PROJECT IDENTIFICATION FORM (PIF)

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

PART I: PROJECT INFORMATION

Project Title:	**SLM Offset in Western Mongolia**		
Country(ies):	Mongolia	GEF Project ID:	5700
GEF Agency(ies):	UNDP	GEF Agency Project ID:	5287
Other Executing Partner(s):	Ministry of Environment and Green Development, Ministry of Mining, Ministry of Industry and Agriculture	Submission Date: Resubmission Date:	February 6, 2014 March 4, 2014
GEF Focal Area (s):	Land Degradation	Project Duration (Months)	48
Name of parent program (if applicable):	N/A	Agency Fee ($):	122,537

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK:

Focal Area Objectives	Trust Fund	Indicative Grant Amount ($)	Indicative Co-financing ($)
LD-3 Integrated Landscapes: Reduce pressures on natural resources from competing land uses in the wider landscape	GEF TF	1,289,863	5,200,000
Total Project Cost		1,289,863	5,200,000

B. INDICATIVE PROJECT FRAMEWORK

Project Objective: To reduce negative impacts of mining on rangelands in the western mountain and steppe region by incorporating mitigation hierarchy and offset for land degradation into the landscape level planning and management						
Project Component	**Grant Type**	**Expected Outcomes**	**Expected Outputs**	**Trust Fund**	**Indicative Grant Amount ($)**	**Indicative Co-financing ($)**
1.Emplacement of the SLM mitigation hierarchy framework and capacity	TA	Mining threats to land and water resources and ecosystem integrity is reduced as indicated by: (a) Integrated planning and management of 41.5 million ha[1] of largely pastoral production system and natural habitats in western Mongolia; (b) incorporation of science-based mitigation hierarchy into mining concession planning and larger land use planning and management of competing land use types; (c) areas set aside from mining related development, for ecological sensitivity	▪ SLM mitigation hierarchy and detailed procedures and guidelines developed, including SLM/biodiversity set aside mechanism, development of institutional requirements for compliance monitoring and fund management, and rules and regulations for collection and reinvestment of SLM conservation funds. These measures are integrated in the mining concession planning and licensing system and operationalized. ▪ Participatory and science-based eco-regional and land	GEF TF	573,000	2,720,000

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[1] 41.5 million ha of production systems refers to the predominantly pastoral livestock herding landscapes of the five western aimags (Uvs, Bayan Olgii, Khovd, Zakhan and Gobi-Altai). Total area size of the 5 aimags is 41,525,399 ha.

		including pasture values. Increased institutional capacity for reducing negative impacts of mining, as indicated by complete conservation capacity scorecards *Baseline and targets will be determined during the PPG.*	assessment conducted in the western region, including identification of ecologically sensitive areas and regional level aggregated offset opportunities, employing robust methodology for costing/quantification of negative mining impacts on land/water resources and ecosystem functions and services ▪ Capacity of government officers at the national, *aimag* and *soum* levels, developed with knowledge and skills to apply procedures and guidelines for mitigation hierarchy, monitoring and validation			
2. Application of mitigation hierarchy and land degradation offset mechanism	TA	Integrated landscape management and offset mechanisms demonstrated covering at least 100,000 ha, with prominent mining concessions and other competing land uses; increasing rehabilitated lands, and reducing the projected rate of land degradation and biodiversity loss Increased investments in SLM actions in the landscape, generating at least USD 500,000 from the pilots *Baseline and targets will be determined during the PPG.*	• Landscape level land use plans operationalised in selected landscapes with full participation of local stakeholders, with clear measures for; (i) optimising the balance of competing land uses, including review of mining concessions; (ii) setting aside ecologically sensitive areas e.g. inclusion under the protected area network; (iii) planning and implementation of rehabilitation of degraded lands to be undertaken jointly with local communities, based on global best practices, including top soil treatment and rehabilitation, vegetation regeneration/ recolonisation, landform reconstruction, transplanting, habitat transfer . • SLM offset mechanisms piloted by at least 5 local mining businesses; including (i) determination of offset criteria based on the eco-	GEF TF	600,000	2,000,000

			regional assessment; (ii) determination of offset opportunities and potential activities; (iii) undertaking in-depth local land degradation/biodiversity surveys; (iv) application of mitigation hierarchy; (v) quantification of residual impacts; (vi) identification of comparison of potential offset sites; (vii) calculation of SLM and biodiversity gain for preferred offset sites; (viii) development of offset agreements and implementation plan including implementation structure and M&E mechanism; (ix) technical support for offset implementation • Local farmers, herders and NGO/CSOs capacitated of applying innovative technologies for land, water and forest resources management and participatory landscape level land use planning and M&E techniques for offsetting			
Subtotal					1,173,000	4,720,000
Project Management Cost (PMC)[2]			GEF TF		116,863	480,000
Total Project Cost					1,289,863	**5,200,000**

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, ($)

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount ($)
National Government	Government of Mongolia	Grant	4,250,000
GEF Agency	UNDP	Grant	800,000
CSO	The Nature Conservancy	Grant	150,000
Total Cofinancing			**5,200,000**

D. INDICATIVE TRUST FUND RESOURCES ($) REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY1:

N/A

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[2] To be calculated as percent of subtotal.

E.   PROJECT PREPARATION GRANT (PPG)[3]

Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grant:

	Amount Requested ($)	Agency Fee for PPG ($)
(up to)$100k for projects up to & including $3 million	80,000	7,600

PPG AMOUNT REQUESTED BY AGENCY(IES), FOCAL AREA(S) AND COUNTRY(IES) FOR MFA AND/OR MTF PROJECT ONLY: N/A

PART II: PROJECT JUSTIFICATION

A. Project Overview

A.1 Project Description.

Global environmental problem, root causes and barriers

Mongolia is the world's most sparsely populated country with a total land surface of 1.564 million km² and an estimated population of just 2.9 million. Despite global recessions, the country has recently seen fast economic growth of 17.6% in 2011 and 12.3% in 2012. The most rapidly expanding sector is mining, which accounts for 28% of GDP, 30 % of government revenues, and over 84% of exports. Billions of dollars of international investment are now flowing into mega-projects such as Oyu Tolgoi and Tavan Tolgoi mines. An estimated USD10Bln is expected to be invested in infrastructure development and energy and water provision to these mines in the next decade. The Ministry of Construction and Urban Development (MCUD) expects that the population in the vicinity of Oyu Tolgoi will grow to around 16,000 in the next few years and the number could exceed 40,000 requiring the provision of 5,300 housing units[4]. This is approximately equal to an average Aimag Center. Construction and operation of urban infrastructure, including roads, municipal service buildings, heating and power plants, solid waste management, will all have local impacts that need to be managed. The magnitude of the direct mining impact, such as mine dewatering, can be twice as much as the conversion area for a coal mine. Simultaneously, small-scale mining for gold and other precious metals by both legal and quasi-legal operators is expanding rapidly. Thousands of mineral claims are now littered across Mongolia's countryside.

The second largest GDP contributor in Mongolia is agriculture. This accounted for approximately 14.8% of GDP in 2012 and 9.7% of export earnings in 2012. Within the agriculture sector production, 77.5% is derived from livestock husbandry. However, the agriculture sector, including livestock grazing, employs between 35% - 40% of Mongolia's workforce (MoFALI, 2011). The nation has relatively little cultivated land, mainly devoted to wheat, covering an estimated 380,000 ha. Cultivation contributes 3% to the nation's GDP. More than 60% of the estimated 2.9 million population now live in urban areas, but the primary economic activity of rural Mongolia remains livestock grazing. Over 200,000 nomadic and semi-nomadic herding families still dominate this rural economy. They rely upon their livestock as both a source of capital and subsistence. Although remarkable, the recent economic growth has not lifted most Mongolians out of poverty. More than 35% of Mongolia's population remains impoverished. While urban poverty is decreasing to approximately 27%, rural poverty is rising. The 2012 statistics indicate that the percentage of rural dwellers classified as living in poverty is still at 40%, whereas for urban dwellers it is at 23.5%. In the western region, the rural poverty rate is 32.5%.

Problem: Land degradation is the most serious environmental problem in Mongolia. Decreasing carrying capacity and productivity of land resources directly impacts the nation's productivity and efforts for equitable and sustainable development. Moreover, land degradation most directly and severely hits the rural population. A recent study indicates that over 70% of the country's land cover is degraded to a certain extent. More than 75% of Mongolia's pasturelands now suffer from degradation. Land degradation accelerates desertification and pastureland vulnerabilities. It decreases

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[3]   On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.
[4] Southern Gobi Regional Environmental Assessment, 2010

soil fertility, further diminishing the already marginal crop production capacity of the country. In addition, land degradation in riparian areas increases flooding, run-off, erosion and siltation, and degrades wetlands and destroys riparian vegetation, threatening human security and livelihoods as well as biodiversity. Causes of land degradation in Mongolia can be divided into two categories, namely, natural causes (e.g. droughts, deficit in soil moisture and a very thin layer of fertile soil, strong seasonal winds and dust storms) and human- induced. Human causes include impacts from changes in traditional livestock husbandry and overgrazing in particular around the water points and settlements, as well as increasingly mining. Mining development in all its forms, industrial and artisanal, formal and illegal, poses multiple threats to land resources, ecosystems and wildlife, as well as human health and well-being.

The direct and indirect threats of mining are differentiated based on the stage of operation, as follows: *(i) Feasibility and mineral exploration stage*: before mining takes place, minerals have to be discovered and the economic and technical feasibility of mining has to be demonstrated. Although most of the assessments were conducted remotely without on-site impacts, subsequent site evaluation and exploration activities require drilling and sampling, necessitating the construction of roads to facilitate vehicular access. The **direct threats** are typically temporary and they include localized pasture and habitat degradation, however this phase can also lead to **indirect threats** as a result of road construction and other infrastructure placement. Use of heavy weight (40 tons and over) trucks for transporting minerals generating dust contributes to land degradation in the region; *(ii) Mine development and mineral extraction:* Mine construction and mineral extraction requires the removal of the vegetative cover and topsoil and drilling, blasting, excavation, and the construction of road arteries, rail lines, and/or conveyor systems. The **direct impacts** of these activities on land and water resources include land degradation at the mine sites, characterized by loss of herd productivity due to the loss of pasture land and hay and vegetable yields, soil damage, subsoil damage and depletion of ground and surface water, pollution and habitat loss. The level of impact will depend on the type of mine and the scale of mining operations. Waste rock disposal is of particular concern, because if not managed properly, it can contaminate ground and surface water. Tailings specifically, contain trace quantities of metals found in the host ore, as well as added compounds used in the extraction process containing toxic substances. However the **indirect impacts** of mining are of potentially greater concern. Indirect threats result from a conjunction of multiple mining activities operated by different companies. Specifically, mining can be a major driver of economic activities, creating jobs and urban centres, and generating demand for food stuffs, fuel and other commodities in remote areas. This can lead to an influx of people into these regions and the expansion of farming, logging or other activities to service the demand for raw materials, leading to water and land resource degradation, habitat destruction, overexploitation and additional pollution. Without effective management of multiple activities in different economic sectors at the landscape level, already serious land degradation will accelerate in many areas around the country. A good example of indirect impacts is the Oyu Tolgoi (copper and coal) mine in South Gobi, which created 13,000 jobs increasing the local population four fold. The mine established its airport, connected to the central electric grid, piped deep groundwater from 70 km away for the purpose of mineral exploitation and laid 100 km of asphalt road to the Chinese border for mineral export. There is also a plan to lay 260 km of railway to the Chinese border. All these have caused severe impact on the productivity of pasture and they have taken traditional grazing areas away from many herding communities.

According to the environmental impact assessment for oil exploitation in Dornod Province in the Eastern Steppe carried out by The Nature Conservancy (TNC), as many as 200 operational boreholes and 427,600 ha of ecologically high-value grasslands have been negatively impacted. Furthermore, Mongolia, as a landlocked country, is being severely affected by climate change. With rising temperatures, increased frequency in drought and diminishing water resources, climate change is exacerbating land degradation and desertification problems. Moreover, degraded pasture/land results in an enormous source of carbon released to the atmosphere, as opposed to stored organic carbon in fertile soils. As such, land degradation contributes to the per capita greenhouse gas emission in Mongolia which is estimated at 4.4 tons[1] annually.

Issues in the Target Landscape: The five western *aimags* (Uvs, Bayan Olgii, Khovd, Zakhan and Gobi-Altai) are not exceptions. Land degradation and desertification are the most visible and immediate problems, as well as mining expansion and an undesirable impact of mining on rural livelihoods, biodiversity and ecosystems. The regions 33 Strictly Protected Areas (SPA), covering a total of 12,125,964 ha including trans-boundary PAs are also under increasing pressure from mining. An average of 71% of the territories of the five western *aimags* is estimated as desertified (~300 Mln ha) to a certain extent and 24% (~100 million ha) is strongly desertified. The forest area in the

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[1] Statistical Yearbook for Asia and the Pacific, 2012

western region is relatively limited at 3,555.7 thousand ha the majority of which is *Saxaul* forest (approximately 70%). The annual rate of deforestation predominantly caused by human activities over the last 11 years is above 3%[5].

The economy in the western *aimags* to date is dominated by a livestock sector that benefits from a full and free access to state-owned pastureland. Land degradation impacts the livelihood of rural populations in many ways, as herders depend heavily on pasturelands and derive their food sustenance and cash income almost entirely from their animals. Around 70% of the population is rural in the western region with an unemployment rate higher than the national average. In 2010, the poverty headcount in the region was estimated at above 30%, which is one of the highest in the country. With an ever increasing livestock numbers, (3.5 million head of livestock were newly born in 2013 alone) pressure on relatively unaffected grasslands is increasing with herders migrating in search of better pasture.

Exacerbating the pressure on land resources, there are approximately 1,000 current mining licenses in the five western *aimag*, 85% of which are exploration licenses and the remainder for extraction of coal, gold and tungsten. Although, the Government has suspended issuing new licenses since mid- 2010, land areas allocated for licenses in five western *aimags* add up to 23 million ha, directly and indirectly affecting the quality and availability of pasturelands and encroaching on the borders of the Specially Protected Areas.. The western axis of the Millennium Road and asphalt road connecting the region's southern and northern ends through the regional center, will have impacts as well. There is an urgent need for reducing pressures on natural resources from these competing and often conflicting land uses.

Long-term solution: For the next decades, the mining sector will continue to significantly contribute to the national economy. In addition, the other types of land use, including the nomadic livestock husbandry, urban and infrastructure development, protected areas, crop farming and tourism, will continue to remain essential elements of the country's sustainable and inclusive economic development. Therefore, the proposed long-term solution for managing competing land uses avoiding extreme degradation of land and ecosystem services and functions in the future, is to **ensure cross sectoral and landscape-level planning and management that incorporates principles of offsetting damages caused to land resources and ecosystems, backed by adequate regulatory framework and capacities.** The SLM mitigation hierarchy approach, including offset, provides an opportunity to mitigate or compensate damages caused by prospecting and mining operations including associated infrastructure installation.

Barriers: There are two overarching barriers that stand in the way of advancing the preferred long-term solution.

Barrier	Description
1. Weak regulatory framework and institutional capacity for application of mitigation hierarchy	Effective management of the direct and indirect impacts derived from mining is hampered by the limited systemic and institutional capacity at the national level. Mongolia's current legal, policy, planning and institutional instruments for regulating the mining industry, although being strengthened to address general environmental concerns and human health aspects, are deficient in dealing with its direct and indirect impacts on land and water resources. There is no established regulatory framework that provides for SLM and offset approach. Although the 2012 reform of the environmental legislation made biodiversity offsets obligatory, the principles of applying SLM offset mitigation hierarchy have not yet been formalised. There is also a lack of knowledge and, in general, a low capacity among staff within the national and local governments about mining impacts on land and water resources as well as systems and techniques and the application of legal tools and incentives to ensure sustainable mineral production practices while ensuring long-term benefits for the Mongolian people. The staff in charge of guiding, developing and implementing regional land use and management plans have limited knowledge and experiences of science-based integrated landscape level planning and management to maintain ecosystem services such as provision of pasture and water resources, and the maintenance of landscape level ecosystem resilience for the sustenance of local livelihoods. Land planning and management issues such as land, water and forest resources are regulated by several Government ministries and agencies and are therefore not optimally coordinated. For instance, the Ministry of Construction and Urban Development is responsible for land use planning and management issues, Ministry of Industry and Agriculture for pastureland management and Ministry of Environment and Green Development for desertification control.
2. Lack of capacity and	At the local level, capacity and experiences are also lacking for applying mitigation hierarchy and offset mechanisms. The limitations include: (i) insufficient experience in integrated landscape level land use

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[5] Forest Agency (former) of Mongolia, 2012

experience in applying mitigation hierarchy and offset mechanisms on the ground	planning optimizing the balance between competing land uses; (ii) regional and local land use plans that fail to consider direct and indirect impacts of mining on livestock and other sectors; (iii) the significant lack of data and information regarding direct and indirect impacts for planning and decision making; (iv) a lack of experience in applying SLM offset mechanisms at the site and regional levels. Offset principles are very new in Mongolia. In 2012, the first ever biodiversity offset programme was developed with the support of international NGOs for Oyu Tolgoi, and implementation has started. However, the offset has not been fully applied for SLM, and capacity and knowhow is seriously limited. Skills and knowledge base to enable local communities to develop more efficient strategies for sustainable resource use, managing competing land uses and for reversing land degradation is generally poor. Furthermore, financial transaction procedures for SLM offset from mining corporations to local government and communities are non-existent.

Baseline: The Government of Mongolia has made significant efforts in minimising environmental impacts of mining and addressing land degradation. It ratified the UN Convention on Combating Drought and Desertification and approved its National Action Programme for Combating Desertification (NAPCD) in 1996. The NAPCD implementation was assessed and relevant updates were made to the NAPCD in 2010. Amendments in the environmental legislative framework took place in May 2012. The new framework embraces the Polluter Pays Principle (PPP), community-based natural resources management (CBNRM) and offsetting principles. The amended Environmental Impact Law specifically provides for biodiversity offset. Environmental Audit (EA) and Strategic Environmental Assessment (SEA) have become obligatory. In addition, the Government placed a moratorium on the issuance of new licenses for mining exploration and exploitation post May 2010. Furthermore, the Government approved a new Law to prohibit all mining operations and exploration in forested areas and river headwaters in 2009, while all mining activities are strictly excluded in protected areas. Enforcement of the amended law resulted in putting 242 mining licenses on hold, out of which 69 are fully cancelled and 36 are partially cancelled. The rest are under review. The damages claimed by mining companies caused significant legal implications for the Government and these are expected to continue.

While banning issuance of mining licenses, the Government is taking measures to pursue an informed decision making and land use planning system, using the eco-regional assessments. Such measures will help ensure that ecologically valuable and irreplaceable locations are kept away from any development activities, especially in the mining sector. TNC has been supporting the Government in undertaking eco-regional assessments in Mongolia. The eco-regional assessment in the Eastern-steppe ecoregion has been completed, covering 3 eastern *aimags*, with an investment of USD 600,000, the findings of which provide good scientific background for Government's decision making. Currently, TNC is currently working on southern Gobi regional assessment covering 6 *aimags*, with funding of USD 870,000. The Government is planning to commission a similar assessment in the central region with a budget of USD 500,000.

Oyu Tolgoi copper mine, which commenced operations in 2013, has formulated a biodiversity offset programme, with support from International NGOs such as TNC, Worldwide Wildlife Fund (WWF) and Fauna and Flora International (FFI). The company is pursuing the implementation of the offset programme.

There are a number of initiatives with a key focus on pastureland management and improving pastureland conditions. The World Bank financed "Sustainable Livelihood Programme" (SLP) Phase I and II (USD 62.73 million) has been supporting pastureland risk management activities in every corner of the country. The Phase III of the programme (USD 37 million) is expected to start shortly. The Swiss Agency for Development and Co-operation (SDC) provided financing of USD 10 million for "Coping with desertification and "Mongolian pasture – Green Gold" projects which cover some parts of the western *aimags*. The Green Gold project, with USD 4 million funding, aims to strengthen self-reliance of poor and vulnerable herders. It focuses on building the capacity of communities to use pasture sustainably for increased production. Phase II of the project is expected to start in late 2013 with USD 9 million, covering the western region of the country.

UNDP, with funding from AusAID supported a Cost Benefit Analysis (CBA) of the Mining Sector through its Environmental Governance programme in 2012, with the objective of estimating the economic, environmental and social costs and benefits of mining operations in the country. The project developed a CBA model for mining operations in Mongolia, consisting of 14 spreadsheets including land cost, subsoil, soil and water spreadsheets. The tool was applied for the whole mining sector level and at a coal mine and a gold mine. Through its Environmental Governance programme, UNDP supported institutionalizing of environmental audit with formally approved guidelines

and methodologies, training curricula and appointment of a certification entity and first round of certification training to environmental auditors. Environmental audit will be applied during the project lifetime as a tool to identify implementation gaps, along with related remedial actions for partnering mining companies. This will be used as a tool The UNDP implements a US$ 3.5 million programme to build local government capacities, through which in-service training opportunities are being provided for local Soum and Aimag self-governing bodies. The training programme includes subjects in support of informed decision making on mining related issues at their localities. This complements the capacity building aspects planned under the proposed project for local authorities to more effectively deal with mining related issues.

Alternative Scenario:

The objective of the project is <u>to reduce negative impacts on rangeland in the western mountain and steppe region by incorporating mitigation hierarchy and offset for land degradation into the landscape level planning</u>. The project is expected to achieve the objective through the following two inter-related components,

Component 1: Emplacement of the SLM mitigation hierarchy framework and capacity

This component will establish the SLM mitigation hierarchy framework in the planning and management system of mining concessions at the national level, in order to reduce mining threats to land and water resources and ecosystem integrity. The component will introduce integrated planning and management of 41.5 million ha of production system and natural habitat in western Mongolia, incorporating science based mitigation hierarchy into mining concession planning and larger land use planning and management of competing land use types, and setting aside ecologically sensitive areas from mining related development. Policy, legal and planning framework governing the sector and associated institutional capacity will be strengthened. Under this component, SLM mitigation hierarchy and detailed procedures, guidelines, norms and standards will be developed for the SLM offset mechanism, including development of institutional requirements for compliance monitoring and fund management, and the establishment of rules and regulations for collection and reinvestment of SLM offset/conservation funds. The guidelines with clearly identified stakeholder roles and responsibilities will be approved and integrated in the mining concession planning and licensing regulations and systems, and operationalized. In addition, a formal mechanism will be emplaced to apply participatory and ecoregional assessment findings to aid informed decision making by the Government. The Nature Conservancy (TNC) is a world leader in applying rigorous, science-based and systematic landscape level planning approaches to balance development needs, such as mining and infrastructure, with those of nature conservation. TNC in Mongolia will apply the Development by Design (DbD) approach[6] in advising how best to apply the mitigation hierarchy (avoid, minimize/restore, and offset) to conflicts between negative impacts of various development projects on land/water resources and conservation priorities at the landscape level. Furthermore, a capacity building strategy and programme will be developed for various focus groups and stakeholders, including central and local Governments, local communities, CSOs/NGOs, mining companies and other relevant businesses and it will be implemented accordingly. The project will facilitate a cross-sectoral collaboration for land management and planning at the landscape level. Local level Government officers will gain skills and knowledge to ensure the full process of mitigation hierarchy is practiced in accordance with valid rules, regulations, norms and standards. By the project closure, environmental NGOs/CSOs, as well as local communities are expected to become overseers of functional and effective planning mechanism at their localities. The mining companies will recognise the multiple benefits and advantages of implementing the mitigation hierarchy to increase effectiveness of interventions in support of their corporate social responsibility frameworks. The project will work closely to obtain commitments of identified mining companies to avoid, minimize/restore, and offset negative impacts to the ecosystem by applying a full mitigation approach in their specific spheres of operation.

Component 2: Application of mitigation hierarchy and land degradation offset mechanism

Through the Component, integrated land management practices with introduction of SLM offset mechanism will be demonstrated for competing land use types (*i.e.* mining, infrastructure development, livestock grazing, irrigated and

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[6] Development by Design promotes a proactive approach to help guide sustainable development decision-making by looking beyond individual project locations to identify the cumulative impacts of development on natural areas across the landscape (whole ecosystems). In particular, Development by Design supports blending conservation planning with the "mitigation hierarchy" — first avoid, then minimise/restore, and finally offset — to address critical issues for effective mitigation of biodiversity and ecosystem function loss.

arable farming, areas under special (state) and local protection, and tourism initiatives in protected area buffer zones[7])
in the western mountainous region of the country. Local farmers and herders, as primary resource users and local
Government will play an essential role in implementation of landscape-level land use plans and in addressing land
degradation challenges. Moreover, the project will pilot application of mitigation hierarchy and land degradation offset
mechanisms at selected landscapes by selected mining companies in close cooperation with local Government, local
communities and NGO/CSOs. The offset programme is expected to help maintain essential ecosystem services and
functions, including livestock grazing and water regulation, generating multiple benefits, especially in reducing
negative impacts of mining. The CBA tool developed under the CBA of the Mining Sector project will be used to
quantify the damage. The technical support by the project in piloting will include the following: 1) Identification of at
least five high-priority conservation areas as identified through Ecoregional assessment under the Component 1, where
major threats are observed from prospecting and mining operations to land and biodiversity resources; 2)
Determination of offset criteria, offset opportunities and potential activities and quantification of residual impacts based
on the eco-regional assessment; 3) Detailed quantification of SLM and biodiversity gains for preferred offset sites; 4)
Enabling extensive dialogues among the mining companies, local communities, herder community associations and
local conservation NGOs, to promote active participation of stakeholders in the offset programmes; 5) Facilitation of
formal offset agreements between mining companies and local Government, as well as collection and reinvestment of
SLM offset/conservation funds; 6) setting-up implementation plans including an implementation structure and
Monitoring and Evaluation system to be practiced by local NGOs/CSOs or local communities. Rehabilitation of
degraded lands will also be supported. While the project will facilitate mining companies' action for improved
rehabilitation planning and progressive rehabilitation throughout the mine's lifetime, the project will also provide
technical support for various rehabilitation methods based on international best practices from Australia, Namibia and
other countries. A variety of rehabilitation methods will be combined which could include top soil treatment and
rehabilitation, vegetation regeneration/ recolonisation, landform reconstruction, transplanting, habitat transfer etc.
based on the careful rehabilitation plans to be developed during the first years of implementation. The total area
covered by project supported offsetting and rehabilitation is expected to reach 100,000 ha of land that represent high-
value ecosystems in 5 selected *Soums*, preferably one in each of the 5 western *Aimags*. In support of addressing land
degradation challenges and practicing SLM offset, local communities and Government officials will be provided with
opportunities to learn about the application of innovative technologies in managing land, water and forest resources.
Herders will practice sustainable use of pastureland without exceeding pastureland carrying capacities, through better
rotational grazing planning and implementation and diversification of income sources to reduce dependency on
livestock. The project will seek to maximize the impact by implementing already proven SLM measures by other
donor-funded projects and by collaborating with already established herder groups (pasture user groups) through those
projects. Where applicable, *Saxaul* forests will be taken under protection of local communities, managed and
rehabilitated by applying proven methods (*i.e.* tube seedling planting). When found feasible, small-scale rain and snow
water harvesting structures will be established and maintained by the local Government and communities. To reduce
the application of obsolete farming practices that exacerbate land degradation, small hold farming communities will
learn environmentally-friendly and innovative technologies to reduce soil erosion and improve soil fertility. These may
include no tillage organic farming (or sub-soiling), soil conditioning, water saving irrigation techniques, application of
cover crops, crop rotation systems, buffer strips etc. By the end of the project, at least 50% of the target site farmers are
expected to apply greener and innovative technologies for production, cropping, tillage and irrigation.

4) Incremental cost reasoning: The project's alternative from the baseline and the expected global benefits are
indicated in the following table. Global environmental benefits are further quantified using the GEF LD Tracking Tool
during the PPG period.

Current Baseline	Alternative	Global benefits
▪ Mining will continue to expand and accelerate land degradation, from increased pressure on pasture and water resources, compromising local livelihood and ecosystem health. This is compounded by other, natural and anthropogenic stressors on pasture and water resources,	▪ Landscape level integrated planning system is introduced and effectively implemented in the western *aimags*, addressing direct and indirect mining threats to pasture and water resources, ecosystems and local livelihoods across 100,000 ha of mountain and steppe landscape, with a	▪ Integrated management of 41.5 million ha of largely pastoral production

Current Baseline	Alternative	Global benefits
including overgrazing and climate change. ▪ Despite the improved environmental legislative framework with mandatory EIAs, SEAs and incorporation of offset principles, implementation of the framework and enforcement will meet significant challenges due to insufficient institutional capacity and experience and know-how on mitigation hierarchy application and offset. This will lead to continued land degradation, desertification and increased pressure on protected areas from grazing and mining. ▪ Actions for addressing land degradation interventions will continue to be focused on grazing management without effectively addressing mining impacts ▪ Eco-regional assessment for the five western *aimags* will meet delays and will not integrate the SLM dimension, making implementation politically and financially difficult.	replication mechanism to be adopted elsewhere. ▪ Mining threats to ecosystem functions and integrity is reduced with critically sensitive areas containing prime pastureland and ecologically important areas designated as set asides and protected from mining operations and associated infrastructure development that could degrade their values and ecosystem services. ▪ SLM principles are incorporated into the mining concession planning and licensing systems, including EIA, effectively changing management practices within the mining sector. ▪ Institutional capacity of the national and local government agencies is developed for implementation of the new environmental legislative framework, with tools provided for offset implementation with clear SLM mitigation hierarchy and detailed procedures and guidelines for application. ▪ Additional funding is generated for addressing land degradation and desertification from the offset mechanism.	systems and natural habitats in western Mongolia. ▪ Increased investment in measures for countering land degradation by employing offset mechanism. (starting with $500,000 from the pilot.) ▪ Improvement of ecosystem stability and productivity, by restoring degraded dry-land ecosystems to enhance their structural and functional stability and resilience in view of the changing climate. ▪ Improved carbon sequestration by improving soil conditions (soil organic carbon through offset mechanisms. ▪ Improved biodiversity and ecosystem health in the western Altai mountain ranges within the Altai-Sayan Ecoregion.

Co-financing: The indicative co-financing amounts to **$ 5.2 million**. Most of it will be contributed by the national government through baseline investments for environmental management within mining concessions and mine site management, as well as environmental impact assessment operation.

Innovativeness, sustainability and potential for scaling up: A principle to be applied through the proposed project is to offset unavoidable land degradation from mineral exploration and mining activities, through protection and rehabilitation of at least an equal amount of already degraded land in the same landscape by mining companies.

Although the 2012 reform of the environmental legislation made biodiversity offsets obligatory, the principles of applying SLM offset mitigation hierarchy have not yet been formalised. The innovative feature of the project is that it will make SLM offset obligatory. This is a novel concept and attempt in Mongolia and in the world, therefore is the innovative feature of the project which has the potential for providing important experiences and lessons to the global community. The project is also innovative in that it will bring in the new concept of SLM offset and SLM mitigation hierarchy in the process of planning and licensing of exploration and mining concessions. By working at the national level to institutionalize the offset rules and applications in the mining concession planning and licensing system, the project will assure the sustainability and future up-scaling of the offset mechanism. Given that the existing mining exploration and operational licences cover almost one third of the country's territory, there is a significant demand for applying the piloted offset mechanisms nationwide. The ever increasing mining pressure in the country on natural resources and ecosystem signals the urgent nature of this type of intervention.

A.2. Stakeholders. Identify key stakeholders (including civil society organizations, indigenous people, gender groups, and others as relevant) and describe how they will be engaged in project preparation:

The table below summarizes the key stakeholders and their roles in project implementation, as well as the formulation. The list is non-exhaustive and will be completed during the formulation of the fully-fledged Project Document.

Stakeholder	*Relevance*
Government of Mongolia	
Ministry of Environment and Green Development (MEGD)	A national implementing partner of the project. It is responsible for developing and implementing policies on green development and nature conservation. A senior MEGD official will chair the Project Board.
Ministry of Mining	A line Ministry that will provide policy guidance in practicing offset mechanism.
Ministry of Industry and Agriculture	A key partner in agricultural/pastureland management and rehabilitation issues, as well as agricultural (crop and vegetable farming) technologies.
Agency for Land Affairs, Geodesy and Cartography, MCUD	A Government agency in charge of regulating land use issues, including development and implementation of annual land use management plans, cadaster, surveying and mapping, administration and registration of land as a property. Soum land managers develop and implement respective annual land use plans and report to this agency.
State Specialized Inspection Agency	The Government Agency that will advise on and support enforceability aspects of related legislations and guidelines for SLM offsetting.
Local Government	Key beneficiary of the project. Provincial and District governments will provide guidance in project implementation ensuring policy and planning consistencies Local governments will also take part in selecting pilot areas for offset mechanism.
International Development Partners	
World Bank	It is present in all 330 soums of the country through its Sustainable Livelihoods programme, specifically a pastoral risk component. It will be a key partner in coordination of activities at the local level.
Swiss Agency for Development and Cooperation (SDC)	With its vast experience in pasture/land management projects, including Coping with Desertification and Mongolian pasture- Green Gold (GG) projects. The upcoming phase is expected to cover the western region of the country. A key partner in improving pastureland health and collaborating with local communities.
Civil Society/Non-Government Organizations	
The Nature Conservancy (TNC)	A key NGO partner in project implementation, particularly in the mitigation hierarchy, ecoregional assessment and developing policy and guidelines. The TNC has extensive experience in conducting various eco-regional assessments in support of informed decision making by Government.
Other NGOs	Where possible, project activities will be coordinated with those of national and international NGOs in Mongolia in order to make the best use of specific expertise, including WWF, People Centered Conservation, and their knowledge base. They will play a key role in strengthening capacities of local communities in managing natural resources sustainably.
Academic and Scientific Organizations	
Scientific institutions	Research institutes affiliated under the Mongolian Academy of Sciences will provide technical backstopping and advice on policy level interventions to mainstream the offset mechanism.
Local Communities	
Local communities and herders	Key users of natural resources and beneficiaries of the project. Land degradation offsets will be piloted in close cooperation with herder communities that face problems with limited grazing area due to mining operations and other development projects.
Private Sector	
Private businesses	Mining companies, tourism and crop farming businesses are users of natural resources and partners for piloting offset mechanism. They will be consulted during the preparatory phase/policy activities as well.

A.3 Risk

Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

	Rating	Mitigation Measure
Ineffective coordination of relevant initiatives among the key stakeholders affecting project successes	Medium	The project will aim at improving an overall coordination mechanism for land management among the relevant bodies. Systematic support to adoption of a landscape or ecosystem based planning approach would be a main contribution to this effort. In addition, the project will ensure coordination of relevant interventions supported by Government and development partners in the western region.
Offset mechanism is not well understood by stakeholders and a low level of Government capacity at the local level to ensure benefits of offsetting.	Medium	The project will aim at building capacities of various stakeholders right from the onset and make the offset as a part of landscape level planning. The focus groups will include central and local Government, local communities, academics/scientists, NGOs/CSOs and mining companies.
Unwillingness of the mining companies to commit for land degradation/biodiversity rehabilitation and offsets	Medium	The project will support emplacement of the SLM mitigation hierarchy framework and capacity in order to raise the profile of the issues and monitoring mechanisms on the side of the government. This will provide increased pressure to the mining companies to demonstrate rehabilitation and offset actions to reduce their social and environmental impacts. The project will also work closely with local governments and local self-governing bodies to ensure that the offset and rehabilitation measures are put forward as priorities. The increasing awareness for cooperate social responsibility further supports securing mining companies' commitments. The project will engage with target mining companies from their corporate social responsibility angle, also to ensure that the mining companies may take offset mechanism as a compensation for their poor rehabilitation measures.
Mismatch of identified priority areas for offset by Government and local community	Low	Not only will the project advise the Government on high priority areas based on the findings of the eco-regional assessment, it will also alleviate the risk by enabling a platform for discussion to build a consensus on the selection of the offset sites.

A.4. Coordination. Outline the coordination with other relevant GEF financed and other initiatives:

Implementation of the proposed project will be fully coordinated with a number of on-going relevant initiatives, in order to avoid duplication and increase effectiveness. The project will also build on the achievements, best-practices and lessons-learned of on-going and completed initiatives of UNDP Mongolia and other development partners. The Component 1 findings will feed into the UNDP's "Ecosystem-based adaptation (EbA) approaches to maintaining water security in critical water catchments of Mongolia" project by implementing landscape-scale strategies for land and water management to increase resilience and reduce the vulnerability of the local communities and their livelihoods. It will apply best practices and lessons learned from a number of initiatives including UNDP's "Sustainable Land Management for Combating Desertification" and "Community-based Conservation of Biological Diversity in the Mountain Landscapes of Mongolia's Altai Sayan Eco-region" projects, SDC's "Green Gold- Mongolian Pasture Ecosystem Management Programme" and "Coping with Desertification" projects and the WB's "Sustainable Livelihood Programme". During the formulation of the full Project Document, further extensive consultations will be needed with partners including Bundesanstalt für Geowissenschaften und Rohstoffe (BGR) - Federal Institute for Geosciences and Natural Resources, that implements the "Environmental Protection in Mining" project, WWF, WCS and TNC which helped develop the first biodiversity offset programme (Oyu Tolgoi mining in the southern region) in the country.

B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1 National strategies and plans or reports and assessments under relevant conventions.

The proposed project is fully consistent and in line with Mongolia's National development policies and programmes.
- Government Action Plan 2012-2016

- Pursue the principle not to issue permits to mines which are identified economically non-viable by feasibility studies, and entail greater environmental damages;
  - Provide support to efforts to introduce environment friendly, and leading techniques and technology in mining operations, estimate degraded areas due to mining, involve the responsible subjects in rehabilitation processes, and allot the rehabilitation expenses in the state budget account;
- Law on Environmental Impact Assessment amended in May 2012. Clause on offset mechanism.
- Mongolian MDG, Goal 7: "Ensure Environmental Sustainability".
  - Ensuring the proper use of land, mineral, and water resources,
- MDG-based National Development Strategy, 2005:
  - Section 3.5. Priority areas - "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".
- NAP for Combating Desertification for compliance with the UNCCD, updated and approved in 2010:
- NAP on Climate Change updated in 2011.
- National Biodiversity Action Plan

B.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities:

The proposed project contributes to GEF Land Degradation Focal Area (FA) Objective 3: Integrated Landscape Management, namely by reducing pressures on natural resources from competing land uses in the wider landscape. The project will support this by increasing national and local capacity for integrated landscape level planning and management, application of mitigation hierarchy and offset for land degradation to effectively manage the direct and indirect impacts of mining. The project will contribute to the two outcomes under the FA objective: (i) enhanced cross-sector enabling environment for integrated landscape management, by emplacing the SLM and mitigation hierarchy framework and capacity at the national level; (ii) increased investments in integrated landscape management by creating and piloting SLM offset mechanisms for generating adequate compensation and additional funding mechanisms for promoting SLM practices. The project furthermore fulfils the anticipated private sector engagement outcome of LD3 - Extractive industries and SLM , including off-setting land cover by mining companies for the benefit of local herders. It is also in accordance with the UNCCD promoted Sustainable Development Goal at the SD Conference (Rio+20), namely "Zero Net Land Degradation" drawing lessons from the implementation of existing targets for the Convention. In this regard, the Government of Mongolia is requesting GEF support to advance the country's efforts to offset the negative impacts of mining on ecosystem services and land productivity. The project will also contribute to the achievements of off-track MDG1 on poverty reduction and MDG7 on environmental sustainability.

B.3 The GEF Agency's comparative advantage for implementing this project:

The proposed project is in line with the UN Development Assistance Framework (UNDAF), UNDP Country Programme Action Plan (CPAP) and the UNDP Country Programme Document (CPD) for the period of 2012-2016. The proposed project directly contributes to UNDAF Outcome 7 "Increased sector capacity for sustainable resources management, with the participation of primary resource users", as well as Output 7.2 "A holistic (landscape-based) principle applied for planning, management and conservation of pasture/land, water and forest resources and biodiversity". Within the current programme cycle, UNDP Mongolia defines climate change adaptation and mitigation as a core of environment programme and "introduction of a holistic approach to the planning, management and conservation of land, water and forest resources and biodiversity" as key areas of intervention to enhance resilience of ecosystems and vulnerable populations to the changing climate. The project interventions will contribute to achievement of Output targets: "Capacities of Government officers strengthened for sustainable management of natural resources, particularly at the soum level" and "Landscape –level land use planning demonstrated". UNDP has on-going collaborating with the Government on a number of relevant initiatives, including environmental governance, sustainable land management, ecosystem-based adaptation and formulation of a national policy and strategy on green development. Through implementation of several land management projects starting from 2002, UNDP Mongolia has gained a significant experience and expertise in the area. It has also supported the environmental governance

programme over the last 5 years, strengthening the country's systemic capacity for environmental management. The programme included cost-benefit analysis of the mining sector in Mongolia. . Acknowledging the above described comparative advantages, the Government of Mongolia requested UNDP to formulate and implement the proposed project. UNDP Mongolia is ready to commit a substantial amount of cash funding to the proposed project.

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

A. **RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):** (Please attach the Operational Focal Point endorsement letter(s) with this template. For SGP, use this OFP endorsement letter).

NAME	POSITION	MINISTRY	DATE *(MM/dd/yyyy)*
Mr. A. Enkhbat	Director, Division of Clean Technology and Science, GEF Operational Focal Point	Ministry of Environment and Green Development	8/30/ 2013

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.					
Agency Coordinator, Agency name	**Signature**	**DATE** *(MM/dd/yyyy)*	**Project Contact Person**	**Telephone**	**Email Address**
Adriana Dinu UNDP-GEF Executive Coordinator and Director a.i.		03/04/2014	Midori Paxton, Regional Technical Advisor- EBD, UNDP	+66-818787510	midori.paxton@undp.org