

Taxonomy

# Managing Peatlands in Mongolia and Enhancing the Resilience of Pastoral Ecosystems and Livelihoods of Nomadic Herders

Part I: Pi	roject Information
GEF ID 10545	
Project T	ype
Type of T	rust Fund
CBIT/NG CBIT I NGI N	No
Project To Managing Nomadic I	Peatlands in Mongolia and Enhancing the Resilience of Pastoral Ecosystems and Livelihoods of
Countries	
Global, M	ongolia
Agency(ie	es)
Other Exc	ecuting Partner(s)
Ministry of (ICR)	of Environment and Tourism (MET) of Mongolia and International Centre for Reindeer Husbandry
<b>Executing</b> Others	g Partner Type
GEF Foca	
Land Degr	radation

Focal Areas, Land Degradation, Land Degradation Neutrality, Land Cover and Land cover change, Sustainable Land Management, Community-Based Natural Resource Management, Ecosystem Approach, Sustainable Pasture Management, Improved Soil and Water Management Techniques, Influencing models, Demonstrate innovative approache, Convene multi-stakeholder alliances, Stakeholders, Indigenous Peoples, Communications, Awareness Raising, Public Campaigns, Behavior change, Education, Civil Society, Community Based Organization, Non-Governmental Organization, Local Communities, Type of Engagement, Consultation, Participation, Partnership, Information Dissemination, Gender Equality, Gender results areas, Access and control over natural resources, Capacity Development, Gender Mainstreaming, Beneficiaries, Sexdisaggregated indicators, Capacity, Knowledge and Research, Learning, Indicators to measure change, Adaptive management, Knowledge Exchange, Knowledge Generation

#### Sector

Mixed & Others

Rio Markers

**Climate Change Mitigation** 

Climate Change Mitigation 2

**Climate Change Adaptation** 

Climate Change Adaptation 0

**Submission Date** 

11/26/2021

**Expected Implementation Start** 

3/15/2022

**Expected Completion Date** 

3/14/2026

#### Duration

48In Months

Agency Fee(\$)

357,009.00

## A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
LD-1-4	Reduce pressures on natural resources from competing land uses and increase resilience in the wider landscape	GET	3,757,991.00	20,500,000.00

Total Project Cost(\$) 3,757,991.00 20,500,000.00

## **B.** Project description summary

# **Project Objective**

To develop the capacity for enhancing ecosystem services of peatlands (specifically reduction of GHG emissions from degraded peatlands) in Mongolia and the capacity of indigenous reindeer herders to reduce land degradation and improve the provision of ecosystem services and increase community resilience.

Project	Financin	Expected	Expected	Trus	<b>GEF Project</b>	Confirmed
Componen	g Type	Outcomes	Outputs	t	Financing(\$	Co-
t				Fund	)	Financing(\$)

Project Componen t	Financin g Type	Expected Outcomes	Expected Outputs	Trus t Fund	GEF Project Financing(\$	Confirmed Co- Financing(\$)
Component 1 Policy framework and institutional capacity for climate- friendly and resilient peatland management practices	Technical Assistance	1.1 The peatland based GHG emission reduction plan for four main sectors of the economy (conservation, agriculture, mining, construction) and a framework for reporting on peatland management are approved by the Government and under implementation	1.1.1 Peatland mitigation and adaptation targets integrated into the LULUCF segment of the NDC of Mongolia  1.1.2 The templates for reporting on LDN and climate- smart solutions and GHG reductions related to peatlands by four sectors (conservation, agriculture, mining, construction) developed for national authorities  1.1.3 Gap analysis of legislation and sectoral regulations in connection to the activities (on peatlands) suggested in the LDN and NDC made available for national authorities	GET	662,100.00	3,400,000.00
			1.1.4 Proposals for the legal framework to support the climate-smart nature-based solutions and reporting on GHG reductions developed			
			1.2.1 The results of the peatland inventories,			

including delineation and

Project Componen t	Financin g Type	Expected Outcomes	Expected Outputs	Trus t Fund	GEF Project Financing(\$ )	Confirmed Co- Financing(\$)
Component 2 Integrate climate- smart peatland management solutions into practice	Technical Assistance	2.1 Sustainable Peatlands management integrated into sectoral policies and practices	2.1.1 Roadmap developed towards SEEA-based ecosystems accounting for peatland ecosystems  2.1.2 Sectoral management plans updated considering peatlands	GET	1,007,955.00	4,300,000.00
			2.1.3 Solutions for sustainable peatland management piloted in targeted sites			
			2.1.4 The management capacity of key stakeholders increased			
			2.1.5 Sector specific knowledge and outreach products available			

Project Componen t	Financin g Type	Expected Outcomes	Expected Outputs	Trus t Fund	GEF Project Financing(\$	Confirmed Co- Financing(\$)
Component 3 Global knowledge- base and capacity for herders? contribution to sustainable landscape management	Technical Assistance	3.1 Sustainable landscape management approaches institutionalize d for global reindeer husbandry 3.2 Global nomadic pastoralist communities participate in rangeland management structures and processes with enhanced capacity 3.3 Global stakeholder groups support and use project?s good practices, lessons learned on herders? contribution to sustainable landscape management in future operations	3.1.1 Gender sensitive traditional knowledge on existing and past global land-uses, land degradation and indigenous reindeer herders? food governance is globally collected and assessed and made available for global stakeholder groups;  3.1.2. GIS-based maps of current land-uses and future scenarios are developed globally and compatible for traditional and scientific knowledge to support rangelands mobility made;  3.1.3 Participatory mapping and environmental monitoring systems are developed for the global stakeholder groups for an integrated rangeland management systems;  3.1.4 Global indicators for assessing sustainable management of rangelands and pastoralism are developed and	GET	1,768,987.00	10,244,855.0

tested

Project Componen t	Financin g Type	Expected Outcomes	Expected Outputs	Trus t Fund	GEF Project Financing(\$ )	Confirmed Co- Financing(\$)
Component 4 Monitoring & Evaluation	Technical Assistance	<b>4.1</b> Integrated and effective monitoring and	<b>4.1.1</b> Project progress reported timely	GET	140,000.00	456,000.00
		evaluation system in place	<b>4.1.2</b> Mid-Term Review conducted			
			<b>4.1.3</b> Terminal Evaluation conducted			
			Sub T	otal (\$)	3,579,042.00	18,400,855.0

# **Project Management Cost (PMC)**

GET	178,949.00	2,099,145.00
Sub Total(\$)	178,949.00	2,099,145.00
Total Project Cost(\$)	3,757,991.00	20,500,000.00

Please provide justification

#### C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co- financing	Investment Mobilized	Amount(\$)
GEF Agency	UNEP (regional Project on Peatlands)	In-kind	Recurrent expenditures	500,000.00
Recipient Country Government	Ministry of Environment and Tourism of Mongolia	In-kind	Recurrent expenditures	6,000,000.00
Civil Society Organization	Wildlife Science and Conservation Center of Mongolia (WSCC)	In-kind	Recurrent expenditures	500,000.00
Civil Society Organization	International Centre for Reindeer Husbandry (ICR)	In-kind	Recurrent expenditures	3,237,000.00
Civil Society Organization	Association of World Reindeer Herders	In-kind	Recurrent expenditures	6,763,000.00
Recipient Country Government	Arhangai Aimag	In-kind	Recurrent expenditures	1,000,000.00
Recipient Country Government	Khuvsgul Aimag	In-kind	Recurrent expenditures	1,500,000.00
Recipient Country Government	Khentii Aimag	In-kind	Recurrent expenditures	1,000,000.00

## Total Co-Financing(\$) 20,500,000.00

## Describe how any "Investment Mobilized" was identified

The joint initiative of UNEP and IUCN with the title ?Conserving and restoring vital water towers, biodiversity and carbon storage capabilities of threatened peatlands in key mountain and highland areas of Central and Northeast Asia? is expected to start in 2021. Project?s demonstrations on restoration of peatlands and household livelihood approaches in Mongolia will be the investment mobilized contribution for this project. The Ministry of Environment and Tourism of Mongolia, through two of its main departments: ?Department of Environment and Natural Resources and the ?Department of Land Planning and Water Integrated Policy? will be executing a total of four projects that will contribute co-financing to the current effort. The Government has an annual budget of US\$ 8 million for biodiversity conservation. It

is estimated that a total of USD 9.5 million will be in-kind co-financed by the Government. Furthermore, it is estimated that a minimum of US\$ 1,000,000 will be spent by international partners and the Wildlife Science and Conservation Center of Mongolia for Ramsar sites and peatlands in four years which will be the investment mobilized for the Project. Finally, The Project will receive US\$ 10 million recurrent expenditure investment from International Centre for Reindeer Husbandry and Association of World Reindeer Herders as staff time on the project, investments made to secure the project, and other in-kind activities.

## D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agenc y	Trus t Fun d	Countr y	Focal Area	Programmin g of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNEP	GET	Mongoli a	Land Degradatio n	LD STAR Allocation	1,757,991	167,009	1,925,000.0
UNEP	GET	Global	Land Degradatio n	LD Global/Regiona l Set-Aside	2,000,000	190,000	2,190,000.0
			Total G	rant Resources(\$)	3,757,991.0 0	357,009.0 0	4,115,000.0 0

## E. Non Grant Instrument

# NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**Includes reflow to GEF? **No** 

# F. Project Preparation Grant (PPG)

PPG Required true

PPG Amount (\$)

136,988

PPG Agency Fee (\$)

13,012

Agenc y	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNEP	GET	Mongolia	Land Degradatio n	LD STAR Allocation	68,494	6,506	75,000.00
UNEP	GET	Global	Land Degradatio n	LD Global/Regional Set-Aside	68,494	6,506	75,000.00

Total Project Costs(\$) 136,988.00 13,012.00 150,000.00

## **Core Indicators**

**Indicator 3 Area of land restored** 

PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
0.00	12000.00	0.00	0.00
ndicator 3.1 Area of deg	raded agricultural land restor	red	
Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
ndicator 3.2 Area of For	rest and Forest Land restored		
Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
Indicator 3.3 Area of nat	ural grass and shrublands res	tored	
Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
Indicator 3.4 Area of wet	lands (incl. estuaries, mangro	ves) restored	
Indicator 3.4 Area of well Ha (Expected at PIF)	dands (incl. estuaries, mangro Ha (Expected at CEO Endorsement)	ves) restored  Ha (Achieved at  MTR)	Ha (Achieved at
Ha (Expected at	Ha (Expected at	Ha (Achieved at	•
Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	TE)
Ha (Expected at PIF)	Ha (Expected at CEO Endorsement) 12,000.00	Ha (Achieved at MTR)	TE)
Ha (Expected at PIF) Indicator 4 Area of lands Ha (Expected at	Ha (Expected at CEO Endorsement) 12,000.00 scapes under improved practic	Ha (Achieved at MTR)  res (hectares; excluding properties)  Ha (Achieved at	TE) rotected areas) Ha (Achieved at
Ha (Expected at PIF)  Indicator 4 Area of lands Ha (Expected at PIF)  20000.00	Ha (Expected at CEO Endorsement)  12,000.00  capes under improved practic  Ha (Expected at CEO Endorsement)  8000.00  dscapes under improved mana	Ha (Achieved at MTR)  es (hectares; excluding properties (Achieved at MTR)  0.00	TE)  Potected areas)  Ha (Achieved at TE)  0.00
Ha (Expected at PIF)  Indicator 4 Area of lands Ha (Expected at PIF)  20000.00 Indicator 4.1 Area of lands	Ha (Expected at CEO Endorsement)  12,000.00  capes under improved practic  Ha (Expected at CEO Endorsement)  8000.00  dscapes under improved mana	Ha (Achieved at MTR)  es (hectares; excluding properties (Achieved at MTR)  0.00	TE)  rotected areas)  Ha (Achieved at TE)  0.00  ersity (hectares,
Ha (Expected at PIF)  Indicator 4 Area of lands Ha (Expected at PIF)  20000.00 Indicator 4.1 Area of lanqualitative assessment, n Ha (Expected at	Ha (Expected at CEO Endorsement)  12,000.00  capes under improved practic  Ha (Expected at CEO Endorsement)  8000.00  dscapes under improved mana on-certified)  Ha (Expected at	Ha (Achieved at MTR)  res (hectares; excluding property Ha (Achieved at MTR)  0.00  regement to benefit biodived Ha (Achieved at MTR)	TE)  rotected areas)  Ha (Achieved at TE)  0.00  ersity (hectares,
Ha (Expected at PIF)  Indicator 4 Area of lands Ha (Expected at PIF)  20000.00 Indicator 4.1 Area of lanqualitative assessment, n Ha (Expected at PIF)  20,000.00 Indicator 4.2 Area of landucator 4.2 Area of	Ha (Expected at CEO Endorsement)  12,000.00  capes under improved practic  Ha (Expected at CEO Endorsement)  8000.00  dscapes under improved mana on-certified)  Ha (Expected at CEO Endorsement)  8,000.00  dscapes that meets national or	Ha (Achieved at MTR)  Tes (hectares; excluding properties (Achieved at MTR)  0.00 Togement to benefit biodiver Ha (Achieved at MTR)	TE)  rotected areas)  Ha (Achieved at TE)  0.00  rrsity (hectares,  Ha (Achieved at TE)
Ha (Expected at PIF)  Indicator 4 Area of lands Ha (Expected at PIF)  20000.00 Indicator 4.1 Area of lanqualitative assessment, n Ha (Expected at PIF)  20,000.00 Indicator 4.2 Area of landucator 4.2 Area of	Ha (Expected at CEO Endorsement)  12,000.00  capes under improved practic  Ha (Expected at CEO Endorsement)  8000.00  dscapes under improved mana on-certified)  Ha (Expected at CEO Endorsement)  8,000.00	Ha (Achieved at MTR)  Tes (hectares; excluding properties (Achieved at MTR)  0.00 Togement to benefit biodiver Ha (Achieved at MTR)	rotected areas)  Ha (Achieved at TE)  0.00 ersity (hectares,  Ha (Achieved at TE)

**Type/Name of Third Party Certification** 

Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
Indicator 4.4 Area of Hig	h Conservation Value Forest	(HCVF) loss avoided	
Ha (Expected at	Ha (Expected at	Ha (Achieved at	Ha (Achieved at

# Documents (Please upload document(s) that justifies the HCVF)

Title Submitted

**Indicator 6 Greenhouse Gas Emissions Mitigated** 

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)	60000 0	594448	0	0
Expected metric tons of CO?e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)	600,000	594,448		
Expected metric tons of CO?e (indirect)				
Anticipated start year of accounting	2022	2022		
Duration of accounting	20	20		

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)				
Expected metric tons of CO?e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

	Capacity			Capacity
	(MW)	Capacity (MW)	Capacity (MW)	(MW)
Technolog	(Expected at	(Expected at CEO	(Achieved at	(Achieved at
У	PIF)	<b>Endorsement)</b>	MTR)	TE)

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	7,000	7,000		
Male	7,000	7,000		
Total	14000	14000	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

# Part II. Project Justification

# 1a. Project Description

describe any changes in alignment with the project design with the original pif

1 opic At PIF Stage At CEO Endorsement Stage	Горіс	At PIF Stage	At CEO Endorsement Stage
--	-------	--------------	--------------------------

Topic	At PIF Stage	At CEO Endorsement Stage
Target Contributions to GEF7 Core Indcators	Table F, Project?s Target Contributions to GEF7 Core Indicators, included Core Indicators  4, Area of landscape under improved practices (20,000ha), and Core Indicator 6, Greenhouse Gas Emissions Mitigated (600,000t CO2eq)	The GEF Focal Area Outcomes have been defined and the measurement against the applicable GEF corporate indicators are shown in Table E in Part I of this document.  For Table E on the project?s target contributions to GEF7 Core Indicators, the following changed:  Core Indicator 3.4 Area of wetlands restored (Million Hectares): 0,012MHa (12,000ha) was added, capturing specifically the area of wetlands, including estuaries and mangroves, that is undergoing ecological restoration through GEF-funded interventions.  Core Indicator 4 Area of landscape under improved practices (excluding protected areas) (Million Hectares): 0,008MHa (8,000ha)  4.1 Area of landscape under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified): 8,000ha.  Based on site verification of the four target areas in Mongolia, which revealed that a larger proportion of the peatlands in the 4 target areas is located in locally protected areas, it was discussed to add Core Indicator 3.4, specifically aimed at wetland ecological restoration of peatland located in protected areas, in line with the project objectives to conserve and
		wetland ecological restoration of peatland located in protected

Topic	At PIF Stage	At CEO Endorsement Stage
Project Oucomes and Outputs	The PIF included a set of six results-oriented project Outcomes, grouped under three Components.  The following Output had the following formulation at PIF stage:  1.1.4 Proposals for the legal framework to safeguard the climate-smart nature-based solutions and reporting on GHG reductions developed  1.2.1 The results of the peatland inventories, including delineation and ecosystem services mapping, carried out in five pilot river basins are available for the authorities in agriculture, water management, mining and construction sectors  Output 1.2.3 The capacity for monitoring/reporting of LDN and GHG emissions reduction due to peatland management is in place in six pilot sites	At CEO Endorsement stage, Project Outcomes and Outputs remained largely unchanged, with a few exceptions:  Output 1.1.4 was rephased to: Proposals for the legal framework to support the climate-smart nature-based solutions and reporting on GHG reductions developed, as ?supporting? was found to be more accurate to reflect the intention of the output than the original ?safeguarding?.  Output 1.2.1 was rephrased to: The results of the peatland inventories, including delineation and ecosystem services mapping, carried out in four pilot river basins are available for the authorities in agriculture, water management, mining and construction sectors. In consultations with key stakeholders during the inception workshop, only four target sites were included in the project and accordingly included in the field verification. These four sites are thought to be representative of the landscape diversity and peatland types.  Output 1.2.3 was rephrased tp The capacity for monitoring/reporting of LDN and GHG emissions reduction due to peatland management is in place in four pilot sites, to reflect the four target sites identified.  Overall, for all outputs more comprehensive narratives were developed with inclusion of the various activities needed to achieve the results aimed at in these outputs, as the PIF only presented the titles of the outputs, without any details on the activities.  Refer to Part I, Table B of this document for a reference to current formulations of Outcomes and Outputs.

Topic	At PIF Stage	At CEO Endorsement Stage
Project Strategy	The PIF reflected the objective of the	The project?s strategy is now fully developed and consolidated in the ProDoc, including:
	project and the strategy to obtain the desired results.	? A <b>Theory of Change</b> and related conceptual model, linking root causes, problems, barriers and assumptions with intended outcomes and ultimately impact.
		? A detailed description of <b>Outcomes</b> , <b>outputs</b> and related <b>activities</b> has been developed with indication leading institutions and collaborating partners/entities.
		? These <b>activities</b> have been costed and reflected in a temporal work plan overview.
		? Core Indicators have been slightly adjusted from the PIF stage, with an additional Core Indicator 3.4 for those peatland areas located in protected areas of the four target sites, and another methodology, EX-ACT to assess the avoided GHG emissions through project interventions.
		? The <b>four target sites</b> have been defined, after consultation with key stakeholders during the inception workshop and explored in a field missions and reflected with more detailed maps and area descriptions to reflect baseline conditions.
		? A <b>stakeholder analysis</b> was carried out with identification of and consultation with key stakeholders and partners, with description of their roles and engagement and a <b>stakeholder engagement plan</b> .
		? A more detailed description of how the project intends to promote <b>gender equality</b> and women?s empowerment, including a <b>gender action plan</b> .
		? The <b>baseline conditions</b> were further detailed and an <b>incremental cost reasoning</b> was added.
		? The <b>risk assessment</b> was updated and risk related to climate change and COVID-19 were added.
		? The <b>Strategic Results Framework</b> was developed with indication of indicators, targets, means of verification and assumptions.
		? The M&E plan was developed and costed.
		? The project <b>budget</b> has been detailed per component and outcome, with some slight adjustments, with addition of the M&E costs as separate budget line. As M&E has been added as a separate budget component, while it was still integrated in the components in the PIF, all three Components have slightly reduced budgets.
		? Social and environmental <b>safeguards</b> were updated and detailed in the new SRIF, to reflect potential risk and how the project intends to mitigate these risks.

1a. *Project Description*. Elaborate on: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description); 2) the baseline scenario and any associated baseline projects; 3) the proposed alternative scenario with a brief description of expected outcomes and components of the project; 4) alignment with GEF focal area and/or Impact Program strategies; 5) incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing; 6) global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF); and 7) innovativeness, sustainability and potential for scaling up. ?

# 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed

## Reference to the UNEP PRODOC for the above topic:

Sections in the ProDoc and reference to their content	Page reference
Section 2.1 is the complete description of the Project?s Background and Context.	ProDoc, pp. 9 ? 29
This includes the ?core problem that the project is addressing? (reproduced further down), including a discussion on the national context of Mongolia and its peatlands, a section on the global context of nomadic reindeer herders, and a description of the project landscapes in Mongolia, the Darhad depression, Hur-Huiten watershed, Ugii lake and Tsagaan nuur.	
Section 2.2 contains a description of the institutional, sectoral and policy context with a section on alignment with national policy or environmental and developmental targets, alignment with multilateral environmental agreements or global targets.	ProDoc, pp. 30 ? 35
Section 2.3 presents the Global Significance of peatland and of reindeer herding.	ProDoc, pp. 35 - 37

Sections in the ProDoc and reference to their content	Page reference
Section 2.4 refers to Threats, root causes and barrier analysis.	ProDoc, pp. 37 ? 48
ProDoc 4a includes the Theory of Change, which was not yet included at PIF stage, presenting the linkage between root causes, the environmental and socio-economic problems, the barriers and the chosen outcomes, key assumptions and ultimately the impacts the project is aiming to make in order to achieve its objective.	ProDoc Annex 4a
Section 3.4 includes a discussion of the Intervention logic and key assumptions behind the project. The project?s conceptual model is presented, linked to the Theory of Change, as presented in Annex 4A, outlining the chosen strategic interventions.	ProDoc, pp. 76 ? 78

### A summary analysis is here presented based on the ProDoc

Mongolia is mainly associated with steppes and deserts but also has a surprisingly large expanse of peatlands (Joosten et al. 2012). In the dry continental climate, Mongolian peatlands fulfil many important ecological functions, ranging from prevention of soil erosion and the thawing of permafrost to the provision of critical hydrological functions, maintaining groundwater levels crucial for entire ecosystems and food production. At the same time, peatlands are safeguarding biodiversity and providing highly productive habitats and related livelihoods.[1]¹ Based on an analysis of maps and other information from the 1960s and 1970s, research findings[2]² indicated that almost 27,000km² of Mongolia used to be covered by peat (or almost 2% of the total territory of the country). The Strategic Planning for Peatlands Conservation and Wise Use in Mongolia (ADB-MET, 2017) indicates that the estimated area of peatland has now fallen to 1% of the land area of the country, representing an approximate decline by 60 to 80%, depending on the region. A dramatic reduction of the total peatlands and requiring that sustainable use and conservation of the remaining peatlands should be addressed urgently.

The State of the Environment of Mongolia Report (2016) states that the leading causes of degradation are increasing grazing pressure from a growing national herd combined with climate change. The warming process occurring in Mongolia, the drastic increase in livestock, unsustainable mining industry development and other direct and indirect phenomena are the critical factors resulting in desertification and the exacerbation of land degradation.

#### Degradation and loss of peatland area

The ADB-MET (2017) Assessment Report also states that a natural shortage of water and other factors, combined with global climate change and drought, have caused a loss of peatland areas. The consequences of peatland degradation in Mongolia are not only loss of biodiversity and carbon stores, but also the loss of important and sometimes the last source of water in middle range mountains and the last productive lands. The AR continues stating that main factors that have over time hindered sustainable management of peatland in Mongolia (and thus contributed to the present degradation) include: the expansion of pastures in peatland areas, which has been a consequence of long-term drought; the development of extractive industries (gold, wolfram, molybdenum etc.); development of infrastructure and water discharge and management. Recent climate change, forest degradation and increase of forest and steppe fires and overgrazing have led to increased pressure on pastures, combined with shrinkage of permafrost areas and consequently, loss of peatland areas. The AR sums up a number of key processes that negatively affect the status of Mongolian peatlands:

- ? Pastures in peatland areas are used beyond their carrying capacity, often without maintaining fallow periods and without protection against overgrazing;
- ? Drainage and encroachment of peatlands for agricultural use, combined with unsustainable hay harvest, lead to area loss and degradation of the peatlands affected;
- ? Mining operations lead to a reduction of peatland areas and have a negative impact on the hydrological system and the health of linked peatland areas;
- ? Construction of infrastructure (road/dams etc.) without appropriate drainage negatively impacts the hydrology of peatland areas.

These factors explain the need to put land degradation and desertification issues at the higher policy-making level and require multiple actions involving the political, social and science and technology sectors. The proper planning of response measures depends on high-quality assessments at the national, regional and local levels.

### Loss of ecosystem services provided by peatlands

Loss and degradation of peatland lead to the loss of valuable ecosystem services, ranging from water regulation, biodiversity conservation, carbon sequestration and storage and to provision of productive pasture land for grazing. Peatland performs a critical buffer function, regulating and safeguarding water quantity and quality. Water is a critical resource in the arid and semi-arid landscapes of Mongolia. To prevent the loss and degradation of water resources an integrated water management of the key river basins is needed. At the moment, peatlands and permafrost areas are not considered as parts of water objects, which hampers effective sustainable management and the development of targeted interventions. Another critical ecosystem service peatlands provide is the unique habitat it represents in a semi-arid environment, important as landscape element to preserve and enhance biodiversity. At the same time, peatlands serve as an important carbon store and further loss and degradation (and drainage) of the systems will lead to considerable GHG emissions. Finally, peatland serves as a key pasture

source area for reindeer herds and therewith crucial source of livelihood for nomadic herding communities and offers an important attraction for (eco-)tourism, with its wealth of biodiversity, landscape diversity and scenic beauty.

#### Loss of insulation cover over permafrost (permafrost thaw)

Mongolia is the fifth country by permafrost area after Russia, Canada, China and the USA (Zhang et al. 2006, cited in ADB-MET, 2017). The latest estimations demonstrate significant changes in permafrost. The ADB-MET report presents an old permafrost map of 1971 with continuous to sporadic distribution in 63% of the territory. An updated permafrost map of 2016 depicts permafrost as occupying one third of Mongolian territory, a very dramatic reduction in permafrost area within decades. To a large extent, the status of peatlands in Mongolia depends on the presence of permafrost Permafrost also plays a key role in the water supply and discharge regulation of Mongolian rivers. Peatlands serve as an insulation layer protecting permafrost bodies against rising temperatures, whereas the permafrost bodies are in many places a prerequisite for peatlands to develop. They are therefore in a symbiotic interdependency, where the degradation of one will affect negatively the status of the other. The functional connection between peat and permafrost is insufficiently described and should be addressed by special studies.

#### Reindeer husbandry under pressure

Reindeer pastoralism is a traditional livelihood that represents a model of sustainable exploitation and management of northern terrestrial ecosystems based on experience accumulated over generations, conserved, developed and adapted to the climatic, ecological, political, and economic systems of the north. It represents a human-coupled ecosystem that has developed a historical high resilience to climate variability and change (Turi, 2008). This is because reindeer herding is a system based, as a rule, on continuous change due to the practice of seasonal migrations and day-to-day changes. Thus, the core survival strategy of reindeer communities is based on knowledge about how to live in a changing environment. Today, however, the herders? ability to adapt to change is hindered by land degradation and fragmentation. Reindeer herding is a unique family-based husbandry, where men are responsible for herding the livestock, while women are in charge of the economy of family. Both men and women have the same opportunities and access to decision making process. However, because of the nature of reindeer husbandry they do not always use the opportunity similarly.

Reindeer herding is practised in Norway, Finland, Sweden, Mongolia, China, Russia, Alaska, Canada, Greenland and Scotland, involving 29 reindeer herding peoples most of whom (24) are indigenous peoples. Totally, there are approximately 100,000 herders and 2.6 million semi-domesticated reindeer, covering about 4 million square kilometres of pastures globally. Reindeer herding is conducted by

individuals through some form of cooperation, such as families, districts, S?mi[3]<sup>3</sup> villages, sovkhozy (collective farms), etc. Every country where reindeer herding is conducted has regulations that state

how it is to be organized, with their being wide variations in such legislation. Norway, Sweden and Finland, for example, have specific reindeer herding legislation that not only handles herding districts, S?mi villages, and individuals? rights and duties but also how external interests should be considered when reindeer herding is impacted.

Land degradation and fragmentation are pressures that reduce herders? ability to respond to the increasingly unstable and unpredictable weather conditions, for example by moving their herds to less disturbed grazing areas. All over the Arctic and sub-Arctic, reindeer grazing lands are under increasing pressure from resource extraction (minerals, petroleum, forest, peat, etc.), infrastructure development (roads, wind turbines, pipelines, dams, etc.), urbanization and rising temperatures. Increased competition for land between herders and other land-use interests, combined with decreased mobility of the herd, lead to new grazing patterns and? for some areas? more intense use of less disturbed land. Land fragmentation leads to more reindeer-predator conflicts.

A report to the UNPFII in 2012 states that ?the progressive and effectively irreversible loss of the uncultivated lands that reindeer use as pasture is probably the single greatest threat to reindeer husbandry in the circumpolar North today. The preservation of rangeland is, likewise, perhaps the single greatest priority for sustaining the resilience of reindeer herding confronted by changes owing to climate change, and the socio-economic environment? [4]<sup>4</sup>. Changing snow and ice conditions, and especially rain during the winter and other extreme weather events, further affect the herds? mobility, as well as their access to forage[5]<sup>5</sup>. In addition to the environmental changes, there are political changes that promote sedentarism and undermine the traditional and sustainable herding practices and knowledge system[6]<sup>6</sup>.

# Threats, root causes and barriers behind the degradation of peatlands and loss and degradation of global reindeer pastures

Threats to Mongolian peatlands can be divided into threats that are anthropogenic and caused by human activity or interventions and the external overarching impact of climate change as trigger of loss and degradation of peatland and the ecosystems services they provide. A key threat already described in more detail is overgrazing of the peatlands linked to high livestock numbers and wildlife populations, beyond longer-term carrying capacity of the peatlands and leading to loss and degradation through vegetation disturbance, compaction, depletion of plant species richness and loss of the carbon storage capacity of the peatland with continuous vegetation removal.

As described in more detail before, the present climate trend and projections for Mongolia indicate a further increase of temperature and increased frequency of climatic extremes. The World Bank Climate Risk Country Risk Profile (2021) states that of 2015 approximately 29% of Mongolia?s land area is estimated to be permafrost. This area is projected to reduce substantially as the climate warms. Mongolia?s Third National Communication to the UNFCCC projects coverage will decline to 22% over 2016?2035, 11% by 2046?2065, and 1% by the 2090s. This is a dramatic shift in land cover and will have severe implications for peatland cover, sustainability and management, together with related implications for the hydrological regime of the country.

#### Land degradation and threats to reindeer husbandry

The herders and their reindeer have adapted to and thrive in some of the harshest climates and remotest places on Earth for more than thousand years. Reindeer herders are unique custodians of the environment surrounding them. The linkages between reindeer society and environment are very strong: for reindeer to be healthy, the environment must be healthy. Through their daily work they have helped to conserve the biodiversity and environments for thousands of years and are active monitors of the environment. Furthermore, reindeer herding is based on sequential and flexible usufruct of a wide number of different ecological niches under differing climatic conditions. This flexibility allows herders to adapt to climatic variation and produces resilience: the ability to cope with and adapt to change.

However, the flora, fauna, and traditional reindeer herding societies of the taiga and tundra areas are currently facing unprecedented threats and challenges, which are a result of strong socioeconomic and environmental drivers. Such threats are leading to a land degradation, habitat fragmentation and reduced resilience and sustainability of reindeer herding societies in these areas. Pastoral livelihoods are threatened by loss of grazing land due to changes in land use (oil and gas, mining, wind farms, tourism, infrastructure development), and a changing climate. Major drivers behind this development are the world?s need for energy and natural resources, also potentially linked to and facilitated by climate change.

In the ProDoc a further detailed description is given of the main root causes behind peatland degradation and loss and the degradation and loss of reindeer pastures:

- ? Direct and indirect impacts of climate change: increasing temperatures, droughts, fires, permafrost thaw
- ? Overgrazing, encroachment, drainage, conversion to agricultural land and other drivers of peatland degradation and area loss (Land use change)
- ? Lack of integration of peatlands into spatial planning and sectoral plans
- ? Insufficient knowledge of peatlands: their distribution and importance
- ? Loss of traditional reindeer pastures limiting the resilience of herding communities

? Reindeer communities, with their traditional knowledge, do not have access to decision making bodies and lack capacity to influence the decision-process. Both men and women have the same opportunities and access to decision making process. However, because of the nature of reindeer husbandry they do not always use the opportunity similarly.

See ProDoc section 2.4 (pp 37-48) on threats, root causes and barrier analysis for a detailed analysis.

#### Long-term solution and barriers

The long-term solution sought by the project is to develop the capacity for enhancing ecosystem services of peatlands (specifically reduction of GHG emissions from degraded peatlands) in Mongolia and the capacity of indigenous reindeer herders to reduce land degradation and improve the provision of ecosystem services and increase community resilience. However, the following **barriers** are preventing this solution:

Barrier 1: No policy framework, knowledge and institutional capacity for peatlands restoration and management in relation to climate change mitigation:

Barrier 2: Limited experience and absence of identified best practices for integration of climate smart peatland management into economic activities

Barrier 3: Traditional knowledge of reindeer herders does not inform decisions because reindeer herders lack the capacity to participate effectively in land use decision-making:

The Assessment report for Strategic Planning for Peatland in Mongolia (ADB-MET, 2017) selected 10 priority areas as important to conserve at the strategic level selected four target areas. These areas are contributing to the ecosystem integrity of permafrost containing landscapes, contain important biodiversity elements and support the mitigation of GHG emissions. Based on consultations with key stakeholders in the formulation process the project has selected four target areas in Mongolia: Darhadiin depression, Ugii Nuur Lake, Hurh-Huiten and Tsagaannuur watershed. See the more detailed description and selection criteria in the ProDoc pp. 21-30. Activities of Component 3 of the project, focusing on nomadic reindeer communities, have a global scope in arctic and sub-arctic regions with reindeer herding communities. Cross-site exchanges with Tsagaan Nuur in Mongolia will facilitate the learning and knowledge exchange between geographically dispersed communities.

- 3) the proposed alternative scenario with a brief description of expected outcomes and components of the project;
  - 4) alignment with GEF focal area and/or Impact Program strategies;
- 5) incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing;
  - 6) global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF);

## Reference to the ProDoc for the above topics

Sections in the ProDoc and reference to their content	Page reference
Section 2.6 contains the Baseline analysis and gaps, which has been expanded since the PIF stage, along with other sections. Section 2.6 includes now also an overview of the key identiefied gaps in the baseline as presented in Table 3.	ProDoc, pp. 54 ? 56
<b>ProdDoc Table 5</b> (reproduced further down), contains the key elements in the <b>baseline</b> analysis, representing the business-as-usual scenario.	
The Global Environmental Benefits are also outlined in <b>ProdDoc Table 5.</b>	
ProDoc Appendices 2 and 12 provide more details on the co-financing by source and project components, and for the actual co-financing commitment letters from project partners.	ProDoc, p. 111, Appendix 2
	ProDoc, pp. 111, Appendix 12
<b>Section 2.7</b> provides an overview of linkages of the project with other GEF and non-GEF interventions, further building the baseline scenario and the alignment with existing projects and initiatives	ProDoc, pp. 56 - 59
Section 3.3 contains a detailed description of expected outcomes and components of the project, along with the set of Activities that have developed during the PPG in connection with them. A summary of these elements are reproduced further down.	ProDoc, pp. 44 - 53

#### **Baseline**

The proposed project will build upon the previous steps already taken by Mongolia towards mitigating climate change and sustainable management of terrestrial ecosystems. Mongolia recognizes the importance of national commitment to mitigation and has identified national emission reduction actions. The LULUCF sector has until now included removals based on afforestation activities only. The national actions do not include organic carbon mitigation potential of peatlands. While projects exist that are addressing the threats and barriers described above, under the business-as-usual scenario, these projects are insufficient to facilitate change that allows for enhanced ecosystem services of peatlands (specifically reduction of GHG emissions from degraded peatlands) in Mongolia and improved provision of ecosystem services and increased community resilience of reindeer herders.

The national Integrated River Basin Management (IRBM) provides a framework for the systematic land use planning and management of the information, as well as involvement of the civil society via Basin Councils. The Nationally Determined Contribution (NDC) approach provides clear incentives for the improvement of the land use practices aimed to the reduction of emissions from the LULUCF sector. However, these two policy tools don?t recognize the benefits of the regulating services of peatlands. Similarly, Mongolia has additional frameworks which don?t consider the role of peatlands. These are:

- ? Nature Protected Areas Network and UNESCO objects network;
- ? SDG reporting;
- ? reporting on land degradation neutrality (UNCCD);
- ? reporting on Global Action Plan on Peatlands of the Ramsar Convention (Res.VIII.17) and other peatland related resolutions of the Ramsar convention;
- ? Reporting on the CBD implementation and contribution to IPBES evaluations.

Scientific research work in the frame of the regular plans of the Academy of Sciences, as well as activities on natural resource management, especially water management and protected areas maintenance, are funded from the state budget.

The work on biodiversity conservation at the national level is organized and funded in line with the National Biodiversity Program, which is an umbrella program covering environmental protection, biodiversity conservation and sustainable management of natural resources. The total budget of the state funds for the National Biodiversity Program for the period 2020-2023 is estimated around US\$4 million. The respondents mentioned the lack of awareness on peatlands for their integration into the National Biodiversity Program.

A small grant for wetland ecosystem restoration was recently provided by the International Investment Bank to the Academy of Sciences of Mongolia[7]<sup>7</sup>.

-

The National Adaptation Plan (NAP) process, which intends to strengthen climate-resilient development is under implementation with support from the Green Climate Fund (GCF) and the UN Environment Programme (UNEP).

-

Switzerland provided funds for the ?Green Gold? project on pasture restoration [8]. The Project will be implemented until 2021 and the planned budget for the period 2020-2021 is around US\$1,200,000.

-

The German Ministry of Economic Cooperation and Development (BMZ) has funded several climate related projects, which will complement the objectives of this project:

Biodiversity and Adaptation to Climate Change via KfW 2015-2027 with a budget of US\$ 43.7 million (39.0 million euro);

Supporting Protected Areas for the Conservation of Ecosystem Services? SPACES, via GIZ, 2019? 2022, with a total budget of US\$ 5,1 million (4.58 million euro).

Furthermore, there has been a number of projects related to reindeer husbandry and land degradation, however these either old or framed and funded as case-based approaches which focus on specific regions and/or themes. Consequently, holistic knowledge about reindeer herding and its relationship with the natural environment is generally weak. Only to a limited degree is the herders? traditional knowledge and practical experiences included in the management of the tundra and taiga rangelands. And this gap in knowledge and data for the sustainable management of rangeland has significant impact on herders. For example, inaccurate data on rangeland degradation (causes and effects) could cause governments or MEAs to blame and dismantle traditionally sustainable herding systems or introduce policies to ?fix? something that is not broken[9]9. The knowledge gap could also have implications for investments to strengthen the economy and culture of reindeer husbandry. Reindeer herders lack the capacity to communicate their own knowledge and environmental observations to actors outside their community. Their challenge of mobilizing traditional knowledge of reindeer herders into decisions lack affect their ability to be understood by the rest of society and to participate effectively in decision-making processes. The knowledge gap is same for the men and women in the herder communities.

In the baseline scenario, decision-making on land-use and rangelands conservation will continue to be based on processes that exclude reindeer herders? knowledge and participation. The lack of

acknowledgement of traditional knowledge and management practices will undermine these knowledge systems and challenge the maintenance and development of pastoral knowledge, practices and culture, as well as their transfer to the next generation of herders. Unique contextual knowledge about local landscapes, ecosystems management and biodiversity will not be collected and archived, and will not inform measures to reach the SDGs and LDN targets.

The GEF project will provide a framework that can create synergies between these projects, facilitate knowledge exchange between regions and themes, raise the lessons learned from local and regional projects to international fora for sustainable land management, facilitate a dialogue between local-regional-global levels, and provide input for more effective and equitable decision-making. This will be an important contribution to safeguarding the natural environment of the taiga and tundra, as well as the transhumance cultures and livelihoods of these regions. The project will also identify relevant indicators that can be used to monitor the implementation of the SDGs for Arctic and sub-Arctic pastoralism, the tundra and taiga.

**ProDoc Table 3.** Key Identified gaps in baseline

Type	Gap (in baseline ?status quo? scenario)
Policy framework	Although Mongolia recognizes the importance of peatlands, exemplified through the ?Strategic Plan for peatland in Mongolia?, a broader inclusion and specifically sectoral integration into policies, plans and guidelines of peatland and its sustainable management is still lacking. Mongolia has committed itself to mitigating climate change and has developed the policy framework and monitoring framework, but has not yet been able to include the ecosystem services of peatland and specifically reduction of GHG emissions from degraded peatland and broader valuation of these services for community resilience and livelihoods. Presently, decision-making and policy development on land-use and rangeland conservation continues to be based on processes that exclude reindeer herder?s knowledge and participation.
Legislative context	Mongolia has a well-developed national environmental legal framework with a considerable number of laws specifically regulating natural resource management and environmental protection in the country. However, at the moment there are no specific laws on the protection of peatland in Mongolia.
General institutional issues	Peatlands have only recently gained more attention from the Mongolian government. Specific knowledge and expertise on peatlands, spatial inventories, ecosystem services mapping and valuation, GHG emission monitoring, LDN monitoring is therefore limited and requires capacity building of the staff of the key institutions involved. Limited exposure to and experience with best practices of sustainable peatland management approaches also hampers broader replication and scaling-up of successful interventions. Traditional knowledge systems and governance systems for landscape management, biodiversity conservation and food production among Arctic and sub-Arctic pastoralists are not available for decision makers, also due to poor representation in governance institutions. Capacity of nomadic herders is limited to participate and contribute to the sustainable management of rangelands and to achieve effective knowledge exchange between the diverse nomadic communities.
Specific Technical issues	Technical support is needed to build specific technical expertise in spatial inventories of peatlands and ecosystem services, MRV related to GHG emission reduction related to sustainable peatland management and associated reporting.

Data	Although a start is made with a national spatial inventory of peatland, gaps remain in spatial information on distribution and characteristics of peatlands. Baseline information of priority areas identified need to be gathered. Spatial and temporal information on permafrost and ecosystem services is limited and needs further mapping and reporting. This spatial information will facilitate the generation of required data for reporting on GHG emissions and LDN targets linked to sustainable peatland management and this information is needed to attribute value to peatland through ecosystem accounting approaches.
Research and development	There is limited experience with research into the temporal and spatial distribution of permafrost and its relationship with associated peatland areas. Also, the modeling of permafrost and water balance in specific catchments is requiring additional attention to better understand these temporal and spatial dynamics and relations and its expression in peatland system and ecosystem services.
Management practices	There is overall very limited experience with best practices in sustainable peatland management in Mongolia through implementation of specific case studies to learn lessons, share knowledge and experiences (and constraints) and document these emerging good management practices with a wider audience. Globally, the lack of acknowledgement of traditional knowledge and management practices prevents an effective collection, documentation and archiving of this unique contextual knowledge and requires a broader knowledge sharing platform and inclusion of reindeer herders in these decision-making bodies that guide management practices for more sustainable landscapes.

#### **Project Components and Expected Results**

### **Project Rationale**

The main premise of the Project is that in order to sustain ecosystem services of peatlands and reduce land degradation, sustainable peatland management should be mainstreamed into policy frameworks and sectoral policies, and nomadic herders capacitated to contribute to sustainable land management. This premise can only be achieved if knowledge and data on peatlands are used by national authorities in identification of peatland-based mitigation and adaptation options so that these options can be part of national plans so that sustainable peatland management based activities can be implemented, reported and monitored. Sustainable peatland management can be achieved if other sectoral plans and strategies incorporate peatland management solutions into sectoral policy formulations. Finally, nomadic herder communities? capacities will be enhanced so that nomadic pastoralist communities participate in rangeland management processes so that indigenous knowledge will be part of sustainable landscape management approaches. Cross-community exchanges at global scale will further facilitate dissemination of project?s good practices, lessons learned on herders? contribution to sustainable landscape management globally so that Project?s best practices will be replicated at global scale. The project?s methodology is to develop activities spanning the spectrum from knowledge through policy to practice.

The project will achieve its objective to develop the capacity for enhancing ecosystem services of peatlands (specifically reduction of GHG emissions from degraded peatlands) in Mongolia and the capacity of indigenous reindeer herders to reduce land degradation and improve the provision of ecosystem services and increase community resilience through the following three technical components:

# Component 1 Policy framework and institutional capacity for climate-friendly and resilient peatland management practices

In the proposed alternative scenario, with the GEF support, the project will mobilize and support Mongolia to achieve global environmental obligations, especially GHG emission reduction, through integrating peatland conservation in land use planning and monitoring with focus on major economic sectors (e.g., tourism, agriculture, mining, road and transportation). This plan will be monitored with a set of sectoral reporting frameworks. The closest possibility to integrate peatlands related activities in the LULUCF segment of the NDC of Mongolia will be done by supporting the Government for the inclusion of peatland related GHG emission accounting and reduction activities in the National Communication. The project will work on the formulation of peatland-based mitigation targets in cooperation with MET, CCRCC, NDC support programme, and the CBIT projects. In order to clearly define actions to reduce GHG emissions from the peatlands it is important to have good inventory data, e.g., geographic distribution, origin, connectivity, peat layer depth and ecological services they provide. Although some baselines are established in major peat containing geographic regions, the detailed inventory and classification is still missing. A detailed inventory is an essential pre-condition to identify actions towards sustainable land use. The project will finalize the peatlands inventory at the country level and this will be detailed for the pilot areas. The second set of information is related to the ecosystem services of peatlands, with special emphasis on climate change mitigation and avoiding land degradation. The project will especially identify the carbon storage potentials of peatlands, possible carbon losses from peatlands caused by different land uses, and the potential reductions of emissions as result of peatland restoration or application of climate-smart land management solutions. The inventory of peatlands (as water objects), and their ecosystem services will be shared with other national platforms in order to engage different stakeholders in monitoring and reporting processes. The reporting on mitigation measures will be embedded by the project into the political and legal frameworks and in business schemes through social corporate responsibilities reporting (reputation risk avoidance). For this purpose, the project will conduct gap analysis of legislation and sectoral regulations. The project will work towards capacity building in different sectors through demonstration pilots and guidelines on best practices for planning, implementation and reporting. Component 1 is composed of 2 Outcomes. Outcome 1.1: The peatland based GHG emission reduction plan for four main sectors of the economy (conservation, agriculture, mining, construction) and a framework for reporting on peatland management are approved by the Government and under implementation. Outcome 1.1 is composed of 4 separate outputs. *Outcome 1.2:* Knowledge and data on peatlands used by national authorities in national reporting. Outcome 1.2 is composed of 6 outputs.

This component helps to integrate the climate-smart ecosystem-based solutions into activities of target economic sectors to streamline their land-use practice. The Project will establish an inter-agency natural capital accounting National Working Group to consultatively develop a coherent and consistent national framework for peatland ecosystem accounts in compliance with the SEEA framework. The peatland related land-use issues and solutions are intersectoral. However, practical implementation is within the sectors. The project will demonstrate how political frameworks developed by the project and project knowledge accumulated on peatlands function. The component will address five economic sectors: nature conservation including tourism; water resource management; agriculture production (herding and crop production); mining; construction. All sectors are addressed in line with the following logical scheme: stakeholder analysis and engagement; mobilizing of knowledge, development of guidelines and practical recommendations; implementing the pilot; report on the outputs of pilot; dissemination and sustaining results.

Peatland conservation will secured within the natural protected areas system by updating the management plans for at least two NPAs considering peatlands. Pilots on awareness raising on peatlands and sustainable tourism, and restoration of sites after destruction by unsustainable tourism will be demonstrated. The project will provide GIS layers of delineated peatlands and basic information on their status to water resource managers. Further the project will work with local EPAs and River Basin authorities to develop the recommendations on peatlands management to enhance their adaptation capacity especially regarding water access and resilience to natural disasters. The project will provide information on peatlands and suggest possible climate-smart land-use solutions and practices to decision-makers to be considered in future agriculture strategies. The specific knowledge base will include ecosystem services assessment with the emphasis on climate change mitigation and adaptation in targeted agriculture mainstream pilots.

The project will conduct a gap analysis and recommendations for improvement of the legal framework for the integration of the best peatland management practices over the course of mining operations and planning. The project will assist integration of restoration techniques and peatland monitoring into operational planning of the mining sites and Environmental Impact Assessments. Component 2 has one Outcome, *Outcome 2.1:* Sustainable Peatlands management integrated into sectoral policies and practices. Outcome 2 is composed of 5 outputs.

#### -

# <u>Component 3.</u> Global knowledge-base and capacity for herders? contribution to sustainable landscape management

Under this component, the project will document and assess the gender sensitive traditional knowledge of reindeer herders? community-based practices and models to enhanced ecosystems services and land degradation including human well-being. The component will present similarities and differences within and between the two main types of herding practices: tundra and taiga reindeer husbandry. The approach focuses particularly on the co-production of knowledge between scientists, relevant

governmental institutions dealing with land management and biodiversity issues, and reindeer herders, paying attention to placing reindeer herders? knowledge on an equal footing to academic scientific knowledge. This information will be collected through a variety of means, including interviews with reindeer herding elders, field-based scientific studies, remote sensing, including time series of land use changes within the model areas, and collection of data from administrations and the private sector, where applicable. GIS-based maps of current land-uses and future scenarios will be developed through participatory mapping workshops. Furthermore, an environmental monitoring system that assesses sustainable management of rangelands and pastoralism will be developed and tested.

In this component, the capacity of nomadic pastoralist communities will be enhanced to enable them to participate in rangeland management. After this Project, reindeer herders will be able to address land degradation, ecosystem conservation and resilience building within their communities. The Project will provide support for building the institutional capacity of nomadic pastoralist communities to participate in rangeland management and engage in a constructive dialogue with planners and decision-makers, government, industry and other international stakeholders. Finally, the project aims to share the project?s results with outside experts, policy-makers, scientists and others from across the region and beyond. This Component is sub-divided in 3 Outcomes, Outcome 3.1: Sustainable landscape management approaches institutionalized for global reindeer. Under this Outcome, the project will document and assess the traditional knowledge of reindeer herders? community-based practices and models to enhanced ecosystems services and land degradation including human well-being. The component will not cover all ethnic groups at the same extent but present similarities and differences within and between the two main types of herding practices: tundra and taiga reindeer husbandry. Outcome 3.2: Global nomadic pastoralist communities participate in rangeland management structures and processes with enhanced capacity. Under Outcome 3.2, the project will help to increase the capacities of local nomadic herder communities for sustainable management of rangelands upon which their livelihoods rely. It will improve the capacity of reindeer herders to address land degradation, ecosystem conservation and resilience building within Arctic communities. It will also aim to enhance the institutional capacity of nomadic pastoralist communities to participate in rangeland management and engage in a constructive dialogue with planners and decision-makers, government, industry and other international stakeholders. And, Outcome 3.3: Global stakeholder groups support and use project?s good practices, lessons learned on herders? contribution to sustainable landscape management in future operations. This Outcome will support effective and systematic creation, documenting and sharing of knowledge and the project?s results with outside experts, policy-makers, scientists and others from across the region and beyond. It will also offer an opportunity for the project?s stakeholders to gain exposure to these outside experts.

The project components outcomes, expected outputs and associated activites are presented in detail in the ProDoc. (Section 3.3, pp. 64-76).

The Project?s Baseline, its Alternative and the Global Environmental Benefits that it is expected to produce are summarized in ProDoc Table 5 (below).

ProDoc Table 5 Incremental Cost Reasoning

Baseline Scenario B	Alternative Scenario A (with	Local/National and
(Business as Usual)	project interventions)	Global Environmental Benefits
		(A?B)

Component 1: Policy framework and institutional capacity for climate-friendly and resilient peatland management practices

Baseline:

Currently, despite the development and acceptance by the Ministry of Environment and Tourism of Mongolia of the Strategic Plan for Peatlands Conservation and Wise Use in Mongolia, the capacity for its implementation is insufficient. There are gaps in the PLRs and in capacities for MRV, as described in the project justification section. The current intentions expressed in the Strategic Plan for Peatlands Conservation and Wise Use and emerging efforts by the government and other stakeholders to implement Peatland Strategy require additional support to ensure the inclusive and sustained realization of a peatlands policy. A wide range of stakeholders is aware of climate change and of the need to apply improved land and other resources use. Peatlands and permafrost management have not, however, been recognized as a significant part of the challenge. Building on the previous efforts on peatlands and climate change policy, Mongolia is currently intending to undertake efforts towards creating national capacities for implementing the policy in the country. However, these efforts are not sufficiently resourced in time, knowledge and funds to mainstream peatlands and climate change policies across all levels of government and with other stakeholders.

## Probable results:

? Limited integration of sustainable peatland management into the national policy framework and into various sectoral plans and guidelines. NDC of Mongolia does not reflect peatland mitigation and adaptation targets. Limited or no further development of sectoral templates for reporting on LDN and climate smart solutions and GHG reductions related to

The GEF incremental funding will support incorporation conservation and restoration of peatlands into GHG emission reduction plans for four main sectors and into sectoral policies and guidelines. The GEF support will mainstream help sustainable peatland management into relevant national strategies by making available information and data on ecosystem services of peatlands. Information on peatland distribution will be made available for land use planning and decisionmaking processes. With incremental GEF funding the project will support development of a conducive legal framework in which the value and importance of peatlands and their ecosystem services are recognized and acknowledged.

The incremental GEF funding will also support peatland inventories, including ecosystem services mapping for various sectors. Additionally the project will support capacity development of national institutions and staff in their ability to carry out peatland inventories and data integration into sectoral planning and related reporting and the capacity of staff to monitor and report GHG emissions reduction and LDN linked to peatland management.

The project support will also used capacity building for evaluation and monitoring of carbon stored in peatlands through a tailor-made curriculum. Finally, the GEF incremental funding will enable the project to pilot two pilot adaption plans based on an improved water balance model considering peatlands and permafrost. Finally, the project will support research into the peatland-permafrost interaction model to guide decision-making on adaptation measures.

#### Local/national benefits:

- ? Capacity raised of staff to:
  - carry out peatland inventories and ecosystem services,
- 2. map, monitor and report on LDN and GHG emission reduction linked to peatland management,
- 3. evaluate and monitor carbon stored in peatlands
- ? GHG emission reduction plans through conservation and restoration of peatlands developed for four main sectors
- ? An improved water balance model considering peatlands and permafrost as basis for pilot catchment adaptation plans.
- ? A peatland and permafrost interaction model developed as background for decisions on adaptation measures.

# Global benefits:

Support to Mongolia?s LDN target of ?Promoting sustainable grassland management and halting further grassland degradation? and ?Ensuring no net loss of wetlands by 2030 compared to 2015?

**Core Indicator 4:** putting 8,000ha of landscapes under improved practices.

# Core Indicator 6:

reduction of 30,000t of CO2eq. per annum through sustainable peatland management interventions.

Component 2: Integrate climatesmart peatland management solutions into practice

### Baseline:

Currently, Mongolia recognizes the importance of national commitment to mitigation and has identified national emission reduction actions. The LULUCF sector has until now included removals based afforestation activities only. The national actions do not include organic carbon mitigation potential of peatlands. While projects exist that are addressing existing barriers and threats under the BAU scenario, these projects are insufficient to facilitate change that allows for enhanced ecosystem services of peatlands in Mongolia. Recognition and valuation of ecosystem services towards ecosystem accounting for peatlands is still rudimentary and in sectoral management plans and guidelines peatlands are mostly not considered. The ADB-MET project has supported some case studies, but very limited case studies have been carried out to develop best practices for sustainable peatland management (conservation, restoration wise use). and Additionally, the existing capacity of staff in sustainable peatland management is limited and requires a tailored curriculum.

## Probable results:

? Sectoral plans do not include climate-smart peatland management. Very few sustainable peatland management solutions have been piloted. Capacity of key stakeholders in climate smart peatland management is limited. Knowledge management on sustainable peatland practices is very limited and not supported by an effective platform for knowledge exchange.

The GEF incremental funding will support demonstrations subnational scale that introduce sustainable best practices on peatland and peatland use restoration part of land as improvement programs.

The incremental GEF funding will support the development of a roadmap towards SEEA-based ecosystem accounting for peatland ecosystems through the establishment of an inter-agency natural capital accounting National Working Group to consultatively develop a coherent and consistent national framework for peatland ecosystem accounts in compliance with the SEEA framework.

Additionally, the project will support the updating of sectoral management plans for 4 sectors considering peatlands in their management strategies and guidelines.

The GEF incremental funding will support the piloting of solutions sustainable peatland management in targeted hotspots order to develop experience and learn lessons for emerging good practices for the various sectors. The piloting will combined with tailored capacity building of sectoral staff to enhance their knowledge and management skills in sustainable peatland management. Through the case studies, lessons learned and emerging good practices will be documented and reported and shared with a wider national, regional and global audience.

## Local/national benefits:

The project will develop and apply existing methods of ecosystem restoration and test them in pilots to inspire local, national and international stakeholders. Additionally, capacity of staff involved in these sectoral pilots to manage peatlands sustainably will be enhanced.

## **Global benefits:**

Restoration of peatlands in arid and semiarid biomes, as well as restoration of permafrost is a significant challenge. By demonstration of pilots, the Project will help in meeting the targets of the UN decade of ecosystem restoration (2021-2030).

Lessons and emerging good practices will be documented and shared with a wider regional and global audience, linking with the GPI and GPA network.

Core Indicator 3.4 Area of wetland restored (12,000ha)

Component 3: Global knowledgebase and capacity for herders? contribution to sustainable landscape management

### **Baseline:**

Decision-making on land-use and rangelands conservation will continue to be based on processes that exclude reindeer herders? knowledge and participation. The lack of acknowledgement knowledge traditional and management practices will undermine these knowledge systems and challenge the maintenance and development of pastoral knowledge, practices and culture, as well as their transfer to the next generation of herders. Unique contextual knowledge about local landscapes, ecosystems management biodiversity will not be collected and archived and will not inform measures to reach the SDGs and LDN targets.

### **Probable results:**

? Women?s involvement in landscape management is lacking. No community-based monitoring of land use change exists for reindeer husbandry areas. Limited traditional knowledge included in educational courses provided by schools and universities. Limited ability of pastoral communities to participate in landscape conservation. Poor access to knowledge products.

With the incremental support of GEF. reindeer herding communities will be able to document and assess environmental observations. traditional knowledge, as well as western scientific knowledge, about landscapes and biodiversity. Further, the herding communities will be able to communicate this knowledge to and engage in constructive dialogue with other sectors that have competing land use interests or that take part in decision-making concerning landuse. The latter will facilitate decision-making that minimize the stress on both the landscape and the pastoral communities and reduce the number of land-use conflicts in reindeer grazing areas Furthermore. globally. incremental support of the GEF will make available, and increase awareness of, gender-sensitive knowledge regarding landscape management? information that is currently not available.

In addition, Component 3 of the project has been designed to facilitate the sharing of experiences between the participating herding communities and with international stakeholders environmental decisionmaking fora, such as the UNEA, CBD and the Arctic Council. This is expected to contribute to international documentation and targets, including the SDGs and LDN targets, and other on-going international planned sustainable initiatives on pastoralism (e.g. UNEA resolution 2/24).

## Local/national benefits:

The tools and partnerships developed through project will increase their knowledge and understanding of policy national decisionand making that processes affect the habitats thev depend upon, and their livelihoods.

### Global benefits:

The project will directly contribute to increasing the capacity of disadvantaged nomadic herder communities to engage in and benefit from sustainable land management efforts and adapt to environmental and human-induced changes to the rangeland habitats they depend upon. With these capacities, herder communities will be in a better position to advocate for their sustainable model of land use in sensitive tundra and taiga landscapes and mitigate pressures to convert land to more degrading uses. Nomadic herders will enhance their resilience to changing social, environmental and climatic conditions at the global scale.

An additional expected benefit of the project is community empowerment, enabling nomadic herders? community members to participate more fully as partners equal in information sharing, education and training, technology transfer. organizational development, and policy development, thereby gaining more access to commercial, social and political opportunities. The

### Alignment with other GEF and non-GEF interventions

The project will contribute to the GEF-7 Programming directions land degradation by creating an enabling environment to support LDN target implementation in Mongolia. Furthermore, by enhancing the land use, land-use change, and forestry (LULUCF) sector, the Project will support Mongolia?s NDC framework. The NDC framework developed as the implementation mechanism of the Paris agreement is called to create incentives for mitigation and adaptation on the national level. Within the Climate Change Focal Area, the project will contribute to mitigation of GHGs by introducing balanced restoration practices, contributing to the improvement of land use, and increasing land degradation neutrality (LDN). Specifically, this Project will support Mongolia?s LDN target of ?Promoting sustainable grassland management and halting further grassland degradation? and ?Ensuring no net loss of wetlands by 2030 compared to 2015? by putting 20,000 ha of landscapes under improved practices. Among other, the project will also contribute to piloting and mainstreaming climate mitigation-based practices in key economic sectors such as controlling housing on peatlands by development of a spatial plans

The project is aligned with the GEF-7 Programming Directions, specifically with the Land Degradation focal area (LD-1-4 Reduce pressures on natural resources from competing land uses and increase resilience in the wider landscape). Through its emphasis on the traditional knowledge of Arctic and sub-Arctic indigenous communities on sustainable land management and its efforts to improve their capacity to participate in decision-making on land use in reindeer herding areas, the project will meet the GEF?s stated objectives of: ?Building capacity at all levels required to restore and maintain functional landscapes?; and ?Lessons learning and knowledge exchange and south-south cooperation within regions?.

The Project is also aligned with the ?Sustainable Forest Management Impact Program on Dryland Sustainable Landscapes? (GEF ID 10206). It is worth to note that this Project does not seek a direct contribution to the drylands agenda. However, there exist significant potential synergies such as comprehensive land-use planning approaches. Both this Project and the Impact Program aim at enhancing intersectoral platforms and mechanisms for integrated land use planning.

The Project is aligned with the FAO-WWF-GEF Project Promoting Dryland Sustainable Landscapes and Biodiversity Conservation in the Eastern Steppe of Mongolia (?Eastern Steppe project?) (GEF ID 10249), October 2020-September 2025, US\$5,354,586. Although this Easter Steppe Project has a different geographic scope there are synergies in its aim to strengthen LDN target monitoring and reporting mechanisms and its intention to support incorporation of land degradation and biodiversity considerations into the ongoing land management planning process.

The project is aligned with the UNDP-GCF Project ?Improving Adaptive Capacity and Risk Management of Rural Communities in Mongolia?, FP141, 2021-2028, US\$23,101,276, with a focus on pasture management and support to herders. Synergy with this Project lies in its goal to support the scaling-up of climate-resilient water and soil management practices for enhanced herder resource management.

The project will also align to the large ADB-GCF Project ?Mongolia: Aimags and Soums Green Regional Development Investment Program (ASDIP)?, FP154, 2021-2031, US\$175,0 million, part of the Partnership for Low-Carbon and Climate-Resilient Rangeland Management in Asia, which will provide financing for low-carbon and climate-resilient rangeland management in Mongolia and Asia based on the mitigation results achieved. Synergies are enclosed in the common aim of reversing the present degradation of Mongolia?s rangelands and restoration and safeguarding its vast mitigation potential and supporting herders low-carbon climate-resilient practices.

The project will build on completed GEF projects and will coordinate with currently ongoing GEF projects, as well as other relevant non-GEF funded projects and initiatives? based on advice from the GEF Indigenous Peoples Advisory Group[10]<sup>10</sup>.

Further, the project will build on previous work using the *GLOBIO model* to assess past, present and future human-induced changes in terrestrial biodiversity at regional to global scales, and facilitate dialogue and planning for landscape and biodiversity conservation (see Degteva et al 2017)[11]<sup>11</sup>. The model assesses and visualizes the cumulative effects on biodiversity from different human activities, including land-use, infrastructure development, landscape fragmentation and climate change.

The World Initiative on Sustainable Pastoralism (WISP, http://www.iucn.org/wisp/) is coordinated by IUCN with support from the GEF, UNDP, IFAD and others. WISP is a global advocacy and capacity building network that promotes sustainable pastoral development for both poverty reduction and environmental management. Through proposed activities the proposed project will complement the WISP engagement for advocacy, capacity building and networking, contributing specifically by demonstrating that reindeer pastoralists? land use and system is an effective way of harnessing natural rangeland resources, as well as enabling reindeer pastoralists to effectively adapt to anticipated land use and climate change.

The project will also contribute to the global work of the *World Alliance of Mobile Indigenous Peoples* (WAMIP) and the FAO *Pastoralist Knowledge Hub* to strengthen the voice of pastoralists and improving the governance of rangelands. Through the Project Advisory Board, the project will be in dialogue with and support the International Support Group for the *International Year of Rangelands and Pastoralists* (IYRP)? a group represented by a number of UN organisations, including UNEP and FAO.

Furthermore, the project builds on *International Polar Year EAL?T-Network Study* of the University of the Arctic EAL?T Institute of Circumpolar Reindeer Husbandry[12]<sup>12</sup>. The Institute recently developed educational programs for reindeer herding youth, focusing on impact assessments. Also, the project will contribute to the *Arctic Council Sustaining Arctic Observation Networks process*[13]<sup>13</sup>. The project will furthermore be coordinated through Arctic Council, Working Group of Conservation of Arctic Flora and Fauna, an inter-governmental body that brings together the eight Arctic states and 6 Permanent Participants together for international environmental cooperation.

The proposed project will build on several donor-funded initiatives. Among the key baseline initiatives are the International Centre for Reindeer Husbandry (ICR) projects ?EALLU Climate Change and Reindeer Husbandry? 2006-2011 and ?EALLIN Reindeer Herding Youth? 2012-2015? both are Arctic Council project. ICR is also responsible for the on-going Arctic Council project ?EALLU Arctic Indigenous Youth: Traditional Knowledge and Food Culture? Navigation towards sustainability through new approaches for addressing Arctic climate change and globalization? 2015-2019.

## National state funding and private sector

Scientific research work in the frame of the regular plans of the Academy of Sciences, as well as activities on natural resource management, especially water management and protected areas maintenance, are funded from the state budget.

The work on biodiversity conservation at the national level is organized and funded in line with the National Biodiversity Program, which is an umbrella program covering environmental protection, biodiversity conservation and sustainable management of natural resources. The total budget of the state funds for the National Biodiversity Program for the period 2020-2023 is estimated around US\$4 million. The respondents mentioned the lack of awareness on peatlands for their integration into the National Biodiversity Program.

A small grant for wetland ecosystem restoration was recently provided by the International Investment Bank to the Academy of Sciences of Mongolia[14]<sup>14</sup>.

### International funding

The National Adaptation Plan (NAP) process, which intends to strengthen climate-resilient development is under implementation with support from the Green Climate Fund (GCF) and the UN Environment Programme (UNEP)

Switzerland provided funds for the ?Green Gold? project on pasture restoratio[15]<sup>15</sup>n. The Project will be implemented until 2021 and the planned budget for the period 2020-2021 is around US\$1,200,000.

The German Ministry of Economic Cooperation and Development (BMZ) has funded several climate related projects, which will complement the objectives of this project:

Biodiversity and Adaptation to Climate Change via KfW 2015-2027 with a budget of US\$43.7 million (39.0 million euro);

Supporting Protected Areas for the Conservation of Ecosystem Services? SPACES, via GIZ, 2019? 2022, with a total budget of US\$5.1 million (4.58 million euro).

The National Natural Science Foundation of China (NSFC) funds a 2M RMB (US\$333,000) research project of the Northwest Institute of Eco-Environment and Resource, Chinese Academy of Sciences, titled ?Process and driving mechanisms of vegetation changes and landscape diversity in Mongolian permafrost regions?. The main objectives of the project are: to clarify the distribution characteristics and changes of land cover types in Mongolia in the past few decades, as well as the process and driving mechanisms of vegetation change; to clarify the spatial patterns of permafrost distribution and hydrothermal characteristics, develop and improve the dynamic vegetation model and land surface process model and to simulate the changes of permafrost and vegetation in Mongolia under climate warming scenarios. The project period is from January 2021 to December 2025.

The National Natural Science Foundation of China (NSFC) and UNEP Joint Programme intends to fund a research project titled ?Response of productivity and carrying capacity of grassland ecosystems to global change in Mongolian Plateau? in collaboration with the Institute of Geography-GeoEcology, Mongolian Academy of Sciences. The project, with 3M RMB funding (approximately US\$500,000), has a project cycle from 2020 to the end of 2024, primarily explores the response of productivity and carrying capacity of grassland ecosystems to global change in Mongolian Plateau. The project intends to produce an ecosystem management advisory report on rehabilitation of strongly-degraded grassland to the policy-makers and pastoralists.

# Innovativeness, sustainability and potential for scaling up

Sections in the ProDoc and reference to their content	Page reference

Sections in the ProDoc and reference to their content	Page reference
Section 3.8 refers to Sustainability and Innovation. It includes a discussion of the elements of innovation the project intends to bring and how it aims to facilitate uptake and scaling up of best practices, as piloted under project interventions. The text from the ProDoc is reproduced further down. There are improvements to the section as as presented in the PIF.	pp. 86 ?

Innovativeness: The project is highly innovative as, for the first time in Mongolia it demonstrates the significant potential of peatlands and permafrost ecosystems for climate change mitigation through improvements to the country?s water and natural resources management. The project contributes to safeguarding the country?s water resources, including those stored in permafrost which are unknown to most decision-makers. The project will use the concept of ecosystem services to assess land use impacts and possibilities for improvements. The connection with respective ongoing international initiatives like TEEB and IPBES over the course of project implementation will allow Mongolia to contribute to and benefit from international progress made in this field. The project introduces and anticipates the principle of ecological ecosystem restoration. The project will apply the eight international principles and standards for the practice of ecological restoration defined by the Society for Ecological Restoration (www.ser.org/standards). The project is innovative in supporting the further development in Mongolia of the SEEA Ecosystem Accounting towards a coherent and consistent national framework for peatland ecosystem accounts. Another innovative approach is the support to research into permafrost-peatland interactions in Mongolia and the development of an improved water balance model as supporting the development of sustainable adaptation and management measures.

The proposed project is innovative in its approach of combining reindeer herders? traditional knowledge with science and modern technology to reduce degradation of grazing land and improved rangeland management by including both reindeer herders, scientist and indigenous scholars. The project is the first one which will put in place a strong platform for the integrated and holistic sustainable land management involving reindeer herders. This will include the production of new and novel knowledge products and platforms for knowledge sharing actively involving societies and local youth and building local capacity and leadership. Providing a better understanding of indigenous peoples? food production system is also unique, likewise providing mechanism for youth to be trained to participate in decision making.

**Sustainability**: A key consideration in the design of the project is enhancing dialogue and understanding, which is a financially sustainable strategy in itself. The overall project approach is firmly rooted in the mandates of the key partner institutions and existing policy processes. Furthermore, the strong ownership of the project by the implementing partners and communities. Furthermore, the Project will positively affect institutions and individuals at the national, district, and local levels, as well as in the private sector, through their involvement in the implementation of pilot activities and for discussing supportive new practices and PLRs. The support of the project to enhance the legal

framework and create a conducive environment wherein peatlands are included explicitly in legislation and sectoral regulations will contribute to an effective monitoring and reporting set-up.

Capacity building is one of the major components of the project and as a result there will be a strong focus on the knowledge transfer and training. Direct capacity building will take place through trainings, practical work and scientific cooperation during project implementation. The project will invest in providing the knowledge, tools and networks required to fulfil the tasks after its completion. Curriculum development and training-of-trainers will facilitate continued training after project end. The data and knowledge created by the project will provide a long-term base to continue the work on peatlands, including for MRV. Regular updates on peatlands and permafrost as a part of the NDC reporting will put Mongolia in the position of being able to sustainably safeguard its water supply sources and other peatlands related ecosystem services.

The international partners play an important role in facilitating regional collaboration. The local institutions and partners play a crucial and primary role in sustainability of the methods. The technical capacity of these institutions will themselves be strengthened throughout the project.

To sustain the impact the project intends to achieve over a longer-term and beyond the project end it is recommended to develop an exit strategy. The MTR is an appropriate time to develop such a strategy and discuss elements and priority actions to enhance the lasting impact of the interventions of the project. Important elements to consider including in the exit strategy are securing and availability of resources, both financial resources in line budgets as well as human resources in key institutions. Another key element is continued capacity building, continuing the momentum created through the series of training courses and ToTs in order to maintain and expand the pool of staff and stakeholders that have enhanced their skills and knowledge base. In addition to securing funding and human resources, continued advocacy for sustainable peatland management and its recognition and inclusion in governmental and sectoral policies and the role of nomadic reindeer herders in sustainable landscape management will be critical to further catalyze the impact of the project.

Replication: The piloting of sustainable peatland management interventions in various peatland hotspots of Mongolia in close collaboration with sectoral representatives and organisations will create a series of demonstration sites. The lessons learned and emerging good practices originating from these pilots will be shared with local, national and regional partners and offer the opportunity to replicate approaches that have proven to be effective and valuable in sustainable peatland management. Replication relies on the recognition by governmental institutions and sectoral entities of the ecosystem services peatlands provide and the crucial function they have in the landscape. Inclusion of peatlands in environmental legislation and (sectoral) land-use guidelines will facilitate replication, together with the availability of longer-term governmental budgets, earmarked for sustainable peatland management (conservation, restoration and wise use).

Scaling Up: The project has a specific component related to the knowledge base, which will provide solid knowledge tested and verified in pilots and presented further to the global community. The project?s approach is designed to work on pilot sites representing a wide range of Mongolian ecosystems. Building on the analysis of the project results and lessons learnt in the pilot areas, experiences can be applied in other regions and be included as standards for national climate change, hydrology and conservation PLRs. Mongolia?s innovative approach to peatlands and climate policy could be upscaled further to areas of Eastern and Central Asia with similar highland conditions. The experience on accounting and reporting on land use change in peatlands and permafrost within the NDC is anticipated by many countries, by the expert community and the Secretariat of the UNFCCC to encourage contracting parties to follow such best practices. Implementation of the project will involve strong global players in peatlands conservation, wise use and climate-smart management, including UNEP (World Conservation and Monitoring Center, Global Peatland Initiative), FAO, Wetlands International, IUCN, Greifswald Mire Center. This will provide the channel to upscaling the lessons learnt south-north and north-north. Knowledge sharing and exchange of emerging best practices withing the network of the GPI and the related GPA will ensure that the lessons learned within the project are available and applicable for regional and global partners.

The results and achievements in Component 3 can be expanded to the whole Arctic region, outcomes and lessons learned can be shared and incorporated to further understand the best methods of preserving and developing reindeer husbandry. In addition, great importance within this project has been placed on information dissemination and communication activities.

[1] UNEP, GRID Arendal, 2017. Smoke on Water.

[2] Minayeva et al. 2016.

[3] The S?mi people traditionally inhabit a territory known as S?pmi, which traverses the northern parts of Norway, Sweden, Finland and the Russian Kola peninsula. Although the S?mi are divided by the formal boundaries of the four States, they continue to exist as one people and are united by cultural and linguistic bonds and a common identity.

[4] https://undocs.org/E/C.19/2012/4 UNFPII Study on the impacts of land use change and climate change on indigenous reindeer herders? livelihoods and land management, including culturally adjusted criteria for indigenous land uses

[5] https://undocs.org/E/C.19/2010/15

[6] AMAP, 2017. Adaptation Actions for a Changing Arctic: Perspectives from the Barents Area. Arctic Monitoring and Assessment Programme (AMAP), Oslo, Norway.

[7] https://iib.int/en/articles/iib-to-allocate-funds-for-environmental-initiatives-in-mongolia

[8] https://www.eda.admin.ch/dam/countries/countries-content/mongolia/en/Factsheet-GG\_EN.pdf

- [9] Johnsen, K.I., M. Niamir-Fuller, A. Bensada, and A. Waters-Bayer. 2019. ?A case of benign neglect: Knowledge gaps about sustainability in pastoralism and rangelands?. United Nations Environment Programme and GRID-Arendal, Nairobi and Arendal.
- [10] https://www.thegef.org/content/indigenous-peoples-advisory-group
- [11] Degteva, A., Oskal, A., Mathiesen, S. D., Burgess, P., Aslaksen, I., Johnsen, K. I., . . . Westerveld, L. (2017). Indigenous peoples? perspectives. In AMAP (Ed.), *Adaptation Actions for a Changing Arctic: Perspectives from the Barents Area* (pp. 167-194). Oslo, Norway: Arctic Monitoring and Assessment Programme (AMAP).
- [12] www.ealat.org, www.reindeerportal.org
- [13] http://www.arcticobserving.org
- [14] https://iib.int/en/articles/iib-to-allocate-funds-for-environmental-initiatives-in-mongolia
- [15] https://www.eda.admin.ch/dam/countries/countries-content/mongolia/en/Factsheet-GG EN.pdf
- 1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Civil Society Organizations Yes

**Indigenous Peoples and Local Communities** Yes

**Private Sector Entities** Yes

If none of the above, please explain why:

Please provide the Stakeholder Engagement Plan or equivalent assessment.

Reproduction of the ProDoc section on Staekholder mapping and analysis (ProDoc pp. 48-53)

## Stakeholder mapping and analysis

The success of the project intervention requires the active involvement and participation of the various stakeholders. The main project stakeholders are (i) the national ministries and affiliated bodies at national level; (ii) local stakeholders, including local authorities, communities and indigenous peoples; (iii). multi-lateral and bi-lateral donors, international organizations and development partners.

Stakeholder and level	Relevance and Expected Role in the Project Execution[1]	
National level		
The Ministry of Environment Tourism and its relevant departments (MET) (Water Department, Protected Areas Department, Hydrometeorological	Direct beneficiary and Lead Executing Agency  MET is the responsible ministry for the formulation, coordination and implementation of legislation, policies and programs on environment, forest and grasslands, protected areas, climate change, sustainable/green development, and ensuring inter-sectoral coordination on environment and natural resource management. It is also responsible to implement on the ground actions for minimizing environmental degradation and pollution, and promoting the	
Department, etc.)	sustainable use, protection and restoration of natural resources.	
	MET also hosts the GEF Operational focal point.	
	As an executing agency MET is expected to lead following processes:	
	? Assist in analysis of legislations and policies relevant to peatlands	
	? If necessary, support in amending relevant legislations to mainstream peatland agenda into the environmental policy of the country	
	? Promote peatlands into the inter-sectoral actions where necessary, especially in agriculture, infrastructure, urban development and mining.	
	? Include peatland related targets into the NDC, LDN and Post2020 agenda.	
Ministry of Food, Agriculture and Light Industry (MOFALI)	Collaborating partner  MOFALI is the responsible ministry for the formulation, coordination and implementation of legislation, policies and programs on sustainable agriculture development, including agricultural (pasture and crop) land, animal husbandry and cropland management and water supply. MOFALI is also responsible for veterinary services, food and light industry, small and medium enterprises and services and cooperation development. MOFALI is leading the implementation of the IFAD Project for Market and Pasture Management Development and will be implementing the WB-funded Animal Health and Livestock Commercialization Project.  MOFALI will be an important project partner, as health of reindeers falls under the Ministry.  As a collaborator the expected roles of MOFALI are:  ? Upscale land use good practices through their extension centers	
	? Include emission reduction targets related to peatlands into the agriculture development policies.	

Ministry	of	Mining
and Hea	vy	Industry
(MMHI)		

# Beneficiary

MoM is the Government?s central administrative body responsible for managing subsurface natural resources and mining policies. Its mission is to develop a Transparent and Responsible Mining, Heavy Industry through increasing the Mineral Resource Fund and establish a Balanced Economy with multi pillar structure.

Expected benefit of the project is to offset emission from the mining activities. There are several peatlands that probably would be affected by mining in the future. So the project would address this issue through communication and awareness and collaborate with the Ministry in the development of sectoral guidelines.

# The Ministry of Construction and Urban Development (MCUD) and its entity the Agency for Land Administration and Management, Geodesy and Cartography (ALAMGAC)

# Collaborating partner

MCUD is the Government?s central administrative body responsible for land use planning and formulation and coordination of land use policies, and urbanization. Its Agency for Land Administration and Management, Geodesy and Cartography (ALAMGAC) is in charge of land use planning, management, land tenure and privatization, land survey, monitoring and mapping.

As an executing agency MCUD with ALAMGAC is expected to lead following processes:

- ? Delineation of peatlands in major land related products
- ? Develop land use management plan with focus on peatland conservation and sustainable use
- ? Assist and capacity building of regional land management offices in planning land use and management with orientation to peatland conservation and sustainable use.

# National Commission for Soil Protection and Combating Desertification (NCCD)

# Collaborating partner

The NCCD is comprised of members of 11 ministries and 7 other agencies and government institutions. It coordinates and monitors activities that address land degradation and desertification, and oversees the National Action Plan for Combating Desertification (NAPCD)

The roles of the NCCD are

- ? assist in mainstreaming peatland agenda into the NAP on Combating desertification, include actions related to wetland conservation in general and peatlands specifically in LDN targets of Mongolia.
- ? Support in adoption and transfer SLM technologies suitable for peatland conservation.
- ? Upscaling best practices to the nation-wide peatland conservation activities.

The Wildlife Science	Collaborating partner
and Conservation Center of Mongolia (WSCC)	The Wildlife Science and Conservation Center of Mongolia (WSCC) is a nonprofit organization dedicated to preserving Mongolia?s wildlife and their habitat through research, conservation, and public education.
	It is roles in the project are:
	? to develop locally adaptive best practices on peatlands, e.g. conservation agriculture in cropland adjacent to peatlands, restoration of peatlands through drainage.
	? to implement site based emission accounting and develop peatland monitoring with special focus on calculating emission factors.
The Protected Area	Collaborating partner
Administration and Local offices	The Protected Area administration (PAA) under the MET is responsible for overall management and protection of SPAa in a country through the network of its local offices responsible for day-to-day activities. There are 29 PA offices in Mongolia that are responsible for daily management of overall Strictly Protected Areas (SPA), National Parks (NP) and some of Nature Reserves (NR) and National Monuments (NM). The project sites are located in 3 PAs.
	The role of PAA in the project are:
	? To integrate peatland conservation plans into their SPA management plans, which are reviewed and amended every 5 years.
	? To assist in technology transfer and adoption for peatland conservation.
	? To test and apply monitoring schemes in respective wetland and peatland areas under their jurisdiction.
National Agency for	Collaborating partner
Meteorology and Environmental Monitoring (NAMEM)  Information and Research Institute of Meteorology, Hydrology and Environment (IRIMHE)	NAMEM is the government implementing agency within MET that is responsible for weather forecasting and environmental monitoring and warning of potential natural disasters.
	IRIMHE, under NAMEM, is in charge of meteorological, agrometeorological and hydrological observation and research, and plays an important role in monitoring and forecasting extreme weather events such as drought, dzud, storm and flood. Each aimag has a meteorology and hydrology departments with offices in each soums.
National Development Agency (NDA)	Collaborating partner
	NDA is the agency responsible for defining the development priorities and sectors that are consistent with the Sustainable Development Vision 2030 of Mongolia and for developing and implementing investment and concession, public-private partnership policies based on research and economic security.

The National Committee on Gender Equality (NCGE) led by the Prime Minister	Providing guidance  The NCGE is a leading and coordinating body for the sectoral/line ministries Gender Councils, aimag local level Gender Committees as well as coordinating body with international and donor organizations.	
Ministry of Education, Culture and Science	81	
Ministry of Labour and Social Protection	Ministry in charge of developing a comprehensive policy on labour, social development and social protection, and of creating a favourable environment for employment.	
Academia		
Mongolian Academy	Collaborating partner	
of Science/Institute of Geography and Geoecology	The Institute of Geography and Geoecology is a core research institute responsible for generating deep knowledge on ecosystems and their functioning. The Institute have experts working on permafrost and operating several borehole monitoring which can be used for GHG accounting as a reference.	
	It is roles in the project is to generate science-based knowledge and transfer it.	
Mongolian Academy	Collaborating partner	
of Science/Institute of Botany	The Institute of Botany and its specialized Mongolia-Russia expedition have long term research data on biology, ecology and ecosystem dynamics of peatlands. It is played a major role in implementing Peatland Inventory in Mongolia supported by ADB. Currently, the team is actively participating in research related to trialing nature-based solutions to restore degraded peatlands.	
	It role in the project is to document, validate and assist in upscaling technology and innovations to restore degraded peatlands.	
Plant Protection Research Institute	Contributes to the identification of diseases, destructive organisms, weeds and insects in Mongolian rangeland, forest, hay-making and crop planting areas, exploring their distribution, structure and harms and studying bio-ecological characteristics, and develops new plant and crop protection technologies.	
Private Sector		
Tourism companies	Beneficiaries	
	The project sites in Ugii nuur and Huvsgul lake are the largest touristic places for local and foreign visitors. Peatlands are not in direct proximity from the tourist camps, however, they play a crucial role in tourism landscape scenery.	
	The project will target the tourism companies, e.g., operators and camps, to improve their social and environmental responsibility through constant training and capacity building. The focus will be the wastewater treatment, waste management and management of visitors.	

Agriculture	Beneficiaries
companies	The Hurh Huiten site of the project is the most agrarian developed region. Major crop is wheat plantation. Although there were no changes in areal coverage of crop field lately, it is expected that in future with implementation of the Fourth National Agriculture Programme the companies will expand their area.
	The project will pilot conservation agriculture practices which will be monitored and upscaled.
Mining companies	Beneficiaries
	There is no any active mining activities in the nearest proximity to the project sites, however there are probabilities of off-site effect, especially related with water pollution from tailing pond along Orhon river. The peatland conservation on another hand can be a good option for mining companies to offset their emission.
	The project will assess feasibility to offset mining related emissions through conservation of peatlands.
Local level	
Aimag Governments	Key
(including Aimag	Direct beneficiary and Partner
Governor, aimag land department, food and agricultural department, livestock/ veterinary offices, environmental department, etc.)	In charge of implementing state policy and legislation and Citizens Representative Khural decisions at the aimag level. In charge of collecting and compiling relevant data and submitting it to the central level ministries.
Soum Governments	Key
(including Soum	Direct beneficiary and Partner
Governor, local land officers, agriculture officers, livestock/ veterinary officers, environmental officers, etc.)	In charge of implementing state and aimag policy and legislation and Citizens Representative Khural decisions at the soum level. In charge of collecting and compiling relevant data and submitting it to the aimag departments.
Bagh Governors	The smallest unit of governmental structure. In charge of administration of the baghs.
River basin councils	Collaborating partner
of Shishkhid; Orkhon; Tuul; Onon;	River basin authorities (councils) are public administrations at the river basin scale with the main tasks of drafting basin plans, organizing a water inventory, licensing water abstraction and wastewater; monitoring water resources and uses, protection measures with environmental rangers and governors. Councils are composed of representatives of local administrations, environmental, water and inspection authorities as well as of water users und scientists.

Local communities	Key users of natural resources and beneficiaries of the project.	
and herders (women and men)	In Ugii, Huvsgul and Hentii aimags herder?s communities are institutionalized into pasture user groups. Some pilot sites may include Forest user groups.	
Local PA volunteers	Support PA administrations in protecting area from poachers, illegal miners and other illegal activities.	
Aimag-level Chambers of Commerce	Supporting business development and trade.	
State Great Khural (Parliament) / Standing committee on Rural Policy and Environment	The highest legislative body. Has the mandate to propose and review legislation and policies. Has a standing committee on Rural Policy and Environment that advises on matters relating to the environment.	
Disadvantaged or vulnerable groups/ individuals, such as assistant herders/ helpers, poorer households with fewer livestock, unemployed.	Disadvantaged, vulnerable or poorer community members.	
Multilateral and bilater	ral donors, international organizations and development partners	
UNEP	The UN Environment Programme (UNEP) is the Implementing Agency for this project, providing quality assurance, oversight, and support. It may also facilitate linkages to other relevant programs and projects, access to data and specialized technical advisory services. UNEP will also be responsible for the project?s GEF specific M&E function, including evaluation services according to its UNEP-GEF procedures, as well as compliance with GEF requirements. UNEP Asia and the Pacific Office will ensure the close coordination between the project and the relevant initiatives of other UN agencies in Mongolia through active engagement in the UN Country Team and the UN Resident Coordinator-led processes.	
UNEP-WCMC	The UN Environment Programme World Conservation Monitoring Centre is a global Centre of excellence on biodiversity. It operates as a collaboration between the UNEP and the UK-registered charity WCMC. UNEP_WCMC has a unique position ensuring science, knowledge and insights shape global and national policy and by collaborating with partners around the world to build capacity and create innovative solutions to environmental challenges. UNEP-WCMC is working on behalf of the Global Peatlands Initiative (GPI) to coordinate the Global Peatlands Assessment (GPA).	
International Centre for Reindeer Husbandry (ICR)	Executing partner  A Norwegian State Agency with a special authority to support to the international cooperation of World Reindeer Herders	

Association of World	Key Collaborating partner
Reindeer Herders (WRH)	WRH is the circumpolar NGO/ Civil Society Organization for all 29 reindeer herding peoples of the world, with members spanning the circum-Arctic and Sub-Arctic regions across ten nation states. WRH is an Observer to the Arctic Council, and has Consultative Status with UN EcoSoc.
Aoluguya Ewenki	Collaborating partner
Reindeer Herding Organisation	A CSO that represents indigenous Ewenki reindeer herders in China.
Suoma Boazos?mit rs	Collaborating partner
(Finnish S?mi Reindeer Herders organization)	The aim of the organization is to supervise, uphold and develop the common rights and interests of S?mi reindeer herders.
Reindeer Herders Association of Norway (NRL)	An organisation for the S?mi reindeer herding in Norway
The Arctic Economic	Key stakeholder
Council (AEC)	An independent organization that facilitates Arctic business-to-business activities and responsible economic development through the sharing of best practices, technological solutions, standards, and other information.
Standing Committee	Key stakeholder
of Parliamentarians of the Arctic Region (SCPAR):	Consists of parliamentarians representing the eight Arctic countries and the European Parliament. SCPAR started its activities in September 1994. One of its main priorities was originally to support the establishment of the Arctic Council. Since then, SCPAR has worked actively to promote the work of the Council and engages in topics such as education and research, human development and climate change.
Conservation of	Key stakeholder
Arctic Flora and Fauna (CAFF)	The biodiversity working group of the Arctic Council and consists of National Representatives assigned by each of the eight Arctic Council Member States, representatives of Indigenous Peoples' organizations that are Permanent Participants to the Council, and Arctic Council observer countries and organizations.
Turkish Cooperation and Coordination Agency (TIKA)	The agency runs projects and supports humanitarian aid in various fields from education to health and work to improve economic, civilian and administrative infrastructure, as well as social infrastructure.
	In partnership with T?KA, Khuvsgul aimag has implemented 15 projects and programs in the sectors of culture, agriculture, and education, including the renovation of the school in Tsagaannuur soum and provision of reindeers to Tsaatan (Dukha) people for breeding.
ADB Is implementing Sustainable tourism project in Khuvsugul PA and its bezones.	

GCF	The Green Climate Fund is funding several projects in Mongolia, among which the UNDP-GCF Project ?Improving Adaptive Capacity and Risk Management of Rural Communities in Mongolia?, FP141, 2021-2028, with a focus on pasture management and support to herders. Synergy with this Project lies in its goal to support the scaling-up of climate-resilient water and soil management practices for enhanced herder resource management. The large ADB-GCF Project ?Mongolia: Aimags and Soums Green Regional Development Investment Program (ASDIP)?, FP154, 2021-2031, part of the Partnership for Low-Carbon and Climate-Resilient Rangeland Management in Asia, which will provide financing for low-carbon and climate-resilient rangeland management in Mongolia and Asia based on the mitigation results achieved. Synergies are enclosed in the common aim of reversing the present degradation of Mongolia?s rangelands and restoration and safeguarding its vast mitigation potential and supporting herders low-carbon climate-resilient practices.
WWF Mongolia	International conservation organization that has been active in Mongolia since 1992. Currently, WWF Mongolia focuses its efforts on two of the world?s outstanding places for forest, freshwater and steppe ecosystem and endangered/migratory species conservation in the Altai Sayan eco region. WWF is implementing the FAO-GEF Promoting Dryland Sustainable Landscapes and Biodiversity Conservation in the Eastern Steppe of Mongolia 2020-2025 (?Eastern Steppe project?) in Hentii aimag adjacent to Hurh Huiten pilot site.
FAO	See above.
Taiga Nature Society	Collaborating partner  An NGO that represents indigenous Dukha reindeer herders in Mongolia.
Wetlands International	Collaborator  Wetlands International is a global organisation that works to sustain and restore wetlands and their resources for people and biodiversity. It is an independent, not-for-profit, global organisation, supported by government and NGO membership from around the world.  Knowledge brokering on peatland accounting, inventory and GHG emission accounting.

Global Peatland Initiative (GPI)

Collaborator

The Global Peatlands Initiative is an effort by leading experts and institutions formed by 13 founding members at the UNFCCC COP in Marrakech, Morocco in 2016 to save peatlands as the world?s largest terrestrial organic carbon stock and to prevent it being emitted into the atmosphere. Partners to the Initiative are working together within their respective areas of expertise to improve the conservation, restoration and sustainable management of peatlands. In this way the Initiative is contributing to several SDGs, including by reducing greenhouse gas emissions, maintaining ecosystem services and securing lives and livelihoods through improved adaptive capacity. One of the first outputs of the Global Peatlands Initiative will be a Global Peatland Assessment (GPA), which will focus on the status of peatlands and their importance in the global carbon cycle. It will also examine the importance of peatlands for national economies. Additional partners in GPA development are FAo and the Greifswald Mire Centre. The GPA will help partners update, establish, and jointly communicate the status and value of peatlands-outlining hotspots for action and including emerging opportunities to restore and protect them. The GPA will incorporate best practices in policy, restoration and sustainable management building on the best available data on peatland state, trend and pressures. The project intends to close collaborate with the Asia Regional GPA Chapter.

Knowledge brokering on peatland restoration and ecosystem service.

Reproduction of the ProDoc section 5 on Stakeholder Participation (ProDoc pp. 97-105)

## Stakeholder consultation and engagement methods

There are a variety of engagement techniques used to build relationships with stakeholders, gather information from stakeholders, consult with stakeholders, and disseminate project information to stakeholders. When selecting an appropriate consultation technique, culturally appropriate consultation methods, and the purpose for engaging with a stakeholder group will be considered.

Guiding principles during consultations and other forms of engagement are commitment, integrity, respect, transparency, inclusiveness and trust. Through these principles the project will be able to engage the stakeholders, understand their needs and values, respond to specific concerns and questions, ensure that a broad participation is encouraged with inclusion of vulnerable groups and ultimately building mutual trust in the process of formulation and implementation of the project. With upholding these principles the project is aiming to be participatory in its engagement with its stakeholders through their continuous inclusion in the formulation process and in the implementation cycle from planning to execution and monitoring and evaluation and review.

The goal of this Stakeholder Engagement Plan (Table 7) is to involve all stakeholders of the project, as early as possible in the implementation process and throughout project duration to ensure that, their views and concerns are made known and taken into account. The plan will help the project in implementing effective communication channels and working relationships. The Executing Agency will continue to hold consultations throughout project implementation as deemed necessary. This section provides a summary of the engagement of the major stakeholders. The Stakeholder Engagement Plan will be implemented in conjunction with the Gender Action Plan.

[1] See Section 5 Stakeholder Participation for more details on participation of specific stakeholders.

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement

# The Project?s Stakeholder Engagement Plan

Stakeholder engagement is an important feature of the project covering site-based arrangements for sustainable peatland management, the development of strategic and relevant knowledge products, bringing together stakeholders to enhance ecosystem services provided by sustainable peatland management, as well as working with in a multi-stakeholder context to achieve project goals. The preparation of this project has included a number of consultations and information sharing activities with various actors that have a key stake in the proposed project.

ProDoc Table 7. Methods for engaging project stakeholders and related engagement activities.

Stakeholders	Engagement Methods/Means	Engagement Activities
National Government Ministries and Agencies	Emails, face-to-face meetings, workshops, digital media (video call apps).	National and local government stakeholders are aware of the project from the project design phase. They will be convened again at the beginning of the project, through the national inception workshop and local inception meetings, where they will be informed of the project and will have the opportunity to provide further inputs.  - Project Management Unit meetings through the Technical Advisory Group - Project Steering Committee meetings - Project Inception workshop - Consulted and briefed during midterm and final project evaluation  - Annual Planning and Review Meetings - Participation in high-level advocacy meetings
NGOs and civil society organizations	Emails, face-to-face meetings, workshops, digital media (video call apps).	Project Inception workshop     Consulted and briefed during midterm and final project evaluation     Participation in capacity building events as beneficiary

Stakeholders	Engagement Methods/Means	Engagement Activities
Local communities in project sites including reindeer herding communities	During the PPG, local communities have been consulted and involved in all project validation activities. These community representatives will continue to be engaged through face-to-face community meetings, individual interviews, workshops and digital media (video call apps). Representatives will be also included in the Project Steering Committee and the Project Technical Advisory Group and capacity building activities (trainings, cross-site visits etc.).	- The range of activities may include: participatory appraisals of gender-specific and community needs using standard participatory rural appraisal methods and tools; capacity building and awareness raising; data collection for research purposes; Consultations to attain Free, Prior and Informed Consent; Involvement in localized land use planning, thematic working groups and steering committee meetings.  The Mongolian language (verbal and written) will be used for the consultations, as all stakeholders in the project area are native Mongolian speakers. In other project sites of Component 3 local languages will be used for consultations to ensure transparency, inclusion and a full participatory approach.
Private Sector	Emails, face-to-face meetings, workshops, digital media (video call apps).	<ul> <li>Project Inception workshop</li> <li>Consulted and briefed during midterm and final project evaluation</li> <li>Annual Planning and Review Meetings</li> <li>Beneficiaries of capacity building activities</li> </ul>
Bilateral/ Multilateral Entities	Emails, face-to-face meetings, workshops, digital media (video call apps).	<ul> <li>Project Inception workshop</li> <li>Consulted and briefed during midterm and final project evaluation</li> <li>Annual Planning and Review Meetings</li> <li>Experience sharing and lessons learning meetings</li> <li>Policy dialogue and review</li> </ul>

Stakeholders	Engagement Methods/Means	Engagement Activities
Local Government	Emails, face-to- face meetings, workshops, digital media (video call apps).	<ul> <li>Project Inception workshop</li> <li>Consulted and briefed during midterm and final project evaluation</li> <li>Annual Planning and Review Meetings</li> <li>Participation in the Project Steering Committee</li> <li>Policy and legal framework dialogue and review</li> </ul>

Detailed stakeholder consultations were conducted during the project identification and preparation phase with representatives of the MET, MOFALI, MCUD, UNEP, UNEP-WCMC, UNDP, GRIS-Arendal, TNC, UNDP, the World Bank, ADB, WWF, GPI, aimag and soum governments, academic and research institutions, local NGOs, private sector, and local communities. Inputs from stakeholders were taken into account in the elaboration of the project work plan (see Annex 16 for details).

Under Output 3.3.1, the project will develop a knowledge management and communication strategy to ensure information dissemination and sharing of knowledge with (global) project stakeholders, making use of an operational project portal (Output 3.3.2) to share good practices, lessons learned and knowledge products for global stakeholder groups (Output 3.3.3) and under Output 2.1.5 sector specific knowledge and outreach products will be made available.

-

The PMU, under the overall supervision of MET, will be responsible for implementing the stakeholder engagement as outlined in the Stakeholder Engagement Plan and Stakeholder Engagement Matrix. It will also be responsible for monitoring and reporting on stakeholder engagement through the annual project implementation reports (PIRs). Relevant tasks have been incorporated into the Terms of Reference of the project staff (see Annex 11). Budget for stakeholder engagement has been allocated through the meeting, training and travel budget lines as shown in Annex 1.

In the annual PIRs, the PMU will report on the following indicators:

Number of government agencies, civil society organizations, private sector, vulnerable groups and other stakeholder groups that have been involved in the project implementation phase.

Number of engagements (such as meetings, workshops, official communications) with stakeholders during the project implementation phase.

Number of grievances received and responded to/resolved (see Grievance Redress Mechanism described in the section below).

The Stakeholder Engagement Plan and Stakeholder Engagement Matrix in Table 7 includes information on how stakeholders will be involved and consulted in the project execution, including any disadvantaged or vulnerable groups/individuals, as well as how stakeholder engagement will be continuously fostered during project implementation. More detailed planning with local communities will be conducted as part of the project implementation.

# COVID-19 and stakeholder engagement

The present COVID-19 pandemic and its restrictions influence and limit the possible engagement methods of the project. Although direct person-to-person contact is often the most desirable, the project in its preparation phase has made and, in its implementation, will make use of digital video call applications as Zoom to enable frequent consultations and dialogues with project stakeholders. As Component 3 has a global scope, engaging and bringing together reindeer herding communities across the Northern Hemisphere, it relies strongly on video call applications, both in stakeholder consultation as in capacity building activities.

### Indigenous People and their Engagement

In line and in accordance with the GEF Principles and Guidelines for Engagement with Indigenous People[1], the project will have extensive attention for the requirements to safeguard any risks related to indigenous people and their engagement and involvement with the project. Reindeer herding, as a traditional nomadic indigenous way of life, is practiced in many countries in the Northern Hemisphere, involving 29 reindeer herding peoples most of whom (24) are indigenous peoples[2]. IRC, as project executing agency for Component 3 with its key partners, has as a core mission the empowerment of indigenous people. It has a long-standing institutionalized network with appropriate bodies representing indigenous groups and extensive experience how to treat, capture, document and share indigenous knowledge. Based on this experience and the existing network of collaborating indigenous groups, the project feels very well positioned to ensure effective and participatory engagement with indigenous people in the project implementation process.

During the PPG formulation the project has paid attention to and during the foreseen implementation cycle, the project will strive to ensure[3]:

The full and effective participation of Indigenous Peoples, reflected by the participation of Indigenous Peoples representatives in the project development, and in project implementation and monitoring and evaluation.

The use of self-identification for determining indigenous status (including customary institutions, language and other social and cultural criteria), and

Their efforts to maintain ownership and access to their lands, territories and resources and to build Indigenous People?s capacity to manage their lands sustainably.

To avoid negative impacts to Indigenous People?s traditional ownership and user rights of lands, and where needed, develop mitigation measures, and

The application of standard Free, Prior, and Informed Consent (FPIC).

The project will not lead to any involuntary resettlement and will recognize and respect the importance of traditional knowledge, innovations and practices. It will actively work on documentation, consolidation and dissemination of traditional best practices of sustainable land management. The role of women and youth will be emphasized, in recognition of their vital role of maintaining and transferring traditional knowledge and practices, therewith supporting the empowerment, participation and leadership of women and youth.[4]

## Grievance redress mechanism

The project will develop a grievance-redress mechanism, accessible to Indigenous Peoples and other project stakeholders and beneficiaries, which will facilitate all stakeholders to bring forward any complaints, to be responded and addressed by the project accordingly. [5] The details of the mechanism will be further worked out during the project inception phase and the project will ensure that all relevant stakeholders are informed adequately on the mechanism. The essence of the mechanism is that the project it will have a system in place through which stakeholders and indigenous people are able to bring forward any complaint they have regarding project interventions that have, or assessed to have, a negative impact (be it social or environmental). This could e.g., relate to cases where access to natural sources would be limited. The mechanism will describe the procedure where and how complaints can be brought forward, with description of a clear focal point, where grievance can be submitted. The mechanism will describe how complaints will be addressed (first through dialogue and forms of mediation to seek a resolution) and what will be done if this does not lead to consensus: unresolved complaints will be brought forward to UNEP and ultimately to GEF. With the extensive experience ICR and its network partners have in working with and for indigenous people the project possesses an excellent engagement approach and ample experience and procedures in dealing with conflicts and grievances. The mechanism will be based on the following guidelines and principles.

The project will follow the Ethical guidelines for handling traditional knowledge at the International Centre for Reindeer Husbandry. The International Centre for Reindeer Husbandry (ICR) has a special responsibility looking after the traditional knowledge (TK) of reindeer husbandry, and shall collect, analyse, store and share information of relevance to reindeer husbandry, including both TK and scientific knowledge (SK). All researchers working in the North have an ethical responsibility toward the people of the North, their cultures, and the environment. As ICR Ethical Guidelines underline: All parties shall be heard by taking draft information back to the communities for review and feedback to be integrated into reports/ publications for local, regional and wider use. The communication / publishing of the results must be coordinated with the stakeholders that include the Indigenous Peoples affected by the study. https://www.scribd.com/document/238393409/ICR-Ethical-Guidelines Likewise the project will follow the guideline for stakeholder relationship in Horizon 2020

Interact WP 9 guide for facilitating local adaptation to environmental change https://eu-interact.org/app/uploads/2017/11/D9.1.pdf For several years, Indigenous Peoples have requested the GEF to develop a formal policy and guidance related to engagement with Indigenous Peoples. Indigenous Peoples base these requests on a desire to ensure that their contributions to sustainable development and environmental protection continue to be recognized and promoted.

**GEF ICC** Nomadic Herders project will follow the 2021 report https://secureservercdn.net/104.238.71.250/hh3.0e7.myftpupload.com/wp-content/uploads/ICC-EEE-Synthesis-report-WEB.pdf on how to guide engagement through permissions. According to ICC, many Inuit referenced the inadequacy or misconduct around, ?permissions.? In the modern world, there are many mechanisms under western legal concepts that grant permission to do things. The first is permission granted by permitting, such as the use of permits to enter Inuit homelands ands or to conduct research in a community. The second is permission granted by consent, such as the audio recording of Indigenous knowledge holders or medical research on community members. The third is permission granted by contracts, such as the rights to develop lands for mining or the duty to keep a community informed of government activities. The fourth is permission granted by property rights, such as ownership of information derived from Indigenous knowledge and access to research materials collected in Inuit homelands. In some circumstances, mechanisms that grant permission may be in place to protect our communities and our knowledge, but in other circumstances, these mechanisms might put our sovereignty and self-determination at risk. Three considerations here are the role of consent, the role of contracts, and the role of ownership laws in ensuring the ethical engagement of our communities and our knowledge.

The right to free, prior, and informed consent (FPIC) is fundamental to the right to self-determination and is affirmed by UNDRIP and other international legal frameworks and will provide a standard in this project. FPIC ensures that Inuit exercise their right to give or withhold consent to activities occurring within our homelands or communities, and enables negotiations for project design, implementation, monitoring, and evaluation. Though there is a growing body of instructions on how to implement FPIC, the development of circumpolar protocols/guidelines could include language on FPIC in relation to the engagement of Indigenous knowledge and Inuit communities. According to ICC 2021, in response to harmful clauses that fail to protect our communities, many Inuit organizations have developed their own consent and contracting protocols. One Inuit-owned Alaskan non-profit providing education opportunities to its communities, have considered a ?quyana contract,? or a ?thank you contract.? Instead of relying on western legal concepts that include a ?holds harmless? clause, a quyana contract would instead require the contracting organization to describe its duties to share what they learn with the community rather than require community members to ?hold harmless? the organization to which they provide information. We will include mechanisms in the GEF project for Indigenous People to say no. Recently, Arctic Council took the initiative to develop Arctic Guideline on Intellectual Property Rights of Indigenous Peoples to Knowledge, Cultures, and Languages in the Times of Digitalization which will be followed. https://www.youtube.com/watch?v=T9cev5M-G1M Also relevant here are the provisions of ILO Convention No. 169, Part IV on Indigenous Peoples and Vocational Education (see Article 22), and Part VI on Indigenous Peoples and Education (see, for example, Article 27). These documents will make the base for the grievance redress mechanism in the project providing an opportunity for indigenous peoples to complain.

To ensure a fair distribution of the benefits of development, the Brundtland Report on Sustainable development (WCED) promoted a political systems that secure effective citizen participation in decision-making. WCED argued that all sectors of society should actively participate in consultation and decisions relating to sustainable development, and recognised the special position of tribal and indigenous peoples. WCED was concerned that insensitive development could threaten these peoples? knowledge and rights (WCED 1987, p. 12):

?Tribal and indigenous peoples will need special attention as the forces of economic development disrupt their traditional life-styles? life-styles that can offer modern societies many lessons in the management of resources in complex forest, mountain, and dryland ecosystems. Some are threatened with virtual extinction by insensitive development over which they have no control. Their traditional rights should be recognized and they should be given a decisive voice in formulating policies about resource development in their areas?.

Since then indigenous peoples traditional knowledge is ?left behind? in the terminology of UN Sustainable goals. This project will put GEF in a lead position in including indigenous knowledge.

The *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP) contains a number of interrelated articles that hold relevance for Nomadic Herders in regard to the information presented in this report. In accordance with UNDRIP, indigenous peoples have the right to the full enjoyment, as a collective or as individuals, of all human rights and fundamental freedoms as recognized in the Charter of the United Nations, the Universal Declaration of Human Rights, and international human rights law (Article 1).

Indigenous herders need access, ownership, and control over information, data, and materials pertaining to our knowledge and our homelands.

These materials may include, but are not limited to:

Databases and repositories of Indigenous knowledge including those holding songs, arts and carvings, dances, tools, and other cultural resources.

Books, films, and other media regarding Inuit

Environmental and risk assessments regarding Inuit homelands

The project work is guided by the following agreed upon definition of Indigenous knowledge (IK):

?Indigenous Knowledge is a systematic way of thinking applied to phenomena across biological, physical, cultural, and spiritual systems. It includes insights based on evidence and acquired through direct and long-term experiences and extensive

and multigenerational observation, lessons, and skills. It has developed over millennia and is still developing in a living process, including knowledge acquired today and in the future, and it is passed on from generation to generation. Under this definition, IK goes

beyond observations and ecological knowledge, offering a unique ?way of knowing.? This knowledge can identify research needs and be applied to them, which will ultimately inform decision-makers.

There is a need to utilize both, Indigenous and scientific Knowledge. Both ways of knowing will benefit the people, land, water, air and animals within the Arctic,? (ICC 2015).

Gender Equality is strongly implemented in the project, GEF supports the empowerment, participation and leadership of indigenous women and men in GEF-financed projects through the implementation of the provisions under the GEF Policies on *Agency Minimum Standards on Environmental and Social Safeguards* and *Gender Mainstreaming*.

The project guidelines should reflect a human rights framework and be consistent with internationally recognized norms and standards affirmed by international human rights treaties and instruments such as UNDRIP.

[1] GEF (2012) Principles and Guidelines for Engagement with Indigenous Peoples

[2] MSP (2020) GEF-7 request for CEO endorsement / approval. Improved ecosystem management through indigenous youth capacity building and participation of nomadic reindeer herders.

[3] GEF (2012), Article 36a to e

[4] GEF (2012), Articles 39 and 41

[5] GEF (2012) Articles 42-44

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor; Yes

Co-financier; Yes

Member of project steering committee or equivalent decision-making body; Yes

Executor or co-executor; Yes

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

Reproduction of the ProDoc section on Gender Equality and Women?s Empowerment, ProDoc pp. 89-93

## Gender Equality and Women?s Empowerment

Mongolia has made good progress in creating a more gender sensitive legal and policy environment as well as an effective national mechanism for promoting gender equality. The Law on Promoting Gender Equality was adopted in 2011 and the Government of Mongolia is pursuing a series of tangible measures towards implementing the law in a systematic way, including a gender and environment strategy (2014-2030). At the national level, gender equality issues are addressed by the National Committee on Gender Equality[1]. Although policy and legal frameworks have improved, there re?mains a lack of awareness of gender inequality issues at all levels[2].

Unfortunately, there is not much study on peatlands considering gender aspects.[3] However, a few studies demonstrate that in communities which maintain livelihoods from peatland ecosystems, gender roles in agricultural activities are significantly dominated by men, while women play a more significant role in domestic activities. Both men and women contribute equally to the social life of the community. Low-income families tend to have higher gender equity in agricultural activities than rich households. In a global context, the International Peatland Society (IPS) states[4] that: ?Responsible peatland management will provide livelihood opportunities for local people, respect their rights, heritage and traditions, and promote gender equality.?

The project will provide support towards implementation of the national and sectoral gender-responsive policy planning processes, in addressing emerging social and gender issues and in making contributions, initiated by the Government of Mongolia, towards the realization of the ?UN Resolution on the Improvement of Livelihoods of Rural Women and Girls? and the objectives of the ?Ulaanbaatar Declaration? adopted at the ?SDG: Gender and Development? International Conference held in 2018.

In fact, equal participation and representation of women and men will be ensured in project implementation activities by requesting from the executing partners to set targets for equal participation of women. Furthermore, the planned gender sensitive project outputs will be materialized by planning related activities and allocating specific budget for gender related activities. The project will seek a gender balance in all activities. Gender equality and empowerment issues will be mainstreamed into the project implementation and monitoring, considering the differences, needs, roles and priorities of women and men.

To promote gender equality and the empowerment of women, the project conducted stakeholder consultations to understand, among others, the context on gender and identify specific dimensions and entry points for gender mainstreaming. Based on these consultations, a gender-responsive approach has been identified for the project outcomes, outputs, and activities, and specific gender-sensitive indicators have been developed for the proposed project and integrated into the project results framework for implementation. Gender aspects are cross-cutting and multi-dimensional and therefore it is imperative to recognize and deal with differentiated situation and needs of women, men and various social groups at all phases of the project and secure their equal participation as an essential ground for successful project implementation. This will further facilitate engaging local women, men and different social

groups in more appropriate utilization of natural resources as well as improving their capacities towards climate change adaptation and mitigation processes and sustainable landscape management.

### How the project intends to integrate gender in its planning, implementation and monitoring

The consultations in the project development phase, through close consultations with local peoples, and communities in the project areas? particularly with women and women representatives, have led to the identification of two main ways in which the project can appropriately ensure that women?s participation is equal and beneficial. These include by ensuring: (i) gender mainstreaming in policies, sectoral plans and project activities, as well as in community-based management processes for sustainable peatland and rangeland management in Project areas; and (ii) that activities initiated for sustainable landscape management in project areas benefit from support for the understanding of, and adequate integration of gender considerations in the implementation of these activities.

This project intends to use a pragmatic approach to integrate gender across all levels and processes of the project life cycle. This approach is guided by several principles put in place from the project development, and to be integrated into the project implementation. The principles include:

- i. Integrate gender from the inception of the project and develop a gender pro-active approach during the first year of implementation. An early recognition and sensitization of the project staff and key stakeholders is a prerequisite to come to an effective approach to addressing gender issues that affect men and women?s participation in project activities.
- ii. Train staff on gender in the first year of the project so they gain a better understanding of gender issues in the project context and appreciate why these issues are important to address through their daily work responsibilities.
- iii. Hire staff with expertise in gender at the start of the project to ensure and oversee the integration of gender across the project. They will be focal points and help to facilitate the project to be proactive in its gender considerations and actions.
- iv. Adopt a proactive gender and development approach that engages men and women to promote gender equality and transform gender relations in project locations. Using a win-win approach in which men and women perceive gains in shifting gender norms is also important to support sustainable change.
- v. Include gender considerations explicitly into the M&E activities of the project, in order to get feedback from project beneficiaries and stakeholders on how they perceive and report on the role and involvement of men and women in the implementation of project activities. Through this feedback mechanism the project team can learn and adapt its intervention approaches to ensure they are inclusive and promote gender balance.
- vi. Integrate gender evenly and consistently across all project objectives to achieve the intended impact of promoting gender equality and improving household food security and resilience.

The Project Management Unit (PMU) will appoint a staff member (as focal point) to coordinate project supported activities related to gender issues and make sure gender considerations will be integrated into all project sponsored activities. This gender focal point will provide capacity building on gender issues and facilitate gender mainstreaming as an integral part of the overall project implementation, project monitoring, as well as reporting. The PMU will provide M&E reports to the PSC annually, in which gender participation in Project Management and project activities will be included. The project-related

gender indicators will include but not be limited to: (i) number of female staff and women trained by the project (presented as numbers, percentages over time); (ii) number of female staff and women that participate and play a role in project activities (also with accompanying data on rates and percentages).

# ProDoc Table 6 Gender Action Plan

Output	Activity	Responsibility	Timeframe
carrying out peatland		Gender Mainstreaming Focal Point	to be determined after project start during inception phase
plans updated considering peatlands	Screen the sectoral management plans to be developed for specific gender focus, e.g. agricultural sector plan and specific gender roles and capacities	Gender Mainstreaming Focal Point	to be determined after project start during inception phase
capacity of key stakeholders increased	promote gender balance in participants	Gender Mainstreaming Focal Point	to be determined after project start during inception phase
knowledge and outreach products available	materials for specific gender message/content and for possible specific gender outreach products	Mainstreaming Focal Point	determined after project start during inception phase
traditional knowledge on	information and practices	Gender Mainstreaming Focal Point	to be determined after project start during inception phase

Output	Activity	Responsibility	Timeframe
and environmental monitoring systems are developed for the global stakeholder groups for		Gender Mainstreaming Focal Point	to be determined after project start during inception phase
indigenous reindeer herding youth, and field training and community-based workshops for herding communities		developers and trainers	to be determined after project start during inception phase
between herding communities and other actor groups.	Include gender in the cross-learning events (dialogues) on issues related to traditional knowledge; disaggregate participation data by sex to identify needs of women engagement	developers and trainers	to be determined after project start during inception phase
good practices, lessons learned on herders? contribution to sustainable		Gender Mainstreaming Focal Point	to be determined after project start during inception phase
evaluation activities	Ensure gender-inclusive monitoring, evaluation, and reporting with sex-disaggregated data in project management and information system		Throughout project cycle

[1] https://gender.gov.mn/

<sup>[2]</sup> National Committee on Gender Equality. Mongolia Gender Situational Analysis: Advances, Challenges and Lessons Learnt Since 2005

<sup>[3]</sup> Herawati, Tuti, et al. "An exploration of gender equity in household: A case from a peatland-based community in Riau, Indonesia." Biodiversitas Journal of Biological Diversity 20.3 (2019).

<sup>[4]</sup> Strategy for Responsible Peatland Management. Clarke and Rieley (ed.), 6th edited edition, 2019

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources; Yes

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women

Does the project?s results framework or logical framework include gender-sensitive indicators?

Yes

### 4. Private sector engagement

# Elaborate on the private sector's engagement in the project, if any.

The engagement of the project with private sector stakeholders has been minimal. In the consultations mining, sector representatives in Mongolia were involved, but the field verification mission made clear that at present no active mining sites are located in the proximity of the four target areas. Nevertheless, mining sector representatives will be consulted in the screening and possible revision of sectoral plans aimed at the inclusion of peatland restoration and conservation in order to safeguard water availability and quality related to tailings and as the potential to offset their emissions.

# 5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

Reproduction of the ProDoc section 3.5 Risk analysis and risk management measures (ProDoc pp. 79-81)

ProDoc Table 4. Identified Risks and Mitigation Measures

Risk	Level of Impact	Mitigation Measures
The ?Law to prohibit mineral exploration and mining operations at headwaters of rivers, protected zones of water reservoirs and forested areas? is abolished, leading to more intensified mining in the upstream water sources	Low	Support of democratic interest groups which are engaged in maintaining and applying the law. Clearly define in the project area and which areas could be affected by not applying the law. Justify that peatlands and permafrost should be subject to the law.
Economic sectoral interests prevent climate-smart solutions and effective GHG reductions and achieving LDN targets	Low	Dialogue with sector representatives to convince them of the longer-term benefits (including economic) of sustainable climate-smart solutions for peatland management for their sectors.

Data for the implementation of the project are not available in a timely manner with the required quality	Low	Put emphasis on scientific cooperation internally and with international scientific partners. Include also proxy approach for the assessments.
A primary risk is that community participation in the project is ineffective/fails due to inadequate approaches being adopted. A second risk related to community participation is language barriers and cultural understanding, which threatens the ability of the project to assess conditions and generate new knowledge, and replication within and across borders.	Medium	Participatory approaches and clearly defined mechanisms for community participation will be employed throughout the project implementation to ensure that all elements are fully demand-driven and well-received. All existing ethical guidelines for linking into indigenous herding societies will be followed by the project (including the GEF and UNEP guidelines on this topic). The project will earmark adequate resources for interpretation, translations and preparatory work in conjunction with local partners.
Nomadic pastoralism is an adaptation to an unpredictable environment, where climate conditions are subject to a high degree of spatial variability. However, current rapid climate change in the some of the reindeer herding areas may exacerbate current land use problems and jeopardize the project results.	Medium	This project is designed to enhance the sustainability and resilience of communities engaged in nomadic pastoralism. Case-based assessment reports of the impacts of land-use and climate change, and the development of scenarios for medium to long-range forecasts, will help identify and mitigate risks. In addition, the training of community members in monitoring will help detect local-level climate risks and define adaptive responses.

Climate Change impacts degrade or alter the peatlands and reduces herders? ability to respond, with improved sustainable management practices, to the increasingly unstable and unpredictable weather conditions. Present climate scenarios forecast more frequent extreme events, such as droughts and dzuds, potential considerable environmental and socio-economic impact. Prolonged droughts negatively impact the the ecosystem services provision of peatlands and require additional resilience and adaptation of pastoral herding communities.

Medium

To build site-level resilience to climate change impacts, the project will identify the impacts of climate change on targeted peatlands. Nomadic herding sites will be mapped according to temperature change models to identify potential adaptation measures. Managing for climate risks (e.g. drought and dzud) will require adaptations to the project, which is likely to involve different scenarios (or impact pathways) than what is originally conceived. Occurrence of severe droughts or dzuds in the project implementation period is uncertain, but building preparedness and awareness and build capacity to minimize environmental and socio-ecomine impact will support the resilience of the pastoral communities affected.

Planning for climate risks, and embedding adaptation measures in the project can help ameliorate the impacts of climate change. This includes planning for better pasture management, designing water conservation considering strategies, diversifying livelihoods, and possibly developing (or making use of) early warning systems. This supported can be by explicitly incorporating climate risk mitigation and adaptation measures in the sectoral plan development the project will be supporting, intended to include sustainable peatland management.

The COVID-19 pandemic presents a risk for project implementation through restrictions to project staff and beneficiaries in their ability to travel, access project sites, and implement activities timely. The pandemic could impact the project through various factors, including:

Availability of technical expertise and capacity and changes in timelines (travel restrictions and availability of staff as restriction factors)

Mobility and stakeholder engagement process: difficulties to travel and reach stakeholder groups, including nomadic herders and create a participatory inclusive stakeholder process

Enabling Environment: focus of the government of pandemic and related priorities, e,g, lockdowns and othe rrestrictions

Financing: focus of government on COVID response measures might limit availability of budget for cofinancing and existing restrictions might influence prices for procurement Medium

Progressive vaccination together with close follow-up of health regulations will support to minimize health risks to project staff and beneficiaries. Project staff will be guided to follow all required precautionary measures in implementation of project activities, especially regarding community gatherings. Digital video and call applications will be applied if travel is restricted and/or physical consultation meetings should be limited.

In principle, the project focuses on landscapes and land use practices within them to decrease the risk of human/nature conflicts, while introducing NRM practices that generate GEBs and resilience to climate change with livelihood benefits,

food security, considering biodiversity, land use and water resources,

The project management team will carefully monitor implementation progress and timelines and consider in their adaptive management, approaches to minimize impact on project execution.

In August 2020, the Parliament approved the ?Action Plan of the Government of Mongolia for 2020-2024?. The action plan includes policies to overcome the social and economic challenges caused by the COVID-19 pandemic, as well as human development, economic, green development, governance and capital city. regional and local development policies. Under this action plan, the green development policy focuses on the rational use of natural resources, the reduction of environmental pollution and degradation, and the creation of healthy living conditions for citizens. Conditions will be created to be resilient to environmental and climate change, engage environmentally friendly businesses, protect natural resources, prevent depletion, and use wisely and rehabilitate them. government action plan is based on the fundamental principles of improving economic diversification, supporting the development of priority sectors through policies, ensuring export growth, as well as maintaining the value-added industrialization policy sustainably for a long period of time.[1]

[1] https://www.montsame.mn/en/read/233461

## 6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

Reproduction of the ProDoc section 4 Institutional Framework and Implementation Arrangement (ProDoc pp. 93-97)

## **Institutional Framework and Implementation Arrangements**

The Ministry of Environment and Tourism (MET) will have the overall executing and technical responsibility of the project's First and the second components, with UNEP providing oversight as the GEF Implementing Agency as described below. The MET will act as the Co-Executing Agency and will be responsible for the day-to-day management of project results entrusted to it in full compliance with all terms and conditions laid out below. The International Centre for Reindeer Husbandry (ICR) will be the Executing Agency for Component 3 of the project and act as Co-Executing Agency.

The Execution Agencies' responsibilities will include:

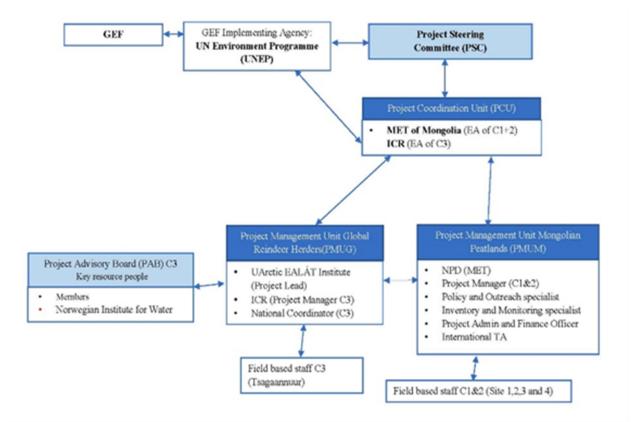
Recruitment of Project Management Unit (PMU),

Recruitment of consultants to be assigned to the Project Management Unit (PMU), in close consultation with the joint recruitment committee and Project Steering Committee.

Contracting of executing partners and purchase of goods and services based on the procurement decisions made by the PMU, and in line with the annual budgets and work plans that will be approved by the Project Steering Committee (PSC).

Financial management and reporting.

Processing of project terminal report and annual financial audits.



ProDoc Figure 16 The decision-making flowchart and organizational chart

The Co-Executing Agencies of the project are responsible and accountable to UNEP for the timely implementation of the agreed project results, operational oversight of implementation activities, timely reporting, and for effective use of GEF resources for the intended purposes and in line with UNEP and GEF policy requirements.

The project will establish a **Project Coordination Unit (PCU)** as unit to ensure effective coordination between the two executing agencies, MET for Components 1 and 2 and ICR for Component 3. The PCU will convene virtually and will be composed of the Project Manager for C1 and 2 and the Project Manager of C3. The PCU will follow guidance of the Project Steering Committee in order to achieve efficient management and coordination between the project components and for effective implementation of the annual work plan and budgets (AWP/Bs).

The government will designate a **National Project Director (NPD)**, affiliated to Department of Environment and Natural Resources, MET. The NPD will be responsible for coordinating the activities with all the national bodies related to the different project components, as well as with the project partners. He/she will also be responsible for supervising and guiding the National Project Manager (see below) on the government policies and priorities.

The NPD will chair the **Project Steering Committee (PSC)**, which will be the main governing body of the project, co-chaired by the head of ICR as co-executing agency. The PSC oversees the PCU for the overall project delivery according to the UNEP GEF Project Document and takes necessary decisions based on PCU documentation provided in advance of PSC meetings, including the approval of the annual work plans and budgets, the approval of project reporting before submission to the GEF agencies. It will also provide strategic guidance to the Project Coordination Unit, and through the PCU, to the Project Management Units for C1+2 and C3 and to all executing partners. The PSC will be comprised of representatives from MET, the Ministry of Food, Agriculture, and Light Industry (MOFALI), the Ministry of Construction and Urban Development (MCUD), a UNEP representative, the four Aimag Governments, the Taiga Nature Society, the Association of World Reindeer Herder, and the Norwegian Saami Reindeer Herders Association and representatives of the private sector and civil society.

The members of the PSC will each fulfil the role of a Focal Point for the project in their respective agencies. Hence, the project will have a Focal Point in each concerned institution. As Focal Points in their agency, the concerned PSC members will: (i) technically oversee activities in their sector; (ii) ensure a fluid two-way exchange of information and knowledge between their agency and the project; (iii) facilitate coordination and links between the project activities and the work plan of their agency and approve annual work plan and budget; and (iv) facilitate the provision of co-financing to the project.

The PSC will meet at least twice per year to ensure: i) Oversight and assurance of technical quality of outputs; ii) Close linkages between the project and other ongoing projects and programmes relevant to the project; iii) Timely availability and effectiveness of co-financing support; iv) Sustainability of key project outcomes, including up-scaling and replication; v) Effective coordination of government partner work under this project; vi) Approval of the Annual Work Plan and Budget; vii) Making by consensus, management decisions when guidance is required by the Project Managers of the PCU. Of these two meetings, one will be in-person if travel is possible. The other meeting will be online.

The project will establish two parallel **Project Management Units** (**PMUs**) co-funded by the GEF. The **Project Management Unit Mongolian Peatland** (**PMUM**) will oversee the Mongolian Components 1 and 2, The **Project Management Unit Global Reindeer Herders** (**PMUG**) will oversee the global Component 3.

The main functions of the PMUs, following the guidance of the Project Steering Committee through the PCU, are to ensure overall efficient management, coordination, implementation and monitoring of the project through the effective implementation of the annual work plans and budgets (AWP/Bs).

The PMUM will be established under MET. The PMUM will be composed of a **National Project Manager** (**NPM**) who will work full-time for the project lifetime. In addition, the PMUM will include a Policy and Outreach specialist, a National Inventory and Monitoring Expert, an Administration and

Finance Officer to support the financial management of the project as well as short-term international Technical Assistance Consultants. The NPM will oversee and monitor the work of the field-based staff in the 4 aimags, who will report to the NPM. The hiring of project staff and consultants will be undertaken by a joint committee constituted by UNEP and MET.

The PMUG will be established within ICR and will be composed of a **Project Manager (PM)**, leading the work of the PMUG, responsible for the project implementation of Component 3 on a daily basis. The PM will be supported by a National Coordinator (NC) as a technical assistant. ICR, providing the PM, will be responsible for the overall C3 implementation, monitoring and evaluation, including budgets and financial management and reporting on the Component 3 and as member of the PCU, ensuring effective coordination between the two executing agencies and the two Project Management Units. The University of the Arctic Institute for Circumpolar Reindeer Husbandry (UEI) is the project lead for Component 3 and leads the coordination and implementation of project Components 3.2 and 3.3. The Norwegian Institute for Water Research (NIVA) leads the implementation of project Component 3.1.

The PMUG will be established within ICR and headed by Executing Director of ICR as **Project Manager** who will allocate 50% of his working time for coordinating the projects activities with other counterparts of Component 3. The PMUG team further consist of two full time local staff: a Coordinator who will be based in Ulaanbaatar and Field Assistant who will be based in Tsagaannuur soum of Khuvsgul aimag. Two part time staff - Admin Officer and Finance Officer will be based at ICR responsible for administrative and financial management and reporting of the Component 3. The configuration of the team may change over time according to the needs of the Project implementation. Changes in the team will be reported through the progress report. Furthermore, ICR will hire short term experts and external technical services as required to provide specific technical input. Short-term experts hired by ICR will operate from the project offices and will be subject to the ICR?s direction.

The PMUG will be supported by a **Project Advisory Board** (**PAB**) consisting of an international group of individuals carefully selected to represent expertise on pastoralism, rangelands and indigenous peoples? issues. The expertise will go beyond the reindeer herding regions of the world. The role of the PAB is to ensure synergies and dialogues between the project and other related initiatives worldwide.

## **Local level coordination**

4 aimag Coordinators will be responsible for day-to-day management of the activities at the local level, in collaboration with the local soum government officers and communities. The Aimag Coordinators will be recruited locally in each soum (wherever possible), and will be based at the local government offices in order to ensure close collaboration with the local land, water, agriculture, and livestock officers. Local project implementation teams will be established at the bagh and soum levels, involving local women and men to support project implementation at the local level. Regular project meetings will be held at the bagh and soum levels, where project progress and monitoring and evaluation will be discussed. Women

federations and Indigenous Peoples Representatives at local level will be engaged to facilitate the participation of women and to ensure that project activities are also responsive to the interests and needs of local women. An additional field-based staff will be stationed in Tsagaannuur to guide and oversee the implementation of activities in this target area linked to the reindeer herding communities, linking Component 1 and 2 with Component 3.

In addition, a National Policy and Outreach Expert and a National Inventory and Monitoring Expert will also coordinate and facilitate local level activities, in line with their Terms of Reference (TORs).

## **Technical Assistance**

Project consultants will be hired as required to provide the technical inputs required for project implementation. These include the following consultancies:

- ? A gap analysis of legislation and sectoral regulations in connection to activities in peatlands (Output 1.1.2)
- ? Development of best suitable spatial inventories of peatlands and their ecosystem services (Output 1.2.1)
- ? Training curriculum development on peatland inventories and data integration into planning and reporting (Output 1.2.2)
- ? Training curriculum development on monitoring/reporting of LDN and GHG emissions reduction due to peatland management practices (Output 1.2.3)
- ? Training curriculum developed on peatland and ecosystem services and sustainable management options (Output 2.1.4)
- ? As peatland is still not well addressed in the environmental sector of the country the project requires two short-term international consultants:
- ? International expert on peatland inventory, monitoring and conservation, to support amongst other Outputs 1.2.2 and 1.2.3;
- ? International expert on peatland and ecosystem services and best practices of sustainable peatland management options, to support Output 2.1.3 and 2.1.4.
- ? For mid-term and terminal evaluation of the project, independent evaluators will be recruited and guided directly by UNEP.

## **Sub-contracts/Letter of Agreements**

In addition, Letters of Agreement (LOAs) or sub-contracts will be awarded to NGOs and academic institutions for specific project tasks. They include, amongst other:

- ? Sub-contract for scientific studies of two catchments to establish the water balance models and its relationship with permafrost and peatland;
- ? Sub-contract for a scientific permafrost-peatland interaction model
- ? LOAs for the implementation of priority interventions for sustainable peatland management in target areas
- ? Sub-contract with NIVA, leading implementation of project interventions under Component 3.1.

# ToRs for PSC, NPD, PMs and other staff are presented in ProDoc Appendix 11 Terms of Reference 7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

- National Action Plan for Adaptation (NAPA) under LDCF/UNFCCC
- National Action Program (NAP) under UNCCD
- ASGM NAP (Artisanal and Small-scale Gold Mining) under Mercury
- Minamata Initial Assessment (MIA) under Minamata Convention
- National Biodiversity Strategies and Action Plan (NBSAP) under UNCBD
- National Communications (NC) under UNFCCC
- Technology Needs Assessment (TNA) under UNFCCC
- National Capacity Self-Assessment (NCSA) under UNCBD, UNFCCC, UNCCD
- National Implementation Plan (NIP) under POPs
- Poverty Reduction Strategy Paper (PRSP)
- National Portfolio Formulation Exercise (NPFE) under GEFSEC
- Biennial Update Report (BUR) under UNFCCC
- Others

Reproduction of the ProDoc section 3.6 Consistency with national priorities or plans (ProDoc pp. 81-82)

## Consistency with national priorities and plans

The project components and activities are developed in-line with the ?Strategic Plan for peatlands in Mongolia? developed at the request of the Ministry of Environment and Tourism of Mongolia in the frame of the TA funded by the ADB with the support of the government of Japan. The Strategic Plan was

developed with reference to the Mongolian national strategies and international strategies to which Mongolia is committed. These include National Green Development Policy and Action Plan, National Sustainable Development Vision 2030, National Water Programme, National Strategy on Biodiversity and Action Plan, UNFCCC (Paris Agreement) Nationally Determined Contribution, UNCCD National Reporting, CBD National Report, Ramsar National Reporting. The project outcomes will directly contribute to national reporting to the UNFCCC, including the Paris Agreement and other relevant MEAs. Components are totally devoted to the integration of peatlands related activities into the NDC of Mongolia and assistance in the development of the reporting framework and in the reporting itself. The Project further contributes to The United Nations Development Assistance Framework (2017-2021) by supporting Result#3 ?Protection of ecosystem services that support the livelihoods of the rural poor and vulnerable? of Outcome 1 ?By 2021, poor and vulnerable people are more resilient to shocks, and benefit from inclusive growth and a healthy ecosystem?

The project addresses two of the objectives of the UNCCD 2018-2030 Strategic Framework: Strategic objective 1 (improve the condition of affected ecosystems and promote sustainable land management), and strategic objective 2 (food security, improve the living conditions of affected people, empower and participate in local and global decision-making processes for combating land degradation). The Project will contribute to land degradation neutrality efforts. More specifically, the Project will support Mongolia?s LDN target of ?Promoting sustainable grassland management and halting further grassland degradation? and ?Ensuring no net loss of wetlands by 2030 compared to 2015? by putting 20,000 ha of landscapes under improved practices. The proposed project is fully aligned with the efforts of the international community to address the challenges faced by reindeer herders including the 2009 Declaration of the World Association of World Reindeer Herders, which called for increasing international attention on the taiga areas; the ?The Cancun Declaration? on Promoting Sustainable Pastoralism and Livestock Production for the Conservation of Biodiversity in Grasslands and Rangelands.

Finally, the proposed project is closely aligned with UNEP?s Medium-Term Strategy for 2022-2025, For People and Planet[1]. Three interconnected crises? climate change, biodiversity loss and pollution? are putting global economic and social well-being at risk. They undermine opportunities to reduce poverty and improve lives, and they complicate the response to the COVID-19 crisis. The Medium-Term Strategy (MTS) is UNEP?s vision for reversing that trajectory. The strategy outlines how UNEP will strengthen the environmental dimension of the 2030 Agenda during the period 2022?2025, supporting countries to deliver on their environmental commitments under international agreements.

It will also contribute to the implementation of Resolution 2/24 of the United Nations Environment Assembly on ?Combating desertification, land degradation and drought and promoting sustainable pastoralism and rangelands? and Resolution 4/15 ?Innovations in sustainable rangelands and pastoralism?. This resolution recognizes ?that healthy grassland and rangeland ecosystems are vital for contributing to economic growth, resilient livelihoods and the sustainable development of pastoralism; regulating the flow of water; maintaining soil stability and biodiversity; and supporting carbon sequestration, tourism, and other ecosystem goods and services, as well as distinct lifestyles and cultures, and that they can play a significant role in the achievement of the 2030 Agenda?.

Reproduction of part of the ProDoc section 2.2 Institutional, sectoral and policy context (ProDoc pp. 30-32)

## Alignment with national policy or environmental and developmental targets

The project components and activities are developed in-line with the ?Strategic Planning for peatlands in Mongolia? developed at the request of the Ministry of Environment and Tourism of Mongolia in the frame of the TA funded by the ADB with the support of the government of Japan[2]. The Strategic Plan was developed with reference to the Mongolian national strategies and international strategies to which Mongolia is committed. These include the national Green Development Policy and Action Plan, the National Sustainable Development Vision 2030, the National Water Programme and the National Strategy on Biodiversity and Action Plan.

The Sustainable Development Vision of Mongolia, adopted by Parliament in 2016. The actions mentioned in the vision linked to SDG long-term targets related to environmental protection and conservation include: maintain a forest area to reach 9% of the total area; expand specially protected areas to reach 30% of the total area; bring under the protection about 60% of all headwaters; regulate and manage animal numbers in alignment with pasture carrying capacity; Maintain the appropriate ratio between types of animals and herd composition; and, Support green development and enhance the living standards of herders and agriculture workers. The Vision document and related actions are being implemented in three periods, with a medium-term (2021-2025); and long-term (2026-2030).

To sustain land productivity as well as livestock breeding sector development, the Mongolian Government initiated a national programme entitled ?Livestock of Mongolia?, aimed to enhance the productivity of the sector by increasing the benefits from livestock breeding, improving the ecological sustainability of rangelands and enhancing veterinary service.

The Green Development Strategy of Mongolia, adopted in 2015, is the long-term national development policy document and aims to develop Mongolia into an advanced nation having built conditions for environmental sustainability to be inherited by future generations and with the opportunity to gain benefits from it in the long-run through participatory and inclusive economic growth based on the green development concept. The core measure for the implementation of this strategy is linked to land use planning and management at all levels.

The National Action Plan to Combat Desertification. The Government of Mongolia ratified the United Nations Convention to Combat Desertification (UNCCD) in 1994 and elaborated a National Action Plan to combat desertification in 1996. In 2016, the Parliament of Mongolia adopted the concept of sustainable development, where the issues of nature conservation, water resource, disaster preparedness, and SLM and natural resources management were among the top priorities. Since becoming a party to the UNCCD, Mongolia developed, implemented and reported on three NAPs in 2000, 2003 and 2010. The 2010 NAP was developed under the requirement of the UNCCD to align national actions with UNCCD?s 10 year strategy.

The National Climate Change Action Plan 2015?2050. Mongolia developed a National Climate Change Action Plan that aims to implement actions relevant to climate change impact mitigation. Adaptation opportunities and assessments for climate change vulnerable sectors are incorporated in the NCCAP and is considered a critical contribution for the country?s sustainable development. The NAPCC aims to create a sustainable environment for development by promoting capacities and measures on adaptation to climate change, halting imbalances in the country's ecosystems and protecting them. The implementation strategies in this NAPCC include institutional, legislative, financial, human, education and public awareness, and research programmes, as well as co-ordination with other national and sectoral development plans. The goal is to ensure ecological balance, development of socio-economic sectors adapted to climate change, reducing vulnerabilities and risks, mitigating GHG emissions and promoting economic effectiveness and efficiencies and implementation of green development goals. The NAPCC also includes adaptation and mitigation strategies and measures for key socio-economic sectors of the country. It establishes a foundation for green economic growth and development. In 2011, the NAPCC's implementation plan for the first phase was approved. In the first phase (2011-2016), national mitigation and adaptation capacities were strengthened, and legal, structural and management systems set up and community and public participation improved. In the second phase (2017-2021), climate change adaptation measures will be implemented and GHG mitigation actions will be started.

Mongolia initiated the development of a *National Adaptation Plan (NAP)* supported by GCF and UNEP in 2019. The NAP project will support multi-sectoral, medium- to long-term adaptation planning and budgeting in Mongolia and promote the integration of climate change adaptation aspects into development policies. Systems for developing and sharing climate risk and vulnerability information will be reinforced, and sustainable financing mechanisms for climate change adaptation initiatives are set to be developed. Effective climate change adaptation planning will assist Mongolia in dealing with these impacts, especially within rural communities, where climate change effects are often most apparent and potentially catastrophic.

The National Biodiversity Action Plan 2015 ?2025[3] The second National Biodiversity Program. passed by the Mongolian Government in June 2015. The newly developed National Biodiversity Program is a mid-term policy document outlining the prompt implementation of state policy at the national and sectoral level, goals and targets to solve critical issues, budgetary concerns and funding sources, and various other implementation details. The full implementation of this national strategic action plan by all parties will enable continuity and cohesion, and promote stability between sectoral and cross-sectoral policy documents. The National Biodiversity Program includes 14 goals, 29 objectives and 74 outputs within the frame of 4 strategies to ensure the conservation and sustainable use of Mongolia's biological diversity until 2025. Sustainable peatland management is not covered in the plan explicitly, but linkages are clear under Objective 20: Create a stable financial framework for the restoration of degraded soil, protection of soil vulnerable to climate change and prevention of soil degradation. Another linkage exists with Objective 26: Improve the legal environment for proper value and assessment of ecosystem services.

UNFCCC contributions. Historical climate warming is believed to have taken place at some of the fastest rates in the world in Mongolia and other shifts in climate dynamics are already strongly impacting lives and livelihoods. In response, Mongolia has engaged closely with international efforts to mitigate climate change and its impacts. In 2016 the nation ratified the Paris Climate Agreement, and in 2018 released its Third National Communication to the UNFCCC and it adopted its Updated Nationally Determined Contributions in 2020. Key national policy documents include the National Action Plan on Climate Change (2011?2021) and the above presented Green Development Policy (2014?2030). Mongolia has submitted a list of Nationally Appropriate Mitigation Actions (NAMAs) to UNFCCC in 2010, including significant potential for climate change mitigation by land use optimization., e.g., through sustainable grassland and livestock management. As peatland offer the habitats with the richest organic soils there is clear potential to include peatland management, restoration and conservation within NAMA activities (ADB-MET, 2017).

[1] https://www.unep.org/resources/policy-and-strategy/people-and-planet-unep-strategy-2022-2025#:~:text=The%20Medium%20Term%20Strategy%20(MTS,vision%20for%20reversing%20that%20trajectory.&text=UNEP%20will%20step%20into%20this,change%2C%20biodiversity%20loss%20and%20 pollution.

## 8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

Reproduction of the ProDoc section 3.9 Public awareness, communications and mainstreaming strategy (ProDoc pp. 88)

Public awareness, communications and mainstreaming strategy

The project has a strong knowledge management component. It will collect information through participatory approaches and make this information globally available through training courses and community-based workshops through ICR. A wide range of publications, briefings, policy guidelines, etc. will be prepared for a broad range of global stakeholders. Through dissemination activities, the project knowledge will be globally shared, capacity will be developed and sustainable land management strategies will be improved to become more efficient and fair.

<sup>[2]</sup> ADB-MET 2017 Assessment Report. Strategic Planning for peatlands in Mongolia

<sup>[3]</sup> https://www.mn.undp.org/content/mongolia/en/home/library/biofin\_mongolia-national-biodiversity-action-plan-brochure.html

The project will develop a knowledge base for LULUCF sector MRV in relation to peatlands and cooperate with the ongoing CBIT project in developing training products and sustaining knowledge via involving country representatives of UN agencies, local and national governments, civil society organizations and academic institutions.

On the one hand, the project will benefit from databases and capacities available at GEF like CBIT, NBSAP and other platforms; on the other hand it will make its own guidelines and databases which involve peatland management methodologies, reporting formats, data on carbon storage and especially emission factors, mitigation and adaptation nature-based solutions, etc. available to GEF.

The peatland related scientific community is based on an international cooperation background, backed up by several international scientific network-based NGOs (International Mire Conservation Group ? IMCG; Greifswald Mire Centre? GMC, International Peatland Society? IPS; Wetlands International, IUCN Peatland Group), the UN Global Peatland Initiative, as well as the scientific advisory bodies of the MEAs (Ramsar STRP, CBD SABSTA, IPCC and IPBES) and more interdisciplinary organisations such as the Society of Ecological Restoration, Society of Wetland Scientists, International Permafrost Association. These networks are connected to the experts working on peatlands in Mongolia. On the one hand, the project will involve more Mongolians, especially young scientists, in those networks. On the other hand, the project will channel integrative knowledge and experience available in the organizations named above to the GEF knowledge framework. The Project will also closely cooperate with UN agencies and MEAs secretariats with a focus on FAO, UNCCD, IPCC, Ramsar STRP and the UN Global Peatland Initiative by using the project outcomes and key findings to inform and address issues at the international level. Under the mapping activities, it is expected (modalities to be defined) that the project will exchange its remote sensing data and data storage systems, granted by Space Agencies involved in the project (JAXA and ESA) with GEF. The project plans to benefit from GEF?s repository of raw information/data and synthesized knowledge.

Herders in Mongolia have in depths traditional knowledge about managing grazing grounds sustainably. However, this knowledge has been pushed to the background because of the recent development to increase the size and composition (percentage of goats and sheep) of herds for economic reasons beyond the carrying capacity of the ecosystems concerned. The project will take stock of traditional herding knowledge, apply it as far as possible in the short project life and accumulate and document it for its future use and appreciation.

The project will promote open access and information dissemination for decision support systems on peatland management including conservation, wise use and restoration. The project will develop low-cost solutions for information storage, management, and exchange systems within the components addressing mapping, GIS and other databases development. The project will seek to engage target audiences and inform the general public through a variety of outreach and dissemination activities. A wide range of publications, briefings, policy guidelines, etc. will be prepared for a broad range of national and regional stakeholders.

## 9. Monitoring and Evaluation

## Describe the budgeted M and E plan

Reproduction of the ProDoc section 36 Monitoring and Evaluation Plan (ProDoc pp. 105-109)

## **Monitoring and Evaluation Plan**

UNEP will be responsible for managing the mid-term review and the terminal evaluation. The Project Management Unit and partners will participate actively in the process.

The project will be reviewed or evaluated at mid-term (tentatively in January 2024 as indicated in the project milestones). The purpose of the Mid-Term Review (MTR) is to provide an independent assessment of project performance at mid-term, to analyze whether the project is on track, what problems and challenges the project is encountering, and which corrective actions are required so that the project can achieve its intended outcomes by project completion in the most efficient and sustainable way. In addition, it will verify information gathered through the GEF Core Indicators.

The project Steering Committee will participate in the MTR and develop a management response to the evaluation recommendations along with an implementation plan. It is the responsibility of the UNEP Task Manager to monitor whether the agreed recommendations are being implemented. The MTR is managed by the UNEP Task Manager.

In line with the GEF Evaluation requirements and UNEP?s Evaluation Policy, GEF Full-Sized Projects and any project with a duration of 4 years or more will be subject to an independent Mid-Term Evaluation or management-led Mid-Term Review at mid-point. All GEF funded projects are subject to a performance assessment when they reach operational completion. This performance assessment will be either an independent Terminal Evaluation or a management-led Terminal Review.

In case a Review is required, the UNEP Evaluation Office will provide tools, templates, and guidelines to support the Review consultant. For all Terminal Reviews, the UNEP Evaluation Office will perform a quality assessment of the Terminal Review report and validate the Review?s performance ratings. This quality assessment will be attached as an Annex to the Terminal Review report, validated performance ratings will be captured in the main report.

However, if an independent Terminal Evaluation (TE) of the project is required, the Evaluation Office will be responsible for the entire evaluation process and will liaise with the Task Manager and the project implementing partners at key points during the evaluation. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness and efficiency), and determine the likelihood of impact and sustainability. It will have two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP staff and implementing partners. The direct costs of the evaluation (or the management-led review) will be charged against the project evaluation budget. The TE will typically be initiated after the project?s operational completion If a follow-on phase of the project is envisaged, the

timing of the evaluation will be discussed with the Evaluation Office in relation to the submission of the follow-on proposal.

The Evaluation Office will monitor compliance with this plan every six months for a total period of 12 months from the finalisation of the Recommendations Implementation Plan. The compliance performance against the recommendations is then reported to senior management on a six-monthly basis and to member States in the Biennial Evaluation Synthesis Report.

Project Inception Phase. A Project Inception Workshop (IW) will be held within the first two (2) months of project start-up with the participation of the full project team, relevant counterparts, co-financing partners, and the UNEP Focal Point, as appropriate. A fundamental objective of the IW will be to help the project team to understand and take ownership of the project?s goal and objectives, as well as finalize preparation of the project's first annual work plan on the basis of the project results framework and the GEF Core Indicators. This will include reviewing the results framework (indicators, means of verification, and assumptions), imparting additional detail as needed, and on the basis of this exercise, finalizing the Annual Work Plan (AWP) with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the project. Specific targets for the first-year implementation progress indicators together with their means of verification will be developed at the inception workshop. These will be used to assess whether the implementation is proceeding at the intended pace and in the right direction and will form part of the Annual Work Plan.

Additionally, the purpose and objective of the IW will be to a) introduce project staff to project stakeholders that will support the project during its implementation; b) detail the roles, support services, and complementary responsibilities of UNEP staff in relation to the project team; c) provide a detailed overview of UNEP-GEF reporting and M&E requirements, with particular emphasis on the Annual Project Implementation Reviews (PIRs) and related documentation, the Annual Project Report (APR), mid-term review, final evaluation and financial reporting. Equally, the Inception Workshop will provide an opportunity to inform the project team on UNEP project-related budgetary planning, budget reviews including arrangements for the annual audit, and mandatory budget re-phasings. The IW will also provide an opportunity for all parties to understand their roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines and conflict resolution mechanisms.

The Terms of Reference (ToRs) for project staff and decision-making structures will be discussed again, as needed, in order to clarify each party?s responsibilities during the project's implementation phase. A report of the Inception Workshop is a key reference document and must be prepared and shared with participants.

**Monitroing Responsibilities and Events.** A detailed schedule of project review meetings will be developed by the project management team in consultation with project implementation partners and stakeholder representatives. It will be incorporated in the Project Inception Report. The schedule will include: a) tentative timeframes for Project Steering Committee meetings (and other relevant advisory and/or coordination mechanisms); and b) project-related M&E activities.

Day-to-day monitoring of implementation progress will be the responsibility of the Project Managers based on the project's Annual Work Plan and its indicators. The Project Lead Technical Expert will inform the UNEP, on behalf of the Executing Agency of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion. The Project Managers will fine-tune the progress and performance/impact indicators of the project in consultation with the full project team at the IW with support from UNEP Task Manager.

At the inception workshop, specific targets for the first-year implementation progress indicators together with their means of verification will be developed. Targets and indicators for subsequent years will be defined annually as part of the internal evaluation and planning processes undertaken by the project team. Measurement of impact indicators related to global benefits will be done during the annual evaluation.

Periodic monitoring of implementation progress will be undertaken by the UNEP Task Manager through six-monthly exchanges with the project implementation team, or more frequently as deemed necessary. This will allow parties to take stock of and to troubleshoot any problems pertaining to the project in a timely fashion to ensure the timely implementation of project activities. The UNEP Task Manager, as appropriate, will conduct yearly visits to the project?s field sites, or more often based on an agreed upon schedule to be detailed in the project's Inception Report/AWP to assess first-hand project progress. Any other member of the Steering Committee can also take part in these trips, as decided by the Steering Committee and as determined by project resources. A Field Visit Report will be prepared by the UNEP Task Manager and circulated no less than one month after the visit to the project team, all Steering Committee members, and UNEP-GEF.

Annual monitoring will occur through the Project Steering Committee (PSC) meetings. This is the highest policy-level meeting of the parties directly involved in the implementation of a project. The project will be subject to the Project Steering Committee meeting at least once every year.

The first such meeting will be held within the first twelve (12) months of the start of full implementation. The Project Lead Technical Expert will prepare an Annual Project Report (APR) and submit it to UNEP GEF Task Manager at least two weeks prior to the PSC for review and comments. The APR will be used as one of the basic documents for discussions Project Steering Committee meeting. The Project Manager will present the APR to the PSC, highlighting policy issues and recommendations for the decision of the PSC. The Project Manager will also inform the participants of any agreement reached by stakeholders during the APR preparation on how to resolve operational issues. Separate reviews of each project component may also be conducted if necessary. UNEP has the authority to suspend disbursement if project performance benchmarks are not met. Benchmarks will be conveyed by UNEP to project stakeholders at the IW, based on delivery rates and qualitative assessments of achievements of outputs.

The Terminal PSC Review is held in the last month of project operations. The Project Manager with support of Monitoring and Evaluation (M&E) Officer and guidance from UNEP is responsible for preparing the Terminal Report and submitting it to UNEP GEF. It shall be prepared in the draft at least two months in advance of the PSC meeting in order to allow review and will serve as the basis for discussions in the PSC meeting. The terminal PSC review considers the implementation of the project as a whole, paying particular attention to whether the project has achieved its stated objectives and contributed to the broader environmental objective. It decides whether any actions are still necessary, particularly in relation

to the sustainability of project results, and acts as a vehicle through which lessons learned can be captured to feed into other projects being implemented.

**Project Monitoring Reporting.** The Project Manager, with support from the monitoring officer and guidance from UNEP-GEF team, will be responsible for the preparation and submission of the following reports that form part of the monitoring process and that are mandatory.

A **Project Inception Report (IR)** will be prepared immediately following the IW. It will include a detailed First Year/AWP divided in quarterly timeframes detailing the activities and progress indicators that will guide implementation during the first year of the project. This work plan will include the dates of specific field visits, support missions from the UNEP Task Manager or consultants, as well as timeframes for meetings of the project?s decision-making structures. The IR will also include the detailed project budget for the first full year of implementation, prepared on the basis of the AWP, and including any M&E requirements to effectively measure project performance during the targeted 12-month timeframe. The IR will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions, and feedback mechanisms of project-related partners. In addition, a section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation. When finalized, the IR will be circulated to project counterparts who will be given a period of one calendar month in which to respond with comments or queries. Prior to the IR?s circulation, the UNEP/GEF will review the document.

The **Annual Project Report (APR)**. An APR will be prepared on an annual basis prior to the PSC Review, to reflect the progress achieved in meeting the project?s AWP and assess performance of the project in contributing to intended outcomes through outputs and partnership work. The format of the APR is flexible but should include the following sections: a) project risks, issues, and adaptive management; b) project progress against pre-defined indicators and targets, c) outcome performance; and d) lessons learned/best practices.

The **Project Implementation Review (PIR)** is an annual monitoring process mandated by the GEF. It has become an essential management and monitoring tool for project managers and offers the main vehicle for extracting lessons from on-going projects. Once the project has been under implementation for one year, a PIR must be prepared by the project management and submitted by UNEP to the GEF. The PIR should then be discussed in the PSC meeting so that the result would be a PIR that has been agreed upon by the project counterparts and the UNEP. The individual PIRs are collected, reviewed, and analysed by the UNEP Operational Focal Point prior to sending them to the GEF by UNEP-GEF Coordination Office.

**Half year (July?December) Progress Reports** outlining main updates in project progress will be provided every six months to the UNEP/GEF Task Manager. The January? June progress report stands as the PIR described above.

Specific Thematic Reports focusing on specific issues or areas of activity will be prepared by the project team when requested by UNEP-GEF or the project implementing partners. The request for a Thematic Report will be provided to the project team in written form by UNEP and will clearly state the issue or activities that need to be reported on. These reports can be used as a form of lessons learned exercise, specific oversight in key areas, or as troubleshooting exercises to evaluate and overcome obstacles and difficulties encountered. UNEP is requested to minimize its requests for Thematic Reports, and when such are necessary will allow reasonable timeframes for their preparation by the project team.

A Project Terminal Report will be prepared by the project team during the last three (3) months of the project. This comprehensive report will summarize all activities, achievements, and outputs of the project; lessons learned; objectives met or not achieved; structures and systems implemented, etc.; and will be the definitive statement of the project?s activities during its lifetime. 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 activities.

Publications/Technical reports. The project intends to publish some documents covering specific themes. In the Inception Report, the project team will prepare a draft list of publications that are expected during the course of the project and tentative due dates. Where necessary, this publications list will be revised and updated, and included in subsequent APRs. Publications may also be prepared by external consultants and should be comprehensive and specialized analyses of clearly defined theme of research within the framework of the project. These publications will represent, as appropriate, the project?s substantive contribution to specific issues, and will be used in efforts to disseminate relevant information at local, national, and international levels.

Project Evaluation. In-line with the UNEP Programme Manual and the Evaluation Policy the project will be subject to a Terminal Evaluation. The Evaluation Office will be responsible for the Terminal Evaluation (TE) and will liaise with Ecosystems Division and the Executing Agency throughout the process. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness, and efficiency), and determine the likelihood of impact and sustainability. It will have two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP and executing partners. The direct costs of the evaluation will be charged against the project evaluation budget. The Terminal Evaluation will be initiated no earlier than six months prior to the completion of project activities and, if a follow-on phase of the project is envisaged, should be completed prior to completion of the project and the submission of the follow-on proposal.

The draft TE report will be sent by the Evaluation Office to project stakeholders for comment. Formal comments on the report will be shared by the Evaluation Office in an open and transparent manner. The project performance will be assessed against standard evaluation criteria using a six-point rating scheme. The final determination of project ratings will be made by the Evaluation Office when the report is finalized. The evaluation report will be publicly disclosed and may be followed by a recommendation compliance process. The GEF Core Indicators will also be verified during the final evaluation.

The indicative M&E budget is presented in Appendix 7 of the ProDoc (Costed M&E Plan)

The indicative Monitoring and Evaluation Work Plan is provided in the table below. The estimated cost of M&E activities is USD **140,000** (GEF), fully integrated into the project budget, as shown below:

Type of M&E activity	Responsible Parties	Budget from GEF	Co- finance	Time Frame
----------------------	---------------------	-----------------------	----------------	------------

Inception Meeting	Project  Manager, Project Team, Steering Committee, UNEP	10,000	25,000	Within 2 months of project start- up
Inception Report	Project		20,000	1 month after project inception meeting
Кероп	Manager			incetting
Measurement of project indicators (outcome, progress and performance	Project Manager & Project Team; Consultants	25,000	10,000	Outcome indicators: start, mid and end of project Progress/perform. Indicators: annually (Cost incorporated in project components and management budget)
indicators, GEF Core Indicators) at national and global level				
Semi-annual Progress/ Operational Reports to UNEP	Project  Manager	5,000	12,000	Within 1 month of the end of reporting period i.e. on or before 31 January and 31 July (Cost incorporated in project components and management budget)
Project Steering Committee	<ul><li>? Project Manager (secretariat)</li><li>? A representative of UNEP Implementing Agency</li></ul>	40,000	30,000	At least once a year, and via electronic media per request and need  Costs are mainly related for travel of PSC members
	? A senior representative of The Ministry of Environment and Tourism			
	? A representative of ICR ? Other PSC members			
Reports of PSC	Project		4,000	Within 1 month after PSC meeting
meetings	Manager		.,000	· · · · · · · · · · · · · · · · · · ·
Project Implementation Review (PIR)	Project Manager; UNEP			Annually, part of reporting routine (Cost incorporated in project components and management budget)
Mid Term Review/ Evaluation	? Project Manager ? PMU ? External consultant(s) ? UNEP	30,000	10,000	At mid-point of project implementation
Terminal Evaluation	UNEP EO	40,000	10,000	Within 6 months of end of project implementation

Audit	The Ministry of Environment and Tourism ICR		40,000	Annually
Project Final Report	Project Manager		2,000	Within 2 months of the project completion date (Cost incorporated in project components and management budget)
Co-financing report	Project  Manager and Finance  Manager		5,000	Within 1 month of the PIR reporting period, i.e. on or before 31 July (Cost incorporated in project components and management budget)
Publication of Lessons Learnt and other project documents	Project  Manager; Consultants for lessons learnt evaluation	10,000	45,000	Annually, also part of Semi- annual reports & Project Final Report
Total M&E Plan Budget		140,00	233,000	

## 10. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

The following section is a reproduction of the ProDoc Section on benefits (ProDoc pp. 62)

This Project will support Mongolia?s LDN target of ?Promoting sustainable grassland management and halting further grassland degradation? and ?Ensuring no net loss of wetlands by 2030 compared to 2015? by putting 20,000 ha of landscapes under improved practices. The Project will reduce 30,000 t of CO2e per annum with sustainable peatland management interventions. Demonstration of successful introduction of peatlands related land use change in the NDCs of Mongolia will be a positive example for other countries and will encourage countries to include peatlands in their NDCs.

The project implementation will have a significant positive impact on Mongolian part of the watershed of Lake Baikal. The sources of the main tributaries of the Lake Baikal, Orkhon and Selenga, are part of the project area. Safeguarding these sources will contribute to alleviating the current problems of the decline of the water level of Lake Baikal, the world?s largest freshwater resource. The project will develop and apply existing methods of ecosystem restoration and test them in pilots to inspire local, national and international stakeholders. Restoration of peatlands in arid and semiarid biomes, as well as restoration of permafrost is a significant challenge. By demonstration of pilots, the Project will help in meeting the targets of the UN decade of ecosystem restoration (2021-2030).

Furthermore, the project will directly contribute to increasing the capacity of disadvantaged nomadic herder communities to engage in and benefit from sustainable land management efforts and adapt to environmental and human-induced changes to the rangeland habitats they depend upon. The tools and partnerships developed through the project will increase their knowledge and understanding of policy and national decision-making processes that affect the habitats they depend upon, and their livelihoods. With these capacities, herder communities will be in a better position to advocate for their sustainable model of land use in sensitive tundra and taiga landscapes and mitigate pressures to convert land to more degrading uses. Nomadic herders will enhance their resilience to changing social, environmental and climatic conditions at the global scale.

An additional expected benefit of the project is community empowerment, enabling nomadic herders? community members to participate more fully as equal partners in information sharing, education and training, technology transfer, organizational development, and policy development, thereby gaining more access to commercial, social and political opportunities. The project will also facilitate interaction between state, local authorities, industry and nomadic herders, assisting in creating dialogue, building confidence and sharing information.

## Further the project will:

- ? Enhance capacity of countries to implement MEAs (multilateral environmental agreements);
- ? provide ways and means for reducing and mitigating the effects of anthropogenic transformation, land fragmentation and degradation;
- ? provide global support for achieving UNESCO World Heritage status for reindeer husbandry;
- ? preserve and develop reindeer husbandry and its cultural base in the circumpolar north; and
- ? increase the competence of the next generation concerning the central importance of indigenous pastoral systems.

In addition to these benefits, the contribution of the project to the GEF Core Indicators is discussed and presented earlier.

## 11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification\*

	CEO				
	Endorsement/Approva				
PIF	1	MTR	TE		
	Medium/Moderate				

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

## **Supporting Documents**

Upload available ESS supporting documents.

Title	Module	Submitted
Annex 9 Safeguard Risk Identification Form (SRIF)	CEO Endorsement ESS	

## ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Reproduction of the Project Results Framework, Annex 4, Of the ProDoc

## **Project Results Framework**

Outcome Level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
-----------------------------	----------	---	--------------------------	---------------------

Project Objective: To develop the capacity for enhancing ecosystem services of peatlands (specifically reduction of GHG emissions from degraded peatlands) in Mongolia and the capacity of indigenous reindeer herders to reduce land degradation and improve the provision of ecosystem services and increase community resilience.

Component 1: Policy framework and institutional capacity for climate-friendly and resilient peatland management practices

**Outcome 1.1:** The peatland based GHG emission reduction plan for four main sectors of the economy (conservation, agriculture, mining, construction) and a framework for reporting on peatland management are approved by the Government and under implementation

Outcome Level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
# of peatland based GHG emission reduction plans for main sectors of the economy  # of Sectoral templates for reporting on LDN and climate-smart solutions related to peatland developed	NDC of Mongolia does not reflect peatland mitigation and adaptation targets.  No sectoral templates for reporting on LDN and climate- smart solutions and GHG reductions related to peatland developed	Midterm Gap analysis of legislation and sectoral regulations in connection to the activities (on peatlands) suggested in the LDN and NDC made available for national authorities Core indicator 6: 0.2M tCO2eq.  Project End Peatland mitigation and adaptation targets integrated in the NDC of Mongolia. Core indicator 6: 0.594M tCO2eq. Sectoral templates for reporting on LDN and climate-smart solutions and GHG reductions related to peatland developed.	NDC (2025?) Gap analysis report Sectoral templates Project progress reports MTR and Terminal Evaluation	Assumptions: Concerned sectors are supportive and willing to implement reporting on LDN and GHG reductions  Risks: Economic sectoral interests prevent climatesmart solutions and effective GHG reductions

Outcome Level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
Framework for reporting on peatland management approved and under implementation	No approved framework for reporting on peatland management.	Midterm Draft proposal for the legal framework to safeguard the climate-smart nature-based solutions for peatland developed Core Indicator 3.4: 5,000ha of area of wetland restored Core indicator 4: 3,000ha of area of landscapes under improved practices  Project End Framework for reporting on peatland management approved and being implemented by the Government. Core Indicator 3.4: 12,000ha of area of wetland restored Core indicator 4: 8,000ha of area of landscapes under improved practices	Framework Project progress reports	Assumptions: Government is supportive to a improving a conducive legal framework  Risks: Implementation of improved practices is threatened by accelerated pressure on peatland areas through desertification, permafrost thaw and pasture competition.

- 1.1.1 Peatland mitigation and adaptation targets integrated into the LULUCF segment of the NDC of Mongolia
- 1.1.2 The templates for reporting on LDN and climate-smart solutions and GHG reductions related to peatlands by four sectors (conservation, agriculture, mining, construction) developed for national authorities
- 1.1.3 Gap analysis of legislation and sectoral regulations in connection to the activities (on peatlands) suggested in the LDN and NDC made available for national authorities
- 1.1.4 Proposals for the legal framework to safeguard the climate-smart nature-based solutions and reporting on GHG reductions developed

Outcome Level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
Outcome 1.2 Know	wledge and data	on peatlands used by	y national authorities in	national reporting
# of peatland inventories of river basins # of pilot catchment adaptation plans considering peatlands and permafrost  Number of staff in national authorities that report on peatland (gender disaggregated)	Baseline information on peatland is very limited No adaptation plans considering peatlands and permafrost exist National capacity for peatland inventory and carbon assessment is very limited	Midterm Two (?) pilot river basins have peatland inventories Number of staff in national authorities that report on peatland (100 men, 125 women trained)  Project End Four pilot river basins have peatland inventories A pilot adaptation plan for two catchments considering peatlands and permafrost developed Number of staff in national authorities that report on peatland (200 men, 250 women trained)	Peatland inventories (including peatland and ecosystem services maps) Pilot catchment adaptation plans Training manuals Publication of peatland/permafrost interaction model Project progress reports MTR and Terminal Evaluation	Assumptions: Key stakeholders are supportive to peatland inventories and staff capacity building. Equipment and facilities are available for carbon assessments.  Risks: Insufficient budget for support to national capacity (staff and facilities) post-project

- 1.2.1 The results of the peatland inventories, including delineation and ecosystem services mapping, carried out in four pilot river basins are available for the authorities in agriculture, water management, mining and construction sectors
- 1.2.2 The capacity for carrying out peatland inventories and data integration into planning and reporting by sectors is in place
- 1.2.3 The capacity for monitoring/reporting of LDN and GHG emissions reduction due to peatland management is in place in four pilot sites
- 1.2.4 The capacity for evaluation and monitoring of carbon stored in peatlands is in place
- 1.2.5 A pilot adaptation plan for two catchments based on an improved water balance model considering peatlands and permafrost is in place
- 1.2.6 A peatland and permafrost interactions model is developed and verified by publication as background for decisions on adaptation measures

## Component 2 Integrate climate-smart peatland management solutions into practice

Outcome Level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks		
Outcome 2.1 Sustainable Peatlands management integrated into sectoral policies and practices						

Outcome Level Indicators	Baseline	Targets and Monitoring	Means of Verification	Assumptions & Risks
		Milestones		
	Sectoral management plans do not include climate-smart peatland management Very few sustainable peatland management solutions have been piloted Capacity of key stakeholders in climate-smart peatland management is very limited  Knowledge management on sustainable peatland practices is very limited	Monitoring Milestones  Midterm Draft sectoral management plans (4#) considering peatlands developed Sustainable peatland management pilot initiated Curricula for staff of key stakeholders developed and training initiated Number of sector specific knowledge products used for sustainable peatland management (#2) Roadmap draft towards SEEA- based ecosystems accounting for peatland ecosystems  Project End Sectoral management plans considering peatlands developed and being implemented (4#) Sustainable peatland management pilots documented Number of stakeholders who contributes		Assumptions & Risks  Assumptions: Concerned sectors are supportive and willing to implement climate-smart peatland management  Risks: Pressure on peatlands (land degradation, economic and infrastructure development, grazing) renders sustainable management of peatland areas difficult in practice
		to the management of peatlands considering		
		climate issues (200M/250F) Number of sector specific		

Outcome Level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
	1	1.11105001105		

- 2.1.1 Roadmap developed towards SEEA-based ecosystems accounting for peatland ecosystems
- 2.1.2 Sectoral management plans updated considering peatlands
- 2.1.3 Solutions for sustainable peatland management piloted in targeted sites
- 2.1.4 The management capacity of key stakeholders increased
- 2.1.5 Sector specific knowledge and outreach products available

# Component 3 Global knowledge-base and capacity for herders? contribution to sustainable landscape management

**Outcome 3.1** Sustainable landscape management approaches institutionalized for global reindeer husbandry

Outcome Level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
Based on results from the project the number of improved sustainable landscape cases will increase globally Proportion of women to men in sustainable landscape management decisions will increase Land use sustainable monitoring is based on community participatory decisions and coproduction of knowledge  Core Indicator 11	Indigenous reindeer herders? traditional knowledge on sustainable land management is lacking Women?s involvement in landscape management is lacking  No community-based monitoring of land use change exists for reindeer husbandry areas  No coproduction of knowledge and direct benefit before project start	Midterm Concept note on cases, which the Project will support, validated by the stakeholders At least 50% of project participants are women The concept of the monitoring system developed and validated by stakeholders 2 sub-national monitoring systems under operation  Direct benefit to at least 8,000 people (of which at least 4,000 women)  Project End At least 2 documented cases, validated by stakeholders At least 50% of project participants are women 3 sub-national monitoring systems under operation Direct benefit to at least 14,000 people (of which at least 14,000 people (of which at least 14,000 people (of which at least 7,000 women)	Interview with stakeholders, Progress reports Tracking tool  Lists of participants in Component 3 activities (disaggregated data)  Progress reports Tracking tool	Political stability Herding communities are available for project implementation Herding communities are open to sustainable landscape management approaches. No conflict with other projects Reindeer herders from different regions can cooperate with each other

Outcome Level B Indicators	Baseline	Targets and Monitoring	Means of Verification	Assumptions & Risks
		Milestones		

- 3.1.1 Gender sensitive traditional knowledge on existing and past global land-uses, land degradation and indigenous reindeer herders? food governance is globally collected and assessed and made available for global stakeholder groups;
- 3.1.2. GIS-based maps of current land-uses and future scenarios are developed globally and compatible for traditional and scientific knowledge to support rangelands mobility made;
- 3.1.3. Participatory mapping and environmental monitoring systems are developed for the global stakeholder groups for an integrated rangeland management systems;
- 3.1.4. Global indicators for assessing sustainable management of rangelands and pastoralism are developed and tested

**Outcome 3.2** Global nomadic pastoralist communities participate in rangeland management structures and processes with enhanced capacity

Number of trained indigenous reindeer herding community members who participate in rangeland management Number of pastoralist communities participating in rangeland	Limited traditional knowledge included in educational courses provided by schools and universities Limited ability of pastoral communities to participate	Midterm At least 4 training courses provided for 150 herders 2 communities  Project End 13 training courses provided for 250 herders 4 communities	Workshop and training reports Curricula, course material, and resources Workshop reports minutes or notes of actual community participation	Interest among reindeer herders, private sector, international stakeholders to learn, use knowledge and engage continues to persist throughout the project cycle
1 -	to participate in landscape conservation			

## Outputs

- 3.2.1 Global training and educational courses for indigenous reindeer herding youth, and field training and community-based workshops for herding communities
- 3.2.2 Cross-learning events between herding communities and other actor groups.

**Outcome 3.3** Global stakeholder groups support and use project?s good practices, lessons learned on herders? contribution to sustainable landscape management in future operations

Outcome Level Indicators	Baseline	M	argets and lonitoring lilestones	Means of Verification	Ass	sumptions & Risks
Number of online portals facilitating global stakeholders' participation in sustainable landscape management Number of sustainable landscape management knowledge products accessible to stakeholders	Poor access to knowledge products at project outset  Poor access to knowledge because little is written in indigenous languages		Midterm Project website and knowledge hub established At least 2 KM products  Project End Knowledge products and lessons learned shared with a variety of audiences and stakeholders At least 4 KM products and at least one global forum organized / facilitated on exchange of good practices	Published knowledge management strategy  Dissemination materia Mission reports, Progress reports	als,	International audiences and stakeholder groups find knowledge products useful

- 3.3.1 Knowledge management and communication strategy developed and available for global stakeholder groups;
- 3.3.2. Operational project portal to disseminate project findings and facilitate replication available for global stakeholder groups.
- 3.3.3. Good practices, lessons learned and knowledge products are documented, published and made available for global stakeholder groups for implementation and replication in similar ecosystems.

## **Component 4 Monitoring and Evaluation**

Outcome 4.1 Integrated and effective monitoring and evaluation system in place

Outcome Level Indicators	Baseline	Targets a Monitoria Milestone	ng	Means of Verificati		Assump	tions & Risks
Monitoring and evaluation system for project is functional a generates number of lessons learned on sustainable peatland management and the contribution of nomare reindeer communities sustainable landscape management	r the and mo sy pla ge less to	is in ble to e key	function provided input for exercises inform for adamanage of the provided and control	system is onal and es key or MTR se and as ation tool ptive ement at End system es input ested a of lessons I and edge	PIRs/prog reports Mission re MTR report TE report Exit Strate Knowledg products a lessons lea	eports ort egy ee	Lessons learned and knowledge products are found useful and applicable by international audience

## <u>Outputs</u>

- 4.1 Project progress reports
- 4.2 MTR report
- 4.3 TE report and Exit Strategy

# ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Comments	Responses	Document reference			
COMPILATION OF C	COMPILATION OF COMMENTS SUBMITTED BY COUNCIL MEMBERS				
ON THE GEF June 2020 Work Program					
30. Global - (Mongolia): Managing Peatlands in Mongolia and Enhancing the Resilience of					
Pastoral Ecosystems and Livelihoods of Nomadic Herders, UNEP (GEF Program Financing:					
\$3,757,991) (GEF ID: 1	10545)				

Comments	Responses	<b>Document reference</b>
France Comments:		
? Very		
favorable opinion.		
This project targets		
sustainable land		
management and the		
resilience of pastoral		
communities, two		
priority thematic areas		
for us.		
? NB: France,		
through the FGEF, is		
supporting a	During consultations in Mongolia, the team discussed	
sustainable cashmere	with the River Basin Management Division, as a focal	
project that is being	point for the Ramsar Convention and related national	
implemented by the	reporting, the opportunities for close coordination	
NGO Agronomists	between the project and the RBMD. The local	
and Veterinarians	watershed management authorities, under the	
Without Borders	coordination of the RBMD, are closely engaged with	
(AVSF). The project	the implementation of peatland conservation and	
submitted by UNEP	rehabilitation interventions in the four target areas and	
to the GEF and the	staff of these authorities will be actively engaged in	
AVSF project should be well coordinated.	capacity building activities and actual inventories and	
United States	reporting.	
Comments:		
? We feel this		
project could better		
leverage linkages with		
the Ramsar		
Convention and its		
extensive		
expertise/work on		
peatlands/peatlands		
re-wetting/restoration.		
For example, while		
Ramsar Sites are		
mentioned, the project		
makes no reference to		
the abundant		
information about peatland restoration		
peatland restoration available for		
policymakers and		
practitioners by the		
Ramsar Convention?s		
Scientific and		
Technical Panel		
(STRP), which has		
conducted		
considerable work on		
rewetting and	The Dubbs window body	
otherwise remediating	The Dukha reindeer herding communities are the	
peatlands.	indigenous people present in the Tsaggan Nuur target	
?	area, one of the four target landscapes. This is the key reason why there has been put emphasis on them. In	
Additionally, while	Component 3, the global reindeer herding community	
peatland information	will be the focus, with at least 25 different Indigenous	
appears to be intended	Peoples involved.	
only for reflection in		
the UNFCCC national	Noted.	
communication,		

## STAP Secretariat Screening, May 5, 2020

Minor issues to be considered during project design.

STAP acknowledges Mongolia?s project ?Managing Peatlands in Mongolia and Enhancing the Resilience of Pastoral Ecosystems and Livelihoods of Nomadic Herders?. The project seeks to achieve sustainable land management, with a focus on peatlands. It aims to strengthen current policy by improving data and knowledge of peatland management in targeted sites through monitoring, reporting and verification methods.

Herder communities will be critical actors in implementing landscape management of rangelands and peatlands. STAP is pleased with the focus on traditional knowledge, and values having further information in the project document on how traditional herding knowledge will be used to design, implement, and assess interventions? while building capacity and agency.

Bringing together stakeholders in appropriate ways will be essential to achieving the project objective, building capacity, and enabling agency. To this end, STAP recommends a thorough mapping of relevant stakeholders, followed by analysis (e.g. who will be affected by interventions, who needs to be involved, what forms of knowledge are required to reach the objective, what do takeholders value) as part of the theory of change. A theory of change is essential for the project team to validate consistently the causal links between outcomes, especially as the interventions seek to generate learning on peatland restoration. Furthermore, STAP recommends that the LDN guidelines be considered in the project design phase, as the project seeks to reduce land degradation and to build capacity for enhancing ecosystem services. Of note is the need to undertake a good appraisal of the enabling environment, with a focus on issues related to land tenure.

STAP is pleased that climate information will be used to identify risks in the medium and long-term to inform rangeland management. STAP recommends specifying in the project document that managing for climate risks (e.g. drought) will require adaptations to the project, which is likely to involve different scenarios (or impact pathways) than what is originally conceived. These impact pathways can be identified when developing the theory of change.

Planning for climate risks in the theory of change, and embedding adaptation measures in the project can help ameliorate the impacts of climate change. This includes planning for better pasture management, designing water conservation strategies, considering diversifying livelihoods, and possibly developing early warning systems.

Below, STAP offers recommendations on how to improve the project design, including the setting of a methodological framework that can account for the multiple objectives pursued enhancing the resilience of pastoral ecosystems and livelihoods of nomadic herders in selected peatlands of Mongolia.

Is the objective clearly defined, and consistently related to the problem diagnosis?	Yes, the objective is defined clearly, and consistently linked to the problem statement	
A brief description of the planned activities. Do these support the project?s objectives?	Yes, the activities support the project objective. STAP Recommends the team re-assess the sequence of the project component; activities currently under Component #3 should contribute to baseline assessment, which is needed for current components #1 and #2. STAP suggests the team get acquainted with theLDN guidelines, and use the LDN Conceptual framework (which is underpinned by the DPSIR logical framework) to design a methodological framework that is coherent and it properly accounts for the drivers, pressures, institutional setting, and socio-economic factors of the region. It is also important that the designed options consider ?land potential? (which is different from the concepts of land capability)	

Comments	Responses	<b>Document reference</b>
A description of the expected short-term and medium-term effects of an intervention.  Do the planned outcomes encompass important global environmental	Yes, the outcomes focus on global environmentaloutcomes.	
benefits?  Are the global environmental benefits/adaptation benefitskly be generated?	The benefits are likely to be generated with careful monitoring.	Core Indicators will be monitored and reported yearly and at MTR and TE.
A description of the products and services which are expected to result from the project.  Is the sum of the outputs likely to contribute to the outcomes?	Yes, outputs are likely to contribute to outcomes. STAP suggests the theory of change identifies activities and stakeholders to be involved in capturing local traditional knowledge and in designing tools that contribute to advancing knowledge for decision making.  Early engagement of the nomadic herder communities, for co-design and co-production of those outputs is essential for reaching the desired outcomes. Pg 42 states that ?A second risk related to community participation is language barriers and cultural understanding, which threatens the ability of the project to assess conditions and generate new knowledge, and replication within and across borders?. In developing the theory of change the project team needs to think of effective ways to anticipate and address these risks. The project needs a better description of the processes envisaged to overcome barrier #3 (which is also related to the aforementioned risk).	Capturing local traditional knowledge is given attention in the ProDoc, and dewxribed in more dteial on pages 102-103, includinh how the project intends to collect, document and disseminate this knowledge.
Is the problem statement well-defined?  Are the barriers and threats well described,	Yes, the problem is well-defined. The drivers of land degradation affecting peatland?s ability to generate global benefits (carbon sequestration), and provide local benefits (ecosystem services for the reindeer herding communities) are under threat. The problem is further compounded by the lack of understanding about the impact of hydrological regimes of rivers and catchments on peatlands in the text lbasins.  Yes, the barriers are described thoroughly, and consistently relate to the problem analysis.	
threats well described, and substantiated by data and references?		

Comments	Responses	<b>Document reference</b>
Is the baseline identified clearly?	Yes, the PIF includes a narrative baseline, describing ongoing, and past initiatives. The baseline will be detailed further during the project design.	
Does it provide a feasible basis for quantifying the project?s benefits?	Core indicators will be assigned during the project design.  Of note is the mention that the project will cover 5 basins that amount to about 200,000 sq. km; yet the project appears to be able to benefit only 200sq. km (or 0.01%) of the project area (indicator 4) in regards to areas of landscapes under improved practice and under improved management. It is understood that this rather conservative figure comes from the LDN TSP of Mongolia (pg 28), however, the total funding received and the planned may be able to exceed that area.	The Core Indicators have been updated and of the original CI 4 during the PIF, with 20,000ha, the ProDoc makes a division between CI 3.4 area of wetland restored (12,00ha) and CI 4 area of landscape under improved practices (8,000ha), based on the field verification and areas of peatland and protected area in the target areas. CI 6, avoided GHG emissions has been updated using the EXACT methodology, described in Annex 15 to the ProDoc
Is the baseline sufficiently robust to support the incremental (additional cost) reasoning for the project?	Yes, the baseline is sufficiently robust this stage.	
are the lessons learned from similar or related past GEFanGEF interventions described; and	Partly. In addition to the description of the associated baseline projects, it would be valuable to specify how learning from designing and implementing these projects will contribute to this GEF project.	
how did these lessons inform the design of this project?	The PIF states that three broad lessons influenced the design of this project:? i) Scaling up of watershed/landscape approach, rather than a focus on communities to take into account both lowlands (irrigated rice) and uplands (rain-fed crops) and to reduce runoff and siltation leading to low soil productivity of both categories; ii) Promote new alternatives in terms of incomes; iii) Contribute to improved knowledge management on LDN and SLM.?	

Comments	Responses	Document reference
What is the theory of change?	The PIF includes the following theory of change:	
	?The main premise of the project is that in order to sustain ecosystem services of peatlands and reduce land degradation sustainable peatland management should be mainstreamed into policy frameworks and sectoral policies, and nomadic herders capacitated to contribute to sustainable land management. This premise can only be achieved if knowledge and data on peatlands are used by national authorities in the identification of peatland-based mitigation and adaptation options so that	
	these options can be part of national plans so that sustainable peatland management-based management-based activities can be implemented, reported and monitored.	
	Sustainable peatland management can be achieved if other sectoral plans and strategies incorporate peatland management solutions into sectoral policy formulations. Finally, nomadic herder	
	communities? capacities will be enhanced so that nomadic pastoralist communities participate in rangeland management processes so that indigenous knowledge will be part of sustainable landscape management approaches.	
	Cross-community exchanges at a global scale will further facilitate dissemination of the project?s good practices, lessons learned on herders? contribution to sustainable landscape management globally so that project?s best practices will be replicated at	
Are the mechanisms of change plausible, and is there a well- informed identification of the underlying	global scale.?  Unsure. STAP recommends developing a theory of change, and defining the barriers, risks, and assumptions in meeting the short-term outcomes. STAP?s primer on the theory of change is a helpful resource for the project developers to use:	The primer has been used as resource in the development of the ToC of the project and the related conceptual model.
assumptions?	https://www.stapgef.org/theory-change-primer	The ToC is attached as Annex 4A of the ProDoc.

Comments	Responses	Document reference
Is there a recognition of what adaptations may be required during project implementation to respond to changing conditions in pursuit of the targeted outcomes?	In the risk section, the project recognizes that adaptive management may be needed to respond to climate change.  In addition to this text, STAP recommends specifying in the project document that managing for climate risks (e.g. drought) will require adaptations to the project, which is likely to involve different scenarios (or impact pathways) than what is originally conceived. These impact pathways can be identified when developing the theory of change.	In the risk section the narrative on climate change has been expanded, including the increased exposure and frequency of extreme events such as dzuds and droughts. Conservation and restoration of peatlands in itself are a critical contribution in safeguarding critical water buffers and resource, essential for the resilience of the ecosystem and the communities dependent on these resources.
GEF trust fund: will the proposed incremental activities lead to the delivery of global environmental benefits?	Yes, with careful monitoring and a good theory of change.	
LDCF/SCCF: will the proposed incremental activities lead to adaptation which reduces vulnerability, builds adaptive capacity, and increases resilience to climate change?	Does not apply.	

Comments	Responses	<b>Document reference</b>
Are the benefits truly global environmental benefits/adaptation benefits, and are they measurable?	Yes, the global environmental benefits are described clearly. While designing the project, STAP recommends the following:	During the field verification of the four target sites/landscapes these boundaries have been drawn and
incasuration.	In component 1, STAP recommends drawing the boundaries around the catchment. Equally important, in component 2, climate smart practices should target the landscape. As the PIF mentions peatland systems influence an array of ecosystem functions and services (e.g. regulates microclimates, regulates adjacent hydrological systems) and biodiversity at the landscape level.	additionally baseline information on the present ecosystem services has been gathered. This will be done in more detail during project implementation.
	The following resources on peatland restoration and management can be useful to the project team:	
	Joosten, H, et al. Peatlands: guidance for climate change mitigation through conservation, rehabilitation and sustainable use. Food and Agriculture Organization of the United Nations, 2012. http://www.gret-perg.ulaval.ca/fileadmin/fichiers/fichiersGRET/pdf	
	/Doc_generale/Joosten_2012_Peatlands-guidance_for_climate_change.pdf	
	Minerva, T. et al ?Towards ecosystem-based	
	restoration of peatland biodiversity? (2017) Miresand Peat, Volume 19 (2017), Article 01, 1?36, http://www.mires-and-peat.net/; Mongolia? (2016) The Wetland Book. Springer, Dordrecht, 2016. 1-19.	
	In addition, STAP recommends detailing climate trends and projections for Mongolia, or the project site if this information is available. This data can facilitate building climate risk mitigation strategies into the project components. Drought is expected to occur in the project sites: refer to https://climateknowledgeportal.worldbank.org/country/mongolia/vulnerability	The WorldBank site has been used to describe the most recent climate scenario projections and key characteristics (ProDoc page 12).
	Planning for climate risks in the theory of change, and embedding adaptation measures in the project can help ameliorate the effects of climate change. This includes planning for better pasture management, designing water conservation strategies, considering diversifying livelihoods,	
	and possible development of early warningsystems.	

Comments	Responses	<b>Document reference</b>					
Is the scale of projected benefits both plausible and compelling in relation to the proposed investment?	d benefits lausible and ng in relation e proposed and identifying the barriers and enablers to scaling in the theory of change.						
Are the global environmental benefits/adaptation benefits explicitly defined?	Yes, global environmental benefits are defined.	ProDoc Section 3.1 pp. 62-64					
Are indicators, or methodologies, provided to demonstrate how the global environmental benefits/adaptation benefits will be measured and monitored during project implementation?	Indicators will be provided in the final project document. In addition to listing the GEF core indicators related to sustainable land management and greenhouse gas mitigation, STAP suggests identifying indicators to monitor and track the progress of the causal links in the theory of change. STAP?s theory of change primer can assist with thisprocess.	ProDoc Section 3.1 pp. 62-64  Additional attention to identification of indicators is given in Output 3.1.4 Global indicators for accessing sustianble management of rangelands and pastoralism are developed and tested.					
What activities will be implemented to increase the project?s resilience to climate change?	The project plans to carry out medium to long- range forecasts, and use temperature models to plan for adaptation and resilience strategies in the nomadic pastoral sites.	·					
Is the project innovative, for example, in its design, method of financing, technology, business model, policy,	The project is innovative in focusing on peatland restoration in Mongolia to achieve climate change mitigation and support ecosystem services integral to pastoral systems.						
monitoring, and evaluation, or learning?	The assumption is that peatland restoration and improved rangeland management, combined with capacity building in these practices, will generate the knowledge and institutional conditions to scale across temporal and spatial scales. STAP recommends its paper on durability and theory of change - where it lists principles that need attention to achieve scaling: https://www.stapgef.org/achieving-enduring-outcomes-gef-investment; https://www.stapgef.org/theory-change-primer						

Comments	Responses	Document reference
Is there a clearly-articulated vision of how the innovation will be scaled-up, for example, over time, across geographies, among institutional actors?	In addition to scaling up (impacting policies and NDC reporting on land-use change, and scaling out (impacting greater numbers), STAP recommends thinking about how to influence rules, decisions, values (among other factors) in the targeted social-ecological systems.  To achieve the desired change, this will involve influencing the complexity and variety that characterizes the social systems. This includes working with herders and land users to address competing interests. Thus, considering how to scale deep will be important. The project team can refer to STAP?s durability paper and the theory of change primer for guidance.	The project team recognizes the need for herders and land users to be aware of the complexity of the social systems that influence the change that is desired. The various capacity building interventions under the components are aimed to build this awareness and to discuss, identify and promote these options that will facilitate lasting impact. Although many factors are here criticall (e.g. institutionalization of sufficient budget in government line agencies) exposure to and trailing of emerging best practices will be instrumental in facilitating longer-
Will incremental adaptation be required, or more fundamental transformational change to achieve long-term sustainability?	It is possible that both adaptation and transformational change will be required due to the climate risks (drought) the project sites face.  STAP encourages the project team to consider uncertainty to cope with the level of change that may take place. This requires considering systematically time scales and spatial scales when planning the interventions.  The theory of change can do this if it is designed to assess how the targeted social-ecological system functions across scales while focusing on what is ?necessary and sufficient? to achieve the project objective. Refer to STAP?s theory of change primer, which is a good resource for developing a theory of change based on systems analysis: https://www.stapgef.org/theory-change-primer	As discussed above, the increased exposure and frequency of extreme events such as dzuds and droughts, recognized as a real risk, with irregular frequency, severity and impact (uncertainty).  Conservation and restoration of peatlands in itself are a critical contribution in safeguarding critical water buffers and resource, essential for the resilience of the ecosystem and the communities dependent on these resources.

Comments	Responses	<b>Document reference</b>
Project Map and Coordinates. Please providegeo-referenced information and map where the project interventions will take place.	A map of the target sites is provided. Suggest adding the project coordinates by specifying the location with stakeholders during the project design. Also, it would be valuable to use earth observation systems to map land uses, as well as work with stakeholders to verify this information. STAP?s guidance on earth observation systems can assist during project preparation in delineating boundaries and using remote sensing data for monitoring rangeland monitoring (component 3): https://stapgef.org/sites/default/files/publications/E arth%20Observation%20and%20the%20GEF%20 primer_0_0.pdf	Project area coordinates (centroids) are added for the maps of the four target sites. See ProDoc pp. 21-30. During implementation RS imagery will be used for the field monitoring/mapping exercises.
Have all the keythe keyrelevant stakeholders been identified to cover the complexity of the problem, and project implementation barriers?	Yes, the relevant stakeholders have been identified to address the problem and potential barriers.  STAP recommends developing a stakeholder mapping and analysis to answer: who will be affected by interventions and who needs to be involved (recognizing this will change as more is learned during project implementation).  Particular attention should be paid to values (even if they conflict between stakeholders), governance, formal and informal arrangements, different types of knowledge, gender, and agents of change? those individuals that can drive the desired change (objective). A stakeholder mapping and engagement analysis will be needed to develop a theory of change. STAP?s primer on the theory of change, and RAPTA are useful resources that identify steps on stakeholder mapping: https://research.csiro.au/eap/rapta/	See ProDoc Section 2.5 stakeholder mapping and analysis and Table 2. Stakeholders and relevance/role ProDoc pp. 48-53.  See also the Stakeholder Engagement Plan, Section 5 stakeholder consultation and engagement methods, pp. 97-105.
What are the stakeholders? roles, and how will their combined roles contribute to robust project design, to achieving global environmental outcomes, and to lessons learned and knowledge?	Suggest conducting a stakeholder mapping during the project design as described above.	See above.

Comments	Responses	<b>Document reference</b>
Have gender- differentiated risks and opportunities been identified, and were preliminary response measures described that would address these	The project will conduct a gender analysis during the project development. STAP suggests focusing the gender analysis on peatland management at the landscape level, and on pastoral systems.  Currently, the gender description is focused solely on peatland management.  In addition, STAP recommends identifying gender	See Section 3.11 Gender Equality and Women?s Empowerment and the related Gender Action Plan (Table 6), ProDoc pp. 89-93
differences?	barriers (and enablers) in the theory of change, as well as other gender constraints that inhibit reaching the project objective and scaling.	
Do gender considerations hinder the full participation of an important stakeholder group (or groups)? If so, how will these obstacles be addressed?	Unsure. During the process of assessing gender issues, STAP recommends considering whether the full participation of an important stakeholder group is hindered as a result and describing how will the project address these obstacles.	See above.

Comments	Responses	Document reference
Are the identified	The PIF summarizes the risks the project may	See the risk analysis
risks valid and	face, including risks from climate change, obstacles	and risk management
comprehensive?	in legislation protecting peatland management,	measures as presented
Are the risks	barriers to community participation, among others.	in section 3.5 and
specifically for	·······g · ······g	Table 4 of the ProDoc
things outside the		pp. 79-81.
project?s control?	STAP is pleased the project intends to develop	
Are there social	medium to long-range forecasts to plan for	The World Bank
and environmental	adaptation and resilience strategies for pastoral	Climate Change
risks that could	management. The questions to the left may assist	Knowledge Portal has
affect the project?	the project team in focusing on this scenario	been used as source
F 1 1 1 1 1	building.	for the climate section
For climate risk, and	When developing the project, STAP encourages the	and the present
climate resilience	project developers to continually test causal links	projections and
measures:	by building in climate risks in the theory of change.	medium-term
? How will	This process will enable the project team to assess	scenarions.
the project?s	the resilience of the system ? identify how, and	
objectives or	where, the system is weak, or strong, in its capacity	
outputs be	to deal with disturbances.	
affected by		
climate risks over	Additionally, the project team may find it useful to	
the period 2020 to	look at the following climate information and	
2050, and have	screening resources:	
the impact of		
these risks been addressed	W 11 D 1 Cl' + Cl + V -1 1 D + 1	
addressed adequately?	World Bank Climate Change Knowledge Portal:	
? Has the	https://climateknowledgeportal.worldbank.org/	
sensitivity	U.S. Agency for International Development	
to climate-	Climate Risk Screening and Management Tools:	
change, and	https://www.climatelinks.org/resources/climate-	
its impacts,	risk-screening-management-tool	
been	STAP?s screening guidelines:	
assessed?	STAP?s screening guidelines: https://www.stapgef.org/sites/default/files/document	
? Have	s/GEF%20AGENCY%20RETREAT%20Mar-	
resilience practices and measures to	Apr%202020.pdf	
address projected	Of note are the concerns raised UNEP Environmental,	
climate risks and	Social and Economic Review Notein what regards to	
impacts been	economic sustainability and indigenous people-	
considered? How	moderate risk. STAP recommends taking into account	
will these be dealt	the recommendation of social analysis.	
with?		
What technical and		
institutional capacity,		
and information, will		
be needed to address		
climate risks and		
resilience		
enhancement		
measures?		

Comments	Responses	<b>Document reference</b>
Are the project proponents tapping into relevant knowledge and learning generated by other projects, including projects?	Yes, the project will build on the knowledge of other projects based on the baseline projects listed in the PIF, and described in the coordinationsection.	
Is there adequate recognition of previous projects and the learning derived from them?	See above.	
Have specific lessons learnedlessons learnedfrom previous projects beencited?	Yes, lessons from other projects will be used to develop this proposal.	
How have these lessons informed the project?sformulation?	See above.	
Is there an adequate mechanism to feed the lessons learned from earlier projects into this project, and to share lessons learned from it into future projects?	Partly. The project will enable cross-learning between herders and other stakeholder groups, as well as develop material to replicate lessons. As previously mentioned, suggest developing a theory of change, which can serve as a monitoring tool in addition to tracking the GEF core indicators.	Besides the named cross-learning exchanges, facilitating effective knowledge management, the documentation and dissemination of emerging best practices to a wider audience are considered essential to sharing lessons. Knowledge sharing events, international conferences and the website portal are instruments to facilitate this process, see Section 3.9 Public awareness, communications and mainstreaming strategy (ProDoc pp. 88).

Comments	Responses	<b>Document reference</b>
What overall approach will be taken, and what knowledge management indicators and metrics will be used?	The project will rely on participatory approaches to design and implement project. It also will disseminate material through printed and online tools, including training courses.  In particular, the project will develop a knowledge foundation on measuring, reporting and verifying and use change, land-use change and forestry emissions from peatlands.	See above.
	STAP recommends considering knowledge management metrics, and specifying how the knowledge generated will influence scaling of results. In addition, it would be valuable to link theknowledge strategy to the theory of change.	
What plans are proposed for sharing, disseminating and scaling-up results, lessons and experience?	The project describes several methods to disseminate results and lessons. Detailed plans will be described in the project document. STAP reminds the project team of the importance of building upon knowledge platforms that alreadyexist from other programs or projects.	See above.

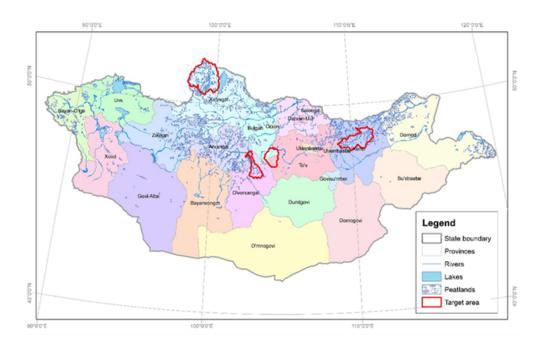
# ANNEX C: Status of Utilization of Project Preparation Grant (PPG). (Provide detailed funding amount of the PPG activities financing status in the table below:

	GETF/LDCF/SCCF Amount (\$)						
Project Preparation Activities Implemented	Budgeted Amount	Amount Spent To date	Amount Committed				
International Consultant	45,600	25,000	20,600				
National Consultants	57,025		57,025				
Travel for site missions	16,600		16,600				
Meetings/Conferences (incl. Translations, interpretations, technical, assistance)	15,674		15,674				
Operations and maintenance of websites for consultations	2,089		2,089				
Total	136,988	25,000	111,988				

**ANNEX D: Project Map(s) and Coordinates** 

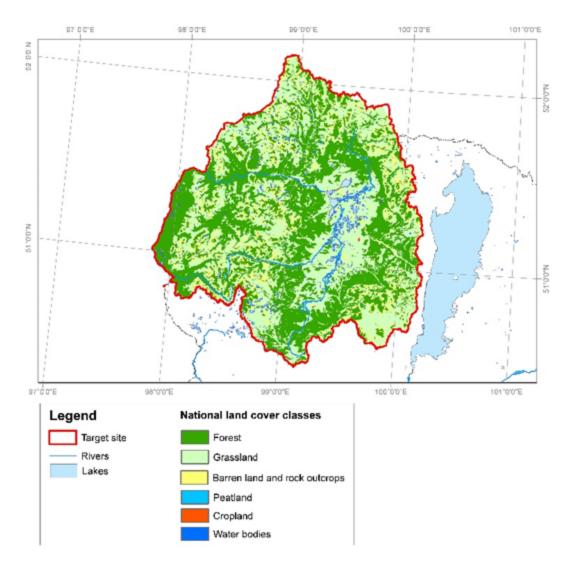
Please attach the geographical location of the project area, if possible.

**OVERVIEW:** 



**Figure 5** Location of the four target areas: 1. Darhadyn depression, 2. Hurg-Huiten, 3. Ugii Lake, 4. Tsagaannuur

## **Darhad depression**



**Figure 7.** Land cover and land use of the Darhad target area Centroid coordinates: : 99? 6' 34.373" E; 51? 14' 32.277" N

#### **Hurh-Huiten watershed**

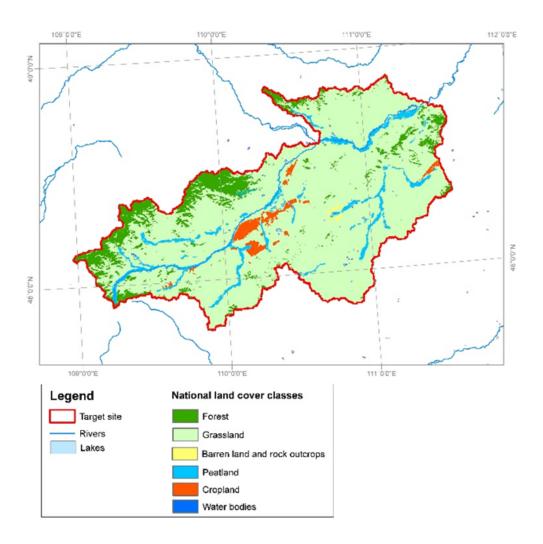


Figure 9. Land cover and land use of of the Hurh-Huiten valley target area

Centroid coordinates: 110? 26' 41.623" E; 48? 17' 38.963" N

Ugii lake

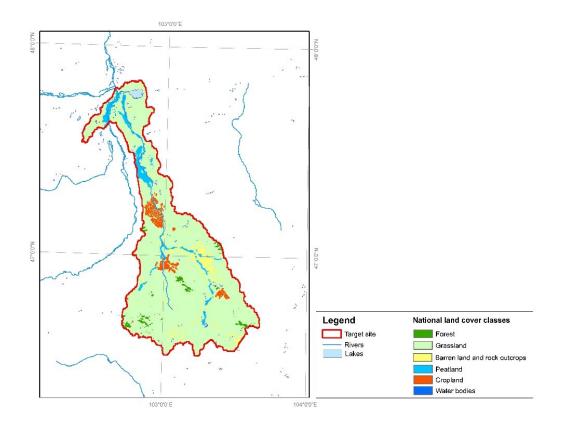


Figure 11. Land cover and land use of Ugii nuur target area

Centroid coordinates: 103? 3' 26.680" E; 47? 1' 21.899" N

Tsagaan Nuur

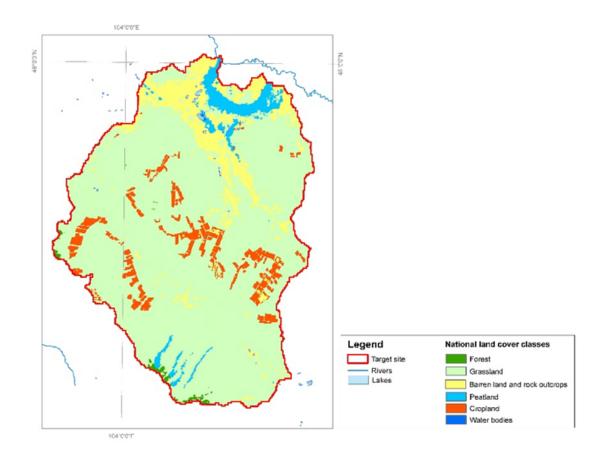


Figure 13. Land cover and land use of the Tsagaan target area

Centroid coordinates: 104? 17' 3.148" E; 47? 33' 14.344" N

## **ANNEX E: Project Budget Table**

Please attach a project budget table.

## **GLOBAL BUDGET**

Expendit ure Category	Detailed Descripti on			Comp	onent					Total USD	Res p. Ent ity	
		Con	Comp 1 Comp Comp 3				Sub- total	M& E	PM C			
		01.1	O1.2	O2.1	03.1	O3.2	O3.3					

Goods							175,7 50	
	Compute r for Project Manager and Policy and Outreach officer					4,00	4,000	ME T
	Furniture					38,9 00	38,90 0	ME T, ICR
	Compute rs for local staff					5,20	5,200	ME T
	Monitori ng equipme nts for carbon stock and monitori ng	40,0			40,00		40,00	ME T
	Compute rs: Mapping and monitori ng officer and Finance staff		4,000		4,000		4,000	ME T
	Equipme nt for local staff: GPS, camera, first aid kit etc		10,00		10,00		10,00	ME T
	Printer for office use		3,150		3,150		3,150	ME T

	Equipme nt for monitori ng pilot activities, e.g.		35,00 0			35,00 0		35,00	ME T
	IT Equipme nt for project staff			13,0 00		13,00		13,00	ICR
	Equipme nt & Furniture for knowled ge hub in Tsagaann uur				22,5	22,50		22,50	ICR
Grants/S ub- grants						0		22,00	
	Grant for two Master and one PhD student to undertak e scientific studies and publicati ons (Output 1.2.5)	11,0 00				11,00		11,00	ME T

	Grant for two Master and one PhD student to undertak e studies and publicati ons on permafro stpeatland interaction models (output 1.2.6)	11,0 00			11,00		11,00	ME T
Sub- contract to executing partner/e ntity							617,0 00	
	Grant for national institution to conduct carbon stock measure ment in 4 pilot sites	48,0 00			48,00		48,00	ME T
	Transfer to WSCC for interventi ons in Hurh-Huiten pilot site to test with different technolo gies to conserve peatlands (output 2.1.3)		90,00		90,00		90,00	ME T

Transfer to Ugii nuur informati on center for interventi ons in Ugii nuur pilot site for actions to prevent peatland degradati on (output 2.1.3)	90,00		90,00		90,00	ME T
Transfer to Ulaan taiga protected area administr ation to support protectio n of highland peatlands in Ulaan taiga (output 2.1.3)	90,00		90,00		90,00	ME T
Transfer to Bulgan aimag EPA to take actions to prevent further degradati on of Tsagaann uur lake and its peatlands (output 2.1.3)	90,00		90,00		90,00	ME T

	Grant to the national institutio n to monitor the impact of piloted technolo gies in 4 pilot sites		36,00				36,00		36,00	ME T
	Transfer to MENES for monitori ng gender engagem ent in pilot sites		40,00				40,00		40,00	ME T
	Contract to UArctic EAL?T Institute for Output 3.1.1- 3.1.4			19,5 00	40,0 00	23,0 00	82,50 0		82,50 0	ICR
	Contract to Taiga Nature Society for Output 3.1.1- 3.1.4			11,0 00	24,5	15,0 00	50,50		50,50	ICR
Contract ual Services - Individu al									811,6 00	
Contract ual Services - Compan y										

Sub-contact with national institutio ns on developi ng reporting template under the output 1.1.2	23,0 00				23,00		23,00 0	ME T
Sub- contract to national institutio n for developi ng sustainab le peatland managem ent into legislatio n and guideline s output 1.1.4	32,0 00				32,00		32,00	ME T
Sub- contract with national institutio ns on peatland inventory for 4 pilot sites		22,5 00			22,50		22,50	ME T

r i r F e r s i	Sub- contract with national institutio ns on peatland ecosyste m services inventory for 4 pilot sites	22,5 00			22,50 0		22,50 0	ME T
	Sub- contract with national institutio n on developi ng adaptatio n plan for two pilot sites (output 1.2.5)	37,0 00			37,00		37,00	ME T
	Sub- contract with national agency and or expert team to conduct ecosyste m accountin g for selected site (output 2.1.1)		45,00		45,00 0		45,00 0	ME T

Sub- contract with ALAGA C to review and update land managem ent plans to conserve peatlands (output 2.1.2)	50,00		50,00		50,00	ME T
Sub- contract with IT company to develop project portal	14,50		14,50		14,50	ME T
Sub- contract to deliver layout and printing service for handboo ks, promotio nal material and guideline s	18,50 0		18,50 0		18,50 0	ME T

	Sub- contract with national institutio n on developi ng best design of road contructi on to avoid peatland degradati on	42,50		42,50		42,50 0	ME T
	Sub- contract with national institutio n on developi ng peatland based tourism product in Darhad and Hurh Huiten sites	42,00		42,00		42,00	ME T
1	Sub- contract service to develop training videos based on best practices	24,50		24,50		24,50	ME T
	Sub- contract services to conduct annual aufits				34,0 00	34,00	ICR

Internati onal consultan ts								
	Sub-contract with international consultant on developing methodology for inventory and ecosystem services (output 1.2.1)	35,8 00			35,80 0		35,80 0	ME T
	Sub-contract with internatio nal consultan ts to develop training curricullu m and provide ToT service (output 1.2.2. and 1.2.3)	30,0			30,00		30,00	ME T
	Midterm Review					30,0 00	30,00	UN EP
	Terminal evaluation					40,0 00	40,00	UN EP
Local consultan ts								

Sub-contract for consultan cy services to collect baseline data under output 1.1.1	8,00					8,000		8,000	ME T
Sub- contracts to national consultan ts set targets for peatland under output 1.1.1	10,0 00					10,00		10,00	ME T
Sub-contract to national consultan ts to carry out gap analysis of legislatio ns and sectoral regulatio ns under output 1.1.3	12,0 00					12,00		12,00	ME T
Translati on cost	4,00	5,50	6,50	17,5 00	19,5 00	53,00		53,00	ME T, ICR

Sub- contract with national consultan t on the develop ment of ecosyste m service awarenes s kit	4,00			4,000		4,000	ME T
Sub-contract with trainer to conduct training in 4 pilot sites and for relevant institutions (output 1.2.2)	9,00			9,000		9,000	ME T
Sub- contract to provide training service on peatland managem ent practices in 4 pilot sites and relevant national, regional and local institutio ns (output 1.2.3)	14,0 00			14,00		14,00	ME T

Sub- contract with national consultan t to develop training curriculu m and provide training on assessme nt of carbon stock in peatlands (output 1.2.4)			5,800		5,800	ME T
Sub- contract with national consultant ts to develop and present draft roadmap on SEEA- based ecosyste m accounting (output 2.1.1)	21,00		21,00		21,00	ME T

Sub- contra with nation consul t to review and update local forest manag ent pla for Darhae n hotg and Hurh- Huiter pilot s (outpu 2.1.2)	al ltan	15,50	15,50	15,50	ME T
Sub- contra with nation consul t to review and update local a region water manag ent pla to prot peatlar (outpu 2.1.2)	al ltan	15,50	15,50	15,50	ME T

Sub- contract for national consultan t to provide training and develop traning manual on sustainab le land managem ent options to conserve peatlands	15,50			15,50		15,50 0	ME T
Consulta ncy service for data collectio n (Output 3.1.2)		18,5 00		18,50 0		18,50 0	ICR
Consulta ncy service for developi ng monitori ng system (Output 3.1.3)		7,00		7,000		7,000	ICR
Consulta ncy service for training needs assessme nt			10,0	10,00		10,00	ICR

	Consulta ncy service for developi ng Knowled ge hub in Tsagaann uur					20,0 00		20,00			20,00	ICR
	Consulta ncy service for developi ng and undertaki ng tailored training modules for Dukha youth					29,0 00		29,00			29,00	ICR
Salary and benefits / Staff costs											780,0 00	
	Project manager	33,0 00	48,0 00	30,00				111,0 00	25,0 00	12,6 00	148,6 00	ME T
	Policy and outreach specialist	20,0	24,0 00	30,00				74,00		5,00	79,00 0	ME T
	Mapping and monitori ng specialist	10,0 00	24,0 00	30,00				64,00		5,00	69,00	ME T
	Local staff (4# in target areas)	4,40 0	21,2 00	40,00				65,60 0		12,8 00	78,40 0	ME T
	Training Officer				38,0 00	38,0 00	38,0 00	114,0 00			114,0 00	ICR

	Coordin ator in Ulaanbaa tar		40,0 00	40,0 00	40,0 00	120,0 00			120,0 00	ICR
	Field Facilitato r in Tsagaann uur		24,0 00	24,0 00	24,0 00	72,00 0			72,00 0	ICR
	Admin and finance staff							28,0 00	28,00	ME T
	Project manager C3		6,50 0	15,0 00	10,0 00	31,50	25,0 00	14,5 00	71,00	ICR
Training, Worksho ps and Meetings						0			956,6 00	
	Training s and Worksho ps under Output 3.1.1		85,0 00			85,00 0			85,00 0	ICR
	Training s and Worksho ps under Output 3.1.2		44,5 00			44,50			44,50 0	ICR
	Training s and Worksho ps under Output 3.1.3		51,0 00			51,00			51,00	ICR
	Training s and Worksho ps under Output 3.1.4		45,0 00			45,00			45,00 0	ICR

Training and Worksho ps under Output 3.2.1			170, 000		170,0 00		170,0 00	ICR
Training and Worksho ps under Output 3.2.2			272, 100		272,1 00		272,1 00	ICR
Internati onal conferen ce attendanc e			11,5 00		11,50 0		11,50	ICR
Lavvu Dialogue s (2)			30,0		30,00		30,00	ICR
Training courses and Worksho ps under Output 3.3.1				100, 000	100,0		100,0	ICR
Training courses and Worksho ps under Output 3.3.2				65,0 00	65,00		65,00	ICR
Training courses and Worksho ps under Output 3.3.3				62,5 00	62,50		62,50	ICR
Internatio nal conferen ce attendanc e				20,0	20,00		20,00	ICR

Travel											220,0 86	
	Travel for on- site training		10,4 00					10,40			10,40	ME T
	Travel of office staff to pilot sites	16,2 00	9,70	34,95 0	13,0 00	14,5 00	26,2 37	114,5 87			114,5 87	ME T, ICR
	Monitori ng trips to target areas								20,0 00		20,00	ME T, ICR
	Travel for field visit to demonstr ation sites			13,00				13,00			13,00	ME T
	Travel of consultan ts				13,5 00	23,6 50	10,0 00	47,15 0			47,15 0	ICR
	Travel for project managem ent									7,97 4	7,974	ME T
	Travel for project managem ent									6,97 5	6,975	IRC
Office Supplies		8,70 0	10,0	11,35	16,5 00	21,5 00	17,5 00	85,55 5			85,55 5	ME T, ICR
								0			0	
Other Operatin g Costs											89,40	

Grand Total		201, 500	460, 600	1,007, 955	460, 500	829, 750	478, 737	3,439, 042	140, 000	178, 949	3,757, 991	
	Operatin g costs for Project managem ent									2,00	2,000	ICR
	Operatin g costs for Project managem ent									2,00	2,000	ME T
	IT and software costs for portal and website				8,00	6,00	8,00	22,00			22,00	ICR
	Office rent, phone, internet, worksho p and training venue	20,2	17,2 00	26,00				63,40			63,40	ME T

#### ANNEX F: (For NGI only) Termsheet

<u>Instructions</u>. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

#### ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agencys is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement

with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

ANNEX H: (For NGI only) Agency Capacity to generate reflows
Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies? capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).