections of Tajik NP, including two 4x4 SUVs, eight motorcycles, twenty horses and 10 donkeys;
- (iii) Construct (including the installation of bulk services such as power supply, water supply and waste disposal)<sup>24</sup> and equip (including the procurement of furnishing, installations and supply of office equipment) a smart patrol planning and data centre - comprising at least an open plan office, a garage for vehicles, a stable for horses/donkeys and bathroom facilities – to service the smart patrol system in the Jirgital and Tavildara sections of Tajik NP; and
- (iv) Construct (including the installation of bulk services such as power supply, water supply and waste disposal) and equip (including the procurement of basic furnishing and installations) patrol outposts – comprising at least an open plan sleeping area, basic kitchen and bathroom – in the Jirgital section (2 outposts) and Tavildara section (2 outposts).

123. The Project Management Unit (PMU) will - in close consultation with the Department of Special Protected Natural Areas in the Forestry Agency - coordinate the implementation of this output. The international service provider or NGO contracted to provide strategic and technical guidance in the overall planning, development and implementation of the smart patrol system (see Output 1.2 above) will also assist in identifying the most cost-effective arrangements for the planning, construction, management and maintenance of the equipment and infrastructure procured under this output. The PMU will support the Department of Special Protected Natural Areas in: (a) procuring and installing the communications network; (b) procuring all park transport; and (c) procuring materials and furnishings for the smart patrol planning and data centre and patrol outposts. The PMU will contract the services of local building contractors to design, construct and install bulk services in the: (a) smart patrol planning and data centre; and (b) patrol outposts.

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***Output 1.4 Enhance community involvement in, and beneficitation from, protected areas***

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124. Work under this output will initially focus on raising the awareness in communities living around the Jirgital and Tavildara sections of Tajik NP of the need to conserve, and the importance of protecting, snow leopard, their prey and their habitats. With the iterative recognition in these communities of the intrinsic value of these high altitude habitats and species, work under this output will then shift to collaboratively identifying potential opportunities to improve the livelihoods of those communities from the conservation, development and sustainable use of the Jirgital and Tavildara sections of Tajik NP. As cooperative relationships are developed with affected local communities, the output will then seek to support the development of working agreements between the Jirgital and Tavildara sections of Tajik NP and each adjacent village government (i.e. the *deha*). Activities under this output may also further seek to facilitate the implementation of these agreements, notably in respect of development opportunities for ‘beneficitation’ of communities from the conservation and use of the reserve (e.g. employment; revenue sharing agreements; service/supply agreements; capacity building; participation in hunting concessions;

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<sup>24</sup> Or renovate, where a central office complex already exists. For example, should the management of Sangvor be included under the Tavildara section of Tajik NP then the existing office complex will be renovated and expanded.

access/traversing rights; seasonal access to grazing; wood collection; preferential contracting; and participation in management decision-making). Finally, work under this output will support the establishment and functioning of a management committee for the the Jirgital and Tavildara sections of Tajik NP, with representation from each adjacent village government and the park management.

125. The specific activities to be undertaken in this output will include the following.

- (i) Develop an education and outreach programme for the Jirgital and Tavildara sections of Tajik NP;
- (ii) Contract, train and equip (i.e. uniforms and vehicles) 2-3 community liaison officers for the Jirgital and Tavildara sections of Tajik NP to implement the education and outreach programme, and to facilitate social development and economic development activities, in the surrounding communities of Tavildara and Jirgital;
- (iii) Design and publish information and educational materials and media (posters, brochures, booklets, DVDs, etc.) for use in the *Jamoat* resource centres and schools in and around the Jirgital and Tavildara sections of Tajik NP;
- (iv) Develop and present informational and awareness-raising ‘road shows’ (i.e. using pre-packaged informational and educational materials) in the targeted villages around the Jirgital and Tavildara sections of Tajik NP;
- (v) Support the negotiation, drafting, adoption and maintenance of a basic Memorandum of Understanding (MOU)<sup>25</sup> between the the Jirgital and Tavildara sections of Tajik NP and each adjacent village government;
- (vi) For each formalised village-based MOU, assist the village government in the planning, fund-raising and implementation of sustainable livelihood development opportunities (e.g. eco-tourism enterprises, organic agriculture, etc.) that are explicitly identified in these MOUs;
- (vii) Within the context of each MOU, procure and implement skills training programmes – including *inter alia* monitoring and enforcement, business development, construction, plumbing, electrical work, equipment maintenance, catering, etc. - for pre-selected community members<sup>26</sup>;
- (viii) Wherever practicable, facilitate the preferential appointment or procurement of contract staff, services and supplies (e.g. park staff, labour and sub-contractors for construction works, transport, accommodation, suppliers of rations for patrol staff, etc.) from the corps of pre-trained community members for the implementation of outputs 1.1 – 1.4;
- (ix) Facilitate the involvement of affected local communities in, and beneficitation from, hunting concessions in Tajik NP; and
- (x) For the Jirgital and Tavildara sections of Tajik NP, establish a joint co-management structure<sup>27</sup> that can *inter alia*: facilitate broader community and local government participation in the reserve management decision-making; agree on park-wide regulations required to control community access to the parks natural resources; collectively enforce tenure and natural resource use agreements between the community and park management; and provide an accessible and transparent dispute-resolution mechanism.

126. The Project Management Unit (PMU) will - in close consultation with the Division for Forestry, Fauna and Flora Protection and Hunting in the Forestry Agency - coordinate the implementation of this output. The international service provider or NGO contracted to provide strategic and technical guidance in the overall planning, development and implementation of the smart patrol system (see Output 1.2 and 1.3

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<sup>25</sup> This MOU may include a description of *inter alia*: (a) the respective roles and responsibilities of the village government and the SPNA management in the conservation and use of the SPNA; (b) the distribution of benefits to the village deriving from the current and future conservation and use of the SPNA; and (c) the nature and extent of involvement of the village community in the cooperative governance of the reserve.

<sup>26</sup> The means of pre-selecting beneficiaries will be defined in the MOU.

<sup>27</sup> This structure may take the form of a Park/Reserve Management Committee, or similar.

above) will also assist in: (a) developing the education and outreach programmes for the park; (b) training the community liaison staff; and (c) supporting the negotiation of village-based MoU's. The PMU will support the Division for Forestry, Fauna and Flora Protection and Hunting in: (a) the selection and appointment of the community liaison staff; and (b) procurement of all staff uniforms, equipment and transport for the community liaison staff. The PMU will contract a communications media company to design and publish all information and educational materials and media, and to develop the materials for the information and awareness-raising 'road shows' around each section of Tajik NP. The appointed community liaison staff will, with the support of the PMU and park management staff, be directly responsible for: (a) presenting the information and awareness-raising programmes in villages around the sections of Tajik NP; (b) leading the process of negotiating and formalising the village-based MOUs; (c) assisting villages in improving sustainable livelihoods; (d) procuring and implementing skills training programmes for community members; and (e) facilitating the direct involvement of affected local communities in, and benefitation from, the management and development of the park. The park management staff of the Jirgital and Tavildara sections of Tajik NP will, with the support of the PMU, facilitate the establishment and administration of the co-management structure (i.e. Park Management Committee) for the Jirgital and Tavildara sections of Tajik NP.

## **Component 2: *Ecosystem resilience and habitat connectivity in wider landscape outside protected areas***

127. Work under this component will be spatially focused on the high altitude forests and pastures located in the *Hissar-Alay* and *Vakhsh-Darvaz* areas (see Map 4 above).

128. The outputs and activities under this component are directed at improving the planning and management of the high altitude livestock pastures and indigenous forests located along, or immediately adjacent to, the key snow leopard migration routes within the *Hissar-Alay* and *Vakhsh-Darvaz* areas.

129. For the targeted<sup>28</sup> high altitude livestock pastures, work under this component will seek to improve the ecological integrity and productivity of these pastures by: (i) encouraging the adoption of more sustainable pasture management practices; (ii) restoring degraded pasture areas; and (iii) reducing conflicts between pastoralists and snow leopard and their prey.

130. For the targeted high altitude forest areas, work under this component will seek to improve the ecological integrity of forests in the snow leopard range by: (i) encouraging the adoption of other fuel sources; (ii) facilitating the implementation of joint forest management agreements; and (iii) rehabilitating degraded forests.

131. Work under this component will also seek to strengthen the wildlife enforcement and networking capacities of the key stakeholder institutions, agencies, organisations and communities.

132. The proposed suite of activities, and broad implementation arrangements, for each of the four outputs are described in more detail below

### ***Output 2.1: Reduce impacts on, and improve the management of, livestock pastures***

133. Work under this output will focus on: (i) identifying and profiling high altitude pastures that are also critical habitats for snow leopard and prey; (ii) developing livestock pasture management plans for these high altitude pastures; (iii) supporting the implementation of the livestock pasture management plans; (iv) incentivising the adoption of more sustainable pasture management practices in the high altitude pastures; and (v) rehabilitating and restoring the ecological functioning of heavily degraded high altitude grasslands.

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<sup>28</sup> i.e. The sites used for both forest production/ livestock farming and as critical habitats for snow leopard and prey species.

134. The specific activities to be undertaken in this output will include the following:

Selection and profiling of critical high altitude pasture areas

- (i) Identify and prioritise the high altitude pastures in the *Hissar-Alay* and *Vakhsh-Darvaz* areas that overlap with the critical habitats and movement corridors for snow leopard and prey<sup>29</sup>;
- (ii) Use high resolution aerial photography, existing spatial and non-spatial databases and ground-truthing (e.g. disc pasture meter) to collate the environmental (e.g. soil types, above-ground plant biomass, grass species composition and quality, disturbance levels) and land tenure (e.g. use rights, sub- lease agreement, land use standards, territorial zoning) baseline data for a sub-set of the high priority high altitude pastures;
- (iii) Use existing livestock information, census data and focused interviews with livestock farmers, PUUs and *jamoat/ hukumat* officials to collate the baseline data on the distribution and extent of livestock farming (e.g. livestock numbers, livestock distribution, proprietary rights to livestock, distribution of the breeders' camps, etc.) in this sub-set of high priority pastures;
- (iv) Use the baseline data from (ii) and (iii) above to develop thematic maps (e.g. vulnerability and risks, estimates of standing biomass, forage quality, extent of degradation, distribution of winter and summer grazing, pasture infrastructure, etc.) in support of pasture planning and management for the sub-set of high priority pastures.

Pasture management planning

- (v) Review and update the optimal livestock stocking rates and grazing regimes, and develop thematic livestock use maps (e.g. zonation of livestock carrying capacities, distribution of seasonal and year-round grazing areas, livestock migration routes, areas requiring supplementary feeding, restoration/rehabilitation priority areas, etc.) in support of pasture planning and management for the sub-set of high priority pastures;
- (vi) Develop district-based norms and standards for high priority pasture areas (including regulations on pasture allocation, norms on carrying capacity and rehabilitation, and monitoring standards for livestock and pasture yields);
- (vii) Assist the affected local PUUs<sup>30</sup> to prepare (or update existing) pasture management plans, with a specific focus on the high altitude pastures. These pasture management plans may include *inter alia*: map of forage areas; map of sensitive areas; livestock and forage guidelines; grazing management system (continuous, rotational, seasonal); measures for rehabilitation; infrastructure (feed storage, water supply, corrals, etc.) management; predator management measures; monitoring system; and cooperative governance arrangements;
- (viii) Facilitate the alignment of the pasture management plans with the relevant territorial planning schemes of the *jamoat* and any issued (pasture) 'certificates of use' and (pasture) 'lease agreements' for high altitude pastures; and

Grant funding for, and technical support to, the implementation of the pasture management plans

- (ix) Provide technical and grant funding support<sup>31</sup> to PUUs and individual pastoralists in the implementation of more sustainable pasture management practices in the high altitude pastures. Technical and grant funding support may include *inter alia*; constructing basic infrastructure for livestock and herders (e.g. predator-proof enclosures, herder's cabins, water and feed storage

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<sup>29</sup> The location of the key snow leopard and prey habitats and corridors will be derived from existing spatial data and other additional information collected under Output 3.1. The location of the high altitude pasture areas will be derived from the *Jamoat* territorial planning schemes.

<sup>30</sup> Where these Pasture User Unions do not yet exist, the project will further support the establishment of these unions using the existing establishment guidelines prepared by GIZ.

<sup>31</sup> Grant and technical funding support will be used to supplement and complement the existing pasture management capabilities and resources of pastoral and nomadic farmers and their supporting institutions (i.e. national, rayon and jamoat agencies, agricultural banks, NGOs and not-for-profit organisations) within the districts, and not replace it.

facilities); procuring predator-proof technologies (e.g. guard dogs, predator proof collars); relocating livestock from heavily overgrazed pastures to under-utilised pastures; procuring adequate insurance cover; provision of veterinary support services; and development of alternative livelihoods to compensate for loss of income due to reduction in livestock numbers or loss of access to pastures.

Restoration and rehabilitation of heavily degraded grasslands

- (x) In collaboration with the relevant PUU and *jamoat*, identify and prioritise the selection of 4-8 degraded high altitude grassland sites (collectively representing a total area of ~10,000ha) for active rehabilitation/restoration;
- (xi) Review the national and regional best practices in grassland rehabilitation/restoration;
- (xii) Develop a basic rehabilitation/restoration plan for each site. The restoration/rehabilitation plan will identify the optimal management approach, restoration/rehabilitation methodologies (e.g. grazing management, seeding, soil treatment, etc.) and maintenance measures to be implemented;
- (xiii) Erect and maintain livestock fencing (and gates), relocate livestock farming infrastructure (e.g. water points, sheds) and manage livestock numbers in order to control and manage the impact of grazing on the restoration/rehabilitation efforts; and
- (xiv) Support the implementation and monitoring of the pasture rehabilitation/restoration plan in each site.

135. The Project Management Unit (PMU) will - in close consultation with the NBBC, the Forestry Agency, Ministry of Agriculture (notably the Pasture Trust<sup>32</sup>), GIZ and the land committees of the affected *hukumats* and *jamoats* - coordinate the implementation of this output. The PMU will contract the services of a team of local experts from the Academy of Sciences, the Forestry Agency, the Committee for Environmental Protection, the NBBC, the Pasture Trust and/or the local authorities to provide the requisite professional, technical and scientific support to activities under this output (e.g. identifying and profiling high altitude pastures that are also critical habitats for snow leopard and prey; developing district-based pasture norms and standards; assisting in the establishment of new PUUs; supporting PUUs in pasture management planning; preparing grassland restoration/rehabilitation plans; etc.). The PMU will also contract an international pasture management planning business or NGO to provide technical support to the team of local experts, and the relevant PUUs, in: (a) the development and implementation of district-based pasture norms and standards; (b) drafting of pasture management plans; and (c) preparation of grassland restoration/rehabilitation plans. The UNDP CO will administer the grant funding support for PUUs and individual pastoralists in the implementation of more sustainable pasture management practices in the high altitude pastures. The PUUs will, with the support of the national experts and international pasture management planning firm: (a) facilitate access to information and data on high altitude pastures (including land tenure, numbers of livestock, seasonality of use, etc.); (b) participate in the development of district-based norms and standards for high priority pasture areas; (c) oversee the preparation of the pasture management plans; (d) facilitate access to grant funding for PUU members; and (e) implement the pasture restoration/rehabilitation plans in targeted pasture areas using local labour. The PMU will procure the requisite materials, equipment and infrastructure required to implement the pasture restoration/rehabilitation plans.

***Output 2.2: Reduce impacts on, and improve the management of, forests***

136. This output will focus on: (i) identifying the priority high altitude forests that are also critical habitats for snow leopard and prey; (ii) facilitating the implementation of joint forest management

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<sup>32</sup> And the district-level ‘Pasture Commissions’, if or when they are established (as prescribed by the Law on Pastures) during project implementation.

agreements in these priority high altitude forests; (iii) rehabilitating degraded high altitude forests; and (iv) demonstrating alternatives to wood for delivery of energy and fuel needs in rural communities.

137. The specific activities to be undertaken in this output will include the following:

Identifying priority high altitude forests

- (i) Identify and prioritise the high altitude forests in the *Hissar-Alay* and *Vakhsh-Darvaz* areas that overlap with the critical habitats and movement corridors for snow leopard and prey<sup>33</sup>;

Implement participatory forest management

- (ii) Support the ongoing implementation of participatory forest management (PFM) initiatives in these priority high altitude forests;
- (iii) Support the participative development, adoption and enforcement of management guidelines to mitigate the impacts of wood harvesting on the priority high altitude forests;
- (iv) Improve the scientific basis for the determination of the sanitary cutting requirements for the priority high altitude forests;
- (v) Test, in consultation with local users, a range of measures (e.g. limits on offtake, harvesting techniques, seasonal closed seasons, improved monitoring and enforcement, etc.) to ensure the sustainability, and reduce the environmental impacts, of the harvesting of wood from priority high altitude forests;

Forest restoration and rehabilitation

- (vi) In collaboration with the relevant PFM committees and the responsible *leskhoz*, identify and prioritise the selection of 6-10 degraded high altitude forests (collectively representing a total area of ~6,000ha) for active rehabilitation/restoration;
  - (i) Review the national and regional best practices in forest restoration and rehabilitation.
  - (ii) On the basis of this review, develop a basic rehabilitation/restoration plan for each identified forest. The restoration/rehabilitation plan will strive to realize the overall management objective for each forest and will identify the optimal species mix, soil treatments (e.g. tillage, irrigation), restoration/rehabilitation methodologies (e.g. seeding, enrichment planting, terracing, etc.) and maintenance measures to be implemented;
  - (iii) Establish and maintain a system of firebreaks around each identified forest to reduce the impact of wildfire on the restoration/rehabilitation efforts;
  - (iv) Establish small local nurseries for forest species used in restoration/rehabilitation;
  - (v) Support the implementation and monitoring of the forest restoration/rehabilitation plan in each identified forest;

Alternative fuel and energy technologies

- (vi) Install a series of energy and fuel technologies and systems – including wind turbine, solar panels, generator, small hydro-electric power, coal, woodlots, etc. – in a selected *jamoat* resource centre<sup>34</sup> in the demonstration site;
- (vii) Prepare informational materials and displays on the costs, environmental benefits and technical requirements for the pre-installed alternative fuel and energy technologies;
- (viii) Host energy and fuel technology demonstration days for community groups, schools, local government, etc.; and
- (ix) Provide small grants to assist rural communities and local governments to adopt alternative fuel and energy technologies.

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<sup>33</sup> The location of the key snow leopard and prey habitats and corridors will be derived from existing spatial data and other additional information collected under Output 3.1. The exact location of the high altitude forests will be provided by the responsible *leskhoz*.

<sup>34</sup> Currently the Sarikhosor jamoat is proposed, but this will only be confirmed during the project implementation phase.

138. The Project Management Unit (PMU) will - in close consultation with the NBBC, the CEP, the Forestry Agency and the pilot *jamoat* (preliminarily identified as Sarikhosor *jamoat*) - coordinate the implementation of this output. The PMU will contract the services of a team of local experts from the Academy of Sciences, the Forestry Agency, the Committee for Environmental Protection, and the NBBC to provide the requisite professional, technical and scientific support to activities under this output (e.g. identifying and prioritising high altitude forests that that overlap with the critical habitats and movement corridors for snow leopard and prey; developing management guidelines for priority high altitude forests; improving the scientific basis for the determination of the sanitary cutting requirements; preparing basic rehabilitation/restoration plan for targeted forests; etc.). The PMU will contract the services of an international high altitude forest management expert to provide technical backstopping support to the team of local experts, and to the *leskhoz*, in: (a) identifying and profiling the high altitude forests; (b) the development of management norms, standards and guidelines for high altitude forests; and (c) the restoration/rehabilitation of degraded high altitude forests. The affected PFM committees and/or responsible *leskhoz* will, with the support of the PMU: (a) facilitate the establishment and administration of PFM committees, where these do not yet exist; (b) implement, monitor and enforce the approved forest management guidelines, regulations and plans; (c) identify and prioritise the selection of degraded high altitude forests; (d) establish small nurseries for forest species used in forest restoration efforts; and (e) implement the rehabilitation/restoration plans for targeted forests, using local labour. The PMU will procure the requisite materials, equipment and infrastructure required to: (a) implement the forest restoration/ rehabilitation plans. The PMU will contract alternative fuel and energy technology service providers to install and maintain, and develop informational for, the alternative fuel and energy technologies in the targeted *jamoat*. The pilot *jamoat* will (through the *jamoat* Resource Centre), with the support of the PMU and UNDP CO: (a) maintain the demonstrations of alternative fuel and energy technologies; (b) maintain the informational material and displays on alternative fuel and energy technologies; and (c) host a series of ‘open days’ on alternative fuel and energy technologies. The UNDP CO will administer the grant funding support for assisting rural communities and local governments to adopt alternative fuel and energy technologies.

### ***Output 2.3: Strengthen wildlife monitoring and enforcement capacities***

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139. This output will focus on strengthening the capacities (knowledge, training, networking, skills, equipment, ranger staff) of the key responsible government agencies (e.g. CEP, Forestry Agency, Border and Customs services) and community-based institutions to monitor and enforce illegal activities that detrimentally affect the conservation of snow leopard and prey populations and habitats outside formal protected areas. While GEF resources will initially focus on those institutions and organisations working in the *Hissar-Alay* and *Vakhsh-Darvaz* areas, co-financing will be used to support the involvement of agency staff and communities from other areas.

140. The specific activities to be undertaken in this output will include the following:

- (i) Establish and equip a central training facility, under the ambit of the NBBC, that will provide wildlife monitoring and enforcement training for affected staff from all relevant public institutions (including staff from CEP, NBBC, Academy of Sciences, Forestry Agency, *hukumats*, *jamoats*, etc.);
- (ii) Design, develop materials and implement an ongoing in-service wildlife monitoring and enforcement training and skills development programme for affected staff from all relevant public institutions. The programme may include short (1-2 day) training and skills development courses in *inter alia*: key species identification and biology; basic ecology of high altitude habitats; the legal and regulatory framework for wildlife and habitat protection; international wildlife and habitat conservation agreements; illegal trade in snow leopard and prey; wildlife



- monitoring and information management; sustainable forest and pasture management; cooperative governance in wildlife management; human-wildlife conflicts; etc.;
- (iii) Facilitate the implementation of the Law on Hunting (2014), notably in respect of the equitable distribution of income from hunting - in conformance with the explicit requirements of the Law - to local communities and to protected areas.
  - (iv) Pilot the staffing, training, equipping and deployment of a local corps of community rangers to patrol and monitor an area known for illegal activities linked to hunting and poaching of snow leopard and prey<sup>35</sup> (these community rangers will however only monitor and report back on illegal activities, not enforce any regulations); and
  - (v) Support the procurement of key equipment (e.g. vehicles, uniforms, rations, protective clothing, computer equipment, GPS, communications equipment) for local field-based environmental and forestry enforcement staff of the Forestry Agency and CEP.

141. The Project Management Unit (PMU) will - in close consultation with the NBBC, the CEP and the Forestry Agency - coordinate the implementation of this output. The PMU will contract the services of an international NGO - and a counterpart national team of local experts - to design, develop and implement an in-service short-course wildlife monitoring and enforcement training program. The PMU will contract a construction firm to undertake any building renovations required for the targeted training facility, and will procure the required equipment and materials to be used in the implementation of the wildlife monitoring and enforcement training program. The PMU will also procure the critical equipment needed for the local field-based environmental and forestry enforcement staff of the Forestry Agency and CEP. The PMU will further support the targeted *leskhoz* or SPNA in the (a) selection of a local corps of community rangers; (b) training of community rangers; and (c) procurement of key equipment and materials for these community rangers. The targeted *leskhoz* or SPNA will then be directly responsible for the daily administration and management of the corps of community rangers.

### **Component 3: Support to international cooperation**

142. Work under this component will cover the projects' entire planning domain (see Map 4 above).

143. The outputs and activities under this component are broadly directed at: (i) establishing a strong scientific base for the conservation and restoration of snow leopard and prey populations in Tajikistan; (ii) adopting a *National Action Plan for Snow Leopard Conservation*; (iii) facilitating the regular coordination, monitoring, and reporting on the National Action Plan; and (iv) developing a framework for transboundary collaboration with Uzbekistan on the conservation of snow leopards and their prey.

144. The knowledge of snow leopard and prey populations and their habitats collected under this component will be used to guide the strategic focus for implementation of outputs and activities under components 1 and 2 above.

#### **Output 3.1: Enhance the state of knowledge on snow leopard and prey populations**

145. This output will focus on the development, implementation and maintenance of a consolidated national snow leopard monitoring and reporting system and snow leopard information management system. The techniques and tools adopted under this output will be technically guided by the *Snow Leopard Survival Strategy* (2014).

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<sup>35</sup> Potential areas identified during the PPG phase include: community conservancies in the Wakhan valley; and the high altitude mountains immediately adjacent to the Sarikhosor, Ramit or Dashtidzhum SPNAs.

146. It is envisaged that the monitoring and reporting information collated under this output will enable the Government of Tajikistan to track and report on its progress in implementing the National Action Plan for Snow Leopard Conservation<sup>36</sup> and its contribution to meeting the goals and objectives of the overarching Global Snow Leopard and Ecosystem Protection Programme (GSLEP).

147. The specific activities to be undertaken in this output will include the following:

- (i) Develop a national snow leopard monitoring and reporting system that will enable the standardised collection, collation, modelling and dissemination of information on *inter alia*: estimations of snow leopard and prey populations, determinations of snow leopard home ranges, identification of snow leopard migration corridors, and assessments of the nature and scale of threats to snow leopard, prey and habitats.
- (ii) Procure the requisite computer equipment (software, hardware and networking) and design an electronic snow leopard information management system (including developing data standards and procedures and defining data flows) to host the spatial and non-spatial monitoring and reporting data for snow leopard and prey;
- (iii) Source and validate all existing electronic (GIS data, spreadsheets, images, reports, etc.) and hard copy (maps, reports, tables, etc.) information (from NGOs, scientific and research institutes, patrol reports, etc.) on snow leopard, prey and habitats and integrate it into the snow leopard information management system;
- (iv) Host a series of specialist training sessions for researchers, scientists, academics, volunteers, students, NGO staff, government field staff, etc. on *inter alia*: the snow leopard monitoring and reporting system, the snow leopard information management system, monitoring tools and techniques, procedures and standards for collecting and submitting information, statistical tools for extrapolation, etc.;
- (v) Ensure the ongoing collection, transformation and integration of key data and information (from multiple sources) in the snow leopard information management system;
- (vi) Increase the coverage of camera traps (ensuring adequate sample size and capture probability), and linked database of individual cat photo identifications, across the snow leopard range;
- (vii) Increase the coverage of aerial surveys and aerial photography (using lightweight unmanned aerial vehicles) of medium-sized mountain ungulates across the snow leopard range.
- (viii) Facilitate the opportunistic (e.g. injured or live-trapped cats) fitting of miniaturized radio collars and GPS satellite technology (which allows multiple fixes to be obtained daily and downloaded remotely) to improve knowledge of movement patterns, habitat use, home range size and dispersal; and
- (ix) Evaluate the cost-effectiveness of monitoring snow leopard populations using faecal DNA analysis in a pilot study area.

148. The Project Management Unit (PMU) will - in close consultation with the NBBC, the Academy of Sciences, the Forestry Agency and Panthera - coordinate the implementation of this output. The PMU will contract the services of an international conservation agency or NGO to: (a) develop the national snow leopard monitoring and reporting system; (b) design and establish the snow leopard information management system; (c) host a series of specialist training sessions on the requirements, administration, maintenance and use of the two systems; and (d) facilitate the transfer (including the requisite capacity building) of the two systems to the state agency responsible for their ongoing management<sup>37</sup>. The NBBC and the Academy of Sciences will: assist the international consulting institution in sourcing, validating and transforming all electronic and hard copy data on snow leopard, prey and habitats; lead the implementation of the snow leopard monitoring and reporting system; and maintain the snow leopard information

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<sup>36</sup> See Output 3.1 below.

<sup>37</sup> To be determined during the implementation phase, but likely to be either the Institute of Zoology and Parasitology or the NBBC.

management system. The PMU will assist the responsible state institutions (notably the Institute of Zoology and Parasitology) and NGOs (notably Panthera) in the field collection of baseline and monitoring data by: (a) procuring the necessary equipment and materials; (b) funding the running costs (e.g. travel, accommodation, daily allowance, etc.) of the field-based monitoring staff; (c) contracting aerial survey (e.g. cost of fixed wing or helicopter flying hours, lease of drones, etc.) services; and (d) contracting laboratory services for the faecal DNA analyses.

***Output 3.2: Improve the coordination of, and cooperation in, snow leopard conservation and monitoring***

149. This output will focus on: (i) finalising the adoption of the draft *National Action Plan for Snow Leopard Conservation*; (ii) improving the cooperation between institutional partners and civil society in the implementation of the *National Action Plan*; and (iii) developing frameworks for trans-boundary collaboration.

150. The specific activities to be undertaken in this output will include the following:

- (i) Conduct an ecosystem services and economic valuation of snow leopards and their mountain ecosystems, including the direct and indirect valuation of provisioning services (food, fibre, and water), regulatory services (climate regulation, water regulation, soil preservation), cultural services (cultural diversity, spiritual and religious values), and supporting services (soil production, soil retention);
- (ii) Based on the improved state of knowledge of snow leopard, prey and their habitats, update the draft *National Action Plan for Snow Leopard Conservation in Tajikistan* (2012) for formal adoption by the Government of Tajikistan;
- (iii) Assess the feasibility of a range of different mechanisms for financing the implementation of the *National Action Plan*, and identify the key actions required to mobilize the critical funding requirements identified in the *National Action Plan*;
- (iv) Establish and maintain a cooperative governance structure (e.g. a National Snow Leopard Conservation Committee, or similar) – under the stewardship of the NBBC - to coordinate the efforts of different partner institutions, organisations and individuals in the implementation of the *National Action Plan*;
- (v) Support the establishment of a National Environment Security Task Force (NEST), as a means of addressing and combating wildlife crime in Tajikistan through a more coordinated, collaborative and strategic response;
- (vi) Develop a framework for transboundary collaboration with Afghanistan, Uzbekistan, China, and Kyrgyzstan in combatting poaching and illegal trade and reducing the illicit demand for illegal wildlife products;
- (vii) Build capacity and engage border and customs officials to improve the detection of illegal trade in snow leopard parts;
- (viii) Organize visits between adjacent snow leopard range countries to share lessons learned, experiences in PA management, and community-based wildlife management; and
- (ix) Facilitate the active participation of scientists, researchers and academics in regional/international snow leopard monitoring and report-back meetings.

151. The Project Management Unit (PMU) will - in close consultation with the NBBC, the Forestry Agency, the CEP, Border and Customs services and the Secretariat of the Global Snow Leopard and Ecosystem Protection Program - coordinate the implementation of this output. The PMU will contract the services of a team of local experts from the Academy of Sciences, the Forestry Agency, the Committee for Environmental Protection and the NBBC to provide the requisite professional, technical and scientific support to activities under this output (e.g. ecosystem services and economic valuation of snow leopards and their mountain ecosystems, updating the *National Action Plan for Snow Leopard Conservation in Tajikistan*, identifying financing requirements for the National Action Plan, etc.). The PMU will also

contract the services of an international snow leopard conservation specialist to provide professional and technical backstopping support to the team of local experts. The PMU may contract the service of the Environment Security sub-directorate of the International Police Organisation (INTERPOL) to assist the project in: (a) the establishment of the NEST; (b) developing the framework for transboundary collaboration in combatting poaching and illegal trade and reducing the illicit demand for illegal wildlife products; and (c) building the capacity of border and customs officials to improve the detection of illegal trade. The NBBC will facilitate the establishment of, and fulfil the secretariat function for, the National Snow Leopard Conservation Committee (or similar). The PMU will further: (a) finance the running costs of National Snow Leopard Conservation Committee meetings (e.g. catering, facilitation, accommodation, transport, daily allowance); (b) compensate for the costs of participation in regional snow leopard report-back meetings (travel costs, daily allowance); and (c) fund the active involvement of state-employed management and research staff in international exchange programs.

## INDICATORS AND RISKS

152. The project indicators are detailed in the [Strategic Results Framework](#) in Section II of this Project Document.

153. Project risks and risk mitigation measures are described below.

IDENTIFIED RISKS AND CATEGORY	IMPACT	LIKELIHOOD	RISK ASSESSMENT	MITIGATION MEASURES
State institutions responsible for the administration of protected areas, pastures and forests do not have adequate capacity, or demonstrate the necessary political will, to support, maintain and enforce working agreements with rural pasture user groups, forest user groups and communities living adjacent to SPNAs	<b>HIGH</b>	<b>MODERATELY LIKELY</b>	<b>HIGH</b>	As a signatory to the ‘Bishkek Declaration’ (October, 2013), the Government of Tajikistan (GoT) has resolved to ‘ <i>commit resources for (the implementation) (of the Global Snow Leopard Ecosystem Protection Program)</i> . It has further committed to act to ‘ <i>protect and recover snow leopard populations and their fragile habitats</i> ’. This project has thus been developed to assist the GoT in meeting the ‘political will’ already represented in these resolutions and commitments. The project will seek to significantly strengthen and expand the current capabilities of the key institutions <sup>38</sup> that are directly responsible for the planning and management of protected areas, natural habitats, pastures and forests across the snow leopard range in Tajikistan. More specifically, it will assist in building a professional corps of well-trained and properly equipped management, monitoring, enforcement, community liaison and pastoral extension service staff in the targeted SPNAs, <i>leskhoz</i> , border control points, <i>khukumats</i> and <i>jamoats</i> . The PMU and NBBC will, during the course of project implementation, iteratively develop an institutional sustainability plan to ensure that the different project investments in building the capacity of the targeted institutions are maintained (and scaled-up, if feasible and affordable) beyond the term of the project. The project will also support the implementation of income-generating opportunities (e.g. income from hunting fees, income from pasture tax, specialist tourism services, income from fines, etc.) to further augment the current budgets of the responsible institutions.
Low levels of compliance with environmental legislation, and a reluctance to adopt more sustainable natural resource use	<b>HIGH</b>	<b>MODERATELY LIKELY</b>	<b>MEDIUM</b>	The project has adopted a three-pronged approach to addressing this risk. In the <u>first</u> instance, while the widespread culture of impunity from environmental prosecution will not be fully reversed, the project will seek to improve the monitoring and enforcement capabilities across the snow leopard range. The

<sup>38</sup> This includes: the Department of Special Protected Natural Areas (Forestry Agency); the State Forest Institution (Forestry Agency); the Pasture Trust (Ministry of Agriculture); the Border and Customs Service; the CEP inspectorates within the *khukumats*; and the *jamoats*.

IDENTIFIED RISKS AND CATEGORY	IMPACT	LIKELIHOOD	RISK ASSESSMENT	MITIGATION MEASURES
practices, leads to the further degradation of, and loss of productivity in, snow leopard and prey habitats.				<p>project will specifically: pilot the implementation of a smart patrol system in Tajik NP (Output 1.2 and 1.3); strengthen wildlife monitoring and enforcement capacities (knowledge, training, skills, equipment and staff) in the responsible state agencies (Output 2.3); pilot the training, equipping and deployment of a corps of local community rangers (Output 2.3); build the capacity of border and customs officials to improve the detection of illegal wildlife trade (Output 3.2); and facilitate the establishment of a NEST to coordinate the efforts of different state institutions in combatting wildlife crime (Output 3.2).</p> <p>In the <u>second</u> instance, the project will seek to incentivise an incremental shift to more sustainable land use (focused on grazing and forest use) practices. The project will specifically: facilitate the economic beneficiation (employment, contractual work, provision of services, income from hunting concessions, etc.) of communities living around Tajik NP in return for a reduction in illegal activities in the park (Output 1.4); help village governments to plan, source funding for and implement alternative livelihoods (Output 1.4); provide technical and financial grant support to pastoralists in return for a shift to more sustainable pasture management practices (Output 2.1); and provide small grants to assist rural communities and local governments to install alternative fuel and energy technologies in return for a reduction in harvesting of wood for fuel and energy needs from forests (Output 2.2).</p> <p>In the <u>third</u> instance, the project will seek to improve the awareness of rural communities living in the snow leopard range of the importance of conserving snow leopard, their prey and their habitats. The project will specifically: develop and implement an education and awareness programme around Tajik NP (Output 1.4); strengthen the knowledge and awareness of sustainable pasture management in the PUUs (Output 2.1); strengthen the knowledge and awareness of sustainable forest management in PFM committees (Output 2.2); present informational materials and displays on alternative fuel and energy technologies (Output 2.2); and conduct an ecosystem services and economic valuation of snow leopard and their mountain ecosystems (Output 3.2).</p>
Low levels of coordination and cooperation	<b>MODERATE</b>	<b>MODERATELY LIKELY</b>	<b>MEDIUM</b>	The project is building on almost a decade of cooperation with communities and local and regional authorities in the implementation of

IDENTIFIED RISKS AND CATEGORY	IMPACT	LIKELIHOOD	RISK ASSESSMENT	MITIGATION MEASURES
<p>between public institutions, tenure holders, rights holders, land owners, NGOs/CBOs and natural resources users leads to conflicts over any changes in use rights in SPNAs and high altitude pastures and forests</p>				<p>biodiversity conservation initiatives under the framework of a UNDP-GEF-CEP/NBBC partnership. This work suggests that a high level of engagement and local ownership among local stakeholders will be maintained in this project, with careful attention given to stakeholder consultation, participation and conflict resolution. The project will work closely with the administration of the targeted SPNAs, <i>leskhoz</i>, <i>khukumats</i>, <i>jamoats</i> and <i>dehas</i> in ensuring the effective involvement of all affected stakeholders in the implementation of project activities. The project will specifically work through (and assist in establishing, where these have not yet been constituted) the coordinating structures of Park Management Committees, Pasture User Unions (PUUs) and Participatory Forest Management (PFM) committees as an institutional mechanism to improve the communication, collaboration and cooperation between tenure holders, rights holders, natural resource users and the relevant state, regional and local administrations. The project will also strengthen the knowledge and skills base of protected area, pasture and forest users and managers in order to facilitate a more collaborative approach in the planning, implementation and enforcement of sustainable forest and pasture management practises. A full stakeholder participation plan will be prepared as the project is further developed.</p>
<p>The increasing aridisation of high altitude habitats, as a result of the effects of climate change, results in more intensive and extensive grazing pressures on high altitude pastures, potentially leading to the local extirpation of snow leopard and medium-sized prey.</p>	<p><b>MODERATE</b></p>	<p><b>UNLIKELY</b></p>	<p><b>LOW</b></p>	<p>The effects of climate change are likely to exacerbate the effects of the existing threats to snow leopard, their prey and their habitats. They are however not likely (under current climate change scenarios) to result in the emergence of new, potentially catastrophic threats. The project has thus been developed to improve the capacity of the country to proactively and more effectively address the current matrix of threats in anticipation of a future increase in the extent and intensity of the threats as a result of changing climate. Snow leopards and their prey also have large home ranges and should – assuming safe access to available habitats - be able to move in response to the projected effects and impacts of climate-change. The project has thus adopted a landscape-scale approach, with a strong emphasis on maintaining viable and secure movement corridors between formal protected areas. The project will also support the finalisation of the <i>National Action Plan for Snow Leopard</i></p>

IDENTIFIED RISKS AND CATEGORY	IMPACT	LIKELIHOOD	RISK ASSESSMENT	MITIGATION MEASURES
				<p><i>Conservation in Tajikistan</i> (Output 3.2) An integral part of the action plan will be the development of strategies and approaches to mitigate and adapt to the effects of climate change on snow leopard conservation.</p> <p>The project will further support the involvement of managers, scientists, researchers and academics in more rigorously monitoring the effects of climate change on snow leopard and prey and collaborating in regional initiatives to develop strategies to mitigate and manage these effects.</p>

## COST-EFFECTIVENESS

154. The cost-effectiveness of the project is premised on the collective value of the coordinated efforts of the individual range countries to conserve snow leopard, their prey species and their natural habitats. Thus, within the overarching framework of the GSLEP, this project will specifically support the implementation of the NSLEP portfolio for Tajikistan. It will address a number of critical limitations in the capacities of stakeholder institutions, and in the incentives for rural communities, to effectively and cooperatively manage and conserve snow leopards, their wild prey, and their habitats across the snow leopard range in Tajikistan.

155. All project outputs and activities have been spatially contained to a pre-defined ‘planning domain’ for the project to ensure that the use of GEF resources is concentrated on conserving, and improving sustainable forest and pasture management in, the natural dispersal areas and migration routes of the snow leopard and their prey in Tajikistan.

156. Costs incurred in project implementation will focus primarily on those additional actions required to provide key incremental assistance to the government, forest users, pastoralists, rural communities and partner institutions in undertaking strategic interventions to: improve the conservation tenure and conservation security of SPNAs; improve the sustainable management of, and restore degraded, high altitude pastures; improve and restore the ecological integrity of high altitude forests; and improve the state of knowledge of snow leopards, their prey and their habitats.

157. To accomplish this, the project will seek to complement and build upon the current baseline activities already underway in the sector, such as: establishment and maintenance of JFM committees; vocational training for foresters; establishment of nurseries for climate-resistant tree species; establishment and networking of PUUs; support to sustainable land management activities in rural communities; micro-credit loans and grants to small-scale local farmers; snow leopard and prey population surveys; field training for conservation biologists; and establishment of a national state environmental monitoring system.

158. Project resources will thus primarily be used to improve current efforts by the state and other partner institutions to plan and effectively manage SPNAs, pastures, forests and knowledge systems, rather than incur the high costs of developing completely new tools, mechanisms and approaches.

159. Where new value-adding activities are being supported by the project (e.g. development of a smart patrol system for SPNAs; and demonstration sites for alternative fuel and energy technologies) these will be conceptualised at the national level, but locally piloted (i.e. smart patrol system in the Jirgital and



Tavildara sections of Tajik NP; and a demonstration site in Sarikhosor *Jamoat* Resource Centre) in order to realise economies of scale.

160. Additional co-financing support for the introduction, scaling up and/or replication of viable conservation and sustainable management approaches will continue to be targeted by the project during the project implementation phase.

161. Wherever possible, the project will use the competencies and technical skills within both the mandated state institutions (e.g. CEP, NBBC, SPNAs, Scientific Institute of Forestry, *leskhoz*, Pasture Trust, Academy of Sciences, *khukumats* and *jamoats*), NGOs (e.g. Panthera) and legitimate community-based structures (e.g. PFM Committees, Park Management Committee, PUUs and *deha's*) to implement project activities.

## **COUNTRY OWNERSHIP: COUNTRY ELIGIBILITY AND COUNTRY DRIVENNESS**

162. The Government of Tajikistan ratified the *United Nations Convention on Biological Diversity* (CBD) on the 15<sup>th</sup> of May, 1997. As a party to the CBD, Tajikistan is committed to the implementation of the Strategic Plan for Biodiversity 2011-2020. This project will specifically contribute to meeting Aichi Target 12 of the CBD Strategic Plan ('By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained'). It will also contribute to meeting the following complementary Aichi targets: Target 3 (positive incentives for the conservation and sustainable use of biodiversity); Target 5 (the rate of loss, degradation and fragmentation of natural habitats is reduced); Target 11 (areas of particular importance for biodiversity are effectively conserved); and Target 19 (the knowledge of biodiversity is improved and shared).

163. The country's *Fifth National Report to the Convention on Biological Diversity* (2014) was prepared in accordance with Article 26 of the Convention and COP decision X/10 of the Convention. The report considers the fragmentation of ecosystems, and degradation of species' habitats, as the most serious threat to all wild species of flora and fauna of Tajikistan. It specifically emphasises the need to prevent the further degradation and loss of natural habitats in the high altitude mountain ecosystems of the country in order to protect threatened species, including the snow leopard and key prey species (e.g. argali, Menzbier's marmot). The country has, in conformance with COP decision X/2 of the Convention, revised its *National Biodiversity Strategy and Action Plan* (NBSAP, 2014). The revised NBSAP, covering the period 2014-2020, identifies a suite of activities that are to be implemented in order to improve the management effectiveness of SPNAs, restore degraded mountain pastures and forests and enhance the sustainability of pasture and forest management use in high altitude mountain ecosystems. The project will specifically contribute to meeting National Goal A (Target 3); National Goal B (Target 5), National Goal D (Targets 14 and 15) and National Goal E (Target 19) of the NBSAP.

164. The Government of Tajikistan acceded to the *United Nations Convention on Combating Desertification* (UNCCD) on August 16, 1997. As a party to the UNCCD, Tajikistan is committed to the implementation of the *Ten-year Strategic plan and Framework to Enhance the Implementation of the Convention* (2008–2018). The project will specifically contribute to the indicators for Strategic Objectives 1, 2 and 3 (enhancing productivity and reducing vulnerability to climate change, climate vulnerability and drought) of the UNCCD Strategic Plan by: improving and diversifying livelihoods in rural communities through sustainable land management; improving land productivity and restoring ecosystem goods and services in mountain ecosystems; and building institutional and individual capacities for sustainable forest and pasture management.

165. The Government of Tajikistan acceded to the *United Nations Framework Convention on Climate Change* (UNFCCC) on the 7<sup>th</sup> of January, 1998. The country's *Third National Communication to the*

UNCCD (2014) highlights the need to enhance energy efficiencies in rural households. It specifically encourages the promotion and dissemination of best practices in the adoption of more environmentally-friendly energy and fuel technologies and systems.

166. The Government of Tajikistan is a party to *The Bishkek Declaration on the Conservation of Snow Leopards* (2012). Within the framework of the ‘Bishkek Declaration’, the *Global Snow Leopard & Ecosystem Protection Program* (GSLEP, 2013) seeks to bring together governments of snow leopard range countries to collectively recognize the threats to snow leopards, and commit to coordinated national and international action. The GSLEP’s Goal is to identify and secure 20 snow leopard landscapes by the year 2020. The foundation of the process is a set of 12 *National Snow Leopard and Ecosystem Priorities* (NSLEP) developed by each range country government. This project will directly support the implementation of the priority actions contained in the NSLEP for Tajikistan.

167. The *Snow Leopard Survival Strategy* (SLSS, 2014) has been developed in parallel with, and is complementary to, the GSLEP. While the GSLEP is organized around a policy-level and government-focused agenda, the SLSS is a more technical document targeting researchers, conservationists and wildlife or protected area managers in the government and public sectors. The project has adopted and fully integrated the technical approaches and best practises described in the SLSS into the design and development of project outputs and activities.

## **PROJECT CONSISTENCY WITH NATIONAL PRIORITIES/PLANS**

168. The project will broadly contribute to achieving the national targets under Objectives 1.1 (Goal 1 – sustainable management and development), Objectives 3.1 and 3.2 (Goal 3 – forests) and Objective 4.3 (Goal 4 – SPNAs) of functional area 3.5 (‘Ensure environmental stability and sustainable development’) in the Social Sector of the *Living Standards Improvement Strategy* (2007-2015) It will also assist in the implementation of key areas of activities under the output ‘Promote conservation and proper management of biodiversity and ecosystems’ contained in the *National Development Strategy* (2013-2015).

169. The project will support the implementation of the activities 1-3, 5-6, 11, 13, 15-18, 25 and 28 identified in the ‘Action Plan for Biodiversity Conservation’ in the *National Environmental Action Plan* (NEAP, 2006). The project will specifically facilitate the funding and implementation of elements of the following three ‘especially high priority environment-sector projects’ referred to in Annexure D of the NEAP: Project 16 (reforestation); Project 24 (small hydropower projects); and Project 25 (raising environmental awareness).

170. The project is closely aligned to the *State Environmental Program of the Republic of Tajikistan*<sup>39</sup> (2009-2019), notably in respect of two thematic areas: (i) ‘improving the ecological condition of flora’ (improved forest and grassland management capacities, restoration of degraded grasslands, reforestation); and (ii) ‘improving the ecological condition of fauna’ (improving the habitats of migratory species, inventory of rare and threatened fauna; strengthening the protection of migratory wildlife).

171. The project will also contribute to implementing the priority activities identified in the *State Program on Development of Forestry in the Republic of Tajikistan for 2006-2015*, notably the suite of activities under Objective 2.1 (conservation of existing forests), Objective 2.2 (development of the forestry sector) and Objective 2.5 (regularization of state forest fund lands - including pastures – in support of rural development) of the State Program.

172. The project is consistent with the key priorities identified in the *State Program on Development of Natural Protected Areas in the Republic of Tajikistan for 2005-2015*, particularly in respect of activities

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<sup>39</sup> Approved by Government Resolution on February 27, 2009 (№123)

under Objectives 3 and 4 (strengthening institutional and individual capacities; development of infrastructure; improving knowledge systems; and improving public awareness) of the State Program.

173. The project will contribute to the implementation of Objective 6 (establishment and promotion of sub-sector unions) and Objective 11 (sustainable use and management of natural resources) of the *Agriculture Reform Programme of the Republic of Tajikistan for 2012-2020*. The project is also closely aligned with the *State Program on Improvement of Conditions and Rational Use of Pastures in the Republic of Tajikistan for 2009-2015*, especially in respect of Activity 2 (improved pasture management) Activity 3 (inventory of pasture lands) and Activity 4 (restoration of degraded pastures) of the State Program.

174. The project will further contribute, at least in part, to the ongoing establishment of the ‘national state environmental monitoring system’, as envisaged in Decree No. 791 ‘*On the Regulations to set up a unified state Environmental Monitoring System of the Republic of Tajikistan and to maintain the State Register of Environmental Monitoring Facilities of the Republic of Tajikistan*’ (2014), and is further elaborated in the corresponding *Program on Environmental Monitoring of the Republic of Tajikistan for 2013-2017*.

## **SUSTAINABILITY AND REPLICABILITY**

175. Project **sustainability** will ultimately depend on ensuring the full ownership of the project outputs and activities by the responsible mandated public institutions and securing their long-term commitment (regulatory, policy, funding and resources) to scale-up and replicate best practices in snow leopard conservation, and sustainable forest and pasture management, beyond project completion.

176. Environmental sustainability will be enhanced in the project by: (a) preventing the further fragmentation of snow leopard and prey landscapes in Tajikistan; (b) maintaining and/or restoring the quality of key snow leopard and prey habitats within these landscapes; (c) improving the conservation status, and sustainability of pasture and forest use, in these key snow leopard and prey habitats; and (d) reducing the direct threats to the survival of snow leopards and prey populations living in these key habitats. More specifically, the project will support the development and implementation of a smart patrol system in targeted specially protected natural areas and reduce the impacts on, and improve the sustainable management of, the high altitude livestock pastures and indigenous forests located on, or immediately adjacent to, the key snow leopard migration paths. The project will also seek to improve the awareness of rural communities living in the snow leopard range of the importance of conserving snow leopard, their prey and their habitats.

177. Institutional sustainability will be promoted in the project by strengthening and expanding the current capabilities of the key institutions that are directly responsible for the planning and management of protected areas, natural habitats, pastures and forests across the snow leopard range in Tajikistan. It will assist in building a professional corps of well-trained, adequately resourced and properly equipped management, monitoring, enforcement, community liaison and pastoral extension service personnel in targeted SPNAs, *leskhoz*, border control points, *khukumats* and *jamoats*. The project will specifically: (i) pilot the implementation of a smart patrol system in Tajik NP; (ii) strengthen wildlife monitoring and enforcement capacities in the responsible state agencies; (iii) build the capacity of border and customs officials to improve the detection of illegal wildlife trade; and (iv) facilitate the establishment of a NEST to coordinate the efforts of different state institutions in combatting wildlife crime. The PMU and NBBC will, during the course of project implementation, iteratively develop an institutional sustainability plan to ensure that the different project investments in building the capacity of the targeted institutions are maintained (and scaled-up, if feasible and affordable) beyond the term of the project.

178. Socio-economic sustainability will be enhanced in the project by improving the living conditions of rural communities. This will be achieved through the implementation of fiscal (and other incentives) that

will seek to encourage an incremental shift to more sustainable land use (focused on grazing and forest use) practices. The project will specifically: (i) facilitate the economic beneficiation (from direct employment, contractual work, provision of services, income from hunting concessions, etc.) of communities living around targeted SPNAs in return for a reduction in illegal activities in the SPNAs; (ii) help rural communities to plan, source funding for and implement alternative livelihoods; (iii) provide technical and financial grant support to pastoralists in return for a shift to more sustainable pasture management practices; and (iv) provide small grants to assist rural communities and local governments to install alternative fuel and energy technologies in return for a reduction in harvesting of wood for fuel and energy needs from forests. The project will primarily work through (and assist in establishing, where these have not yet been constituted) local governance structures - including Park Management Committees, Pasture User Unions (PUUs) and Participatory Forest Management (PFM) committees - as means of improving the communication, collaboration and cooperation between tenure holders, rights holders, natural resource users and the relevant state, regional and local administrations. The project will also support the identification and implementation of viable income-generating opportunities (e.g. income from hunting fees, income from pasture tax, specialist tourism services, income from fines, etc.) to further augment the current budgets of the responsible institutions.

179. Each project output will include the documentation of lessons learnt from implementation of activities under the output, and a collation of the tools and templates (and any other materials) developed during implementation. The Project Manager will ensure the collation of all the project experiences and information. This knowledge database will then be made accessible to different stakeholder groups in order to support better future decision-making processes in snow leopard conservation and more consistent adoption of best practice.

180. **Replication** of good practices developed by the project will be achieved through the direct replication of selected project elements and practices and methods, as well as the scaling up of experiences. The following activities have preliminarily been identified as suitable for replication and/or scaling up: (i) implementation of smart patrol systems in SPNAs and community-based conservancies; (ii) demarcation of SPNA boundaries; (iii) formalizing and implementing co-management agreements with SPNA-adjacent village communities; (iv) rehabilitation and restoration of degraded high altitude pastures; (v) local demonstration sites for alternative energy and fuel technologies; and (vi) new snow leopard and prey population monitoring technologies (e.g. aerial drones, fecal DNA analysis and radio collars). The lessons learnt in project implementation will be incorporated into the development of the National Action Plan for *Snow Leopard Conservation in Tajikistan*. The sharing of best practices and lessons learned in project implementation with other member countries of the GSLEP will be facilitated through regional GSLEP meetings and regular communications through the GSLEP Secretariat.

## **COORDINATION WITH OTHER RELATED INITIATIVES**

181. This project is complementary to the regional (Kazakhstan, Kyrgyz Republic, Tajikistan and Uzbekistan) UNDP-GEF medium-sized project *Transboundary Cooperation for Snow Leopard and Ecosystem Conservation*. The implementation phase of the regional project (2015-2018) will overlap with the implementation phase of this project (2016-2020). This project will thus seek to adopt and operationalise, at the national level, the relevant tools and guidelines that will be developed under the regional project. The GSLEP Focal Point for Tajikistan will be represented on the Project Board of both the regional project and this projects Steering Committee (SC) committee in order to strengthen the strategic linkages between the projects. The Project Manager of this project will also maintain a close working relationship with the Project Technical Committee (PTC) of the regional project in order to enhance the operational linkages between the projects. The implementation of Component 3 (Outputs 3.1 and 3.2) of this project will, in particular, benefit significantly from the effective coordination of efforts, and sharing of knowledge between the projects.

182. The project will meet on a regular basis with the project staff of GIZ involved in complementary donor-funded sustainable forest management and pasture co-management initiatives in Tajikistan, in order to identify and develop opportunities for ongoing collaboration. The project will specifically seek to build on the substantial foundational work already undertaken by GIZ (and other partners) in setting up and maintaining PFM Committees, community-based conservancies and Pasture User Unions across the country. To further strengthen the cooperative relationship with GIZ, it is also envisaged that GIZ will be represented on the project Steering Committee (SC).

183. The Project Management Unit (PMU) of this project will work closely with the World Bank and Asian Development Bank to, wherever practicable, align the Banks' initiatives and the project activities in order to ensure optimal benefits from efforts to improve the country's climate resilience capacity and improve its capacity to adapt to the effects of climate change. A particular focus of this alignment of efforts will be on harmonising the financial and technical support (technical and financial) provided to rural communities in: implementing more sustainable pasture management practices in high altitude grasslands; improving the management and sustainable use of high forests; and adopting more environmentally-friendly fuel and energy technologies.

184. The grant and technical funding support under Output 2.1 and 2.2 of the project will be subsumed under the UNDP Communities Programme (CP) portfolio for Tajikistan<sup>40</sup>. The grant and technical funding support to targeted rural pasture and forest users under the project will then be implemented directly by the UNDP Country Office (UNDP CO) to ensure that it fully complements the seven other projects currently under active implementation within the UNDP CP portfolio (representing an investment of US\$23.2 million for the period 2014-2017).

185. The project will seek to develop collaborative agreements with key NGO partners (notably Panthera) and international research institutions to support the implementation of selected project activities (e.g. snow leopard and prey surveys and monitoring, specialised training, public awareness-raising, forest and grassland restoration planning, smart patrol system development, etc.). The project will, within the framework of these collaborative agreement/s, then assist in reimbursing the costs of NGOs and academic institutions in the direct implementation of activities that fall directly within the ambit of the project outputs. To further strengthen the cooperative relationship with NGOs, it is also envisaged that Panthera will be represented on the project Steering Committee (SC).

186. The project will, if considered feasible by the Government of Tajikistan, support the establishment and administration of the National Environment Security Task Force (NEST), as envisaged by the *Regional Enforcement Strategy to Combat Illegal Wildlife Trade in Central Asia*. If established, this NEST will then nationally address and combat wildlife crime through a more coordinated, collaborative and strategic response. The PMU may also, during the project implementation phase, later facilitate linkages with the envisioned regional Snow Leopard and Wildlife Enforcement Network (SLAWEN) once it has been established.

187. The project will integrate the snow leopard monitoring and reporting system and snow leopard information management system into the broader Environmental Information Management and Monitoring System in Tajikistan currently being developed by the UNDP-GEF medium-sized project *Strengthening Capacity for an Environmental Information Management and Monitoring System in Tajikistan* (2014-2017).

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<sup>40</sup> Refer to [http://www.tj.undp.org/content/tajikistan/en/home/operations/projects/poverty\\_reduction/communities-programme/](http://www.tj.undp.org/content/tajikistan/en/home/operations/projects/poverty_reduction/communities-programme/).

## GENDER CONSIDERATIONS

188. In the 2014 edition of the Social Institutions and Gender Index (SIGI), Tajikistan reportedly has medium levels of discrimination against women in social institutions (SIGI score of 0.1393). It has lower discrimination in restricted access to resources and assets and higher discrimination in son bias.

189. During the project preparation phase, the following key gender issues were identified:

- a. In 2012, the ratio of female to male primary education enrolment was 98%. In 2011, the ratio of female to male secondary school enrolment was 88% and 97 for primary education. The male/female sex ratio for the working age population in 2013 is 0.98. Rigid notions of men's and women's roles in society and in the home remain. It is believed that men should occupy the role of breadwinner and head of the household, while women should confine themselves to domestic and care work within the home.
- b. Under the Land Code, women and men have equal rights to access and manage land. According to the World Bank (2011), 78% of female-headed households (where there is no working-age male) manage land, compared to 89% of male-headed households, and 91% of female-headed households with at least one working age male.
- c. The Tajik Civil Code gives women the right to have access to property other than land and to enter into contracts in their own names. In practice, property is routinely registered in the name of husbands or male relatives, as property ownership is seen as a male prerogative. In addition, most married couples live in property belonging to the husband's parents, meaning that the wife often has no legal claim on the property at all. Many women are still unaware of their rights and the opportunities available to them as a result of the land reform processes that began in the 1990s. Even when they do know their rights, registering a farm is a complex administrative process. When women are allocated land in their own right, it is often of poor quality for farming, and they are often denied access to land belonging to their husbands in the event of divorce or widowhood. In addition, requirements in the Land Code that land only be allocated to those who are qualified to manage it discriminate against women, given that few have formal agricultural qualifications, and local officials tend to view them as incapable of running a farm. Women lack education, access to productive resources, and technical training that would enable them to increase productivity above subsistence levels, and increase wealth.
- d. Under the Family Code and the Civil Code, within registered marriages, spouses have equal property rights, but this does not apply to unregistered, religious marriages, leaving many women unable to claim their property rights when the relationship breaks down.
- e. Women and men have the same rights to access bank loans and credit. Few women apply for loans, however, primarily because they do not understand their rights and the procedures involved. The fact that most property is registered to men rather than women makes it difficult for women to secure credit, as they cannot provide collateral for loans. High bank charges and rates of interest also hamper women's access to credit. As of 2012, women made up 32.91% of recipients of micro-credit in Tajikistan, according to the Microfinance Information Exchange.

190. The project activities have been designed to address some of these gender-related issues, as follows:

- a. The project will facilitate the employment, training and equipping of woman as park rangers (Output 1.2), smart patrol trainers (Output 1.2), community liaison officers (Output 1.4), leskhoz forest enforcement staff (Output 2.3), local environmental enforcement staff (Output 2.3) and community rangers (Output 2.3).

- b. The project will actively encourage the equitable use of women labour and supervisors from local rural villages in: the planning and implementation of pasture management plans (Output 2.1); the planning and restoration of degraded high altitude pastures (Output 2.1); and the planning and rehabilitation/restoration of high altitude forests.
- c. The project will ensure that women-owned and/or managed businesses participate equitably in the procurement of project-funded equipment and infrastructure (all outputs). In some instances, the project may adopt a preferential procurement approach to the provision of minor services and supplies (e.g. supply of rations for park rangers, accommodation) from local women-owned businesses.
- d. The project will ensure that the reach of project-funded education/awareness-raising programmes, sustainable livelihood development support, and skills training in villages surrounding Jirgital and Tavildara sections of Tajik National Park will include both male- and female-headed households from the targeted villages (Output 1.4).
- e. The project will ensure that the interests of women and women-headed households are adequately represented on Park Management Committees (Output 1.4), Pasture User Unions (Output 2.1) and PFM Committees (Output 2.2); and are actively involved in the planning of protected areas, pastures and forests in the project planning domain.
- f. The project will ensure that the reach of project-funded support in villages surrounding Jirgital and Tavildara sections of Tajik National Park will equitably include both male- and female-headed households from the targeted villages (Output 1.4).
- g. The project will actively assist women-headed households living in the high altitude areas of the Hissar-Alay and Vakshsh-Darvaz areas to access: (i) micro-financing for sustainable livelihoods; and (ii) technical and financial support from project grants for developing and installing alternative fuel and energy systems and implementing more sustainable pasture management practices.
- h. The project will commit dedicated financial and technical support to addressing the significant knowledge constraints in pasture users from women-headed households.
- i. The project will ensure that the National Action Plan for Snow Leopard Conservation includes strategies, activities and budgets that will enable and finance the equitable involvement of women in the implementation of the action plan.
- j. The project will advocate for an increase in the number of women involved in research and monitoring of snow leopard and prey populations.
- k. The project will collaborate with the project-contracted businesses and international experts to continually develop and implement mechanisms which may further strengthen the capacities of local women and women-headed households across the project planning domain.

191. The project has targeted the involvement of at least 1,200 women (of a total of 2000) in, and the direct beneficiation of at least 270 women (of a total of 450) from, project activities.

## **PART III: Management Arrangements**

### **PROJECT IMPLEMENTATION ARRANGEMENT**

192. The project will be implemented over a period of five years.

193. The project will be nationally implemented (NIM) by the National Biodiversity and Biosafety Centre (NBBC) in line with *Standard Basic Assistance Agreement* between the Government of Tajikistan and the United Nations Development Program (UNDP), signed by the parties on 1 October 1993.

194. Following the programming guidelines for national implementation of UNDP supported projects, the NBBC will sign the Project Document with UNDP and will be accountable to UNDP for the disbursement of funds and the achievement of the project objective and outcomes, according to the approved work plan.

195. The UNDP will monitor the implementation of the project, review progress in the realization of the project outputs, and ensure the proper use of UNDP/GEF funds. Working in close cooperation with the NBBC, the UNDP Country Office (CO) will provide support services to the project - including procurement, contracting of service providers, human resources management, administration of project grant funding, and financial services - in accordance with a Letter of Agreement (LOA) for the provision of support services concluded between the NBBC and the UNDP. Costs of the support services will be covered by TRAC funds. The UNDP CO will also ensure conformance with UNDP Programme and Operational Policies and Procedures and UNDP Results-Based Management (RBM) guidelines.

196. The NBBC, as the Implementing Partner (IP), will be responsible for the following functions: (i) coordinating activities to ensure the delivery of agreed outcomes; (ii) certifying expenditures in line with approved budgets and work-plans; (iii) facilitating, monitoring and reporting on the procurement of inputs and delivery of outputs; (iv) coordinating interventions financed by GEF/UNDP with other parallel interventions; (v) approval of tender documents for sub-contracted inputs; (vi) reporting to UNDP on project delivery and impact; (vii) certifying the AWP; and (viii) carrying out the selection and recruitment process. It will also be directly responsible for creating the enabling conditions for implementation of all project activities.

197. The NBBC will work in close cooperation with the CEP and the Forestry Agency. The NBBC will coordinate all project activities at the local level, in close collaboration with the district (*Jamoat*) government authorities in each of the targeted regions.

198. The NBBC will designate a senior staff member to act as a Project Director (PD). The PD will provide the strategic oversight and guidance to project implementation and will chair the meetings of the Steering Committee<sup>41</sup>.

199. The day-to-day administration of the project will be carried out by a full-time Project Manager (PM), with the support of a Project Administrative Assistant (PAA) and a Project Financial Assistant (PFA). Field-based technical support and oversight will be provided by 3 Field Coordinators, one for SPNAs (component 1), one for pastures and forests (component 2) and one for knowledge management (component 3). Collectively the PM, PFA PAA and the FCs will comprise the Project Management Unit (PMU). The PM has the authority to administer the project on a day-to-day basis on behalf of the NBBC and UNDP, within the constraints laid down by the Steering Committee (SC). The PM's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost. The PM will liaise and work closely with all partner institutions to link the project with complementary national programs and

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<sup>41</sup> The PD will not be paid from the project funds, but will represent a Government in-kind contribution to the Project.



initiatives. The PM is accountable to the PD and UNDP for the quality, timeliness and effectiveness of the activities carried out, as well as for the use of funds. The PFA, PAA and FCs will report to the PM and will provide professional, technical and administrative support to the PM, as required. The terms of reference for the PM, PFA, PAA and FCs are detailed in [Section IV, Part I](#).

200. An international Technical Adviser (TA) will provide overall professional and technical backstopping to the Project. He/She will render professional and technical support to the PMU, NBBC, and other government counterparts. The TA will support the provision of the required professional and technical inputs, reviewing and preparing Terms of Reference (TORs) and reviewing the outputs of service providers, experts and other sub-contractors. He/She will report directly to the PD and PM.

201. The PMU will be technically supported by contracted teams of national experts, international NGO's, international consultants and companies. The recruitment of specialist support services and procurement of any equipment and materials for the project will be done by the PM, in consultation with the PD, and in accordance with relevant recruitment and procurement rules and procedures. The terms of reference of the key individual national and international experts and consultants to be contracted by the project are detailed in [Section IV, Part I](#).

202. The NBBC, the CEP, the Forestry Agency and the Academy of Sciences may also, in accordance with the AWP, directly implement some project activities, under the supervision of the PM and PD.

203. A project Steering Committee (SC) will be constituted to serve as the executive decision making body for the project. While the final composition of the SC will be determined at the Project Inception Workshop (see [Section I, Part IV](#)), it may include representation from the NBCC, UNDP, CEP, Forestry Agency, Academy of Science, affected regional administrative authorities, NGOs and pasture user unions. The SC will ensure that the project remains on course to deliver the desired outcomes of the required quality. The SC will meet at least twice per annum (more often where required). The SC provides overall guidance and policy direction to the implementation of the project, and provides advice on appropriate strategies for project sustainability. The SC will play a critical role in project monitoring and evaluation by quality assuring the project processes and products. It will arbitrate on any conflicts within the project, or negotiate a solution to any problems with external bodies. It will also approve the appointment and responsibilities of the Project Manager and any delegation of its project assurance responsibilities.

204. The PM will produce an Annual Work Plan (AWP) to be approved by the SC at the beginning of each year. These plans will provide the basis for allocating resources to planned project activities. Once the SC approves the AWP, it will be signed by NBBC and UNDP and sent to the UNDP Regional Technical Adviser (RTA) at the GEF Regional Service Centre (RSC) in Istanbul for clearance. Once the AWP is cleared by the RSC, it will be sent to the UNDP/GEF Unit in New York for final approval and release of the funding. The PM will further produce quarterly operational reports, Annual Progress Reports (APR) and the Project Implementation Review (PIR) report for review by the SC, or any other reports at the request of the SC. These reports will summarize the progress made by the project versus the expected results, explain any significant variances, detail the necessary adjustments and be the main reporting mechanism for monitoring project activities.

## **FINANCIAL AND OTHER PROCEDURES**

205. The financial arrangements and procedures for the project are governed by the UNDP rules and regulations for National Implementation Modality (NIM). All procurement and financial transactions will be governed by applicable UNDP regulations under NIM.

## **AUDIT CLAUSE**

**206.** The Project audits will be conducted according to UNDP Financial Regulations and Rules and applicable Audit policies.

## **PART IV: Monitoring Framework and Evaluation**

### **MONITORING AND REPORTING**

207. The project will be monitored through the following Monitoring and Evaluation (M&E) activities.

#### **Project start-up:**

208. A Project Inception Workshop will be held within the first 4 months of project start with those with assigned roles in the project organization structure, the UNDP Country Office (CO) and, where appropriate/feasible, regional technical policy and programme advisors as well as other stakeholders. The Inception Workshop is crucial to building ownership for the project results and to plan the first year annual work plan.

209. The Inception Workshop should address a number of key issues including:

- a) Assist all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP CO, NBBC and the UNDP-GEF Regional Service Centre (RSC) vis-à-vis the project team. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed again, as needed.
- b) Based on the Project Results Framework and the relevant GEF Tracking Tool, if appropriate, finalize the first Annual Work Plan (AWP). Review and agree on the indicators, targets and their means of verification, and re-check assumptions and risks.
- c) Provide a detailed overview of reporting, monitoring and evaluation requirements. The Monitoring and Evaluation (M&E) work plan and budget should be agreed and scheduled.
- d) Discuss financial reporting procedures and obligations, and arrangements for annual audit.
- e) Plan and schedule project Steering Committee (SC) meetings. Roles and responsibilities of all project organization structures should be clarified and meetings planned. The first SC meeting should be held within the first 6 months following the inception workshop.

210. An Inception Workshop report is a key reference document and must be prepared and shared with participants to formalize various agreements and plans decided during the meeting.

#### **Quarterly:**

- Progress made shall be monitored in the UNDP Enhanced Results Based Management Platform.
- Based on the initial risk analysis submitted, the risk log shall be regularly updated in ATLAS. Risks become critical when the impact and probability are high.
- Based on the information recorded in ATLAS, a Project Progress Report (PPR) can be generated in the Executive Snapshot.
- Other ATLAS logs can be used to monitor issues, lessons learned etc. The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

#### **Annually:**

211. Annual Project Review/Project Implementation Reports (APR/PIR): This key report is prepared to monitor progress made since project start and in particular for the previous reporting period. The APR/PIR combines both UNDP and GEF reporting requirements.

212. The APR/PIR includes, but is not limited to, reporting on the following:

- Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative)
- Project outputs delivered per project outcome (annual)
- Lesson learned/good practice
- AWP and other expenditure reports
- Risk and adaptive management
- ATLAS Quarterly Progress Reports (QPR)
- Portfolio level indicators (i.e. GEF focal area tracking tools) are used by most focal areas on an annual basis as well.

#### **Periodic Monitoring through site visits:**

213. UNDP CO and the UNDP-GEF RSC will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the Steering Committee may also join these visits. A Field Visit Report/BTOR will be prepared by the UNDP CO and UNDP-GEF RSC and will be circulated no less than one month after the visit to the project team and Steering Committee members.

#### **Mid-term of project cycle:**

214. The project will undergo an independent Mid-Term Evaluation (MTE) at the mid-point of project implementation. The MTE will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the MTE will be decided after consultation between the parties to the project document. The Terms of Reference for this MTE will be prepared by the UNDP CO, based on guidance from the UNDP-GEF RSC. The management response and the evaluation will be uploaded to UNDP corporate systems, in particular the UNDP Evaluation Resource Center (ERC).

215. The relevant GEF Focal Area Tracking Tools will also be completed during the mid-term evaluation cycle.

#### **End of Project:**

216. An independent Final Evaluation will take place three months prior to the final Steering Committee meeting and will be undertaken in accordance with UNDP and GEF guidance. The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the MTE, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this evaluation will be prepared by the UNDP CO, based on guidance from the UNDP-GEF RSC.

217. The final evaluation should also provide recommendations for follow-up activities and requires a management response which should be uploaded to PIMS and to the UNDP ERC.

218. The relevant GEF Focal Area Tracking Tools will also be completed during the final evaluation.

219. During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results.

### Learning and knowledge sharing:

220. Results from the project will be disseminated within and beyond the project through existing information sharing networks and forums.

221. 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 project implementation through lessons learned. The project will identify, analyse, and share lessons learned that might be beneficial in the design and implementation of similar future projects.

222. Finally, there will be a two-way flow of information between this project and other projects of a similar focus.

### Communications and visibility requirements

223. Full compliance is required with UNDP's Branding Guidelines. These can be accessed at <http://intra.undp.org/coa/branding.shtml>, and specific guidelines on UNDP logo use can be accessed at: <http://intra.undp.org/branding/useOfLogo.html>. Amongst other things, these guidelines describe when and how the UNDP logo needs to be used, as well as how the logos of donors to UNDP projects needs to be used. For the avoidance of any doubt, when logo use is required, the UNDP logo needs to be used alongside the GEF logo. The GEF logo can be accessed at: [http://www.thegef.org/gef/GEF\\_logo](http://www.thegef.org/gef/GEF_logo). The UNDP logo can be accessed at <http://intra.undp.org/coa/branding.shtml>.

224. Full compliance is required with the GEF's Communication and Visibility Guidelines (the "GEF Guidelines"). The GEF Guidelines can be accessed at: [http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08\\_Branding\\_the\\_GEF%20final\\_0.pdf](http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08_Branding_the_GEF%20final_0.pdf). Amongst other things, the GEF Guidelines describe when and how the GEF logo needs to be used in project publications, vehicles, supplies and other project equipment. The GEF Guidelines also describe other GEF promotional requirements regarding press releases, press conferences, press visits, visits by Government officials, productions and other promotional items.

### M&E work plan and budget

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team staff time</i>	Time frame
Inception Workshop and Report	<ul style="list-style-type: none"> <li>▪ PM</li> <li>▪ UNDP CO</li> <li>▪ UNDP-GEF RSC</li> </ul>	Indicative cost: 12,000	Within first four months of project start up
Measurement of Means of Verification of project results.	<ul style="list-style-type: none"> <li>▪ PM will, with support from the UNDP-GEF RSC, oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members.</li> </ul>	To be finalized in Inception Phase and Workshop.	Start, mid and end of project (during evaluation cycle) and annually when required.
Measurement of Means of Verification for Project Progress on <i>output and implementation</i>	<ul style="list-style-type: none"> <li>▪ PM</li> </ul>	To be determined as part of the Annual Work Plan's preparation.	Annually prior to ARR/PIR and to the definition of annual work plans
ARR/PIR	<ul style="list-style-type: none"> <li>▪ PM</li> <li>▪ UNDP CO</li> <li>▪ UNDP RTA</li> <li>▪ UNDP ERC</li> </ul>	None	Annually

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team staff time</i>	Time frame
Periodic status/ progress reports	<ul style="list-style-type: none"> <li>▪ PM</li> </ul>	None	Quarterly
Mid-term Evaluation	<ul style="list-style-type: none"> <li>▪ PM</li> <li>▪ UNDP CO</li> <li>▪ UNDP RSC</li> <li>▪ External Consultants (i.e. evaluation team)</li> </ul>	Indicative cost: 45,000	At the mid-point of project implementation.
Final Evaluation	<ul style="list-style-type: none"> <li>▪ PM</li> <li>▪ UNDP CO</li> <li>▪ UNDP RSC</li> <li>▪ External Consultants (i.e. evaluation team)</li> </ul>	Indicative cost: 45,000	At least three months before the end of project implementation
Project Terminal Report	<ul style="list-style-type: none"> <li>▪ PM</li> <li>▪ UNDP CO</li> <li>▪ local consultant</li> </ul>	0	At least three months before the end of the project
Audit	<ul style="list-style-type: none"> <li>▪ UNDP CO</li> <li>▪ Project manager and team</li> </ul>	For GEF-supported projects, paid from IA fees and operational budget	Yearly
Visits to field sites	<ul style="list-style-type: none"> <li>▪ UNDP CO</li> <li>▪ UNDP RSC (as appropriate)</li> <li>▪ Government representatives</li> </ul>	For GEF-supported projects, paid from IA fees and operational budget	Yearly
TOTAL indicative COST <i>Excluding project staff time and UNDP staff and travel expenses</i>		US\$ 102,000	

Note: Costs included in this table are part and parcel of the UNDP Total Budget and Work Plan (TBW) in the PRODOC, and not additional to it.

## **PART V: Legal Context**

225. This Project Document shall - together with the *United Nations Development Assistance Framework* (UNDAF) for Tajikistan (2010-2015) and the UNDP *Country Programme Action Plan* (CPAP, 2011-2015) - be the instrument referred to as such in Article I of the *Standard Basic Assistance Agreement* between the Government of Tajikistan and the United Nations Development Program (signed by the parties on 1 October 1993).

226. Consistent with the Article III of the Standard Basic Assistance Agreement, 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

227. The implementing partner shall:

- a. Put in place an appropriate security plan, and maintain the security plan, taking into account the security situation in the country where the project is being carried out; and
- b. Assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

228. 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 this agreement.

229. 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/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

230. The UNDP authorized official can effect in writing the following types of revision to this Project Document, provided that he/she has verified the agreement thereto by the UNDP-GEF RSC and is assured that the other signatories to the Project Document have no objection to the proposed changes:

- a. Revision of, or addition to, any of the annexes to the Project Document;
- b. Revisions which do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation;
- c. Mandatory annual revisions which re-phrase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility; and
- d. Inclusion of additional annexes and attachments only as set out here in this Project Document.

## SECTION II: STRATEGIC RESULTS FRAMEWORK (SRF)

	Indicator	Baseline (2015)	Target/s (End of Project)	Source of verification	Risks and Assumptions
<b>Project Objective:</b> <i>Conservation and sustainable use of Pamir Alai and Tien-Shan ecosystems for snow leopard protection and sustainable livelihoods</i>	Extent (ha) of protected areas under a secure, and effectively managed, monitoring and enforcement regime	0	>427,400ha	Annual reports of the Department of Specially Protected Natural Areas (Forestry Agency)	<b>Assumptions:</b> <ul style="list-style-type: none"> <li>– The GoT remains committed to supporting efforts to increase the management effectiveness of SPNAs, and improving the ecological integrity and productivity of high altitude pastures and forests, in the country;</li> <li>– The responsible public institutions will continue to actively administer, monitor and enforce the existing conservation legislation and regulations.</li> </ul> <b>Risks:</b> <ul style="list-style-type: none"> <li>– State institutions responsible for the administration of protected areas, pastures and forests do not have adequate capacity, or demonstrate the necessary political will;</li> <li>– Low levels of compliance with environmental</li> </ul>
	Extent (ha) of high altitude grasslands (above 1,500m) in the <i>Hissar-Alay</i> and <i>Vakhsh-Darvaz</i> areas under a regulated and sustainable management regime	<5,000 ha	>100,000 ha	Annual reports of the Pasture Trust (Ministry of Agriculture) and CEP	
	Extent (ha) of high altitude forest (above 1,500m) in the <i>Hissar-Alay</i> and <i>Vakhsh-Darvaz</i> areas under a sustainable management regime	<2,000 ha	>15,000 ha	Annual reports of the Forestry Agency and CEP	
	Number of primary snow leopard prey populations: Marco Polo Sheep (NT) Siberian Ibex (LC) Heptner's markhor (EN)	Marco Polo Sheep: ~1,125 Siberian Ibex: ~4,190 Heptner's markhor: ~1,018	Marco Polo Sheep: >1,400 Siberian Ibex: >5,000 Heptner's markhor: >1,400	Population census reports Snow leopard Information Management System	
	Total snow leopard population in Tajikistan	180-220	>220	Snow leopard Information Management System	



	Indicator	Baseline (2015)	Target/s (End of Project)	Source of verification	Risks and Assumptions
	Number of women (as a proportion of the total) involved in, and directly benefiting from project investments in the conservation and sustainable use of snow leopard, snow leopard prey and snow leopard habitats	NA	Involvement: >2000 (>60%) Direct benefits: >450 (>60%)	Project reports	legislation, and a reluctance to adopt more sustainable natural resource use practices; – Low levels of coordination and cooperation between public institutions, tenure holders, rights holders, land owners, NGOs/CBOs and natural resources users; and – The increasing aridisation of high altitude habitats, as a result of the effects of climate change.
<b>Outcome 1:</b> <i>Conservation and sustainable management of key biodiversity areas</i>	<b>Outputs:</b> 1.1 Secure the conservation status and boundaries of protected areas 1.2 Develop the capacity to implement a smart patrolling system in protected areas 1.3 Improve the equipment and infrastructure to support the implementation of a smart patrol system in protected areas 1.4 Enhance community involvement in, and beneficitation from, protected areas				
	Total extent (ha) of IUCN Category I and Category II protected areas	2,777,018 ha	2,837,018 ha	Annual performance reports of the Department of Specially Protected Natural Areas (Forestry Agency)	<b>Assumptions:</b> – Stakeholders will constructively participate in the design, development and implementation of a smart patrol system in Tajik NP; – The Forestry Agency will budget adequately for the continued employment of project-funded ranger staff, and the ongoing maintenance of new equipment and
	Total annual budget (US\$/annum) allocation for the management of IUCN Category I – IV protected areas	US\$250,000/annum	>US\$450,000/annum	Annual financial reports of the Forestry Agency	
	METT scores for: Tajik NP (Jirgital section) Tajik NP (Tavildara section, including Sangvor)	Jirgital: 20 Tavildara: 20	Jirgital: 44 Tavildara: 40	Annual METT reporting	

	Indicator	Baseline (2015)	Target/s (End of Project)	Source of verification	Risks and Assumptions
	Number of active patrol rangers in the Jirgital and Tavildara (including Sangvor) sections of Tajik NP	Jirgital: 10 Tavildara: 8	Jirgital: 18 Tavildara: 16	Smart patrol system Annual performance reports for Tajik NP	<p>infrastructure procured by the project;</p> <ul style="list-style-type: none"> <li>– The Forestry Agency will commit to facilitating the involvement and beneficiation of local communities living adjacent to Tajik NP</li> </ul> <p><b>Risks:</b></p> <ul style="list-style-type: none"> <li>– State institutions responsible for the administration of protected areas do not have adequate capacity, or demonstrate the necessary political will;</li> <li>– Low levels of compliance with environmental legislation;</li> <li>– Low levels of coordination and cooperation between public institutions, tenure holders, rights holders, land owners, NGOs/CBOs and natural resources users; and</li> <li>– The increasing aridisation of high altitude habitats, as a result of the effects of climate change.</li> </ul>
	Extent (as a percentage of the total area) of Jirgital and Tavildara (including Sangvor) sections of Tajik NP under a secure and effective monitoring and enforcement regime	Jirgital: <15% Tavildara: <12%	Jirgital: >85% Tavildara: >60%	Smart patrol system Annual performance reports for Tajik NP	
	Number of (i) poaching (of snow leopard and prey); and (ii) other illegal (encroachments for crops and grazing, wood harvesting) incidents recorded (and prosecuted) per annum by ranger patrol staff from the Jirgital and Tavildara sections of Tajik NP	(i) >15 (1)/annum (ii) >45 (2)/annum <sup>42</sup>	(i) <5 (4) /annum (ii) <60 (40) /annum <sup>43</sup>	Smart patrol system Annual performance reports for Tajik NP	
	Number of individuals from targeted villages directly involved in (proportion of women), and financially benefiting from (proportion of women), the management of the Jirgital and Tavildara sections of Tajik NP	Involvement in: <100 (<15) Direct financial beneficiation <sup>44</sup> from: <10 (1-2)	Involvement in: >2000 (>1100) Direct financial beneficiation from: >150 (>80)	Project reports Annual performance reports for Tajik NP	

<sup>42</sup> The low baseline is an under-representation of the actual number of illegal activities because of the exceptionally poor state of patrolling in the the Jirgital and Tavildara sections of Tajik NP.

<sup>43</sup> The increased number of reported incidents of illegal activities is a direct consequence of the improved coverage of smart patrols, and not an indication of an increase in the number of illegal incidents *per se*. It is anticipated that the implementation of the smart patrol system should reduce the actual number of illegal activities occurring in the Jirgital and Tavildara sections of Tajik NP by at least 50%.

<sup>44</sup> As a sub-set of the individuals involved in the management of the Jirgital and Tavildara sections of Tajik NP.

	Indicator	Baseline (2015)	Target/s (End of Project)	Source of verification	Risks and Assumptions
<b>Outcome 2:</b> <i>Ecosystem resilience and habitat connectivity in wider landscape outside protected areas</i>	<b>Outputs:</b> 2.1 Reduce impacts on, and improve the management of, livestock pastures 2.2 Reduce impacts on, and improve the management of, forests 2.3 Strengthen wildlife monitoring and enforcement capacities				
	Number of days of use <sup>45</sup> of high altitude pastures in the <i>Hissar-Alay</i> and <i>Vakhsh-Darvaz</i> areas: Spring and autumn Summer	Spring/Autumn: 85-90 days Summer: 90-100 days	Spring/Autumn: 45-55 days Summer: 60-70 days	Annual reports of <i>Jamoats</i> Annual reports of Pasture Trust (Ministry of Agriculture)	<b>Assumptions:</b> – Development partners, NGOs, micro-loan banks, CBOs and local authorities ( <i>jamoats</i> and <i>hukumats</i> ) will constructively cooperate with the project in supporting the establishment and administration of PUUs and PFM Committees – The NBBC, Academy of Sciences the Forestry Agency and/or the Ministry of Agriculture (Pasture Trust) will maintain monitoring plot data in order to evaluate the efficacy of project interventions; – The GoT will actively
	Productivity (dry fodder mass in tons/ha) of the high altitude pastures in the <i>Hissar-Alay</i> and <i>Vakhsh-Darvaz</i> areas	<0.3 t/ha	>1 t/ha	Permanent pasture monitoring plots Annual reports of Pasture Trust (Ministry of Agriculture)	
	Percentage (as an average of the total grass/forb/herb cover per hectare) of palatable and edible species <sup>46</sup> for ungulates and livestock in the high altitude pastures of the <i>Hissar-Alay</i> and <i>Vakhsh-Darvaz</i> areas	<30%	>50%	Permanent pasture monitoring plots Annual reports of Pasture Trust (Ministry of Agriculture)	

<sup>45</sup> The average number of days of use per annum will vary, depending on the specific location and nature of the pastures being grazed/browsed.

<sup>46</sup> The increase in cover of unpalatable species is a direct consequence of the effects of unsustainable levels of grazing and forage collection, increased compaction and erosion and short fire regimes.

	Indicator	Baseline (2015)	Target/s (End of Project)	Source of verification	Risks and Assumptions
	Number of Pasture User Unions (PUUs) with approved pasture management plans under implementation in the high altitude pastures of the <i>Hissar-Alay</i> and <i>Vakhsh-Darvaz</i> areas	0	>10	Annual reports of <i>Jamoats</i> Annual reports of Pasture Trust (Ministry of Agriculture)	<p>support the formalisation of PUUs and PFM committees</p> <p><b>Risks:</b></p> <ul style="list-style-type: none"> <li>– State institutions responsible for the administration of pastures and forests do not have adequate capacity, or demonstrate the necessary political will;</li> <li>– Low levels of compliance with environmental legislation, and a reluctance to adopt more sustainable natural resource use practices;</li> <li>– Low levels of coordination and cooperation between public institutions, tenure holders, rights holders, land owners, NGOs/CBOs and natural resources users; and</li> <li>– The increasing aridisation of high altitude habitats, as a result of the effects of climate change.</li> </ul>
	Number of households in the <i>Hissar-Alay</i> and <i>Vakhsh-Darvaz</i> areas directly benefiting from project technical and grant funding support for: (a) implementation of sustainable pasture management practices; (b) adoption of alternative fuel and energy technologies; and (c) community ranger pilot project	NA	Sustainable pasture management: >40  Fuel and energy technologies: >10 Community ranger: 5	Project reports	
	Extent (ha) of degraded high altitude pastures and forests of the <i>Hissar-Alay</i> and <i>Vakhsh-Darvaz</i> areas under active rehabilitation or restoration	Pastures: 0 ha Forests: <100 ha	Pastures: 10,000 ha Forests: 6,000 ha	Annual reports of <i>leskhoz</i> (Forestry Agency) and CEP	
	Number of Participatory Forest Management (PFM) committees actively involved in the planning, management and monitoring of high altitude forests of the <i>Hissar-Alay</i> and <i>Vakhsh-Darvaz</i> areas	0	>3	Annual reports of <i>leskhoz</i> (Forestry Agency) and CEP	

	Indicator	Baseline (2015)	Target/s (End of Project)	Source of verification	Risks and Assumptions
	Number (per annum) of individuals involved in wildlife monitoring and enforcement training and skills development programmes	5-7/annum	>100/annum	Training records Project reports	
<b>Outcome 3:</b> <i>Support to international cooperation</i>	<b>Outputs:</b> 3.1 Enhance the state of knowledge on snow leopard and prey populations 3.2 Improve the coordination of, and cooperation in, snow leopard conservation and monitoring				
	Establishment and maintenance of a: (i) national snow leopard Monitoring and Reporting (M&R) system (ii) national snow leopard Information Management (IM) system	M&R: No  IM: No	M&R: Yes  IM: Yes	Project reports Annual reports of the NBBC	<b>Assumptions:</b> – Development partners and NGOs will constructively participate in the planning, research, monitoring, information management and evaluation activities under the project; – There are no political conflicts between neighbouring countries which may undermine any transboundary cooperation efforts.  <b>Risks:</b> – Low levels of coordination and cooperation between public institutions, tenure holders, rights holders, land owners, NGOs/CBOs and natural resources users; and – The increasing aridisation of high altitude habitats, as a result of the effects of
	National coverage (as a % of the total snow leopard range) of snow leopard and prey monitoring activities	Snow leopard: <10% Prey: <5%	Snow leopard: >25% Prey: >20%	Snow Leopard Information Management System	
	Approved and implemented National Action Plan for snow leopard conservation.	No	Yes	Annual reports of the NBBC	
	Number of managers, scientists, researchers and academics participating in: (i) regional snow leopard and prey conservation initiatives; and (ii) regional monitoring and report-back meetings	2  0	15  10	Project reports Annual reports of the NBBC	

	<b>Indicator</b>	<b>Baseline (2015)</b>	<b>Target/s (End of Project)</b>	<b>Source of verification</b>	<b>Risks and Assumptions</b>
	Number of meetings per annum of the: (i) National Environment Security Task Force (NEST) (ii) National Snow Leopard Conservation Committee	0 0	4 5	Project reports Annual reports of the NBBC and CEP	climate change.
	Number of trans-boundary agreements (Afghanistan, Uzbekistan, China, Kyrgyzstan) addressing collaboration in the management of wildlife crime under implementation	1	3	Annual reports of the NBBC and CEP	

## SECTION III: TOTAL BUDGET AND WORKPLAN

<b>Award ID:</b>	85264	<b>Project ID(s):</b>	92973
<b>Award Title:</b>	Tajikistan - Conservation and sustainable use of Pamir Alay and Tien Shan ecosystems for snow leopard protection and sustainable community livelihoods		
<b>Business Unit:</b>	TJK10		
<b>Project Title:</b>	Tajikistan - Conservation and sustainable use of Pamir Alay and Tien Shan ecosystems for snow leopard protection and sustainable community livelihoods		
<b>PIMS no.</b>	5437		
<b>Implementing Partner (Executing Agency)</b>	NBBC		

GEF Outcome/ Atlas Activity	Impl. Agent	Fund ID	Donor Name	ATLAS Budget 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	Ref #
<b>Component 1</b> Conservation and sustainable management of key biodiversity areas	NIM	62000	GEF-10003	71200	International Consultants	8 000	8 000	18 000	8 000	18 000	60 000	1
				71300	Local Consultants	3 600	5 000	5 000	5 000	5 000	23 600	2
				71400	Contractual Services - Individuals	8 000	12 000	15 000	15 000	10 000	60 000	3
				71600	Travel	15 000	20 000	25 000	25 000	20 000	105 000	4
				72100	Contractual Services - Companies	100 670	170 000	301 887	250 000	250 000	1 072 557	5
				72200	Equipment and furniture	0	80 000	100 000	65 000	0	245 000	6
				72300	Materials and goods	20 000	20 000	50 000	50 000	0	140 000	7
				72400	Comm & Audio Visual Equip.	7 000	50 000	20 000	20 000	5 500	102 500	8
				72800	Info Technology equipment	0	15 000	20 000	0	0	35 000	9
				75700	Training, Workshops and Confer	5 000	10 000	12 000	10 000	10 000	47 000	10
<b>SUB-TOTAL COMPONENT 1 (GEF)</b>						<b>167 270</b>	<b>390 000</b>	<b>566 887</b>	<b>448 000</b>	<b>318 500</b>	<b>1 890 657</b>	
NIM	04000	UNDP-TRAC	71400	Contractual Services - Individuals	7 200	7 200	7 200	7 200	7 200	7 200	36 000	11
			64300	Direct Project Costs	7 000	7 000	7 000	7 000	7 000	35 000	12	
<b>SUB-TOTAL COMPONENT 1 (UNDP)</b>						<b>14 200</b>	<b>14 200</b>	<b>14 200</b>	<b>14 200</b>	<b>14 200</b>	<b>71 000</b>	
<b>TOTAL COMPONENT 1</b>						<b>181 470</b>	<b>404 200</b>	<b>581 087</b>	<b>462 200</b>	<b>332 700</b>	<b>1 961 657</b>	
<b>Component 2</b> Ecosystem resilience and habitat	NIM	62000	GEF-10003	71200	International Consultants	11 600	11 600	21 600	11 600	21 600	78 000	13
				71300	Local Consultants	11 200	25 000	40 000	40 000	25 000	141 200	14
				71400	Contractual Services - Individuals	6 800	20 550	20 550	20 550	20 550	89 000	15
				71600	Travel	15 000	30 000	40 000	37 000	30 000	152 000	16

connectivity in wider landscape outside protected areas				72100	Contractual Services - Companies	5 000	60 000	80 000	50 000	37 000	232 000	17	
				72200	Equipment and furniture	0	68 000	67 000	41 000	0	176 000	18	
				72300	Materials and goods	0	39 000	39 000	11 000	0	89 000	19	
				72400	Communic & Audio Visual Equip	1 500	1 500	1 500	1 500	1 500	7 500	20	
				72600	Grants	0	84 750	84 750	84 750	84 750	339 000	21	
				74200	Audio visual & print production	3 000	5 000	5 000	5 000	5 000	23 000	22	
				75700	Training, Workshops and Confer	4 000	7 000	7 000	6 000	5 000	29 000	23	
	<b>SUB-TOTAL COMPONENT 2 (GEF)</b>						<b>58 100</b>	<b>352 400</b>	<b>406 400</b>	<b>308 400</b>	<b>230 400</b>	<b>1 355 700</b>	
	NIM	04000	UNDP- TRAC	71400	Contractual Services - Individuals	7 200	7 200	7 200	7 200	7 200	7 200	36 000	24
				64300	Direct Project Costs	7 000	7 000	7 000	7 000	7 000	7 000	35 000	25
<b>SUB-TOTAL COMPONENT 2 (UNDP)</b>						<b>14 200</b>	<b>14 200</b>	<b>14 200</b>	<b>14 200</b>	<b>14 200</b>	<b>71 000</b>		
<b>TOTAL COMPONENT 2</b>						<b>72 300</b>	<b>366 600</b>	<b>420 600</b>	<b>322 600</b>	<b>244 600</b>	<b>1 426 700</b>		
<b>Component 3</b> <b>Support to</b> <b>international</b> <b>cooperation</b>	NIM	62000	GEF- 10003	71200	International Consultants	12 800	12 800	22 800	12 800	22 800	84 000	26	
				71300	Local Consultants	2 400	4 000	4 000	3 000	3 000	16 400	27	
				71400	Contractual Services - Individuals	7 200	7 200	7 200	7 200	7 200	36 000	28	
				71600	Travel	15 000	45 000	55 000	45 000	45 000	205 000	29	
				72100	Contractual Services - Companies	10 000	60 000	65 000	65 000	45 000	245 000	30	
				72200	Equipment and furniture	0	25 000	50 000	0	0	75 000	31	
				72400	Communic & Audio Visual Equip	1 500	1 500	1 500	1 500	1 500	7 500	32	
				72800	Information Technology equipment	0	20 000	31 000	0	0	51 000	33	
				74100	Professional Services	0	1 000	2 000	1 000	0	4 000	34	
				75700	Training, Workshops and Confer	2 000	3 000	3 000	2 000	2 000	12 000	35	
<b>SUB-TOTAL COMPONENT 3 (GEF)</b>						<b>50 900</b>	<b>179 500</b>	<b>241 500</b>	<b>137 500</b>	<b>126 500</b>	<b>735 900</b>		
NIM	04000	UNDP- TRAC	71400	Contractual Services - Individuals	7 200	7 200	7 200	7 200	7 200	7 200	36 000	36	
			64300	Direct Project Costs	7 000	7 000	7 000	7 000	7 000	7 000	35 000	37	
<b>SUB-TOTAL COMPONENT 3 (UNDP)</b>						<b>14 200</b>	<b>14 200</b>	<b>14 200</b>	<b>14 200</b>	<b>14 200</b>	<b>71 000</b>		
<b>TOTAL COMPONENT 3</b>						<b>65 100</b>	<b>193 700</b>	<b>255 700</b>	<b>151 700</b>	<b>140 700</b>	<b>806 900</b>		
<b>Project</b> <b>Management</b>	NIM	62000	GEF- 10003	72500	Supplies	2 500	2 500	2 500	2 500	2 500	12 500	38	
				71400	Contractual Services - Individuals	28 800	28 800	28 800	28 800	28 800	144 000	39	
				72200	Equipment and furniture	0	15 613	18 000	9 000	0	42 613	40	
	<b>SUB-TOTAL PROJECT MANAGEMENT (GEF)</b>						<b>31 300</b>	<b>46 913</b>	<b>49 300</b>	<b>40 300</b>	<b>31 300</b>	<b>199 113</b>	
	NIM	04000	UNDP- TRAC	71400	Contractual Services - Individuals	28 800	28 800	28 800	28 800	28 800	28 800	144 000	41
			74100	Professional Services	1 500	1 500	1 500	1 500	1 500	7 500	42		



			74500	Miscellaneous expenses	2 000	2 000	2 500	2 000	2 000	10 500	43
			64300	Direct Project Costs	7 000	7 000	7 000	7 000	7 000	35 000	44
<b>SUB-TOTAL PROJECT MANAGEMENT (UNDP)</b>					<b>39 300</b>	<b>39 300</b>	<b>39 800</b>	<b>39 300</b>	<b>39 300</b>	<b>197 000</b>	
<b>TOTAL PROJECT MANAGEMENT</b>					<b>70 600</b>	<b>86 213</b>	<b>89 100</b>	<b>79 600</b>	<b>70 600</b>	<b>396 113</b>	
<b>TOTAL PROJECT</b>					<b>389 470</b>	<b>1 050 713</b>	<b>1 346 487</b>	<b>1 016 100</b>	<b>788 600</b>	<b>4 591 370</b>	

**Summary of Funds:**

	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
<b>GEF</b>	<b>307 570</b>	<b>968 813</b>	<b>1 264 087</b>	<b>934 200</b>	<b>706 700</b>	<b>4 181 370</b>
<b>UNDP-TRAC</b>	<b>81 900</b>	<b>81 900</b>	<b>82 400</b>	<b>81 900</b>	<b>81 900</b>	<b>410 000</b>
<b>TOTAL</b>	<b>389 470</b>	<b>1 050 713</b>	<b>1 346 487</b>	<b>1 016 100</b>	<b>788 600</b>	<b>4 591 370</b>

Budget reference#	Budget notes
1	Pro rata (33%) costs of contracting the services of an international mid-term evaluation consultant (10 weeks @US3000/wk) (M&E). Pro rata (33%) costs of contracting the services of an international final evaluation consultant (10 weeks @US3000/wk) (M&E). Pro rata (33%) costs of contractual appointment of an international Technical Advisor (@\$3000/wk for 40 wks) (Component 1).
2	Contractual appointment of a team of local experts to provide professional, technical and scientific support to activities under Output 1.1. Pro rata (33%) costs of contracting the services of a local mid-term evaluation consultant (5 weeks @US900/wk) (M&E). Pro rata (33%) costs of contracting the services of a local final evaluation consultant (5 weeks @US900/wk) (M&E).
3	Appointment of short-term contract labour from local communities to physically demarcate the boundaries of the SPNAs, install boom gates and erect signage (Output 1.1). Pro rata (50%) costs of contractual appointment of a Field Coordinator: SPNAs (@\$300/wk for 120 wks) (Component 1).
4	Travel costs of SPNA staff to supervise all the on-ground works and labour (Output 1.1). Travel costs (rental, maintenance and fuel costs) associated with the design and development of the smart patrol system in Sangvor and Tajik (Output 1.2, Output 1.3 and Output 1.4). Fuel and maintenance costs of park vehicles (on a 50:50 cost-sharing agreement with the Forestry Agency) (Output 1.3 and Output 1.4). Pro rata (33%) costs of travel and DSA for inception meeting (M&E). Pro rata (33%) of local travel costs and DSA of M&E consultants (M&E). Travel costs (DSA, car hire, car subsidy, fuel, etc.) of the international Technical Advisor, Project Manager and Field Coordinator (SPNAs) to support implementation of Component 1.
5	Contractual appointment of a surveying company or institution (Output 1.1). Contractual appointment of local building contractors (Output 1.1). Contractual appointment of signage company (Output 1.1). Contractual appointment of an international service provider or NGO to plan and implement the smart patrol system (Output 1.2, Output 1.3 and Output 1.4). Recruitment and appointment of 15 additional rangers in Sangvor and Tajik NP (@US\$3000 cost-to-company/annum/ranger on a 50:50 cost sharing agreement with the Forestry Agency) (Output 1.2). Contractual appointment of an insurance company (Output 1.2 and Output 1.4). Contractual appointment of local building contractors (Output 1.3). Contractual appointment of a communications media company (Output 1.4). Contracting of specialised training service providers to deliver the different training and skills development courses (Output 1.4).
6	Procurement of essential transport for patrol, community liaison and management staff in Sangvor and Tajik (including three 4x4 vehicles @US\$40,000 per vehicle, eight motorcycles @US\$5000/motorcycle and twenty horses and 10 donkeys @US\$15,000) (Output 1.3 and Output 1.4). Procurement of furnishing, installations and office equipment for the smart patrol planning data centre and four ranger outposts (Output 1.3). Pro rata costs of the

	procurement of office furniture, vehicles and equipment for the PMU (Component 1).
7	Procurement of materials required, to physically demarcate (e.g. stone cairns, concrete markers, fencing, etc.) the boundaries of the SPNAs, install boom gates, install guard huts and erect signage (Output 1.1). Procurement of boom gates and guard huts for access control checkpoints (Output 1.1). Procurement of: summer and winter staff uniforms (replaced annually); safety and camping equipment (including tents, sleeping bags, backpacks, water bottles, ice picks, first aid kit, utensils, weapons, binoculars, cameras and torches); and daily rations (@US\$2/day per patrolling ranger) for 40 ranger and community liaison staff in Tajik and Sangvor (Output 1.2 and Output 1.4). Costs of tack, supplementary feed and veterinary supplies/services for horses and donkeys used in the smart patrol system (on a 50:50 cost-sharing agreement with the Forestry Agency) (Output 1.3).
8	Procurement (and installation), leasing and/or running costs of communications technology (i.e. cellphones, satellite phone or VHF/FM radio communications) for Tajik and Sangvor (Output 1.3). Cell phone contracts and call costs of the Field Coordinator (SPNAs) in supporting implementation of outputs under Component 1.
9	Procurement of: hardware, software and networking for Sangovor and Tajik data centres; and GPS-enabled data collection devices for patrol rangers (Output 1.2).
10	Costs of hosting (venue, catering, equipment hire, specialist trainers, informational materials, DSA, etc.) basic training, advanced training, annual refresher training and train-the-trainer courses for rangers and community liaison staff in Tajik and Sangvor and future trainers (Output 1.2 and Output 1.4). Costs of hosting regular village-based and park committee meetings (including venue, catering, travel costs, printing, etc.) (Output 1.4). Pro rata (33%) costs of translation and meeting costs for inception meeting (M&E).
11	Pro rata (50%) costs of contractual appointment of a Field Coordinator: SPNAs (@\$400/wk for 110 wks) (Component 1)
12	Pro rata costs (25%) of UNDP financial, procurement and human resources management support to project implementation (Component 1)
13	Contractual appointment of an international high altitude forest management expert (Output 2.2). Pro rata (33%) costs of contracting the services of an international mid-term evaluation consultant (10 weeks @US\$3000/wk) (M&E). Pro rata (33%) costs of contracting the services of an international final evaluation consultant (10 weeks @US\$3000/wk) (M&E). Pro rata (33%) costs of contractual appointment of an international Technical Advisor (@\$3000/wk for 40 wks) (Component 2).
14	Contractual appointment of a team of local experts to provide professional, technical and scientific support to activities under Output 2.1. Contractual appointment of a team of local experts to provide professional, technical and scientific support to activities under Output 2.2. Contractual appointment of a small team of local experts to design, develop and implement an in-service short-course wildlife monitoring and enforcement training program (Output 2.3). Pro rata (33%) costs of contracting the services of a local mid-term evaluation consultant (5 weeks @US\$900/wk) (M&E). Pro rata (33%) costs of contracting the services of a local final evaluation consultant (5 weeks @US\$900/wk) (M&E).
15	Appointment of short-term contract labour from local communities to implement the pasture restoration/rehabilitation plans (Output 2.1). Appointment of short-term contract labour from local communities to implement the forest restoration/rehabilitation plans (Output 2.2). Pro rata (50%) costs of contractual appointment of a Field Coordinator: pastures and forests (@\$300/wk for 120 wks) (Component 2).
16	Travel costs (vehicle rental, fuel, daily allowances, accomodation, etc.) associated with the: selection and profiling of high altitude pastures; preparation of pasture management plans; and restoration and rehabilitation of degraded pastures (Output 2.1). Travel costs (vehicle rental fuel, daily allowances, accomodation, etc.) associated with the: selection and profiling of high altitude forests; operational forest management; forest enforcement; and restoration and rehabilitation of degraded pastures (Output 2.2). Travel costs (vehicle rental, fuel, daily allowances, rations, etc.) of the community rangers and state agency enforcement staff (Output 2.3). Pro rata (33%) costs of travel and DSA for inception meeting (M&E). Pro rata (33%) of local travel costs and DSA of M&E consultants (M&E). Travel costs (DSA, car hire, car subsidy, fuel, etc.) of the international Technical Advisor, Project Manager and Field Coordinator (pastures and forests) to support implementation of Component 2.
17	Contractual appointment of an international pasture management planning business or NGO (Output 2.1). Contractual appointment of alternative energy and fuel technology service providers (Output 2.2). Contractual appointment of an international wildlife monitoring and enforcement training NGO (Output

	2.3). Contractual appointment of a construction firm (Output 2.3).
18	Procurement/leasing of equipment (including: tractors; farm utensils; irrigation systems; transport for livestock; disc pasture meters; etc.) to support the profiling of high altitude pasture areas and rehabilitation/restoration of degraded pastures (Output 2.1). Procurement/leasing of equipment (including: motorcycles; horses; communications equipment; nursery irrigation systems; etc.) to support the management, enforcement and rehabilitation/restoration of degraded forests (Output 2.2). Procurement of: equipment and furnishings for the wildlife monitoring and enforcement training facility (Output 2.3). Pro rata costs of the procurement of office furniture, vehicle and equipment for the PMU (Component 2).
19	Procurement of materials and goods (e.g. aerial photography, satellite imagery; grass seed stock; fencing materials; fertilizer; etc.) to support the profiling of high altitude pasture areas and rehabilitation/restoration of degraded pastures (Output 2.1). Procurement of materials and goods (e.g. aerial photography, satellite imagery; staff uniforms and safety equipment; forest seed and seedling stock; fencing materials; fertilizer; etc.) to support the profiling of high altitude forests and the rehabilitation/restoration of degraded forests (Output 2.2). Procurement of: summer and winter staff uniforms (replaced annually); safety equipment (including backpacks, water bottles, first aid kit, weapons, binoculars, cameras and torches); and daily rations (@US\$2/day per patrolling ranger) for community rangers and environmental and forestry staff of the Forestry Agency and CEP (Output 2.3).
20	Cell phone contracts and call costs of the Field Coordinator (pastures and forests) in supporting implementation of outputs under Component 2.
21	Technical and grant funding support to PUUs and individual pastoralists in the implementation of more sustainable pasture management practices in the high altitude pastures (Output 2.1). Technical and grant funding support for assisting rural communities and local governments to adopt alternative fuel and energy technologies (Output 2.2).
22	Costs of printing and publishing: thematic maps of high profile pasture areas; livestock use zone maps; and pasture management plans (Output 2.1). Printing and publishing of training media, course materials, web-based training media, etc. for the in-service wildlife monitoring and enforcement training and skills development programme (Output 2.3).
23	Costs of hosting local meetings and consultations with affected PUUs, hukumats and jamoats (including venue, catering, printing, etc.) (Output 2.1). Costs of hosting local meetings and consultations with affected forest user groups and PFM committees (including venue, catering, printing, etc.) (Output 2.2). Pro rata (33%) costs of translation and meeting costs for inception meeting (M&E).
24	Pro rata (50%) costs of contractual appointment of a Field Coordinator: pastures and forests (@\$400/wk for 110 wks) (Component 2)
25	Pro rata costs (25%) of UNDP financial, procurement and human resources management support to project implementation (Component 2)
26	Contractual appointment of an international snow leopard conservation specialist (Output 3.2). Pro rata (33%) costs of contracting the services of an international mid-term evaluation consultant (10 weeks @US3000/wk) (M&E). Pro rata (33%) costs of contracting the services of an international final evaluation consultant (10 weeks @US3000/wk) (M&E). Pro rata (33%) costs of contractual appointment of an international Technical Advisor (@\$3000/wk for 40 wks) (Component 3).
27	Contractual appointment of a team of local experts to provide the requisite professional, technical and scientific support to activities under Output 3.2. Pro rata (33%) costs of contracting the services of a local mid-term evaluation consultant (5 weeks @US900/wk) (M&E). Pro rata (33%) costs of contracting the services of a local final evaluation consultant (5 weeks @US900/wk) (M&E).
28	Pro rata (50%) costs of contractual appointment of a Field Coordinator: information management (@\$300/wk for 120 wks) (Component 3).
29	Travel costs (including daily allowance, fuel, vehicle costs, accomodation) of field-based researchers, scientists, academics, volunteers, students, NGO staff and government field staff in the collection of snow leopard and prey baseline and monitoring data (Output 3.1). Travel costs (flights, car hire, daily allowance, accomodation, etc.) of managers, academics and researchers participating in regional report-back meetings and/or international exchange programmes (Output 3.2). Pro rata (33%) costs of travel and DSA for inception meeting (M&E). Pro rata (33%) of local travel costs and DSA of M&E consultants (M&E). Travel costs (DSA, car hire, car subsidy, fuel, etc.) of the international Technical Advisor, Project Manager and Field Coordinator (information management) to support implementation of Component 3.
30	Contractual appointment of an international conservation agency or NGO (Output 3.1). Hourly flying costs (fixed-wing or helicopter hire + pilot) for aerial

	counts of medium-sized ungulates (@US\$3000/hr) (Output 3.1). Contractual appointment of the Environment Security sub-directorate of the International Police Organisation (INTERPOL) (Output 3.2).
31	Procurement and installation of camera traps (@US\$600-US\$800/trap) (Output 3.1). Pro rata costs of the procurement of office furniture, vehicle and equipment for the PMU (Component 3).
32	Cell phone contracts and call costs of the Field Coordinator (information management) in supporting implementation of outputs under Component 3.
33	Procurement of hardware, software and networking required to host and maintain the national spatial and non-spatial baseline, monitoring and reporting data for snow leopard and prey (Output 3.1). Procurement of GPS-enabled tracking collars for snow leopard (@US\$4000/collar) (Output 3.1).
34	Laboratory costs for testing the efficacy of fecal DNA analysis (@US\$80/sample) (Output 3.1).
35	Costs of hosting the National Snow Leopard Conservation Committee meetings (e.g. catering, facilitation, accommodation, transport, daily allowance) (Output 3.2). Pro rata (33%) costs of translation and meeting costs for inception meeting (M&E).
36	Pro rata (50%) costs of contractual appointment of a Field Coordinator: information management (@\$400/wk for 110 wks) (Component 3).
37	Pro rata costs (25%) of UNDP financial, procurement and human resources management support to project implementation (Component 3)
38	Procurement of office supplies @US\$2500/annum
39	Contractual appointment of Project Manager (@ US\$600/wk for 240wks).
40	Costs of procuring laptops, software licenses, portable hard drive, router, printers, 3G cards, data projector and ISP contract for the PMU staff
41	Contractual appointment of a Project Financial Assistant (@ US\$300/wk for 240 weeks).
42	Professional costs of annual financial audit of project expenses (@US\$1200/annum)
43	Miscellaneous administrative project costs and running expenses, including bank charges.
44	Pro rata costs (25%) of UNDP financial, procurement and human resources management support to project management.

## SECTION IV: ADDITIONAL INFORMATION

### **PART I: Terms of Reference for project staff**

#### PROJECT MANAGER

##### Background

The Project Manager will be locally recruited, based on an open competitive process. Generally, he/she will be responsible for meeting government obligations under the project, under the national implementation modality (NIM). He/she will be responsible for the overall management of the project, including the mobilization of all project inputs, supervision over project staff, consultants and sub-contractors. The Project Manager will report to the PD for all of the project's substantive operational issues. The Project Manager will report on a periodic basis to the Steering Committee (SC) on the overall project progress and future project planning. The incumbent will perform a liaison role with the Government, UNDP, implementing partners, NGOs and other stakeholders, and maintain close collaboration with any donor agencies supporting project activities.

##### Duties and Responsibilities

- Supervise and coordinate the production of project outputs, as per the project document;
- Mobilize all project inputs in accordance with procedures for nationally implemented projects;
- Coordinate the recruitment and selection of project personnel;
- Supervise and coordinate the work of all project staff, consultants and sub-contractors;
- Prepare and revise project work and financial plans;
- Liaise with UNDP, relevant government agencies, and all project partners, including donor organizations and NGOs for effective coordination of all project activities;
- Oversee and ensure timely submission of the Inception Report, Combined Project Implementation Review/Annual Project Report (PIR/APR), Technical reports, quarterly financial reports, and other reports as may be required by UNDP, GEF, TFS and other oversight agencies;
- Disseminate project reports and respond to queries from concerned stakeholders;
- Report progress of project to the SC, and ensure the fulfilment of SC directives;
- Oversee the exchange and sharing of experiences and lessons learned with relevant community based integrated conservation and development projects nationally and internationally;
- Ensure the timely and effective implementation of all components of the project;
- Assist relevant government agencies and project partners - including donor organizations and NGOs - with development of essential skills through training workshops and on the job training thereby upgrading their institutional capabilities;
- Carry out regular, announced and unannounced inspections of all sites and project-funded activities.

##### Qualifications and experience

- A post-graduate university degree in natural resource management (or equivalent) and/or business management;
- At least 10 years of relevant experience in conservation, forestry, wildlife and/or pasture planning and management;
- At least 5 years of project management experience;

- Working experience in international projects, or within international organisations, is highly desirable;
- Working experience with the project stakeholder institutions and agencies is desired;
- Ability to effectively coordinate a large, multi-stakeholder project;
- Ability to administer budgets, train and work effectively with counterpart staff at all levels and with all groups involved in the project;
- Strong writing, presentation and reporting skills;
- Strong computer skills;
- Excellent written communication skills; and
- A good working knowledge of Tajik (and/or Russian) and English is a requirement.

## FIELD COORDINATOR (3 POSTS)

*SPNAs (Component 1)/ Pastures and Forests (Component 2)/ Knowledge Management (Component 3)*

### Background

A Field Coordinator for each of the three components (Component 1 – specially protected natural areas; Component 2 – pastures and forests; and Component 3 – knowledge management) will be locally recruited, based on an open competitive process. The Field Coordinators will be responsible for coordinating the direct implementation of all field-based project activities in the targeted areas of the planning domain, including the supervision over any field-based project staff, contracted consultants'/service providers and sub-contractors. The three Field Coordinators will report to the Project Manager for all of the project's substantive and administrative issues. Generally, the Field Coordinators will be responsible for assisting the field staff of the responsible state institutions in meeting their field-based obligations under each component. The incumbents will perform a liaison role with the relevant local authorities, *deha's*, user groups, tenure holders, NGOs, research institutions, academic institutions and all other key stakeholders, and maintain close collaboration with any complementary local initiatives and programs. The Field Coordinators will assist the Project Manager in reporting, on a periodic basis, to the Steering Committee (SC).

### Duties and Responsibilities

- Supervise and coordinate the work of all field-based project staff, consultants and sub-contractors;
- Prepare and revise project work and financial plans;
- Liaise with all relevant field-based government agencies, and all project partners, including donor organizations and NGOs for effective coordination of all project activities;
- Facilitate technical backstopping to field-based subcontractors and training activities supported by the Project;
- Provide inputs into the Combined Project Implementation Review/Annual Project Report (PIR/APR), Technical reports, quarterly financial reports, and other reports as may be required by the PM;
- Report progress of project to the PM;
- Document all field-based experiences and lessons learned;
- Ensure the timely and cost-effective implementation of all outputs under the component;
- Assist relevant government agencies and project partners - including donor organizations and NGOs - with development of essential skills through training workshops and on the job training thereby upgrading their institutional capabilities;
- Coordinate and assist expert teams and academic institutions with the initiation and implementation of any field studies and monitoring components of the component; and
- Carry out regular, announced and unannounced inspections of all project sites.

## Qualifications

- A post-graduate university degree in: conservation management, or equivalent (FC SPNAs); forestry and/or agricultural management, or equivalent (FC Forests and Pastures); and wildlife management or equivalent (FC Knowledge Management);
- At least 5 years of experience in conservation management (FC SPNAs); forest and/or pasture management (FC Forests and Pastures); and wildlife information management and monitoring (FC Knowledge Management);
- Working experience with the project local stakeholder institutions and agencies is highly desired;
- Ability to effectively coordinate a diverse range of local stakeholders;
- Demonstrable ability to maintain effective communications with different stakeholders, and arrange stakeholder meetings and/or workshops;
- Ability to administer budgets, train and work effectively with counterpart staff at all levels and with all local groups involved in the project;
- Strong drafting, presentation and reporting skills;
- Strong computer skills, in particular mastery of all applications of the MS Office package and knowledge of GIS software;
- Excellent written and oral communication skills; and
- A good working knowledge of Tajik is a requirement, while knowledge of English and Russian will be an advantage.

## PROJECT FINANCIAL ASSISTANT

### Background

The Project Financial Assistant will be locally recruited based on an open competitive process. He/she will be responsible for the overall financial management of the project. The Project Financial Assistant will report to the Project Coordinator. Generally, the Project Financial Assistant will be responsible for supporting the Project Coordinator in meeting government obligations under the project, under the national implementation modality (NIM).

### Duties and Responsibilities

- Monitor project budgets and financial expenditures;
- Assist in all procurement and recruitment processes;
- Advise all project counterparts on applicable financial procedures and ensures their proper implementation;
- Contribute to the preparation and implementation of progress and financial reports;
- Support the preparations of project work-plans, budgets and operational and financial planning processes;
- Assist in the preparation of payments requests for operational expenses, salaries, insurance, etc. against project budgets and work plans;
- Work closely with financial counterparts in the UNDP CO on payment requests;
- Follow-up on timely disbursements by the UNDP CO;
- Maintain data on co-financing commitments to the project;
- Coordinate the annual financial audit of the project; and
- Perform other duties as required.

### Qualifications and experience

- A post-school qualification (diploma, or equivalent), preferably in bookkeeping (or equivalent);
- At least 5 years of relevant financial management experience;
- Work experience in UNDP-GEF projects is highly desirable;
- Demonstrable ability to administer project budgets, and track financial expenditure;
- Excellent computer skills, in particular mastery of all applications of the MS Office package;
- Excellent written communication skills; and
- A good working knowledge of Tajik is a requirement, while knowledge of English will be an advantage.

## PROJECT ADMINISTRATIVE ASSISTANT

### Background

The Project Administrative Assistant (PAA) will be locally recruited based on an open competitive process. He/she will be responsible for the overall administration of the project. The Project Assistant will report to the Project Manager. Generally, the Project Administrative Assistant will be responsible for supporting the Project Manager in meeting government obligations under the project, under the national implementation modality (NIM).

### Duties and Responsibilities

- Collect, register and maintain all information on project activities;
- Contribute to the preparation and implementation of progress reports;
- Advise all project counterparts on applicable administrative procedures and ensures their proper implementation;
- Maintain project correspondence and communication;
- Assist in procurement and recruitment processes;
- Receive, screen and distribute correspondence and attach necessary background information;
- Prepare routine correspondence and memoranda for Project Managers signature;
- Assist in logistical organization of meetings, training and workshops;
- Prepare agendas and arrange field visits, appointments and meetings both internal and external related to the project activities and write minutes from the meetings;
- Maintain a project filing system;
- Maintain records over project equipment inventory; and
- Perform other duties as required.

### Qualifications and experience

- A post-school qualification (diploma, or equivalent), preferably in administration (or equivalent);
- At least 5 years of relevant administrative experience;
- Work experience in UNDP-GEF projects or within international organisations is highly desirable;
- Demonstrable ability to maintain effective communications with different stakeholders, and arrange stakeholder meetings and/or workshops;
- Excellent computer skills, in particular mastery of all applications of the MS Office package;
- Excellent written communication skills; and
- A good working knowledge of Tajik is a requirement while knowledge of Russian and English will be an advantage.



## INTERNATIONAL TECHNICAL ADVISER

### Background

The International Technical Adviser (TA) will be responsible for providing overall technical backstopping to the Project. He/She will render technical support to the National Project Director, Project Manager, PA agency staff and other government counterparts. The TA will support the provision of the required technical inputs, reviewing and preparing Terms of Reference and reviewing the outputs of consultants and other sub-contractors. He/She will report directly to the National Project Director.

### Duties and Responsibilities

- Provide technical support to the National Project Director, Project Manager and other government counterparts in the areas of project management and planning, management of site activities, monitoring, and impact assessment;
- Support the Project Manager in preparing Terms of Reference for consultants and sub-contractors, and assist in the selection and recruitment process;
- Support the Project Manager in coordinating the work of all consultants and sub-contractors, ensuring the timely delivery of expected outputs, and ensuring an effective synergy among the various sub-contracted activities;
- Assist the National Project Director and Project Manager in the preparation of the Combined Project Implementation Review/Annual Project Report (PIR/APR), inception report, technical reports, quarterly financial reports for submission to UNDP, the GEF, other donors and Government Departments, as required;
- Assist the National Project Director and Project Manager in mobilizing staff and consultants in the conduct of a mid-term project evaluation, and in undertaking revisions in the implementation program and strategy based on evaluation results;
- Assist the National Project Director and Project Manager in liaison work with project partners, donor organizations, NGOs and other groups to ensure effective coordination of project activities;
- Support the Project Manager in documenting lessons from project implementation and make recommendations to the Steering Committee for more effective implementation and coordination of project activities; and
- Perform other tasks as may be requested by the National Project Director and Project Manager.

### Qualifications

- University education (MS or PhD), with specific expertise in the area of protected area and/or conservation planning and management;
- At least 15 years of professional experience in protected area/conservation planning and management;
- Demonstrable experience in implementing equivalent GEF or other multilateral donor-funded projects;
- Be an effective negotiator with excellent oral and presentation skills;
- A good working knowledge of international best practice in protected area planning and management is desirable;
- Excellent writing skills; and

## OTHER CONSULTANTS/ CONTRACTED INDIVIDUALS

<i>Position Titles</i>	<i>Indicative \$/person/ week</i>	<i>Estimated person weeks</i>	<i>Tasks to be performed</i>
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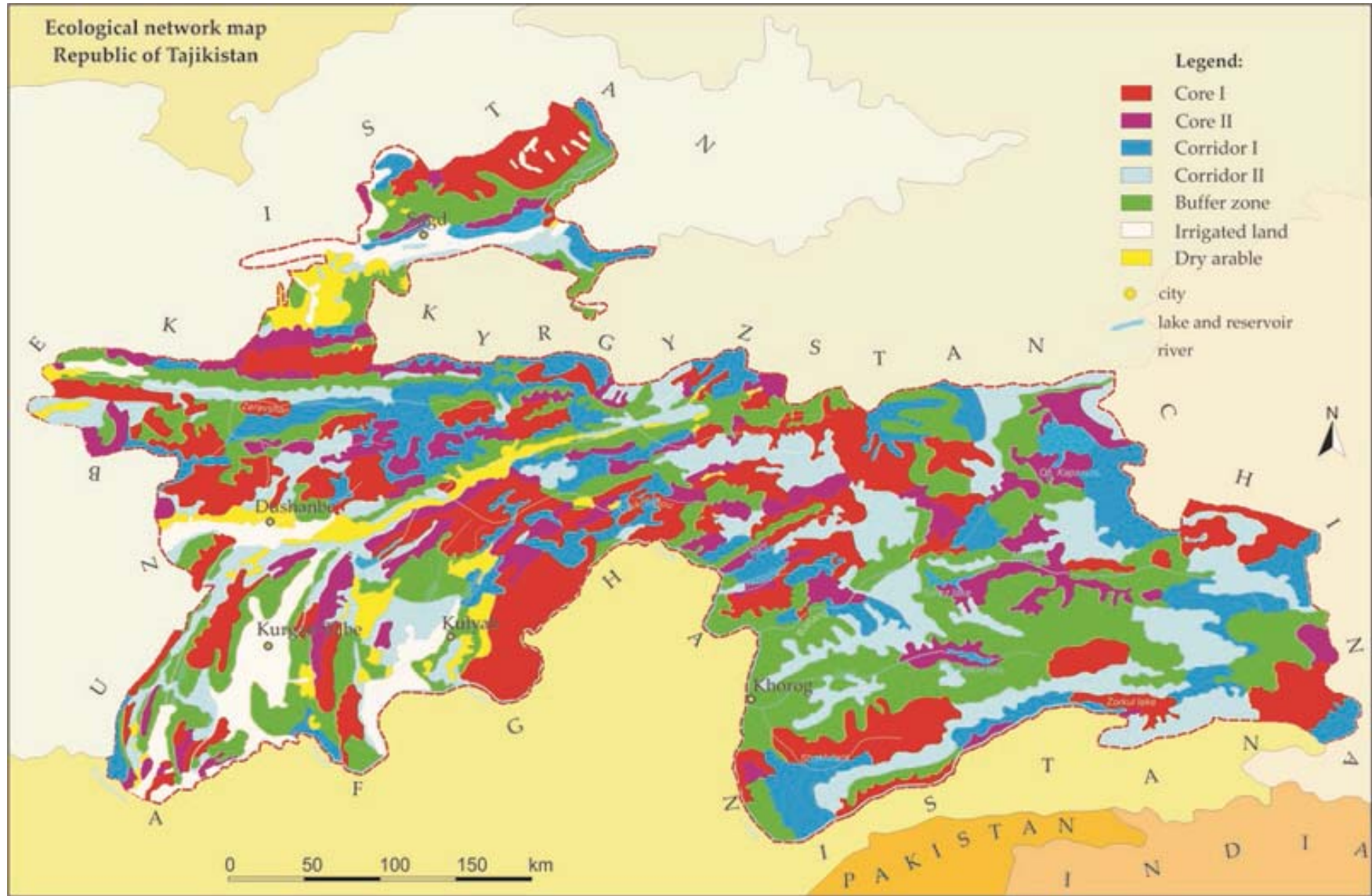
<i>Position Titles</i>	<i>Indicative \$/person/week</i>	<i>Estimated person weeks</i>	<i>Tasks to be performed</i>
<b>Local</b>			
Local expert team – SPNA management planning (6)	300	72	Provide professional, technical and scientific support to activities under Output 1.1, including: motivation and application for change of conservation status of Sangvor; zonation plan for Sangvor; stakeholder consultations; and updating management plan for Tajik NP.
Local expert team – pasture management planning (6)	300	216	Provide professional, technical and scientific support to activities under Output 2.1, including: identifying and profiling high altitude pastures that are also critical habitats for snow leopard and prey; developing district-based pasture norms and standards; assisting in the establishment of new PUUs; supporting PUUs in pasture management planning; and preparing grassland restoration/rehabilitation plans.
Local expert team – forest management planning (6)	300	216	Provide professional, technical and scientific support to activities under Output 2.2, including: identify and prioritise high altitude forests that that overlap with the critical habitats and movement corridors for snow leopard and prey; develop management guidelines for priority high altitude forests; improve the scientific basis for the determination of the sanitary cutting requirements; and prepare basic rehabilitation/restoration plan for targeted forests.
Local expert team – wildlife enforcement training (2)	300	32	Design, develop and implement an in-service short-course wildlife monitoring and enforcement training program (Output 2.3)
Local expert team – snow leopard action plan development	300	48	Provide the requisite professional, technical and scientific support to activities under Output 3.2, including: ecosystem services and economic valuation of snow leopards and their mountain ecosystems; updating the National Action Plan for Snow Leopard Conservation in Tajikistan; and identifying financing requirements for the National Action Plan.
Evaluation experts for mid-term (1) and final (1) evaluation	300	20	<i>M&amp;E</i> The standard UNDP/GEF project evaluation TOR will be used. This will include: supporting the mid-term and the final evaluations; assisting the international evaluation consultant in order to assess the project progress, achievement of results and impacts; supporting the drafting of the evaluation report and discussing it with the project team, government and UNDP; and as necessary, participating in discussions to extract lessons for UNDP and GEF.
<b>International</b>			
High altitude forest management expert	3000	6	Provide technical backstopping support to the team of local experts, and to the leskhoz, in: (a) identifying and profiling the high altitude forests; (b) the development of management norms, standards and guidelines for high altitude forests; and (c) the restoration/rehabilitation of degraded high altitude forests (Output 2.2).
Snow leopard conservation specialist	3000	8	Provide professional and technical backstopping support to the team of local experts in the implementation of activities under Output 3.2
Evaluation experts for mid-term (1) and final (1) evaluation	3000	20	<i>M&amp;E</i> The standard UNDP/GEF project evaluation TOR will be used. This will include: leading the mid-term and the final evaluations; working with the local evaluation consultant in order to assess the project

<i>Position Titles</i>	<i>Indicative \$/person/week</i>	<i>Estimated person weeks</i>	<i>Tasks to be performed</i>
			progress, achievement of results and impacts; developing the draft evaluation report and discussing it with the project team, government and UNDP; and as necessary, participating in discussions to extract lessons for UNDP and GEF.

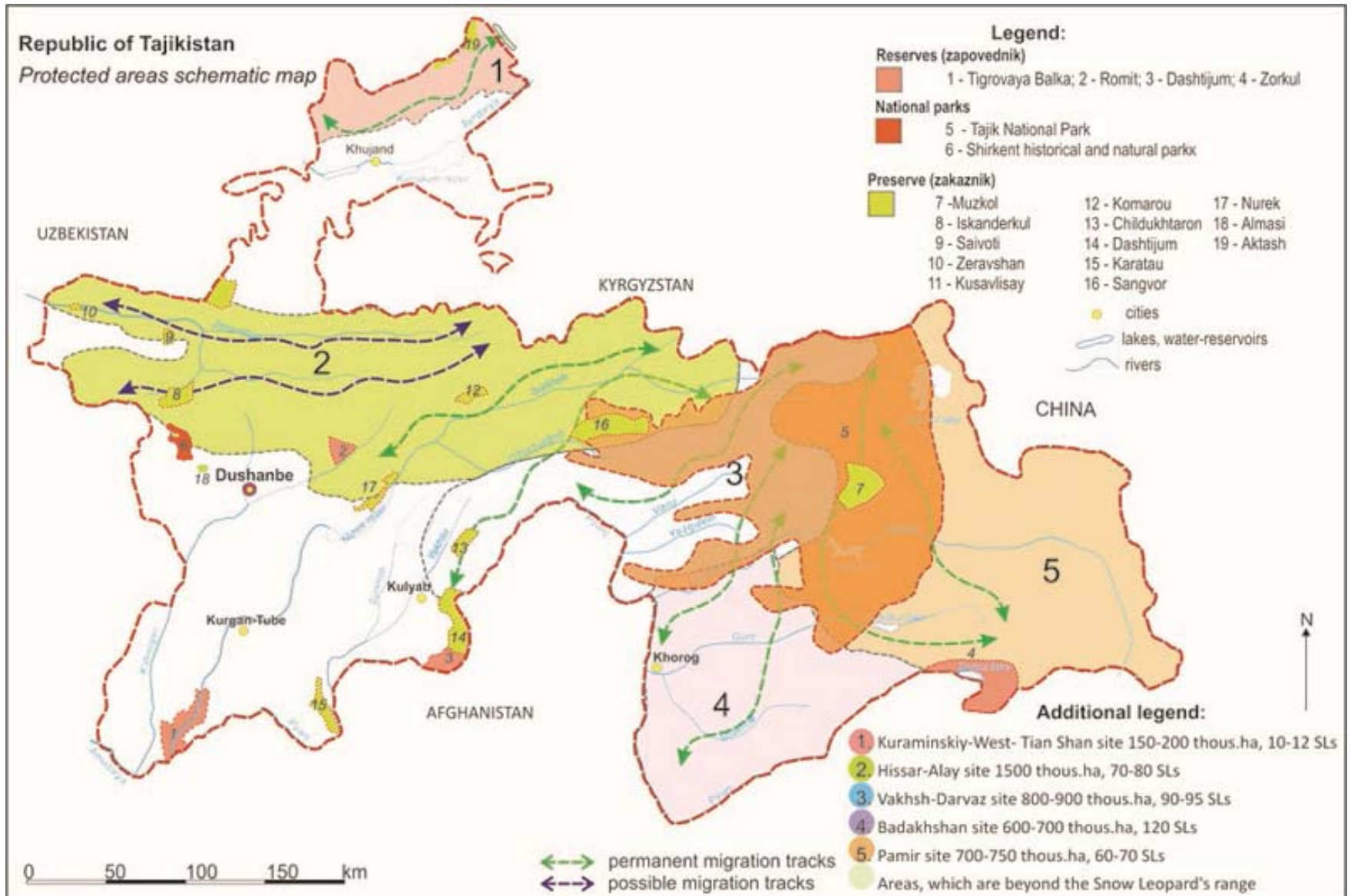
Complete and more thorough ToRs for these positions will be developed by the Project Manager, once recruited.

## PART II: Project maps

Map A: Ecological network map of Tajikistan



Map B: Distribution of SPNAs within the five areas of the project planning domain



## PART III: Stakeholder Involvement Plan and Coordination with other Related Initiatives

### 1. Stakeholder identification

During the project preparation stage, a stakeholder analysis was undertaken in order to identify key stakeholders, assess their interests in the project and defines their roles and responsibilities in project implementation. The table below describes the major categories of stakeholders identified, and the level of involvement envisaged in the project:

Stakeholder	Roles and Responsibilities	Proposed involvement in the Project
<b>National Government</b>		
<i>Committee on Environmental Protection (CEP)</i>	The role of the Committee is to: (i) regulate nature conservation functions and activities; (ii) develop and implement nature protection and forestry policies; (iii) regulate the use and management of natural resources; and (iv) develop medium and long-term state programs for nature protection and sustainable use of natural resources.	The Committee will play an oversight and guidance role in the project particularly as it pertains to conservation and sustainable management of key protected areas and ecosystem resilience and connectivity outside of protected areas. This will be achieved through representation on the project steering committee and consultation with officials from the local level offices.
<i>Ministry of Agriculture</i>	Ministry of Agriculture is responsible for the development and implementation of state policy relating to agriculture and rural economic development.	The Ministry will be represented on the steering committee of the project to ensure effective consultation relating to project activities pertaining to ecosystem resilience and connectivity outside of protected areas.
<i>Ministry of Economy and Trade</i>	Ministry of Economy and Trade is responsible for drafting and implementing state strategy, policy and regulations to do with social and economic development in all sectors, including the environmental arena.	The Ministry will be represented on the steering committee of the project to ensure effective consultation relating to project activities pertaining to the development of incentives for alternative livelihood opportunities to reduce the impacts on grasslands and forestry.
<i>Committee for Land Management, Geodesy and Cartography</i>	The Committee develops and implements land policy and manages the process of land reform and land-use planning.	The Committee will serve as a reference to and provide guidance on matters relating to land use and land use planning.
<i>The Forestry Agency</i>	The role of the Forestry Agency is to: (i) prepare and administer state forest policy and regulations; (ii) plan and manage state forests and forest resources (including reforestation and seed harvesting); (iii) oversee hunting activities; and (iv) plan and manage all SPNAs. There are three divisions, of which the Division for Forestry, Fauna and Flora Protection and Hunting is most concerned with this project.	The Forestry Agency will play a leading role as an institution in implementing the project through its four operational units which fall under the Division for Forestry, Fauna and Flora Protection and Hunting within the Agency. These units are the Forestry and Hunting Inspectorate; the Department of Special Protected Natural Areas; the State Forest Institution; and the Scientific Institute of Forestry.
<i>National Biodiversity and Biosafety Center</i>	The Center is responsible for the implementation of monitoring and reporting activities related to the obligations of Tajikistan in relation to the UN Convention on Biodiversity.	The Center has been identified as the lead executing agency of this project and will take overall responsibility for co-ordinating, monitoring progress and reporting on the project.
<i>The Academy of Sciences of the Republic of Tajikistan</i>	The Academy provides the scientific expertise and capability to underpin decisions and actions in the field of sustainable natural resource use.	The Academy will play the role of providing a scientific perspective to project decisions and actions as well as being the beneficiary of a number of the project

Stakeholder	Roles and Responsibilities	Proposed involvement in the Project
		interventions.
<b>Regional and local government</b>		
<i>Regional government (Hukumat)</i>	The Hukumat has overall responsibility for the economic and development activities within the region. There are a number of Regions within the project domain.	A representative of the Hukumat will sit in the project steering committee and will mediate two-way communication between national policy directives and local project activities and actions to ensure that there is good alignment between them.
<i>District Government (Jamoat)</i>	The District level Government provides support for local economic activities and regulates land use and supervises land use decision making.	The district government will play an important role in supporting the implementation of the project in selected areas (in the project domain). They are likely to be direct beneficiaries of capacity development activities.
<b>Local NGO and NPOs</b>		
<i>Jamoat Resource Centres</i>	The role of the Jamoat Resource Centres is to provide support for the local management of the micro-credit institutions as well as providing technical support.	Individuals will be direct beneficiaries of capacity development activities.
<i>Micro-financial institutions</i>	Micro-financing institutions provide financial support to communities in rural areas to support, in a sound and transparent manner, the development of the rural economy.	Individuals will be direct beneficiaries of capacity development activities.
<i>Local and national NGOs such as Zan va Zamin, Bars Consulting, Noosfera</i>	The NGOs will provide specific communication and awareness support to ensure that the project is clearly understood and to encourage active involvement and participation in the project and its activities.	
<b>Local communities</b>		
<i>Local farmers (communities in the buffer zones of protected areas)</i>	Local farmers will be consulted through the project in relation to potential conflict mitigation techniques, alternative livelihoods, and land uses. They are likely to be direct beneficiaries of capacity development activities. They will be involved in the planning related to aspects of the project and will contribute to the implementation of the needs and priorities of local and national decision-making processes.	
<b>International Partners</b>		
<i>Secretariat of the Global Snow Leopard and Ecosystem Protection programme (Bishkek, Kyrgyzstan)</i>	These partners will participate in knowledge sharing and technology transfer exercises as well as communications on data collection and sharing, best practices for planning and priority-setting.	
<i>Panthera</i>	Panthera conduct research as well as providing a connection between communities and the state in relation to snow leopard conservation.	Communication and awareness raising. Support for activities and interaction (communication) and raising awareness in favor of the rural community / farmers.
<i>Development partners (e.g. German Government, World Bank, FAO)</i>	Development partners supporting snow leopard and prey conservation projects and initiatives to improve the sustainable management of snow leopard habitats in Tajikistan will be important project partners. They will share, coordinate and collaborate with the project as and where relevant. May be represented on the Project Steering Committee.	

The NBBC will be the main institution responsible for different aspects of project implementation. The NBBC will work in close cooperation with the Committee for Environmental Protection (CEP), Forestry Agency, and SPNA. The NBBC will coordinate all project activities at the local level, in close collaboration with the district (*Jamoat*) government authorities in each of the targeted regions.

## 2. Information dissemination, consultation, and similar activities that took place during the PPG

Throughout the project's development, close contact was maintained with stakeholders at the national and local levels. All affected national and local government institutions were directly involved in project development, as were key donor agencies. Numerous consultations occurred with all of the above stakeholders to discuss different aspects of project design. This included:

- A series of bilateral discussions with national public institutions and multilateral agencies – notably the CEP, Forestry Agency, State Institution for Specially Protected Natural Areas, Academy of Sciences, GIZ and UNDP – to solicit information on the current project baseline, consult on proposed project interventions and confirm the political, administrative, operational and financial commitment of project partners (including securing co-financing commitments);
- A series of consultative field visits and meetings with the relevant responsible institutions in the project's target areas, particularly in the Tavildara and Jirgital regions. These field visits and meetings sought to assess the local challenges *in situ*, and consultatively identify prospective solutions;
- Consultative consolidated workshop with representatives of all key national and international organizations and NGOs in order to present the project and identify opportunities for synergies and collaboration;
- Validation workshop to present the detailed project outputs, activities, budgets and implementation arrangements to all stakeholders, including all key government agencies and institutions (CEP, Ministry of Agriculture, Forestry Agency, Ministry of Economy and Trade, Academy of Sciences, Pasture Trust, local government institutions), development partners (UNDP, World Bank, GIZ), NGOs (Panthera, WWF) and other civil society partners (Micro Loan banks); and
- Iterative circulation of the project documentation for review and comments.

## 3. Approach to stakeholder participation

The projects approach to stakeholder involvement and participation during project implementation is premised on the principles outlined in the table below.

Principle	Stakeholder participation will:
Value Adding	be an essential means of adding value to the project
Inclusivity	include all relevant stakeholders
Accessibility and Access	be accessible and promote access to the process
Transparency	be based on transparency and fair access to information; main provisions of the project's plans and results will be published in local mass-media
Fairness	ensure that all stakeholders are treated in a fair and unbiased way
Accountability	be based on a commitment to accountability by all stakeholders
Constructive	Seek to manage conflict and promote the public interest
Redressing	Seek to redress inequity and injustice
Capacitating	Seek to develop the capacity of all stakeholders
Needs Based	be based on the needs of all stakeholders
Flexible	be flexibly designed and implemented
Rational and Coordinated	be rationally planned and coordinated, and not be ad hoc
Excellence	be subject to ongoing reflection and improvement

## 4. Stakeholder involvement plan

The project's design incorporates several features to ensure ongoing and effective stakeholder participation in the project's implementation. The mechanisms to facilitate involvement and active participation of different stakeholder in project implementation will comprise a number of different elements:

- (i) Project inception workshop to enable stakeholder awareness of the start of project implementation



The project will be launched by a multi-stakeholder workshop. This workshop will provide an opportunity to provide all stakeholders with the most updated information on the project and the project work plan. 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: assist all partners to fully understand and take ownership of the project; detail the roles, support services and complementary responsibilities of the NBBC, CEP, Forestry Agency, Ministry of Agriculture, Academy of Sciences, local government institutions, NGOs and development partners *vis à vis* the implementation of project outputs and activities; and discuss the roles, functions, and responsibilities within the project structure, including reporting and communication lines, and conflict resolution mechanisms.

The Workshop will also be a forum to: review the project budget; finalize the first annual work plan as well as review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks; provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements; and plan and schedule project meetings for the Steering Committee.

(ii) Constitution of Steering Committee to ensure representation of stakeholder interests in project

A Steering Committee(SC) will be constituted to ensure broad representation of all key interests throughout the project's implementation. The representation, and broad terms of reference, of the SC are further described in [Section I, Part III](#) (Management Arrangements) of the Project Document.

(iii) Establishment of a Project Management team to oversee stakeholder engagement processes during project

The Project Management Unit (PMU) - comprising a Project Manager (PM), Project Administrative Assistant (PAA), Project Financial Assistant (PFA) and three Field Coordinators (protected areas, pastures and forests and knowledge management) - will take direct operational and administrative responsibility for facilitating stakeholder involvement and ensuring increased local ownership of the project and its results. The PM, PAA and PFA specialist will be located in Dushanbe to ensure coordination among key stakeholder organizations at the national level during the project period, while the Field Coordinators may be located in or close to the projects targeted regions within the planning domain to ensure closer working relationships with operational field staff of the partner institutions and with the local stakeholders and communities. An international Technical Adviser (TA) will provide professional and technical backstopping to the PMU.

(iv) Project communications to facilitate ongoing awareness of project

The project will develop, implement and maintain a communications strategy to ensure that all stakeholders are informed on an ongoing basis about: the project's objectives; the projects activities; overall project 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 appropriate to the local contexts such as appropriate languages and other skills that enhance communication effectiveness. The project will develop and maintain a web-based platform for sharing and disseminating information on sustainable pasture and forest planning and management practices across the project planning domain (see [Part II, Strategy](#)).

(v) Stakeholder consultation and participation in project implementation

A comprehensive stakeholder consultation and participation process will be developed and implemented

for each of the following outputs/activities:

- Output 1.1 - management planning for Tajik NP (Tavildara section)
- Output 1.4 – negotiating MoUs with village governments; implementing village-based MoUs; establishment of park management committees
- Output 2.1 – prepare and implement local pasture management plans; provide technical and grant funding support to pastoralists; rehabilitation of degraded high altitude pastures
- Output 2.2 – implementation of PFM initiatives; forest restoration and rehabilitation; technical and financial grants for alternative energy and fuel technologies and systems
- Output 2.3 – establish, train and equip a local corps of community rangers
- Output 3.1 – development and implementation of snow leopard monitoring and reporting system
- Output 3.2 – preparation of National Action Plan for snow leopard conservation; development of a cooperative governance structure to coordinate the implementation of the National Action Plan; establishment of a NEST; developing a framework for trans-boundary collaboration.

A participatory approach will be adopted to facilitate the continued involvement of local stakeholders including the vulnerable and marginalized members of the community (including women) and institutions (such as Jamoat Resource Centres, NGOs, CSO's, etc.) in the implementation of the project activities within the targeted villages and jamoats. Wherever possible, opportunities will be created to train and employ local residents from villages proximate to sites targeted for project intervention (e.g. sites targeted for restoration/rehabilitation of degraded forests and pasture; sites targeted for sustainable pasture and forest management; sites targeted for community ranger corps; sites targeted as demonstration sites for alternative energy and fuel technologies; etc.).

(vi) Formal structures to facilitate stakeholder involvement in project activities

The project will also actively seek to establish formalized structures to ensure the ongoing participation of local and institutional stakeholders in project activities. More specifically it will support the establishment of local Pasture User Unions, Participatory Forest Management committees and Park Management committees as an institutional mechanism to improve the communication, collaboration and cooperation between tenure holders, rights holders, natural resource users and the relevant national, regional and local administrations.

(vii) Capacity building

All project activities are strategically focused on building the capacity - at the systemic, institutional and individual level - in order to ensure sustainability of initial project investments. Significant GEF resources are directed at building the capacities of *inter alia*: forestry *leskhoz*; district-based CEP offices; Pasture Trust; local pasture and forest tenure and rights holders; community-based conservancies; jamoat and hukumat planning enforcement staff; PUU and PFM committee members; snow leopard and prey researchers; and SPNA staff. Wherever possible, the project will also seek to build the capacity of local communities (e.g. local community groups and vulnerable and marginalized segments) to enable them to actively participate in project activities. The project will, wherever possible, use the services and facilities of existing local training and skills development institutions.

#### 4. *Coordination with other related initiatives*

This project is complementary to the regional (Kazakhstan, Kyrgyz Republic, Tajikistan and Uzbekistan) UNDP-GEF medium-sized project Transboundary Cooperation for Snow Leopard and Ecosystem Conservation. The implementation phase of the regional project (2015-2018) will overlap with the implementation phase of this project (2016-2020). This project will thus seek to adopt and operationalise, at the national level, the relevant tools and guidelines that will be developed under the regional project. The

GSLEP Focal Point for Tajikistan will be represented on the Project Board of both the regional project and this project's Steering Committee (SC) in order to strengthen the strategic linkages between the projects. The Project Manager of this project will also maintain a close working relationship with the Project Technical Committee (PTC) of the regional project in order to enhance the operational linkages between the projects. The implementation of Component 3 (Outputs 3.1 and 3.2) of this project will, in particular, benefit significantly from the effective coordination of efforts, and sharing of knowledge between the projects.

The project will meet on a regular basis with the project staff of GIZ involved in complementary donor-funded sustainable forest management and pasture co-management initiatives in Tajikistan, in order to identify and develop opportunities for ongoing collaboration. The project will specifically seek to build on the substantial foundational work already undertaken by GIZ (and other partners) in setting up and maintaining PFM Committees, community-based conservancies and Pasture User Unions across the country. To further strengthen the cooperative relationship with GIZ, it is also envisaged that GIZ will be represented on the project Steering Committee (SC).

The Project Management Unit (PMU) of this project will work closely with the World Bank and Asian Development Bank to, wherever practicable, align the Banks' initiatives and the project activities in order to ensure optimal benefits from efforts to improve the country's climate resilience capacity and improve its capacity to adapt to the effects of climate change. A particular focus of this alignment of efforts will be on harmonising the financial and technical support (technical and financial) provided to rural communities in: implementing more sustainable pasture management practices in high altitude grasslands; improving the management and sustainable use of high forests; and adopting more environmentally-friendly fuel and energy technologies.

The grant and technical funding support under Output 2.1 and 2.2 of the project will be subsumed under the UNDP Communities Programme (CP) portfolio for Tajikistan. The grant and technical funding support to targeted rural pasture and forest users under the project will then be implemented directly by the UNDP Country Office (UNDP CO) to ensure that it fully complements the seven other projects currently under active implementation within the UNDP CP portfolio (representing an investment of US\$23.2 million for the period 2014-2017).

The project will seek to develop collaborative agreements with key NGO partners (notably Panthera) and international research institutions to support the implementation of selected project activities (e.g. snow leopard and prey surveys and monitoring, specialised training, public awareness-raising, forest and grassland restoration planning, smart patrol system development, etc.). The project will, within the framework of these collaborative agreement/s, then assist in reimbursing the costs of NGOs and academic institutions in the direct implementation of activities that fall directly within the ambit of the project outputs. To further strengthen the cooperative relationship with NGOs, it is also envisaged that Panthera will be represented on the project Steering Committee (SC).

The project will, if considered feasible by the Government of Tajikistan, support the establishment and administration of the National Environment Security Task Force (NEST), as envisaged by the Regional Enforcement Strategy to Combat Illegal Wildlife Trade in Central Asia. If established, this NEST will then nationally address and combat wildlife crime through a more coordinated, collaborative and strategic response. The PMU may also, during the project implementation phase, later facilitate linkages with the envisioned regional Snow Leopard and Wildlife Enforcement Network (SLAWEN) once it has been established.

The project will integrate the snow leopard monitoring and reporting system and snow leopard information management system into the broader Environmental Information Management and Monitoring System in Tajikistan currently being developed by the UNDP-GEF medium-sized project Strengthening Capacity for an Environmental Information Management and Monitoring System in Tajikistan (2014-2017).



## PART IV: Letters of co-financing commitment

<i>Name of Co-financier</i>	<i>Date</i>	<i>Amounts mentioned in letters</i>	<i>Amounts considered as project co-financing (in USD)</i>
The Committee of Environmental Protection	4 November, 2015	Two million three hundred thousand USD	2,300,000
State Institution for Specially Protected Nature Areas (Forestry Agency)	2 November, 2015	Two million USD	2,000,000
Ministry of Economic Development and Trade	3 December, 2015	Three million USD	3,000,000
National Biodiversity and Biosafety Centre	4 December, 2015	Two million, seven hundred thousand USD	2,700,000
United Nations Development Programme	4 December, 2015	Six million, four hundred and ten thousand USD	6,410,000
Dashtijum jamoat	16 November, 2015	Three hundred thousand USD	300,000
Sarikhosor jamoat	17 November, 2015	Three hundred thousand USD	300,000
Sangvor jamoat	19 November, 2015	Four hundred thousand USD	400,000
Langardara jamoat	21 November, 2015	Two hundred thousand USD	200,000
Micro-Loan Fund <i>ImdodiKhutal</i>	18 November, 2015	Three hundred thousand USD	300,000
Micro-Loan Fund <i>Faizi Surkhob</i>	Undated	One million two hundred thousand USD	1,200,000
Panthera	7 December, 2015	Five hundred thousand USD	500,000
<b>Total</b>			<b>19,610,000</b>

Notes:

## **PART V: GEF-UNDP Scorecards**

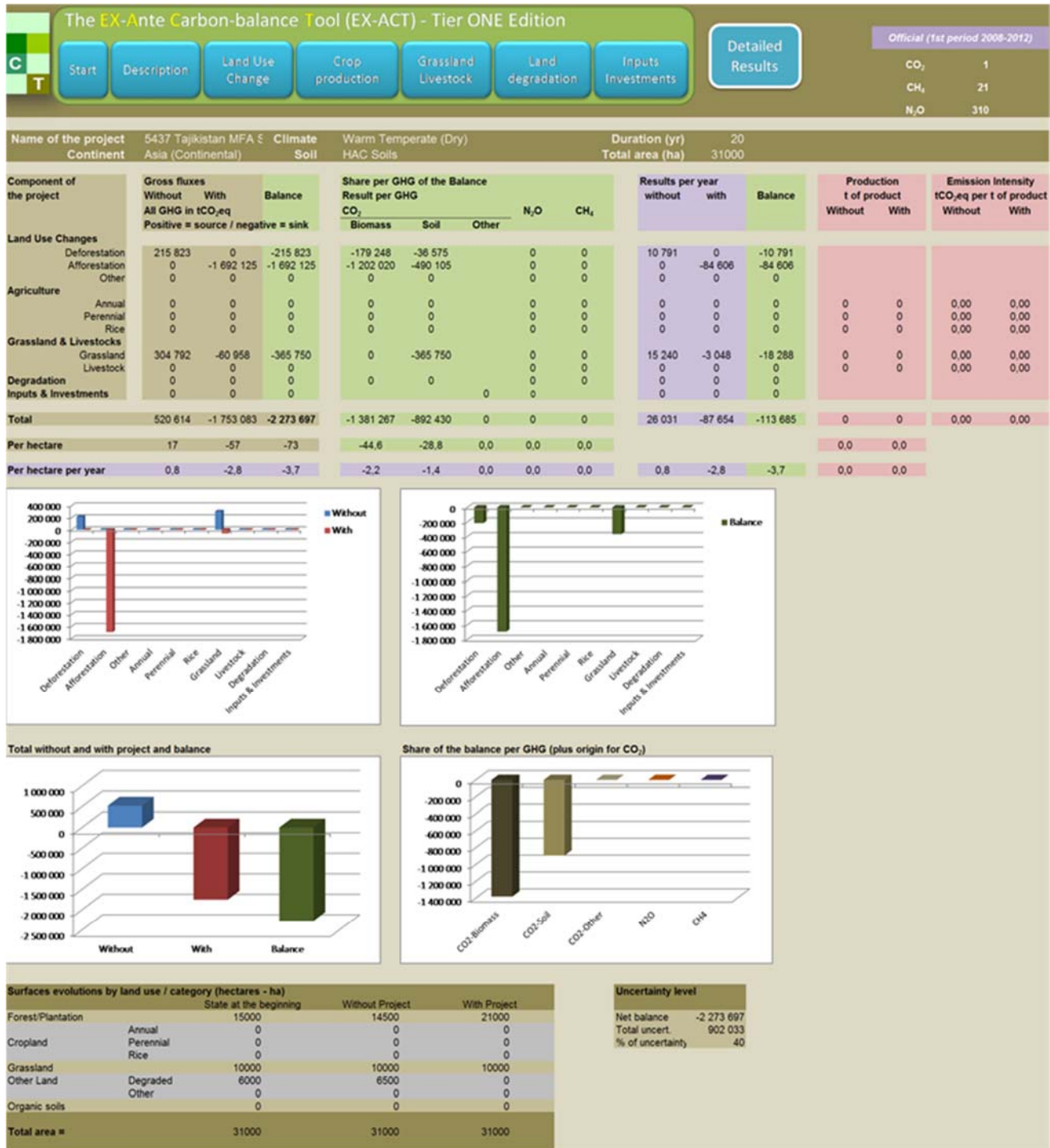
*[Refer to separate files for individual scorecards]*

<i>Scorecard</i>
1. Land Degradation Focal Area - Portfolio Monitoring and Tracking Tool (PMAT) for GEF 6 Projects
2. Biodiversity Focal Area – BD Tracking Tool (Programs 1 and 2) for GEF 6 Projects
3. Biodiversity Focal Area – BD Tracking Tool (Programs 3-10) for GEF 6 Projects
4. Sustainable Forest Management Focal Area – SFM Tracking Tool for GEF 6 Projects

## **PART VI: Technical Reports and Information**

*[for individual reports]*

1. Profile of the socio-economic status of the project planning domain *[Refer to separate file]*
2. EX-ACT Tier ONE calculation of carbon benefits *[Refer to separate file – results table shown below]*





## **SIGNATURE PAGE**

**Country: Tajikistan**

**(To be completed after GEF CEO Endorsement)**

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