

## PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: FULL-SIZED PROJECT TYPE OF TRUST FUND: GEF TRUST FUND

## **PART I: ROJECT IDENTIFICATION**

Project Title:	Network of Managed Resource Prot	Network of Managed Resource Protected Areas					
Country(ies):	Mongolia	GEF Project ID:	TBD				
GEF Agency(ies):	UNDP	GEF Agency Project ID:	4393				
Other Executing Partner(s):	Ministry of Nature, Environment and Tourism (MNET)	Submission Date:	June 16, 2011				
GEF Focal Area (s):	Biodiversity	Project Duration:	60 months				
Name of parent program: For SFM/REDD+	N/A	Agency Fee:	\$ 130,909				

### A. FOCAL AREA STRATEGY FRAMEWORK:

Focal	FA Outcomes	FA Outputs	Indicative	Indicative co-
Area			financing from	financing, (\$)
Objectives			relevant TF, (\$)	
BD-1	Outcome 1.1 Improved management effectiveness of existing and new protected areas	Output 1.1 New protected areas (number) and coverage (hectares) of unprotected ecosystems  Output 1.2 New protected areas (number) and coverage (hectares) of unprotected threatened species (number)	660,480 534,091	1,340,700 1,129,800
Project manage	ement cost		114,520	229,500
Total project	costs		1,309,091	2,700,000

## **B.** Project Framework

**Project Objective**: Catalysing the strategic expansion of Mongolia's PA system through establishment of a network of Managed Resource Protected Areas in under-represented terrestrial ecosystems, catering for the dual objectives of biodiversity conservation and livelihood enhancement.

Project Component	Grant type	Expecte	ed Outco	mes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative co- financing (\$)
1.Establishment of new PA category for strategic PA expansion	TA INV	High Mountain Steppe	baseline of increased lancing following ats currentle	f 26.2 PA globally y under-	<ul> <li>Legal framework developed to establish Managed Resource Protected Area (IUCN Category IV &amp; VI) with formal management standard and performance M&amp;E mechanisms.</li> <li>Legal framework revised to strengthen community based natural resource management (CBNRM), providing for community's user rights of natural resources, and providing clear provisions for co-management of natural resources and PAs.</li> <li>New guidelines developed on PA gazetting process and co-management</li> <li>PAs gazetted through participatory</li> </ul>	GEF TF	215,571	520,500

	Meadow 7.62	0.41	boundary and zone demarcation and			
		8.41	registered as permanent PA, based on			
	Moderate dry 5.39	5.71	thorough baseline studies and inventories			
	Dry Steppe 4.24	4.41	carried out to facilitate boundary			
	Desert Steppe 6.56	6.59	determination and zoning, including			
	Closed 9.03	9.03	biodiversity values, socio-economic and			
	Depression,		cultural reference data obtained for sites.			
	salt banks					
	Evidence for effectiven	ess of co-				
	management generated	to catalyse				
	global conservation fin	ince.				
2. TA	Decentralised regional	PA	■ Joint PA governance and management			
Emplacement	governance framework		structure in place, with clear rules, roles and			
of institutional	community and local g		responsibilities for site co-management			
capacity and	(soum and aimag <sup>1</sup> ) esta		agreed by all partners			
resource base	demonstration sites: (i)		<ul> <li>PA management plan and zonation in place,</li> </ul>			
development	PA (126,772 ha); (ii) K		and monitoring system instituted to assess			
to ensure sustainability	Munkhairkhan and My PA corridors (130,000		pressure, state and response.			
of Managed	Khovsgol Tengis River		<ul> <li>Sustainable use management system</li> </ul>			
Resource PAs	ha); (iv) Khavtgar Loca		established for pasture and other resources			
	ha).	( 11,111	that are used or harvested by local			
			communities in designated zones, with			
	Increase in PA manage		resource inventories, plans, enforcement and monitoring system			
	effectiveness of the fou					
	indicated by METT sco	res	<ul> <li>Business Plan developed for PAs, quantifying costs and non-state revenue</li> </ul>			
	Policing and enforcement	nt of laws and	options for each site			
	regulations for biodiver		_	CEPTE	070.000	1.040.050
	conservation results in		Aimag and soum development planning system incorporates PA management	GEFTF	979,000	1,949,950
	threats to biodiversity i		objectives and ensures that local area			
	(i) No net natural habit		development programmes are conservation-			
	containment of grazing		compatible and PA contributes to economic			
	forest encroachment an		development			
	timber harvesting; hum		<ul> <li>Basic PA infrastructure established,</li> </ul>			
	fires, wetlands drainage artisanal mining (ii) thr		including administrative offices,			
	species populations (m		communication network and park signs,			
	leopard and taimen fish		trails and visitor information facilities.			
	containment of illegal l		<ul> <li>Public private partnerships in place,</li> </ul>			
	trade of threatened wild		complementing the public investment in the			
	overharvest of biologic		PAs and ensuring financial sustainability of			
			the PAs			
	Demonstration of publi	private				
	partnerships to ensure f sustainability of the PA					
	sustamability of the PA					
Sub-total					1,194,571	2,470,500
Project management c	ost			GEFTF	, ,	229,500
Total project costs					1,309,091	2,700,000

## C. Indicative Co-financing FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)

			<del>, (+,</del>
National Government	MNET	Grant	1,400,000
GEF Agency	UNDP	Grant	1,300,000
<b>Total Co-financing</b>			2,700,000

<sup>&</sup>lt;sup>1</sup> Mongolia has three-tier governance structure; i.e. national government, *aimag* governments and *soum* governments. *Aimags* are equivalent of province, while *soums* are equivalent of districts. A typical soum would consist of settlements made up of a few hundred families.

D. GEF RESOURCES REQUESTED BY AGENCY, FOCAL AREAS AND COUNTRY - N/A

Total GEF Resources					

#### A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

#### A.1.1 THE GEF FOCAL AREA STRATEGIES:

1. This Project is aligned with the first GEF Strategic *Objective 1 – Improve Sustainability of Protected Area Systems*, in particular to *Outcome 1.1 – Improved management effectiveness of existing and new protected areas*. The Project focuses on integrating Managed Resource Protected Areas (PAs) into the PA system as a new category, as well as strengthening capacity for the co-management of PAs by government- private sector- NGO-community partnerships, thus overcoming barriers to PA system expansion. This will allow for an expansion of the PA system by 3.9 million ha, to include additional terrestrial ecosystems, such as steppes and forest, that are currently under-represented within the PA network. The new PAs will also provide increased protection to a number of threatened species including musk deer, snow leopard and taimen fish. The Project directly contributes to the goals of Programme of Work on Protected Areas (PoWPA) in particular: Goal 1.4: To substantially improve site-based protected area planning and management; Goal 2.1: To promote equity and benefit-sharing; and Goal 2.2: To enhance and secure involvement of indigenous and local communities and relevant stakeholders.

### A.2. NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSMENTS UNDER RELEVANT CONVENTIONS

2. Conservation, sustainable use of natural resources and environmental protection are important priorities for the Mongolian Government. Mongolia's National Development Strategy (2007-21) aims, among other things, to "improve natural resource management at the national and local levels through strengthening the regulatory framework for mineral resource utilisation and environment protection, providing law enforcement, introducing economic tools and incentives, creating self financing mechanisms and upgrading cross sector coordination." Mongolia is a signatory to the CBD and all other major environmental conventions. According to the Mongolian constitution, signed international conventions supersede national legislation and therefore the CBD principles are official guiding principles for all legislation and policy documents. The first objective of the Country's National Biodiversity Action Plan is to 'Establish a complete protected area system representative of all ecosystems and protecting endangered species.' The first Action is to 'Complete planning, including boundaries consistent with biodiversity conservation goals for selected protected areas', the second is to 'continue evaluation of protected area system needs and submit proposals to parliament'. The National Programme on PAs outlines a strategy to extend the PA system to cover 30% of the country's territory by 2030, which is also a major goal of the Mongolian Millennium Development Goals (1000-2015) and MDG-based Comprehensive National Development Strategy (2008). The National Master plan for Land Use (2003) lists 75 proposed new PAs. Mongolia's 4th National Biodiversity report stresses the need to 'Reduce habitat fragmentation and protect buffer zones and migratory corridors.'

#### A. PROJECT OVERVIEW

### **B.1. DESCRIBE THE BASELINE PROJECT AND THE PROBLEMS THAT IT SEEKS TO ADDRESS:**

3. Mongolia is increasingly becoming the last refuge for many endangered species in the Central and Eastern Asian region. Populations of species once common in the region, such as the Wild Ass, Bactrian Camel, Snow Leopard and Saiga Antelope, have declined rapidly over the past 20 years as a result of habitat loss, uncontrolled hunting and other factors. Mongolia remains a major storehouse of this biodiversity. This is reflected by the large number of officially designated globally important biodiversity areas, including two WWF Global 200 Ecoregions (Altai Sayan and Daurian Steppe) and 70 Important Bird Areas (IBAs). The species endowment includes 136 species of mammals, 436 bird species, eight amphibian species, over 76 fish species and 22 reptile species. The flora includes over 3,000 species of vascular plants, 927 lichens, 437 mosses, 875 fungi, and numerous algae (including 150 endemic and nearly 100 relict species). The faunal inventory includes significant global populations of critically endangered species such as the Mongolian Saiga antelope (Saiga borealis) (100% of global population), the Bactrian camel (Camelus bactrianus) (approximately 37%), and the reintroduced Przewalski's horse (Equus ferus przewalskii) (95%); as well as some globally endangered species like the snow leopard (Uncia uncia) (approximately 12%) and the White Naped Crane (Grus Vipio) (+-50%). In total, Mongolia's known globally threatened species include 3 critically endangered species, 9 endangered species and 27 vulnerable species.

- 4. The country's valuable biodiversity faces rapidly growing pressures and the country has experienced severe biodiversity loss in the past 20 years, though this has not resulted in large scale extinctions as has been the case in neighbouring countries. After the fall of Communism in 1990, in the transition from a centrally planned economy to a market oriented governing model, economic sectors like mining and livestock expanded drastically and have caused severe stress on the country's natural resources. The turbulent time of economic transition characterised by social unrest and confusion, weakened the government's enforcement mechanisms and government control over illegal activities. New large scale infrastructure projects to create roads, railways and mining sites, have fragmented previously extensive habitat areas. Privatisation of livestock increased livestock numbers to some 33 million<sup>2</sup>, which is around 8 million above the environment's carrying capacity, placing severe pressure on water and pasture resources, as well as on biodiversity.
- 5. A number of progressive measures were taken to protect Mongolia's environment and biodiversity. Many international conventions were signed and ratified, and over 30 environmental laws passed. In 1994 the Law on Special Protected Areas was promulgated. It provides for four categories of PAs which are to be managed for conservation of biodiversity and other values: Strictly Protected Areas<sup>3</sup>; National Parks<sup>4</sup>; Nature Reserves<sup>5</sup>; and National Monuments.<sup>6</sup> To date, 73 PAs have been established. Although the national PA system covers an area of 26.2 million ha or 17% of the land surface, they are not fully representatives of all the ecosystems occurring in the country. The national PAs are mainly managed by the Protected Area Administration (PAA) Department under MNET, through its 24 regional PAA offices, the exception being 13 nature reserves and national monuments that are managed by local governments.
- In addition to the National PA system, there is also a Local PA system. Article 28 of the Law on Special Protected Areas empowers Citizens' Representative at *Aimag* and *Soum* levels to designate Local PAs and their management arrangements. To date, approximately 1,000 Local PAs have been established, covering over 10% of the national territory. Local PAs range in size from less than 1 ha to nearly 1 million ha. Only around 40 Local PAs are greater than 100,000 ha in area but these account for over half of the total area of the Local PA system. Such Local PAs may have been established for reasons other than their biological diversity, such as preventing mining operations from occurring in the area. These areas have few management activities, and few, if any, receive the financial or human resources necessary to achieve conservation objectives. They are also largely inhabited areas. Although some local PAs cover critically underrepresented ecosystems and habitats, these Local PAs are not officially considered as a part of the National PA system. Opportunities exist to operationalise these PAs, through up scaling them as a new type of PA, which is co-managed by local authorities, communities and other stakeholders such as the private sector, with the explicit dual objectives of biodiversity conservation and livelihood enhancement.
- 7. The Government recognises that CBNRM is essential for sustainable use of limited resources in the post-communism era in a large and sparsely populated country like Mongolia, and there have been growing efforts in promoting community based natural resource management (CBNRM). The Forestry Law (2007) and Environment Protection law (1995) provide for the possibility of establishing community managed areas, in order to ensure sustainable management of natural resources. Over 600 such community managed areas were established, covering in excess of 2.5 million ha (1.6% of the territory), with a formalised community management structure and agreements with local authorities. However, the legal framework lacks biodiversity conservation considerations and only grants limited and ambiguous user rights to the communities, such as collection of fruits, dead trees and fallen branches. There is no provision for sharing benefits from natural resources, such as pasture, water, as well as from hunting and mining activities in the community areas. As with the local PAs, there is an unmet potential for the CBNRM to work more effectively for both community livelihoods and biodiversity conservation.

<sup>2</sup> Before the Dzud (extremely harsh and long winter) disaster in 2010, the livestock number in Mongolia stood 44 million. The disaster killed over 10 million head of livestock, leaving thousands of herders with no livestock.

<sup>3</sup> Equivalent to IUCN categories Ia and Ib. Applied to ecologically important pristine wilderness areas with 'particular importance for science and human civilization. Mining is explicitly prohibited in all the three zones (pristine, protected and limited use zones). Buffer Zones are required. In the limited use zone, tourism, traditional religious activities, and some plant gathering are permitted.

<sup>&</sup>lt;sup>4</sup> Equivalent to IUCN categories II. Applied to wilderness areas with historical, cultural, or environmental educational value. Mining is explicitly prohibited in all the three zones (core, ecotourism and limited use zones). In the limited use zone, the above activities, as well as grazing and construction are allowed upon permission.

<sup>&</sup>lt;sup>5</sup> Equivalent to IUCN category III. There are four types of Nature Reserves: 1) Ecosystem – protecting natural areas; 2) Biological – conserving rare species; 3) Paleontological – conserving fossil areas, and 4) Geological – area of geological importance. Some economic activities are allowed as long as it does not harm values for which the Nature Reserve was established, but mining is prohibited.

<sup>&</sup>lt;sup>6</sup> IUCN categories III. Applied to protect unique landscapes, historical and cultural sites for research, and for sightseeing purposes. Many uses are allowed as long as they do not adversely affect the monument. Mining is explicitly prohibited.

- Threats: Despite the country's small population (circa 2.8 million in a land area of 1.564 million km<sup>2</sup>), the traditionally nomadic population is scattered all over the country. As much as 80% of Mongolia's landscape is grazed and Mongolia's biodiversity faces multiple threats. The most important factors affecting biodiversity decline are: (1) overexploitation of natural resources - through overgrazing, illegal hunting, poaching and illegal logging. Uncontrolled sports hunting has decimated populations of several species once very common, like the Siberian marmot, red deer, argali and saiga antelope, and the existence of wild reindeer is no longer certain in Mongolia. Overgrazing is the main cause for land degradation and around 70% of Mongolia's land is considered degraded, which in turn leads to increasing grazing pressure in PAs and other biodiversity hotspots, and a general decrease of food and water supply for wildlife, as well as decreased plant diversity; (2) habitat loss and fragmentation - Land degradation causes grazing areas to expand into core wildlife habitats. The country is planning an extensive network of paved roads and railways to connect major mining sites to export markets, in particular in the Eastern Steppe. Recent construction of hydropower dams has reduced water levels and acts as a barrier for migrating fish. Urban expansion takes place even in Strictly Protected Areas (especially south of Ulaanbaatar); (3) pollution from large and small scale mining, industries and major settlements, impacts water quality and spills of toxic materials are an increasingly common phenomenon; and (4) climate change – Climate models for Mongolia predict glaciers to melt, deserts to expand and increases in the frequency of Dzud disasters. The country's high poverty prevalence is an important underlying cause for many of these threats. Limited alternative income opportunities and benefit sharing are all major challenges to changing resource use patterns to less harmful ways.
- 9. Baseline: The Government of Mongolia allocates an annual budget of US\$ 2.1 million in the planning and management of the PA system, through a budget allocation to the PAA within the MNET<sup>7</sup>. The MNET also invests US\$ 480,000 per year in tourism promotion and US\$ 1.19 million on various conservation programmes through the Nature Conservation Fund, which is capitalised by ecotourism and hunting license fees. US\$ 720,000 per year is allocated for a programme to combat desertification, and US\$ 4 million in forestry management. The National Programme on Protected Areas was developed and approved by the Parliament in 1998 with the main objectives of expanding the PA estates in Mongolia to 30% of its total territory. The Programme provides 10 key elements for its implementation, including the establishment of the necessary legal framework, adequate governance structure, PA management capacity, public participation and funding and infrastructure. As part of the programme, a number of major initiatives have taken place. In the last five years, with support from bilateral donors, the MNET submitted nine new PA proposals to the Parliament, all of which were approved. With funding from the GEF PA Early Action Project, the Government conducted a PA gap analysis in 2010, identifying 34 priority areas for biodiversity conservation and vegetation types that are under-represented within the current PA system. Recognising the underfunding of the PA system, the Government is also working towards dramatically increasing its investment in the PA system to adequately finance the existing and expanded PA system. The government is planning to articulate the economic importance of the PA system, understand actual financial needs for the PA system management, and is exploring establishment of new financing streams, which could include introduction of a tourist arrival tax and a tourism concession system.
- 10. The government is also investing in improving the management effectiveness of the existing PAs, with support from various partners including the UNDP/GEF supported Strengthening the Protected Area Network (SPAN) Project.
- 11. The MNET has also been investing in developing community capacity to sustainably manage natural resources, including community based pasture and forest management. In 2009, MNET adopted a regulation that makes it mandatory for local government to support communities that are interested in setting up community managed areas under the Forestry Law and the Environmental Protection Law. The possible duration of resource management agreement between local governments and community groups was extended from 5 to 10 years, providing a greater incentive for CBNRM.
- 12. A WCS/USAID funded project in the Eastern Steppes (US\$ 1 million, 2009-14) promotes a landscape based conservation approach, focusing on conservation of selected landscape species. The project supports an integrated approach to biodiversity conservation. WWF is active in conservation of the Saiga Antelope (US\$ 600,000), improving management of Onon Balj National Park and community based conservation in the Altai Sayan region (200,000 euro). GIZ supports PA management in the Khangai and Khentii Mountains, including locally protected areas. In recent years much progress has been made to regulate sports hunting to reduce its threats to biodiversity. MNET, in collaboration with UNDP and other partners, has been working on a regulatory system where hunting quota are being established based on local priorities/research. Previously, hunting licenses were often given without consideration for local species population levels. The hunting law was amended in 2010 to provide for the right of communities to receive benefits from utilisation of game from the community area, however implementation has not yet started. MNET, in collaboration with UNDP, is

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 $<sup>^{7}</sup>$  The total annual budget of the MNET in 2011 is US\$ 35 million. (Rate: US\$ 1 = 1,250 Tughrik)

planning to start an ecosystem based adaptation project (US\$ 5.5 million) later in 2011, focusing on increasing ecosystem resilience to maintain water provisioning services. The project will target two large landscapes in the Altai Mountains and Great Lakes Basin and Eastern Steppe, and involves realignment of the PA systems based on resilience principles.

**Long-term vision and barriers to achieving it:** In order to safeguard the country's biodiversity, the government is investing resources to increase the management effectiveness of the existing national PA system including to secure its financial sustainability. It is, however, also critical to improve ecosystem representation within the national PA system. Currently, there is a strong government will to expand the PA system. The need for PA expansion is urgent, and deferment of action will risk foreclosure of the existing expansion opportunities because of growing interests for land and other resources from various economic sectors. However, the areas where new PAs can be established are inhabited by livestock herders. There is little possibility for expanding the PA system without taking into account peoples' rights for grazing and their livelihood needs. In addition, given that the lack of adequate formal sustainable use mechanisms is considered as a major cause for illegal use of natural resources and overexploitation, a solution must be found to remedy the situation at the same time. Therefore, the long-term solution this project proposes is to bring about a paradigm shift in traditional PA management in Mongolia, introducing a new PA category, equivalent of IUCN categories IV<sup>8</sup> and VI.<sup>9</sup> which respectively cater for active management of natural resources, and for sustainable use of natural resources as a means to achieve nature conservation. For this, the project will support the establishment of a sub-network of Managed Resource PAs that will be actively managed, explicitly allowing biodiversity conservation objectives to be pursued within an expanded PA system, while catering for local production as needed to sustain rural community livelihoods. Based on global lessons, the Managed Resource PAs are expected to be managed in collaboration with communities, following comanagement principles <sup>10</sup>; i.e. the PAs will aim to achieve biodiversity conservation objectives through active collaborative PA management actions by communities and local governments. There are, however, two main barriers to achieving this solution:

## (I) PA Coverage: Key species and habitats are underrepresented in the protected area system

- 14. The 2010 Gap assessment on biodiversity representation concluded that 7 out of the 19 ecosystems, in particular steppes, are still heavily underrepresented in the PA system (see Annex II). PAs do not yet cover the adequate areas of key habitats of some critically endangered species. The snow leopard, Mongolian saiga and several bird species, are under limited intensive protection. In order to fill in the gap, the Government of Mongolia sets to expand the PA system by up to 30% of the country's territory. However, the reason for underrepresentation of steppe ecosystems is obvious. They overlap with areas populated by herders, and a solution must be found to integrate formal protection with the livelihood needs of Mongolia's rural population, of which 46% still lives below the poverty line, despite the recent mining boom and rapidly increasing GDP.
- 15. Moreover, the government efforts to expand the PA system have stalled recently. Rapid expansion of the mining sector caused designation of over 30% of the country's territory for mining exploration or excavation. Overstocking around the country has also made it difficult o set up new PAs. At the same time, poverty remains prevalent and it is commonly perceived that further PA expansion could hamper poverty reduction efforts. While effort is on-going to foster an accurate understanding of the value of the PA system, there is a need for developing a new category of PAs, which explicitly and directly cater for securing peoples' livelihood, to increase the probability of the national PA system consolidation as well as to ensure that PAs contribute to national and local development.
- 16. The Law on Special Protected Area provides only four categories, with no provision for PAs that promotes active resource management or sustainable use of natural resources, in line with IUCN Categories IV and VI. Although grazing is permitted in limited use zones of existing PA categories, the provision is vague and has no guidelines for a proper system of pasture management, resulting in overgrazing and undermining of PA objectives. The PA residents do not have

8 Category IV (Habitat Species Management Area) PAs aim to protect particular species or habitats through regular, active interventions.

9 Category VI (PAs with sustainable use of resources) PAs "aim to conserve ecosystems and habitats, together with associated cultural values and natural

<sup>9</sup> Category V1 (PAs with sustainable use of resources) PAs "aim to conserve ecosystems and habitats, together with associated cultural values and natural resource management systems."

10 Co-management is essentially where the authority responsible for the management of a PA involves other entities such as communities and private businesses

in the management of the PAs in some form or other, in order to link parks to larger landscape management to increase effectiveness of biodiversity conservation, and to ensure good governance, social justice and equity. In this document, the term co-management is used to essentially mean "joint management" where the PA authority shares management decision-making with other stakeholders. In such an arrangement, entities such as communities can be a joint management partner, and share management authority and responsibility in their best interest without compromising biodiversity conservation objectives.

any formal right to use or benefit from non-pasture natural resources within the PAs. This, coupled with the small number of staff and limited budget of PA authority inhibit adequate management of different PA zones including patrol activities, makes the residents more prone to illegal use and over exploitation of the resources. The MNET is trying to promote participation of communities in PA management, however this requires a particular set of capacities and skills. A more significant mindset change is necessary to firmly embed co-management as a viable governance structure for PAs, in particular for the new PAs. This is to fundamentally reconcile the existing conflicting situation between the biodiversity conservation objectives and sustainable development of communities within and around the PAs. For this, a legal framework for the new type of PAs and co-management modality needs to be developed, with associated standards and gazetting process, with the full participation of local stakeholders.

17. Additionally the government has been trying to promote community based natural resource management in the light of decentralization. The current legal framework only provides for highly limited natural resource user rights, such as harvesting of dead wood, collecting fruits and nuts, and organizing community based tourism activities. In order for developing communities' capacity for sustainable natural resource management and biodiversity conservation, thereby meaningfully participate in the co-management arrangements for Managed Resource PAs, it would be essential to make sure that there is an enabling legislative environment providing clear consumptive and non-consumptive resource user rights and accompanied responsibilities so as to increase the utilitarian incentives to communities for conservation.

## (II) Insufficient institutional capacity and resources for sustainable management of Managed Resource PAs

- 18. With decentralisation, the local authorities are entrusted with the responsibilities for natural resources management. However, there is insufficient capacity for integrating the current PA system and priority areas for consolidation in the aimag and soums' development planning system. This often leads to inappropriate siting of infrastructure or granting of mining concessions. The capacity limitation is particularly acute when it comes to local PAs, with no management framework nor budget. Despite the fact that some of the local PAs would be able to fill the identified gaps in PA coverage, the local authorities have insufficient awareness and capacity to ensure that their PAs fulfil its potential biodiversity conservation roles. Given the current limitation in financing and institutional capacity of the national government to manage PAs, a new model of PA governance and financing need to be developed.
- As Managed Resource PAs will need to cater for production aims in addition to conservation, systems for ensuring the sustainable utilisation of natural resources by local communities need to be put in place, monitored and adapted to ensure a shift from unsustainable to sustainable utilisation of wild resources. A strong governance and management structure needs to be emplaced with roles and responsibilities of each co-management partners well defined. However, responsibilities of different tiers of the government (aimag and soum) and communities remain weakly defined and systems to ensure accountability for delegated functions are lacking. In addition, some new PAs straddle multiple soums and even aimags. Thus there is an additional need to strengthen capacities for cooperation between institutions operating in each tier of governance. This will require the development of site management plans, delineating the roles and responsibilities of all institutions including communities, and joint management boards for individual sites.
- 20. Consumptive and non-consumptive natural resource use rights will need to be vested in user groups to provide an incentive for improved resource management. Although a large number of community managed areas have been established, this lack of clear rights has been a hindering factor in effective management of such areas, resulting in some areas merely being used for separating grazing areas between communities. Some of these areas would also fill the PA coverage gaps, and for this there is a need to articulate biodiversity conservation objectives in the objectives and management systems of the community managed areas that harbor significant biodiversity.
- Additionally, there is a weak financial resource base for PA management, in particular for sustainable management of the new PAs including Managed Resource PAs. Although there are opportunities for securing private sector finance (i.e. business concessions and biodiversity offsets), the country has yet to adequately explore such opportunities. Opportunities exist in the nature tourism sector and in the extractive industry sector. The tourism sector contributes around US\$ 300 million (or 18%) to the GDP and is growing—largely based on the natural and cultural attractions the country offers. The mining sector is also experiencing unprecedented growth. The country is currently the focus of a major prospecting and mining effort for minerals. Multinational companies engaged in this effort have expressed an interest in offsetting impacts, driven by risk management fundamentals (limitation of environmental liabilities, reputational risk and market access). Examples of local communities that have been able to set up agreements with private sector entities are few. There is no overarching support structure in place for community managed areas (and future Managed Resource PAs) to interact with government at the higher level or with large corporations.

- .B. 2. <u>incremental /Additional cost reasoning</u>: DESCRIBE THE INCREMENTAL (GEF TRUST FUND) OR ADDITIONAL (LDCF/SCCF)
  ACTIVITIES REQUESTED FOR GEF/LDCF/SCCF FINANCING AND THE ASSOCIATED <u>global environmental benefits</u> (GEF TRUST FUND) OR
  ASSOCIATED ADAPTATION BENEFITS (LDCF/SCCF) TO BE DELIVERED BY THE PROJECT:
- 22. The **objective** of the proposed project is to catalyse the strategic expansion of Mongolia's PA system through establishment of a network of Managed Resource PAs in under-represented terrestrial ecosystems, catering for the dual objectives of biodiversity conservation and livelihood enhancement. The project will demonstrate that co-management of PAs and a participatory approach that involves local communities in decision making can lead to better conservation and sustainable livelihood outcomes of PAs in the Mongolian context. By bringing in new thinking to PA management in Mongolia, the project aims to cultivate broader support for the national PA system and catalyse PA expansion in the country.

## Component 1: Establishment of new PA category for strategic PA expansion

- 23. Under this component, a legal framework will be developed to establish Managed Resource PAs, in order to open a new avenue for strategic expansion of the national PA system. Four new PAs with a total area of 466,772 hectares will be gazetted, to strategically fill the current gaps in PA coverage, as Managed Resource PAs with clear boundary and baseline inventories. With the inclusion of the new category within the national PA system, it is expected that the project will catalyse the establishment of many other PAs, contributing significantly to the government's PA expansion plan.
- 24. In order to achieve this, this component will support the MNET to revise the PA legislation to include the Managed Resource PA category, Managed Resource PAs promote sustainable use of natural resources, considering ecological, economic and social dimensions. It promotes social and economic benefits to local communities, simultaneously pursuing biodiversity conservation objectives. In the Managed Resource PAs, it is expected that cultural approaches and beliefs, and traditional resource management practices are actively used to facilitate conservation activities. Some PAs may be established with a specific purpose of protecting habitats of certain species through active management actions. Many of the Managed Resource PAs are envisaged to be co-managed by local government, communities and, where appropriate, with private sector participation. Such PAs will be governed by a joint management board, and managed by different actors based on clear agreements that specify roles and responsibilities, as well as rights and benefit sharing mechanisms. Activities will be planned drawing upon global experiences in co-management of biological resources and PAs. Key issues such as local peoples' rights to land and resource use, benefit and power sharing in co-management within and between different actors, as well as the need for clear conflict resolution mechanisms will be fully taken into consideration in developing guidelines for PA gazetting and co-management. The legal framework for promoting community based natural resource management will also be strengthened to provide for community's user rights of natural resources and to include biodiversity conservation and issues of co-management of PAs.

# Component 2: Emplacement of institutional capacity and resource base development to ensure sustainability of Managed Resource PAs

25. The project will provide targeted support to up to four out of the 34 identified priority sites for new PA establishment, which will be gazetted as Managed Resource PAs, to provide models for sustainable Managed Resource PA management. The four sites are preliminarily selected based on criteria including biodiversity/ecosystem significance, intensity of threats, existing efforts for co-management of natural resources. These are: (1) Gulzat Local PA (126,772 ha) – a locally protected area in the north of Uvs Province. Here, local government and private companies have established an agreement to divide revenues from controlled hunting and other natural resource uses among local communities. The project will support ensuring sustainable community based hunting operations to create a model system of a community managed PA in Mongolia. (2) The corridor between Khukh Serkh, Munkhairkhan and Myangan Ugalzat PAs (130,000 ha). This is a key habitat area of the argali wild sheep, and a traditional hunting region. The migratory routes of the argali are currently not protected. The project will help to establish a community based PA, linking the parks and ensuring hunting benefits for local communities; (3) Khovsgol Tengis River is an area (110,000 ha) where the endangered taimen fish lives. Fishing companies are active in the region, and local communities have been successful in conserving fish species. However, at the moment there is no benefit accruing from the fishing operations to the local communities; (4) Khavtgar Local PA (100,000 ha) in Khentii, can serve as a model area for community based tourism, and has a mixed landscape consisting of steppes, forests and mountains. It is the habitat area of the endangered musk deer.

Table: 1: Key Biodiversity Features, Threats and Opportunities of the Four Target Sites

Area	Key Biodiversity Values and Ecosystem Features	Current Land Use Practice and Threats	Alternative Land Uses as a result of the project	Selected benefits
1. Gulzat Local PA (126,772 ha / 3,000 residents)	Mixed forests, Closed depressions, high mountain steppes	Overgrazing, Illegal hunting, habitat overlap with grazing areas, overharvesting of plants, logging	Community based tourism and controlled sports hunting, sustainable grazing practices, sustainable forestry	Increase of at least 10% in argali population, improved vegetation cover of at least 20,000 ha of pasture land, income increase for target communities by at least 20%,
2. The corridor between Khukh Serkh, Munkhairkhan and Myangan Ugalzat protected areas (130,000 ha / 7,000 residents)	High Mountain Steppes, Dry Steppes, moderate dry steppes, desert steppe	Overgrazing, poaching, over hunting, overgrazing, artisanal mining, habitat fragmentation, shrinking water resources	Community based controlled sports hunting, sustainable grazing, sustainable forestry	Increase of at least 10% in of argali and ibex population, improved vegetation cover of at least 20,000 ha of pasture land, no net loss in snow leopard population, income increase for target communities by at least 20%
3. Khovsgol Tengis River (110,000 ha / 4,000 residents)	Lakes and rivers, Sub- boreal mixed forest, meadow steppe	Overgrazig, Illegal fishing, artisanal mining, unsustainable tourism.	Community based fishing, community protection	Increase of taimen population and size of taimen, income increase for target communities by at least 20%
4. Khavtgar Local PA (100,000ha / 6,000 residents)	Meadow steppes, forest steppes and forest	Overgrazing, mining, overlap with grazing areas, overgrazing/land degradation, lack of protection mechanisms	Community based tourism, sustainable grazing, community protection, sustainable forestry management	Vital population of musk deer in the area, increase of at least 10% in red deer and elk populations, income increase for target communities by at least 20%, improved vegetation cover of at least 20,000 ha of pasture land

- 26. In each site, Managed Resource PA governance and management bodies will be established based on PA comanagement agreements between communities, local governments and private sector partners (if appropriate), and approved by the national government. The agreements will clarify the rights, roles and responsibilities of each party. Global experiences have taught that for co-managed PAs to work, it is essential to grant firm user-rights to community partners and to ensure that the benefits to the different parties exceed the costs. It is also critical that parties have balanced powers in the relationship, as well as ensuring participation of women in decision making processes related to PA management. A strong governance framework needs to be established for the PAs, as well as clear management objectives, strategies and financial plans. Work for establishing co-managed PAs will draw lessons from global experiences in co-management.
- 27. For each site, PA management and business plans will be developed, including PA zoning and natural resource use protocols. Aimag and Soum governments will integrate the PA management objectives in their planning. Public Private Partnerships (PPPs) will be promoted involving local communities focusing on sustainable tourism and hunting management and sports fishing, and on realising mining revenues for conservation. The project will support emplacement of basic park signs and infrastructure such as ranger posts and visitor facilities. It will also support wildlife monitoring activities for the sites in preparation for PA development, and provide support to develop sustainable income generating activities including tourism and fishing. Development of sustainable pasture use schemes will also be supported.
- 28. The immediate **global benefits** are: improved protection of endangered species such as the snow leopard, saiga antelope and Argali wild sheep, and improved protection of globally important landscapes in Altai-Sayan and Daurian Steppe Ecoregions. The project will make an important contribution to MDG 1 Eradicate Extreme Poverty and Hunger, and MDG 7 Ensure Environmental Sustainability, the two MDGs that are the furthest behind in Mongolia.
- B.3. DESCRIBE THE SOCIOECONOMIC BENEFITS TO BE DELIVERED BY THE PROJECT AT THE NATIONAL AND LOCAL LEVELS, INCLUDING CONSIDERATION OF GENDER DIMENSIONS, AND HOW THESE WILL SUPPORT THE ACHIEVEMENT OF GLOBAL ENVIRONMENT BENEFITS (GEF TRUST FUND) OR ADAPTATION BENEFITS (LDCF/SCCF). AS BACKGROUND INFORMATION, READ Mainstreaming Gender at the GEF.":
- 29. Despite a mining boom, the gap between rich and poor in Mongolia has steadily widened since the country's economic and political transition: urban poverty dropped from 26% to 23% between 2000 and 2008, but rural poverty increased from 43% to 46%. This was even before the country was hit badly by a harsh winter disaster in 2010, known locally as *Dzud*, which killed over 10 million head of livestock. Data gathered from existing community managed areas showed around 30% fewer livestock losses during the Dzud, indicating that sustainable pasture use practices enhanced the resilience of communities to the disaster. A TNC evaluation on community development in Gobi that used remote sensing

also noted a clear increase in the biomass of target sites of community projects. It is estimated that approximately 20,000 people live in the four target areas, of which a majority lives below the poverty line. Formation of the Managed Resource PAs will provide clear natural user rights to the population, as well as responsibilities for biodiversity friendly pasture management and PA management, providing new opportunities for diversifying livelihoods, taking advantage of being a co-management partner of Managed Resource PAs. New livelihood activities will include wildlife/cultural based tourism activities, and the Managed Resource PAs will offer better opportunities for partnering with private sector investors, ensuring high-value and low impact tourism. The project will also support the establishment of community funds that can be used for community development activities as well as for alleviating the impact of livestock losses resulting from future Dzuds. All the planned interventions are particularly relevant for women, who play a major role in livestock husbandry, livestock product manufacture, as well as tourism activities. Through a thorough gender analysis as part of the project preparation, the project will ensure that the new PAs will have equal opportunities for women and will have no negative consequences on the female stakeholders, as well as ensuring their full participation in the project activities and the governance of the new PAs. Employment generation in rural areas is expected to help prevent further mass migration to Ulaanbaatar and other urban settlements and prevent social conflict, an increasing risk for Mongolia's society, as was visible during the political riots in 2008.

# B.4 INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS THAT MIGHT PREVENT THE PROJECT OBJECTIVES FROM BEING ACHIEVED, AND IF POSSIBLE, PROPOSE MEASURES THAT ADDRESS THESE RISKS TO BE FURTHER DEVELOPED DURING THE PROJECT DESIGN:

Risk	Rating	Risk Mitigation Measure
Revised Protected Area/ Natural Resource Management Legislation will not be passed.	Low	The policy activities are part of a larger initiative led by UNDP's Environmental Governance and SPAN projects which will create a platform to engage with important stakeholders such as parliament/cabinet members and the president's office and media. The project will work closely with these projects and make full use of the existing platform as an advocacy mechanism, as well as available expertise in environmental laws.
Growing mining interests prevent the further establishment of protected areas	Low	The project will support the establishment of a solid governance structure for the new PAs and integration of the PAs in local development planning. It will address the need for increased local government and other stakeholder involvement in effective planning and management of the PAs. In addition, realisation of non-mining economic benefits from the PAs will curtail the mining pressure. Creation of the new Managed Resource PAs will gain more support from local governments and communities, as they will explicitly allow grazing and sustainable use of other resources within the biodiversity conservation parameter. Members of Parliament are therefore more likely to approve such PAs.
Stakeholders' individual interests inhibit viable co-management agreement and key decision makers are not convinced of the feasibility of co-management	Medium	The project target sites are chosen partially because of the on-going efforts in community based natural resource management and benefit sharing activities, including a benefit sharing agreement from marmot harvesting between communities and local authorities, and a benefit sharing agreement between communities and hunting companies. The project is designed and will be developed, building on global experiences in co-management of PAs and natural resources, and will provide support at every stage of co-management agreement development and negotiation between stakeholders. The project will also build on existing co-management models within the country, including the management of Hustei National Park co-managed by an NGO. Furthermore, the project will expedite the government efforts to create legal framework for community based natural resource management, with clear rights and tenure for resources, to build a foundation for co-management.
Financial sustainability of Managed Resource PAs fails to materialize, resulting in low level of management effectiveness	Medium	The project places particular emphasis on financial sustainability of the new Managed Resource PAs, supporting development of PA business plan and demonstrating public private partnership arrangement to create regular and sustainable streams of income to the PAs from consumptive or non-consumptive use of natural resources. The project will also ensure that there are adequate legal provisions pertaining to financing issues in the amendment of the Law of Special PAs, including PA income generation and retention. Working closely with the UNDP/GEF supported SPAN Project, the project will also ensure that the PA financing plan and associated efforts to increase PA financing will be geared towards financing the expanded PA system.
Artisanal mining increases further while government has little means to prevent miners to have adverse impact on biodiversity.	Medium	Artisanal mining is currently being formalised as a sector, supported by a Swiss Development Corporation supported Project, which assists developing legislation on artisanal mining. The designation of legal artisanal mining sites outside of PAs will decrease the incentive to practice artisanal mining in PAs. Formation of a solid PA governance structure with full and equal participation and powers of communities will act as an effective deterrent to illegal activities within the PAs and increased law enforcement within the PAs.
Climate change could lead to both changed distributions of BD components, and changes in demands on biodiversity-based resources.	Medium	Climate change impacts are mainly expected to impact biodiversity conservation in the long term. The short term risk can be considered low but the long term risk would have to be classified as medium. By adding new Managed Resource PA category and by formalising community conservation areas, the project will increase the PA coverage and resilience of the PA system to climate change.

# **B.5.** IDENTIFY KEY STAKEHOLDERS INVOLVED IN THE PROJECT INCLUDING THE PRIVATE SECTOR, CIVIL SOCIETY ORGANIZATIONS, LOCAL AND INDIGENOUS COMMUNITIES, AND THEIR RESPECTIVE ROLES, AS APPLICABLE:

Stakeholder	RELEVANT ROLES
Ministry of Nature Environment and Tourism (MNET)	National Government Ministry to be the national executing agency for the project. It is responsible for developing policy and laws on biodiversity conservation, wildlife management and tourism. It includes the Protected Area Administration that manages Mongolia's PAs. A senior MNET delegate will chair the Project Board.
Ministry of Finance	The Ministry is responsible for financing and the annual government budget and will be involved in all key consultations and training activities, as well as policy development activities.
Mongolian Parliament	Proposes and reviews legislation and policies and proposed revisions. The Mongolian parliament is responsible for the gazetting of new protected areas. Members of parliament will be fully consulted throughout the preparation and implementation process on strategic issues.
Scientific institutions	Provide scientific research to develop justifications for new PAs and advise on policy work.
International Development	Key organisations including World Bank, GIZ and the Swiss Development Cooperation will be part of the technical advisory
Organisations	group of the project and participate in all policy development activities. Where possible, joint activities will be organised.
NGOs	The project will closely partner with key NGOs - WWF, WCS, the Asia Foundation, IPECON (Initiative for People Centered Conservation) and TNC who are among the major organizations active in conservation in Mongolia. These agencies will be part of the technical advisory group of the project and participate in all policy development activities. Where possible, joint activities will be organised. Representatives from civil society organisations will be included in all trainings and consultations.
Private businesses	Tourism and hunting companies are important users of natural resources and a key partner for local communities to generate income and employment opportunities. They will be consulted intensively during the preparatory phase/policy activities and represented in the Project Board.
Local government	Key beneficiaries of the project. Provincial and District government are mandated to support herder groups in their formation and will be key in proposing, allocating and co-managing the new PAs.
Local communities	Key users and beneficiaries of natural resources and beneficiaries of the project. They play critical roles in site level activities as a co-management partner of the Managed Resource PAs.

#### **B.6. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:**

- **30.** For the project preparation, the project will utilise earlier studies from UNDP and WWF related to biodiversity conservation and PA planning and management. The project will further link to ongoing initiatives on PAs and community based development. It will build on lessons learned from earlier and ongoing projects such as the GEF/UNDP financed Altai Sayan Community based conservation project. Through a technical working group, agencies involved in related activities, such as WWF, GIZ, FAO and others, will participate in the Local Project Appraisal Committee, Inception Workshop and key policy meetings.
- 31. In its implementation the project will directly complement the GEF/UNDP financed Strengthening Protected Area Network (SPAN) Project. While the SPAN project strengthens management effectiveness and financial sustainability of the existing national PA system, the proposed project will support strategic expansion of the PA system towards achieving the government PA expansion goal. The project will add value to the SPAN project interventions, by establishing the new PA management category, demonstrating establishment and effective management of Managed Resource PAs. Development of viable public private partnerships and co-management models will also contribute to increasing management effectiveness of the existing PAs. It will also build on the work of FAO's community forest work and UNDP/SDCs Land Management Project. For the implementation of activities, important lessons learnt will be provided by the work of Hustei Trust around Hustei National Park, an NGO managed PA where the Przewalski's horses were reintroduced. Close coordination is foreseen with other agencies involved in complementary interventions, such as WWF, WCS, TNC and GTZ (Climate Change and Biodiversity). The project will be also part of a global network of UNDP projects focusing on PA strengthening and landscape based conservation.

### C. DESCRIBE THE GEF AGENCY'S COMPARATIVE ADVANTAGE TO IMPLEMENT THIS PROJECT:

## **c.1** INDICATE THE CO-FINANCING AMOUNT THE GEF AGENCY IS BRINGING TO THE PROJECT:

**33.** UNDP is investing a total of US\$ 1.5 million from its resources, in support of development of legal framework and guidelines for the Managed Resource PAs. The UNDP funding will also support revising the community based natural resource management Policy, and development of an action plan to reform Mongolia's environmental law framework and community based pasture and disaster management.

# C.2 HOW DOES THE PROJECT FIT INTO THE GEF AGENCY'S PROGRAM (REFLECTED IN DOCUMENTS SUCH AS UNDAF, CAS, ETC.) AND STAFF CAPACITY IN THE COUNTRY TO FOLLOW UP PROJECT IMPLEMENTATION:

- 34. The government selected the UNDP to be the implementing agency of this project, based on the fact that 'Protected Areas' is one of UNDP's signature programmes under its Biodiversity and Ecosystems Programme. The agency has a large portfolio of PA strengthening projects globally and in Asia including Mongolia. UNDP has worked in Mongolia since the 1970s and has been the main agency to implement Biodiversity projects in the country. Mongolia's 2012-16 UNDAF, in its outcome 7, gives strong priority to conservation of natural resources and biodiversity, emphasizing the need for a participatory approach to conservation and sustainable resource management. The proposed project contributes directly to strengthening of environmental governance capacity (output 7.1), as well as a landscape-based approach for planning, management and conservation of natural resources and biodiversity (output 7.2).
- 35. UNDP's 2012-16 Country Programme Document highlights conservation of landscapes and their natural resources, including biodiversity, as a top priority. Its primary indicator focuses on "change in protected areas and water resources." Mongolia adopted an official national MDG target to cover 30% of the country with PAs. The project will also contribute to the achievements of MDGs 1 and 7, which are, according to the 2010 National MDG report, the most behind schedule. The UNDP environment Team in Mongolia has one team leader, and 3 programme officers, of which one is a biodiversity specialist. Five other programme staff work on governance and poverty reduction programmes at the country office. Furthermore, administrative issues are supported by the HR manager, Procurement Officer and Programme Assistant. UNDSS advises on security related issues. The UNDP Regional Technical Adviser based in Bangkok will provide technical support to the CO for implementation, monitoring and evaluation of the project.

# <u>PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)</u>

## A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):

(Please attach the Operational Focal Point endorsement letter(s) with this template).

NAME	POSITION	MINISTRY	DATE
A. Enkhbat	Director of Ecological Clean	Ministry of Nature,	June 8, 2011
	Technology and Science	Environment and Tourism	
GEF Operational	Division		
Focal Point			

### **B.** GEF Agency(ies) Certification

This request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation.

Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Yannick Glemarec, UNDP/GEF Executive Coordinator	#	June 16, 2011	Midori Paxton, Regional Technical Advisor - Ecosystems and Biodiversity, UNDP	Tel.: +66 (2) 288 2713	Midori.paxton @undp.org

Annex I: Map of Mongolia Showing Approximate Location of the 4 Target Sites



Annex II: PA System Coverage and Planned Expansion, Under the Project for underrepresented ecosystems <sup>11</sup>

Ecosystems underrepresented in Mongolia's PA system	Total area (ha) of the ecosystem in Mongolia	Total area of the ecosystem currently covered by PAs in Has	Total area of the ecosystem currently covered by PAs in %	Target area for expansion	Total PAs to be established by the project	Total coverage at the end of the project %
High Mountain Steppe	4,129,235	459,997	11.14%	200,000		15.98%
Sub-boreal mixed forest	6,738,795	671,184	9.96%	30,000		10.41%
Meadow Steppe	16,678,504	1,270,902	7.62%	131,772		8.41%
Moderate dry steppe	17,183,523	926,192	5.39%	55,000		5.71%
Dry Steppe	23,222,677	984,642	4.24%	40,000		4.41%
Desert Steppe	30,293,372	1,987,245	6.56%	10,000		6.59%
Closed Depressions. salt banks	3,463,987	311,759	9.03%	0		9.03%
Total	101,710,093	6,611,920	6.50%	466,772	4	6.96%

<sup>\*</sup> Only the ecosystems that are underrepresented (less than 13% representation) are reflected in this table. Other ecosystems include high mountain tundra, alpine meadow, boreal coniferous forests, deserts, rivers and lakes.

 $<sup>^{11}</sup>$  The current coverage under the table is based on WWF supported Ecological Gap Assessment (2010).