Project Document

Country: Mongolia

UNDAF Outcome 3:	A holistic approach to environmentally sustainable development is promoted and practiced for improving the wellbeing of the rural and urban poor;
Expected CP Outcome 5:	Environmental governance improved for effective management of natural resources, and, better access to priority environmental services;
Expected Outputs 5.1 and 5.2:	National capacity to coordinate, implement and monitor policies and legislation towards achieving the country's commitment to United Nations Conventions such as CBD, FCCC, and CCDD strengthened; Role and capacity of local governments and communities enhanced in natural resource management (pasture, water, forest)
Implementing partners:	Ministry of Food and Agriculture and Ministry of Nature and Environment
Responsible parties:	Ministry of Construction and Urban Development United Nations Development Programme

The overall goal of the project is to combat land degradation and desertification in Mongolia in order to protect and restore ecosystems and essential ecosystem services that are key to reducing poverty. The principal objective of the project is to strengthen the enabling environment for sustainable land management (SLM) by building capacities in appropriate government institutions and user groups and demonstrating good practice in SLM through on-ground interventions that are integrated with national economic and social development policies.

Programme Period:	2008-2012
Programme Component:	Energy and Environmental Sustainability
Project Title:	**Sustainable Land Management to Combat Desertification in Mongolia**
Project ID:	
Project Duration:	5 years
Management Arrangement:	National Execution

Budget	$ 3,989,000
General Management Support Fee	$ 161,000
Total Budget	$ 4,150,000
Allocated resources:	
• Government	-----
• Regular	$ 200,000
o GEF (to be mobilized)	$ 1,650,000
o Netherlands	$ 2,300,000
• Government in kind contributions:	$ 200,000

Agreed by:

Ministry of Food and Agriculture

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Ts. Gankhuyag, Minister

Ministry of Nature and Environment

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G. Shiilegdamba, Minister

Agreed by UNDP Mongolia:

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P. Mehta, Resident Representative

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LIST OF ACRONYMS

ADB	Asian Development Bank
ALAGaC	Administration of Land Affairs, Geodesy and Cartography
AWP	Annual Work Plan and Budget
BAP	Biodiversity Action Plan
CBNRM	Community Based Natural Resources Management
CBOs	Community Based Organizations
CDMP	Coping with Desertification in Mongolia Project
CEA	Country Environmental Analysis
CNDS	Comprehensive National Development Strategy
COP	Conference of Parties
CP	Country Programme
CPAP	Country Programme Action Plan
CSO	Civil Society Organization
DI	Designated Institution
EGSPRS	Economic Growth Support and Poverty Reduction Strategy
FSP	Full Sized Project
GDP	Gross Domestic Product
GEF	Global Environment Facility
GGHSP	Good Governance For Human Security Programme
GoM	Government of Mongolia
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit (German Agency for Technical Cooperation)
IFAD	International Fund for Agricultural Development
LADA	Land Degradation Assessment for Dryland Areas
LD	Land Degradation
LFA	Logical Framework Analysis
MAP-21	Mongolian Action Programme for the 21st Century
MCUD	Ministry of Construction and Urban Development
MDGs	Millennium Development Goals
MEAs	Multilateral Environmental Agreements
MFA	Ministry of Foreign Affairs
MoFA	Ministry of Food and Agriculture
MNE	Ministry of Nature and Environment
MTR	Mid-Term Evaluation Report
NAEC	National Agricultural Extension Center
NAMHEM	National Agency for Meteorology, Hydrology and Environmental Monitoring
NAP	National Action Programme
NCCD	National Committee for Combating Desertification
NEAP	National Environmental Action Plan
NEX	National Execution
NGOs	Non-Governmental Organizations
NPD	National Project Director
NRM	Natural Resources Management

NZNI-IPECON	New Zealand Nature Institute – Initiative for People Centered Conservation
OP-15	Operational Programme - 15
PAC	Project Appraisal Committee
PB	Project Board
PDF-B	Project Development Facility – Block B
PIF	Pasture Improvement Funds
PIU	Project Implementation Unit
PIW	Project Inception Workshop
PPR	Project Progress Report
PRM	Pastoral Risk Management
PY	Project Year
RDC	Regional Development Concept
RPRP	Rural Poverty Reduction Programme
SBAA	Standard Basic Assistance Agreement
SDC	Swiss Development Corporation
SFG	Sheep Forage Unit
SGMP	Sustainable Grassland Management Project
SLM	Sustainable Land Management
SLP II	Sustainable Livelihoods Project II
SPA	Special Protected Area
SSIA	State Specialized Inspection Agency
UNCBD	United Nations Convention on Biological Diversity
UNCCD	United Nations Convention on Combating Desertification
UNCCD-NAP	United Nations Convention on Combating Desertification – National Action Programme
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNDP CO	United Nations Development Programme Country Office
UNFCCC	United Nations Framework Convention on Climate Change
WB	World Bank

SECTION I: ELABORATION OF THE NARRATIVE

PART I: SITUATION ANALYSIS

Environmental context

1. Mongolia lies in the heart of Central Asia between 41^0 35" - 52^0 06" of latitude and 87^0 47" - 119^0 57" of longitude, neighbouring with Russia along 3485 km in the north and with China along 4676.9 km in the south. Mongolia comprises 1564.1 thousand km2 of land. The terrain is landlocked mountainous and isolated from the sea at minimum 1600 km distance from Pacific Ocean and others even greater. Mongolia is the seventeenth largest country in the world. Average altitude is 1580 m above sea level and Ulaanbaatar, the capital, is at 1350 m. The highest point is the Huiten peak (4653m) in the west and the lowest is the Khokh Nuur lake depression in the east - 532 m above sea level.

2. Mongolia is divided administratively into 22 main units, namely 21 aimags (provinces) and the capital city Ulaanbaatar. Aimags are divided into soums that are further divided into bags. The capital city, Ulaanbaatar is divided into 9 districts that are, in turn divided into horoos.

3. The climate of Mongolia is characterized by high moisture deficit, low humidity and low levels of incident energy. Despite 260 days of sunshine, total heat units above 10^0 rarely exceed 2000 and in some areas less than 1000. Snow cover is very light, so soils are completely frozen in the winter. As a consequence, the effective vegetation growing period is short, generally from 80 to 100 days, although it can vary from 70 to 150 days depending on altitude and location.

4. Precipitation is generally low, ranging from less than 50 mm per year in the extreme south (Gobi desert region) to just over 500 mm per year in limited areas in the north. The average country-wide precipitation is about 230 mm per year, roughly 90% of this amount returns to the atmosphere through evapotranspiration. Of the remaining 10%, about 63% becomes surface runoff. Most of the surface runoff (about 95%) flows out of the country, while a small portion flows into lakes and basins within the country. Only 3% of the total annual precipitation infiltrates into the soil to replenish aquifers and becomes potentially available as water resource in the form of soil moisture or groundwater.

5. Because of the continental climate, fluctuations in temperature are extreme, both annually and diurnally. Fluctuations can be as high as 30^0 C in a single day and the difference between average winter low temperature and summer high temperature could be in excess of 50^0 C. Moreover, it is possible even during summer to get sharp falls in temperature and un-seasonal frosts can cause harvest losses between 10 to 30% of crops. In addition, the spring-summer droughts, on the average occur once in every five years in the Gobi region and once in every ten years over most other parts of the country.

6. In general, Mongolian soils are thin, light, and low in organic matter, and have poor fertility. In Mongolia, from north to south the following longitudinal-zonal soil types exist:
    - mountain taiga zone with cryomorphic-taiga and demo taiga soils,

- mountain forest-steppe zone with chemozem, dark kastanozem, forest dark colored, and demo taiga soils,
- dry steppe zone with kastanozem soils,
- semi-desert zone with brown semi-desert soils
- desert zone with gray-brown desert soils
- arid desert zone – with extra-arid desert "borzon" soils.

7. The Mongolian soils are characterized by strong freezing of the upper part of soils in the winter; freezing may go down as deep as 3 to 4.5m for long periods, with seasonal permafrost's (6-9 months of year).

8. Mongolia's position, size and topography have resulted in a unique assembly of ecosystems or natural zones. Studies of the flora and fauna of the country, together with climatic and geographic data, have resulted in the classification of Mongolia into 6 broad ecological zones, namely, Montane, Boreal Forest, Forest-Steppe, Steppe, Desert-Steppe and Desert (Source Ministry of Nature and Environment). Annex 10 presents brief description of the six zones.

Zones	Area (M km^2)	Percentage
Montane	0.344	22
Boreal Forest	0.063	4
Forest Steppe	0.125	8
Steppe	0.406	26
Desert Steppe	0.329	21
Desert	0.297	19
Total	1.564	100

(Source: ADB, Country Environmental Analysis – Mongolia, 2005)

9. About 10% of the land surface of Mongolia, equivalent to some 15 million ha are covered by various types of forests with larch (73.6%), cedar (13%), pine (8%), birch (5%) and other species (fir, aspen, etc.) dominating in the northern part of the country. Saxaul forests in the arid and semi-arid parts of the country account for 28% of the total forest cover.

10. Grasslands of Mongolia cover about 1.26 million km^2. These lands have supported large numbers of grazing animals for thousands of years. The natural pastures are grazed yearlong by pastoral livestock and wild herbivores. High-yielding natural pastures are harvested as hay for winter supplemental feed. Mongolian grasses and legumes evolved under sustained grazing pressures and are well adapted to grazing. However, in recent times, due to changing economic and social conditions, rangelands in Mongolia are being threatened by overgrazing. Large herd size, uncoordinated herding patterns, and the development of mineral resources are threatening species diversity and are leading to increased soil erosion and weed infestation.

11. Wetlands in Mongolia are ecologically fragile depending on climatic conditions, natural zones and geographical location. Development of wetland classification is a very

complicated and comprehensive process. Wetlands in Mongolia can be divided into the following categories:

- Rivers
- Lakes
- Fresh water marshes
- Deep water swamps
- Salty water marshes

There are over 3800 rivers and streams, over 3500 lakes, 6900 ponds, springs, and hundreds of swamps and marshes in Mongolia, but their number has been declining rapidly in recent years.

12. Mongolia retains a substantial amount of its "natural" biodiversity. Although biodiversity values are not as great as in many tropical systems, they are still considered high. Two of the world's most biologically outstanding eco-regions, the Daurian Steppes and the Altai-Sayan Mountains, lie partially within Mongolia. More than 2,823 species of plants inhabit Mongolia and indeed, the Mongolian steppe represents one of the largest contiguous unaltered grasslands in the world. The fauna of the country includes at least 136 species of mammals, 436 birds, 8 amphibians, 22 reptiles, 75 fish and numerous invertebrates. Riparian and wetland systems embedded within Mongolian rangelands are home to globally significant populations of water fowl and wading birds, including several species of cranes.

13. Land degradation in Mongolia is a serious environmental problem that threatens to destroy the country's productive capacity and environmental assets. A recent Mongolian report estimates that 30% of the country is moderately affected and another 4% is severely to very severely affected by land degradation. Land degradation has severe impact on the 43% of the rural population that live at or below the poverty line. As a result of desertification, water shortages and natural disasters, out-migration has sharply increased and raising livestock, which generates some 90 percent of agricultural income, has become a risky proposition.

Socio-economic Context

14. With 1.5 people per square km, Mongolia has one of the lowest population densities in the world. Mongolia has a population of 2.5 million people spread over an area of 156,412 million ha. The current population growth rate is 1.4 %. About 57% of the population lives in urban areas. Of the total employment force of 900,000 people, 48% is in agriculture, 12% accounts for industry and the rest for other sectors. Per capita GDP in 1998 was US$ 452. Agriculture in Mongolia has been the key economic sector for a long time and will be the same for many years ahead. In 2002, the value added of the agriculture sector is 20.1% of GDP. The output of livestock production comprises 78.9% of the total output of agriculture. The number of livestock by five types (horse, camel, cattle, sheep, and goat) reached 23.9 million heads at the end of 2002.

15. In 1990 Mongolia began its transition towards democracy and a market-based economy. The reform agenda of the Government has yielded significant advances in human

development, especially in terms of education and health. GDP grew by 6.2 percent in 2005, largely due to mining activities. Per capita income, which was $384 in 1999, almost doubled to $605 in 2004. As land reforms allow for private land ownership, more than 80 per cent of the economy is now in private hands. Major challenges nevertheless confront Mongolia. Despite impressive growth during the past five years, the percentage of people living below the poverty line has remained at 36 percent. At disaggregated levels, new forms of poverty are manifesting, such as increasing numbers of urban poor, the homeless, working children and female-headed households. Youth unemployment is on the rise. Inequalities are widening between regions, within urban areas, between rural and urban areas, and between men and women.

16. Shrinking livelihood opportunities, stagnation in rural employment, and limited access to affordable microfinance and markets have spurred migration to urban areas, especially to Ulaanbaatar, posing unique challenges to urban governance, at the same time weakening human capacity in rural areas and changing traditional nomadic culture. Growing desertification, depletion of forests, soil and bio-diversity and high dependence on mining and livestock are aggravating ecological vulnerabilities.

17. Pastoralism has been the dominant land use in Mongolia for millennia. Prior to the communist era (pre-1921) Mongolians maintained livestock much of the same way as their ancestors. Grazing systems were transhumant with winter base for protection of livestock from severe winter conditions. With the introduction of compulsory livestock collectives in 1960s, livestock movement was strongly regulated, although migration distances were reduced compared to traditional moving patterns. By 1992, the collectives were dismantled and the herding households attained an almost unlimited freedom of choice with respect to livestock management and economic activities with little or no formal regulatory structures to control livestock grazing. However, the "new freedom" moved the risk from the collective to the individual household. The lack of strong formal or informal institutions to regulate livestock movement led to declining mobility and increasing out-of-season grazing, trespassing, and associated conflicts.

18. The total number of animals did not fluctuate greatly as Mongolia moved into collectivization. In fact animal numbers were somewhat higher in the 1930s and early 1940s, compared to collective period (1960 – 1990). It is estimated that Mongolia had about 56 million Sheep Forage Units (SFU)[1] in 1940. After the central government relinquished control over livestock production in the early 1990s, livestock numbers increased rapidly and it reached its all time high of 70 million SFU in 1999.

19. There was a change in livestock composition, as well, after 1990. Numbers of goats increased most dramatically, rising 215 percent from 1990 to 1999, resulting in a growing preponderance of goats in Mongolia overall. Horses and cattle numbers also increased most dramatically, rising 140 percent and 135 percent respectively. Increase in the goat population has dramatic effects on pasture. Without proper grazing management, goats will

[1] Sheep Forage Units (SFUs) seek to standardize livestock grazing by placing different species as sheep equivalents. In Mongolia, SFU per type of animal is: 5 SFU per camel; 7 SFU per horse; 6 SFU per cow or yak; and 0.9 SFU per goat.

graze until pasture is destroyed, while sheep, under normal circumstances, will leave behind enough to secure regeneration of pasture.

20. The increased livestock herds in the 1990s were undoubtedly related to greater numbers of herding families and increases in numbers of livestock for many herders. The increase in the number of herders resulted from (a) Mongolia's "culture of pastoralism"; and (b) loss of jobs and other livelihood opportunities with the collapse of the command economy. However, not all who returned to pastoralism succeeded. While most apparently succeeded, others failed and the number of herders decreased each year between 2000 and 2003. From 1992 to 1999, the number of small herds decreased, medium size herds were generally stable and large size herds increased. Increasing mean herd sizes reflects a general increase in wealth. Despite growing pastoral wealth, a large percentage of herders maintained small herds (< 100 animals). To date (2007), 20 % of herder households own 60 % of the national herd.

21. In the winter of 1999-2000 and again in 2000-2001, dzuds (a general Mongolian term for various winter conditions during which livestock cannot forage) struck much of Mongolia causing severe livestock losses and a reduction in average herd size. Summer droughts undoubtedly made the impacts of winter dzuds more severe. The large losses of livestock not only impacted pastoral livelihoods, but also the national economy.

22. Mongolians have deep reverence for their environment and a close symbiotic relationship with the natural world. Yet increasing desire to "westernize" and improve standards of living challenge these traditional values. Pastoral nomadism, in Mongolia, defines traditional values more than in most other nations with a relatively large pastoral component. Pastoralism certainly comprises a larger portion of Mongolia's economy (15.9 percent in 2003). So, effectively conserving Mongolia's rangelands would not only help ensure a sustainable rural economy, but also help preserve national cultural and natural heritage.

Policy, legislation and institutional context

a) *Policies and legislation*

23. The Constitution of Mongolia places pastureland under state ownership to be used as a "common use resource". Livestock is, by Constitution, protected by the government – thus basic livestock services have to be provided by the government.

24. The Economic Growth Support and Poverty Reduction Strategy (EGSPRS) paper emphasizes the reduction of poverty, while ensuring sustainable development and improvement of governance as key strategies. The national policy of the Government of Mongolia (GoM) embraces integration of natural resources management (NRM) planning and puts improvement of environmental management in the mainstream of development strategies and programmes. The Mongolian Action Programme for the 21st Century (MAP-21) of the GoM values a holistic approach to socio-economic and ecological issues as the fundamental feature of sustainable development. It names seven primary objectives

including a) adaptation management for climate change, b) prevention and reduction of environmental degradation, c) implementation of an integrated policy for the land and its resources, d) creation of a favorable environment for sound management of water resources, e) sustainable forest management and restoration, f) conservation and sustainable use of biodiversity of flora and fauna, and g) integrated management for environmental protection.

25. The recently drafted "MDGs based Comprehensive National Development Strategy" (CNDS) seeks to integrate the progressive elements of 304 key policy and strategy papers and lays out the path for national development until 2021 in two phases. It describes the degradation of pastureland and water resources, soil erosion and decline of biodiversity, and resulting out-migration from rural areas as the consequences of climate and anthropogenic factors and places priority on the development of sound environmental policies. It emphasizes sustainable natural resource use and protection of natural wealth as a fundamental value of the Mongolian Nation. Developing an "adequate pastoral utilization management system" is seen as a strategic element to adapt to climate change. Developing integrated policies for the utilization of land and underground resources, integrated water management, sustainable forest management and biodiversity protection are among the priority outcomes of CNDS.

26. The Regional Development Concept (RDC), and Regional Development Programmes for five regions of the CNDS aim at improving rural infrastructure and services as a countermeasure to ongoing concentration of population in the capital city. While this in principle would counteract migration from rural areas and attract skilled people to come to or remain in rural areas, it may also lead to further deterioration of services and infrastructure in remote areas for which the centers of the new Aimags are even further away, and therefore could cause further out-migration.

27. The Good Governance for Human Security Programme (GGHSP) has set 10 priorities of which the following are relevant, namely: (a) Priority 6 – To reduce poverty and unemployment, and improve the livelihood of The people; (b) Priority 7 – To implement policy aimed at providing sustainable development, and ecological balance by harmonizing protection of biodiversity with regional socio-economic development; and Priority 10 – To remove the governance crisis and create good governance for human security; to foster qualifications and skills of civil servants as a key element for the state policy that is pro human-centered development; to improve efficiency and effectiveness of state entities' processes; to ensure quality and responsiveness of public service to the citizenry; to create a favorable environment for self-reliant development within the scope of socio-economic complex for aimags and soums by decentralizing and empowering local self-governance.

28. A number of legislations have been enacted to protect natural resources and promote sustainable development. A summary of such important legislations is presented below:

Legal Acts	Date of Issue	The main purpose	Notes
Law on Land	1994.11.11	The purpose of the Law is to regulate land possession and use by individuals and organizations.	As amended in June, 2002 and at the moment further amendment is under consideration by the Working Group appointed by the Prime Minister.
Law on Land Fees	1997.4.22	The Law enacts powers and responsibilities of the Government Agencies in collecting land use fees and property taxes as well as principles of determining land fees.	Amendment is under consideration.
Law on Allocation of Land to Mongolian Citizen for Ownership	2002.06.27	The law establishes procedures and principles for privatization of land for possession by Mongolian residents.	Implementation period of the law is extended.
Law on Forestry	1995.03.31	The purpose of the law is to protect forest resources and regulate activities related to sustainable use and restoration of forest resources.	As amended in January, 2000 and in April, 2002
Law on Environmental Protection	1995.03.30	The law regulates individuals, organizations and the Government on environmental protection and sustainable use of natural resources.	As amended in April, 2002 and in January, 2003
Law on Sub-surface Resources	1988.11.29	The purpose of the law is to regulate activities related to exploration and protection of underground resources.	As amended in December, 1994
Law on Water	2004.04.22	The law enacts procedures for protection, use and restoration of water resources.	

(Source: PDF-B: Study on Stakeholder/Institutional Analysis at National and Aimag Levels)

29. A recent amendment to the Environmental Protection Law creates a more favorable condition for engaging local communities in sustainable natural resource management by

providing security of tenure and giving Community Based Organizations (CBOs) legal status. CBOs that re-emerged on the pastoral commons to revive pastoral mobility were recognized in the civil law of Mongolia, a manifestation of the recognition by government of the crucial role that resource users, local communities and customary institutions play in sustainable land management and NRM in the vast territory of the country.

30. Another amendment to the Law on Environmental Protection regulates the organizational form, tenure rights and responsibilities of user groups (Nukhurlul) for forest resources.

31. The 1994 Law on Land established different categories of land and land rights: ownership, possession and use or limited use. Additions to the land law includes (a) in 2002 the "Law on Allocation of Land to Mongolian Citizens for Ownership" ("land privatization law"), (b) in 2003 the revision of the 1994 land law, and (c) in 2003 the "Property Rights Registration Law". The "Law on Allocation of Land to Mongolian Citizens for Ownership" provides for full ownership of small land parcels.

32. The primary responsibility for implementing the land law rests with Aimag and Soum officials, and interpretation and application of the land law in allocating pastoral resources, particularly winter camp sites and winter pastures to users have been varied, random and unregulated in terms of group size, length of possession and arrangements on access by others. No separate law on pastureland existed until now. A new pastureland land is currently being drafted, consultations have taken place in different regions in early 2007 and the draft is planned to be discussed in parliament during the autumn (2007) session.

33. Mongolia's constitution places pastureland under state ownership for communal use. This legal status of pastureland and the need to maintain pastoral mobility, to provide for seasonal migrations and for traditional pastoral coping strategies in extreme weather events, drought and Dzud (winter disasters) and for reciprocity among pastoral resource users, are the reason and rationale for not extending tenure rights over pastureland to pastoral user groups, so far.

34. The emerging lessons learnt from donor-supported programs, and recent policy studies re-confirm the need to maintain common property use and point out the crucial role of pastoral grassroots institutions and of local bodies for collaborative management of grassland (and other) resources. It is here where the proposed project can make significant contributions towards SLM in Mongolia. By scaling-up lessons learnt in community organization and collaborative management to pilot implementation of the new pastureland law in the project areas, the project can make an important contribution to formulate policies and regulations for sustainable pastureland management in different ecological regions. This will help to clarify roles and responsibilities of local stakeholders in co-management and give local governments a regulatory framework for coordination and enforcement of pastureland management.

35. Mongolia is a signatory to the Convention on Biological Diversity (CBD), and therefore must implement the Work Program on Protected Areas adopted at COP 8. The Government

of Mongolia also has ratified the Convention on Combating Drought and Desertification, the Ramsar Convention on Wetlands and the Bonn Convention on Migratory Species.

36. The National Action Plan to Combat Desertification in Mongolia (UNCCD-NAP) presents a comprehensive framework for activities to combat land degradation and desertification, on the short and medium term. The UNCCD-NAP strategy is adhering to the principle of attacking the causes of degradation, rather than curing the symptoms. In order to do so it stresses the importance of preventive measures.

37. Since causes of degradation often are linked to human activities, effective participation is a leading orientation of the NAP, notably for field projects. Another important orientation of the NAP in this context is the emphasis on rangelands management.

38. The NAP articulates that if results are to be sustainable, activities leading to them must be integrated in their physical environment as well as their socio-economic and institutional setting. An integrated approach means that all factors of influence on desertification and mobilization of resources to combat it are to be considered. Measures may then be taken to alleviate certain bottlenecks. Such measures in the physical environment may include soil conservation measures, rangelands improvements, etc. In the socio-economic and institutional rural environments it may include measures like organization of users groups or marketing facilities, in order to mobilize the population for local anti-desertification programmes. The NAP argues that before an approach for the sustainable management of Mongolia's land- and water resources at a larger scale can be launched in the field, a number of activities are needed in the short run that develop and test potential tools and that creates an enabling institutional environment. Such activities, according to the NAP include:

    - Raising of public awareness.
    - The mobilization of existing knowledge on ecosystems and their uses:
    - Traditional knowledge of resource users, results of research by Mongolian institutes.
    - Review of policies and formulation of action plans at the different government levels
    - Development of appropriate technologies and methodologies (sustainable at the different actors' levels: resource users, national and local governments).
    - Training of government staff.
    - Installing of monitoring facilities.
    - Pilot projects in integrated, participatory management of renewable natural resources.

39. Over the last decade, a number of programs have been implemented under the framework of NAP. Such activities and best practices, in particular with regard to community participation and collaborative management of land and natural resources are lessons learnt, on which the proposed SLM project can build on.

40. Conservation of biodiversity has long been identified as one of Mongolia's priority environmental issues as stated in the Biodiversity Action Plan for Mongolia (1996). Key government policies of conservation, regional development and public participation are expressed in several programs and action plans such as:

- Biodiversity Action Plan for Mongolia (BAP 1996)
- MAP 21, the 'Mongolian Action Plan for the 21st Century' (1998)
- National Environmental Action Plan (NEAP 2000) (amended in 2002)
- Good Governance for Human Security' Program (2001)
- National Program on Special Protected Areas' (2000)
- Programme of Work on Protected Areas under CBD following COP 8
- Ulaanbaatar City Regional Development Plan (2006)
- National Water Program formulated for 20 years
- National Program on Forests (2001).

41. As a signatory to the CBD, Mongolia has obligations to implement a Program of Work on Protected Areas. Policy development in this sector is also moving towards widening the scope of governance arrangements, including NGOs, CBOs and private sector involvement, in Protected Area Management. Approximately 13 % (21 million ha) of Mongolia's territory are presently under formal protection in Special Protected Areas under the management responsibility of the Ministry for Nature and Environment.

b) Institutions

42. At the central level, responsibilities for policies and implementation related to SLM are presently distributed among several ministries and implementing agencies. In this context, serious barriers to SLM are present that pertain to fractures responsibilities, poor coordination among departments, and inadequate resources and staff to facilitate effective linkages to line agency staff in the provinces, and outreach to local areas. A brief description of the following institutions are provided below:

- The Ministry for Nature and Environment
- The Ministry of Food and Agriculture
- The Ministry of Construction and Rural Development
- The Institute of Geoecology
- The National University of Mongolia

43. Most important among the various ministries and agencies with regard to SLM are three ministries, namely the Ministry for Nature and Environment (MNE), the Ministry of Food and Agriculture (MoFA) and the Ministry of Construction and Urban Development (MCUD).

Ministry for Nature and Environment

44. The mandate of MNE is to provide the rights to live in a healthy and sound environment, link economic development with the environmental balance, protect the environment from

the point of view of present and future, promote rational use of natural resources, regulate the matters between the private citizen, entities and institutions related to restoration measures. The Ministry has five specific aims, namely:

- Reducing pollution of air, soil and water in urban areas
- Conserving biological diversity and expanding the network of specially protected areas
- Mitigating desertification, implementing reforestation measures, and expanding reforestation
- Promoting rational use and conservation of water resources
- Improving mining rehabilitation and ensuring responsible mining.

45. The Ministry is responsible for enforcing 30 sectoral laws and 27 decrees and implementing numerous programmes in the area of environment. The Ministry has a well established outreach structure, which consists of Environment Departments at aimag level (Environmental Officers) and Environmental inspectors at the soum level and the Capital city, and SPAAs. The mandate for monitoring compliance with implementation of the environmental laws has now been separated from MNE and vested with the State Specialized Inspection Agency (SSIA). This agency carries out environmental inspection work in UlaanBaatar city, and at aimag level environmental departments and at soum level centers. Nationwide there are 499 environmental inspectors, 220 of which are working at the specially protected areas administration. The network of specially protected area covers 60 designated sites of which 17 function independently. The structure of MNE is provided in Annex 11.

Ministry of Food and Agriculture

46. The mission of the Ministry of Food and Agriculture (MoFA) is to support rural and regional development that could provide substantial economic growth and to create sound environment for sustainable development of the food and agricultural sector. The vision of the Ministry is to develop a robust food and agricultural sector that is competitive at domestic and international markets and capable of overcoming natural risks. Strategic aims of the Ministry are:

- To provide planning and policy guidance for implementing the duties vested with the Minister of Food and Agriculture.
- To carry out state administration management and coordination services in the food and agriculture sector.
- To coordinate the implementation of the food and agricultural policies.
- To monitor and evaluate programmes designed to implement the food and agricultural sector policies.
- To improve veterinary services and organize an activities in order to protect livestock and animal health
- To develop and expand sector's external relations.

47. Priorities of the Ministry of Food and Agriculture include the following:

- Introducing innovative and modern agricultural management systems and developing nationally adoptable technologies and promoting scientific research in production processes.
- Supporting the different legal entities and the private sector in the food and agricultural sector.
- enhancing the management of these entities and increasing their market competitiveness.
- Utilizing agricultural land appropriately, rehabilitating and increasing pasture capacity, extending irrigation activities and improving water point management and ownership.
- Increasing the number of livestock and herd's quality, protecting livestock genetic resources as well as protecting livestock from natural disasters and increasing the export of food and agriculture based raw materials.
- Preventing livestock and animal parasite diseases, improving efficiency of treatments and reducing the spreading of diseases and disease outbreaks.
- Renovating crop production machinery and techniques, introducing intensification, increasing food supply and ensuring a food safety.
- Developing cooperatives and farms and providing support and assistance to establish cooperatives for reducing poverty, creating employment and diversifying services.
- Increasing access to credit in rural areas, supporting foreign investment and improving agricultural management.

48. The National Agricultural Extension Centre (NAEC) is an important unit of MoFA. It was established in 1996. It has 12 employees at its headquarters, which is at the MoFA. Currently Extension Centers have been established in 110 soums in 21 aimags and it is planned to cover all soums with Extension Centers as soon as possible. The Ministry's outreach consists of representation in the Aimag Government (Food and Agriculture Section) and in the Soum Government (each soum has one Agricultural officer). Annex 12 provides the organizational structure of MoFA.

Ministry of Construction and Urban Development

49. The goals of the Ministry of Construction and Urban Development (MCUD) are to regulate the land affairs, develop policy on construction, city planning and housing and public utilities and enable comfortable and safe living conditions for the general population. Strategic objectives of the ministry include:

- Implement "40000 Housing" Program
- Enforce land ownership title for citizen of Mongolia
- Develop and ratify new administrative and terrestrial divisions

Annex 13 presents the structure of the Ministry of Construction and Urban Development.

50. MCUD has two units that are related to land management, namely Department of Land Management and Property Registration; and Administration of Land Affairs, Geodesy and Cartography (ALAGaC). ALAGaC is the result of a structural adjustment exercise completed in 2006 which resulted in the disappearance of the Land Resources Authority and the Environment Protection Agency from MNE. The Land Resources Authority was absorbed into ALAGaC within MCUD, while the functions of the Environment Protection Agency were taken over by the State Specialized Inspection Agency.

51. Currently all land issues come under the responsibility of ALAGaC. ALAGaC unites the functions of surveying and mapping, land administration, and registration of immovable property. Pastureland issues are also the responsibility of ALAGaC.

Institute of Geoecology

52. The Institute of Geoecology (IGE) is a research organization under the Mongolian Academy of Sciences. Its main mission includes:

- Conducting research in the field of natural resource rehabilitation and protection directed to maintaining the ecological balance of the country;
- Preparing scientific guidance for rational utilization of the natural resources of Mongolia;
- Carrying out field investigations and implementing projects related to natural resources utilization and conservation; and
- Preparing plans and maps of water and land resources and their utilization in different ecological and economic zones.

The Institute has four main divisions, namely:

- Division of Ecological Study
- Division of Water Resources and their Utilization
- Division of Land Resources Management
- Division of Forest Resource Management and its Assessment.

53. The Center of Desertification Study (CDS) is a unit under the Division of Ecological Study of the Institute of Geoecology. The objectives of the Center includes:

- Studying the trends of the desertification process in the country;
- Preparing scientific recommendations for combating desertification
- Developing and implementing methods and technologies to combat desertification; and
- Demonstrating actions for combating sand movement in the settlements of Gobi and Desert Gobi Regions.

The Center has great potential to provide the much needed technical and outreach support for implementing SLM and desertification control measures. However the

Division lacks human resources and institutional capacity to serve its mandate. The FSP proposes to strengthen the capacity of the Center.

National University of Mongolia

54. The Faculty of Earth Sciences of the National University of Mongolia was established in 1998 (it was a part of the Faculty of Nature Sciences since 1954). The Faculty provides quality and career oriented education at Bachelors, Master's and Doctoral levels. The Faculty has three Departments, namely (a) Department of Geoecology and Land Management; (b) Department of Human Geography and Tourism Management; and (c) Department of Department of Geology and Mineralogy. Since 2002, two interdisciplinary research centers, namely (a) the Centre for Development Research (CDR) and (b) the MOLARE Research Centre (MRC) support the teaching end research activities of the Faculty.

55. The Geoecology and Land Management Department offers three areas of specialization, namely (a) Physical Geography; (b) Land Management; and (c) Land Cadastre. The Faculty offers a 4-year Bachelor of Science Degree in land use management. It also offers a Master of Science degree programme in Land Management. The Project Formulation Team has met with the Dean of the Faculty of Earth Sciences and explored the possibility of introducing a 3-credit course in SLM for the B.Sc degree programme in Land Management. The idea was welcomed by the Dean and the staff of the Department. The offering of a 3-credit course in SLM at the Faculty of Earth Sciences has been included as an output under the capacity building Outcome of the FSP.

56. The following table presents a list of institutions that were, among many others, consulted, and included in the stakeholder analysis.

Ministries, organizations	Subordinate agencies, affiliated organizations
Ministry of Food and Agriculture	Pasture and Crop Irrigation Division Department of Animal Husbandry Crop Production Division
Ministry of Nature and Environment	National Committee for Combating Desertification "Green Castle" Program
Ministry of Construction and Urban Development	Administration of Land Affair, Geodesy and Cartography Department of Land Affairs and Real State
Ministry of Education, Culture and Science	Mongolian National University State University of Agriculture Mongolian University of Science and Technology University of Education EcoAsia college "Mongol farmer" college
Agencies(Government implementing agencies)	Water Authority (Government implementing agency) Agency of Meteorology, Hydrology and Environment Monitoring
Ulaanbaatar city	Department of Food and Agriculture

	Department of Nature and Environment
Science/Research organizations	Institute of Meteorology and Hydrology Research Institute of Cropland and Plant in Darkhan city Institute of Biology Institute of Geography Research Institute of Animal Husbandry Institute of Geo Ecology Institute of Botany Ecosystem Research Centre Plant Protection Institute
Donor organizations	UNDP IFAD World Vision USAID SDC
Mining companies	National Association f Mining Mon Rostsvetmetall corporation Sailik, Mining company
NGOs and CBOs	Centre for Policy Research "My Mongolian Mother Land" movement “Ongi gol" movement “Ariun Suvraga" movement Association of Foresters Women Farmers Association
Aimag level Sukhbaatar aimag Uvurkhangai aimag Tuv aimag	Department of land affairs Department of Food and Agriculture Department of Finance Water drilling companies NGOs and CBOs

(Source: PDF-B: Study on Stakeholder/Institutional Analysis at National and Aimag Levels)

Land Degradation in Mongolia and its Global Significance

57. Land degradation has been identified as one of the priority concerns in Mongolia. Causes of land degradation in Mongolia can be divided into two categories, namely, natural causes and human- induced. Natural causes include droughts with frequency of 2-3 years; natural drying; deficit in soil moisture; very thin layer of fertile soil; specifics of mechanical composition of soils; and strong wind in spring and autumn. During the last 40-50 years, human activities have contributed significantly to land degradation. These include: changes in traditional livestock husbandry; overgrazing, especially around settlement areas and water points; impact due to inappropriate development of farm land; and mining industry. A recent study shows that loss of pasture and forest lands account for about 10 percent in each case since 1998 (ADB 2005).

58. The following table illustrates the land degradation and desertification trends in Mongolia. Annex 14 presents a desertification map of Mongolia.

Desertification	1990 (%)	2000 (%)
Slight	76.0	34.9
Moderate	20.0	38.7
Heavy	3.0	16.1
Very heavy	1.0	1.8
Arid desert region	-	8.5

(Source: Dash (2000) – in PDF-B Final Report of the Bio-Physical Study of Land Degradation)

59. Pastureland dominates other categories of land under threat. Forms of pastureland degradation include loss of plant diversity and change of pasture plant composition in favour of weeds not palatable for livestock, decrease in vegetation density and available biomass, soil erosion through wind, the uprooting and loss of all plant cover in extreme wind events that are becoming more frequent and effect large territories. Late 1990s official data on pasture degradation is given below:

Extent of Degradation	Slight	Moderate	Severe	Very Severe	Total Area
Percent	76	20	3	1	100
Area (Million ha)	92.8	24.4	3.6	1.2	122.2

(Source: ADB, Country Environmental Analysis – Mongolia, 2005)

60. State of the Environment data for 2003 suggests that further degradation has taken place since late 1990s. Areas particularly under threat, some 15 million ha, are near rural settlements, water sources and towns. Decrease in pastoral mobility and increase of livestock numbers are major causes. The following table illustrates the degradation around well points in four soums, from a study undertaken by the PDF-B project.

Soums	Wells (No)	Degradation within the well area							
		Slight		Medium		Strong		Heavy	
		No.	%	No.	%	No.	%	No.	%
Bayankhangai	17	3	18	5	29	7	41	2	12
Uyanga	3	1	33	-	-	-	-	2	67
Bayandelger	210	-	-	40	19	145	69	25	12
Delgerekh	170	-	-	25	15	130	76	15	9

(Source: PDF-B Final Report of the Bio-Physical Study of Land Degradation Study)

61. The conversion of grasslands into croplands has resulted in degraded land now unsuitable for any agricultural use. When under production during the socialist times, these croplands were supported by large scale irrigation schemes that could not be maintained subsequently. They suffered significant loss of topsoil, particularly through wind erosion when ploughed in springtime, typically the stormiest season in Mongolia.

62. In recent years, impacts on land and water resources through mining operations have become a prominent concern for environmental safety, for access to pastoral resources and for the conservation of biodiversity and cultural values. Mining operations, by companies and artisanal miners, affect water sources through diversion of water, and through pollution with mercury and cyanide. Key grazing areas, such as reserve pastures, have been affected. Lack of standards for rehabilitation after hard rock mining, weak enforcement and insufficient skills and knowledge on rehabilitation leave large areas un-rehabilitated. Poor

governance leads to issuance of licenses without knowledge and consent of local representative bodies.

63. Deforestation is significant and ongoing. It is estimated (World Bank 2002) that Mongolia lost about 1.6 million ha of forest between 1950s to the 1980s and a further 660,000 ha from 1990 to 2000. The major causes of forest loss have been unsustainable forest harvesting (both permitted and illegal) for timber and fuel wood, wildfire, mining, insect and disease infestations, uncontrolled grazing and long-term climatic fluctuations. The situation with regard to the Saxaul forest in 7 aimags is given below: (source PDF-B Study Team, 2007)

Aimag name	Undisturbed Saxaul forest ha	Partially cut Saxaul forest (sparse) ha	Cut Saxaul forest cut ha	Regenerating Saxaul forest	Total Saxaul forest ha
Bayanhongor	148,642	325,520	3,618		477,780
Gobi-Altai	535,074	1,282,605	107,976	0	1,925,655
Dornogobi	114,840	44,532	0	0	159,372
Dundgobi	27,124	24,060	?	7,280	58,464
Khovd	241,329	389,637	13,400	0	644,366
Omnogovi	921,464	251,516	0	920	1,173,900
Ovorkhangai	52,400	23,350	0	0	75,750
Total	2,040,873	2,341,220	124,994	8,200	4,515,287

(Source: PDF-B Final Report of the Bio-Physical Study of Land Degradation Study)

64. Multitracking, -the multiplication of tracks caused by motor vehicles traveling off-road-, is also an important cause of land degradation in Mongolia. The 2001 Country Environmental Analysis (CEA) puts the area of pastureland lost to multitracking in the last decade at about 300,000 ha. An additional form of land degradation is caused by uncontrolled disposal of litter and landfills in the outskirts of rural centers and cities.

65. In the southern arid region of the Gobi desert, the need for fuel by public buildings and households, and the increase of vehicles, has resulted in the depletion of Saxaul and bushes that have important functions in stabilizing soil and as livestock forage. The loss of livestock (particularly large animals) during the winter disasters has led to increased demand for fuel wood as dung, the traditional fuel source, was rare.

66. While the increase of livestock numbers, along with the loss of mobility, is a driver of land degradation and a potential threat to the natural resource base, it is the loss of livestock and of pastoral livelihoods that has triggered a massive onslaught on natural resources, especially on the land and biodiversity. Many have turned to mining that goes uncontrolled. A large and growing market in neighbouring China for wildlife and plant products is driving poaching of wildlife and harvesting of plants for illegal trade at alarming rates.

67. Desertification is rapidly progressing in Mongolia and has already led to the expansion of the southern desert region into previous desert steppe zone. It continues to drive a gradual displacement of the ecological zones that are part of a sequence of ecosystems in Inner Asia that extend from arid desert, desert-steppe, steppe, to mountain forest steppe, taiga forest zone and montane zone. Important ecological functions and ecosystem services including watersheds of trans-boundary significance, carbon sinks, the resource base of pastoral livelihoods, and habitat of globally significant species of flora and fauna, are under threat.

68. Land degradation and poverty are inextricably linked. Land degradation impacts the livelihood of rural populations in many ways. The majority of the rural population in Mongolia is herders and depends heavily on pasturelands and derives their food sustenance and cash income almost entirely from their animals. Thus degradation of pasturelands directly impacts the livelihoods of herders and to fight poverty means improving the management of pasturelands. This is corroborated by the fact that more than 50 percent of the poor (living below the poverty line of 25,000 Tugrugs per person per month - approximately 20 USD) are rural.

Threats, Root Causes and Barriers Analysis

69. Threats, root causes and barriers to Sustainable Land Management (SLM) have been analyzed during project preparation through broad-based consultations with stakeholders, participatory analysis with beneficiaries (pastoralists), meetings with line agencies and group discussions with a multi-disciplinary team of experts involved in the design of the full-scale project. The causes and effects of desertification in Mongolia are presented in the "Problem Tree" analysis presented in Annex 15.

a) *Root Causes*

70. One of the primary root causes of land degradation and desertification is the reduction of pastoral mobility. It is the result of a number of interconnected factors such as (a) the decline of services, in particular pasture water supplies, for mobile pastoralists during the transformation of the country to a market economy, (b) concomitant increase of poverty that renders pastoralists with small herds unable to make the necessary seasonal moves, and (c) the disintegration of customary social organization and the collapse of collectives that regulated pasture use previously. The reduction of water sources due to climate change further impact customary mobility patterns. Moreover, the lack of a separate law on pasture land, and hitherto the absence of a government department dedicated solely to pastureland management, as well as low staff capacity and poor technical knowledge at local government level and the loss of traditional knowledge among young herders, are challenging effective management of drylands and are contributing factors leading to degradation.

71. Other root causes for land degradation and desertification include weaknesses in land-use planning, the conversion of pastureland into cropland, depletion of vegetation cover in drylands through fuel wood collection, unregulated mining activities, uncontrolled grazing

at the interface of forest and grassland ecosystems, and depletion of forest resources with severe impacts on functions of watersheds. Annex 16 provides more details on root causes.

b) Threats

72. Threats of land degradation and desertification are broad and significant, and may induce cycles of mutually enhancing land degradation and regional climate change with resulting extreme impacts on land productivity, ecosystem functions, and poverty and ultimately, potentially severe social consequences. Already, land and livestock productivity are affected by both climatic changes such as shifts in vegetation periods, as well as changes in biomass, plant density, and diversity of pasture plants as a result of mismanagement of pastoral resources. While economic growth in recent years had arrested a trend of increasing poverty following the transition of the country to a market economy, the baseline study on socio-economics found that in the project areas severely effected by land degradation, poverty again is on the increase. Moreover, land degradation in severely affected areas is driving out migration of herds into zones north of the desertification areas, thereby increasing pressure on grasslands that are relatively unaffected. The decline in forest resources and resulting impacts on watersheds pose a threat of transboundary dimension, as Mongolia's rivers drain into both the Pacific and Arctic Ocean.

73. Mongolia represents a unique sequence of ecological zones from northern taiga to Gobi desert in Inner Asia, but already shifts in this zonation are occurring as desertification is progressing northwards. In the process, habitats of globally significant species are undergoing environmental changes that may impact wildlife populations. Poverty through loss of land and livestock productivity is also an enabling factor promoting illegal and unsustainable harvest of wildlife and plants of Mongolia thereby effecting important ecosystem services to local communities such as medicine and food. This threat to global biodiversity is exacerbated by impacts on the Protected Area System resulting from climate change, land degradation and harvesting.

The threat of regional climate change as a result of land degradation with a potential catalytic effect to further drive land degradation on an increasing scale has been identified by recent research. For example, P. Gomboluudev and L.Natsagdorj (2004)[2], researchers at the Institute of Meteorology and Hydrology, NAMHEM, Mongolia, have described the mechanism how evapotranspiration is substantially reduced due to higher surface albedo, reduced vegetation coverage, reduced soil water content and reduced surface roughness.

c) Barriers to Sustainable Land Management

74. Barriers to sustainable land management and effectively controlling desertification are institutional, legal and regulatory, as well as related to shortcomings in skills and knowledge, particularly at local level. Sectoral division of responsibilities and poor

[2] P. Gomboluudev and L.Natsagdorj (2004)Impacts of Desertification on Mongolian Climate and its Numerical Study using Regional Climate Model

coordination among sectoral institutions are, indeed, serious barriers. For example, at the central level, the mandate for all land management currently rests with the Ministry of Construction and Urban Development, while a pastureland division is being established in the Ministry of Food and Agriculture, and desertification issues are proposed to be tackled under the mandate of the Ministry for Nature and Environment. Collaboration among these institutions, thus far, is far from optimum. However, collaboration mechanisms are slowly evolving.

75. Low staff numbers in line agencies of land and pastureland management, poor qualifications at local level, and very weak outreach mechanisms of all relevant institutions are also important barriers. Barriers related to the legal and regulatory framework and financial incentives include the lack of adequate legislative provisions for pastureland management, lack of incentives for investing in sustainable pastureland management, and fiscal procedures that do not support re-investment of revenue into local SLM activities. Skills and knowledge base to enable local communities to develop more efficient strategies for sustainable resource use and for coping with desertification is generally poor at the local level and this constitutes an important barrier to SLM. Annex 17 further elaborates on barriers to SLM in all sectors including mining, forestry, croplands.

Stakeholder Participation

76. A wide range of stakeholders were involved in the preparation of the project document. They included officers of relevant ministries at the national level; aimag, soum and bag level government officials; local communities (herders, and residents of rural centers); and research institutions, universities, non governmental organizations, civil society, community organizations, the private sector and the donor community. The main purpose of stakeholder participation is to ensure the "ownership" of the project by the major stakeholders, particularly the beneficiaries of the project. The stakeholder consultative process is discussed in detail under the section on "Preparative work carried out under PDF-B". A list of major consultative groups and meetings is presented in Annex 18.

77. Consultations with stakeholders were accomplished through informal discussions, group meetings and formal workshops. Local and provincial consultations were followed by expert group discussions and individual meetings with relevant ministries at the national level. Prior to the project formulation process, the consultative process helped identifying root causes of land degradation and barriers to SLM, and consequently establishing the project boundary. The objectives, outcomes and outputs of the FSP are thus the result of a truly consultative process. Stakeholder consultations were also carried towards the end of the project formulation process to validate the draft project document. The final validation workshop helped to finalize the project document, particularly, to confirm the major project components, implementation arrangements and pilot sites, and also to provide feedback to prior discussions held in each soum..

Baseline Analysis

78. A number of key documents such as the Government Plan of Action 2004-2008, the Economic Growth Support and Poverty Reduction Strategy (EGSPRS) and the National Millennium Development Goals (MDGs) define the GoM's policies, strategies and plans to achieve broader economic, social and environmental goals. The EGSPRS puts poverty reduction on the national policy agenda, linking it with macroeconomic and sectoral policy issues. It advocates a private sector-led growth strategy and increased social spending in the context of macroeconomic stabilization.

79. Recently, GoM has embarked on drafting a more comprehensive national development policy document called the "Millennium Development Goals based National Development Strategy". The overall goal of MDG-based NDS is to achieve MDGs, to reduce poverty and reach a level of middle income country by enabling favorable social development conditions and adjustment to the global development trends through implementation of MDGs, human development; guaranteeing human security; enabling sustainable economic growth to ensure well being of people and to synchronize with the global development; prevention from and minimization of negative impact on people of environmental and climatic changes.

80. The priority outcomes, the implementation strategy and expected outcomes of NDS are considered in two phases, phase one from 2007-2015 to achieve MDGs, to lay the foundations of knowledge-based economy; phase two from 2016-2021 to develop the knowledge-based economy, to lay the foundations for intensive development. The NDS will be reflected in detail in the medium and short term development policy documents, Government action programme as well as in programmes undertaken jointly with the international partners and donors.

81. A key policy document guiding Mongolia's sustainable development is the Mongolian Action Programme for the 21st Century-also known as MAP 21. MAP 21 is Mongolia's national response to its global commitments. This document embodies a profound process over several years at the level of each province of the nation where citizens, administrators, NGOs, schools and local parliaments approved provincial action plans for sustainable development. This document represents the consolidation and culmination of that extensive grass roots process. MAP 21 highlights the holistic, inter-related nature of economic, social and environmental progress. Mongolia's economic policy for sustainable development includes:

- promotion of economic development;
- effective use of economic instruments to promote sustainable development;
- effective use of market mechanisms to promote sustainable development; and
- establishing systems for integrated environmental and economic accounting.

82. The first National Program for Combating Desertification in Mongolia (NAP) was approved by the Government in 1996. Since then, a number of activities have been undertaken in the areas of policy development and planning, capacity building of local

community groups, strengthening collaborative management over pastoral lands, improving livestock quality and enhancing non-livestock income sources for the rural population. In 2003, the UNCCD-NAP was revised and updated. The goals of the "new' NAP are to: mitigate the negative impact of desertification caused by climate change and inappropriate human activities, define adaptation mechanisms, and elaborate policy and action plans to combat desertification differently in order to the natural conditions. The formulation of the goals are reflected not only in the reinforcement of the national policy and social environment but also reflected by globally agreed concepts on adaptation to drought and desertification. The revised NAP is designed to be implemented in 3 phases, namely:

- First phase 2003-2007: Assessing the current state of desertification, formulation and implementation of program for improving the legal and socio-economic environment, building national capacity and developing a suitable baseline for implementing the adaptation concept.

- Second phase 2008-2011: Monitoring desertification processes and improving adaptation capacity as well as implementing policy to restore "hot spot" areas to arrest the geographic expansion of desertification and land degradation.

- Third phase 2012 and further: Using appropriate technologies to mitigate desertification and land degradation and assessing the results of implementation of the adaptation policy.

83. Within a framework of improving the legal environment, the Mongolian government has initiated a Law on Pastureland, which is in currently being prepared for discussion by the National Parliament. Ratification of this law will help to create an enabling legal environment to conserve, restore and sustainably use land resources. Moreover, better defining options for group possession of pastureland aims at improving responsibility sharing between decision makers and land-users to sustain sectoral development in the long term. Although the law implementation can regulate government policy on pasture land, the establishment of an independent, extension based department on pastureland issues will also go a long way in increasing sustainable development.

84. An ongoing initiative promoted by GoM for combating desertification is the "Green Belt" program. The key principle of this programme is stakeholder participation. It is based on encouraging the public and other stakeholders to mitigate desert encroachment through plantation agriculture. The main concept of this program was to develop agro-forestry in Mongolia. Through this program, practical training was organized at the national level to train local environmental officers, as well as nation-wide researchers, on possibilities to grow trees in certain areas. Under the Green Belt programme, a total of 353.5 ha areas of tree plantations are fenced and facilitated by the irrigation system in 14 sites through 13 aimags. To date, 120,087 trees have been planted. The Green Belt program encourages the rural population to plant trees, but a major gap is the absence of appropriate knowledge as well as insufficient training amongst the rural communities. Despite these gaps, this project is considered a main part of the Mongolian Government's policy to afford practical measures to combat desertification.

85. To fulfill the objectives of improving pastureland and supporting rural livelihoods, a number of projects are being implemented by GoM with donor assistance, such as the: (a) Mongolian Pasture – "Green Gold" Programme; and the (b) Sustainable Grassland Management Project. All these projects are directed to diversifying rural incomes, train rural people to use natural resources sustainably and the use of hay making practices for fodder to mitigate the impact of natural disasters on livestock.

86. The Institute of Geoecology of the Academy of Sciences is implementing a project called "Dynamics of desertification in Mongolia and its trend". Through this project, the third nation wide assessment of land degradation has been conducted. The project has come out with recommendations for decision makers and land users. Under this project, researchers are assessing trends in land degradation in Mongolia. This will further help to clarify actions directed towards the mitigation of land degradation.

87. In 2003-2007, with support from UNDP/ GEF, GoM has implemented a project called "Conservation of umbrella species of the Great Gobi" with focus on researching the evolution of the Gobi desert ecosystem and the influence of ecosystem degradation on rare and endangered species and their behaviour. This project results provide, among others, important scientific inputs for determining ecological specifics of the Gobi.

88. In 2001-2007 another UNDP/GEF project, namely, "Dynamics of biodiversity loss and permafrost melt in lake Huvsgul National Park", is being implemented to assess the influence of global change on permafrost distribution, its impact on lake ecosystems and the state of biodiversity as influenced by both natural and cultural processes. The influences of the socio-economic situation and the changing environment on rural livelihoods are also assessed.

PART II: STRATEGY

89. The fundamental project concept is to help address root causes of land degradation and desertification by strengthening institutions at all levels. The rationale is that weak institutions and mechanisms for collaborative planning and management are the most significant and most systemic barrier to successfully addressing important root causes of LD and desertification. This key barrier is partly related to the country's transformation process from a command to a market economy. While the establishment of rural administrative and production units under socialism compromised traditional long-distance pastoral migrations but maintained a highly organized system of seasonal grazing patterns, mobility was severely restricted after 1990 when the collapse of the socialist collectives left a vacuum in local institutions for natural resources management (NRM). The country's role under socialism and soviet dominance as producer of raw materials and meat exporter left a focus on livestock production capacity and a neglect of the resource base, the pastureland. Neither is a government department for pastureland management fully operational, nor are a separate legislation and policies to regulate pasture land management in place. Both are under development, however, and the proposed project leverages support here.

90. To restore mobility, customary pastoral institutions have seen a revival and new social organization for joint NRM and livelihood improvement has gained momentum among communities and recognition as partners in co-management and as legitimate rural civil society organizations of pastoral community organizations by local governments is growing. An institutional framework for integrated NRM is currently evolving in Mongolia. It will facilitate land management that accommodates the needs of traditional nomadic livestock husbandry, still a primary contributing sector to the GDP, as well as other land uses that are important for the national economy by creating significant revenue, such as the growing mining sector. Moreover, it enables in urban areas development of real estate assets as a tool for economic development in non-pastoral lands.

91. The proposed project support, with a focus on rangelands, is embedded in this process of institutional strengthening and employs different strategies at different levels. At local level, it develops joint planning and management mechanisms, thereby testing new policies, piloting technologies, strengthening institutions and developing models for scaling-up and for application in different resource management, conservation and rehabilitation contexts. Lessons on developing an effective local institutional framework, - from community level to provincial level-, in the target areas will be applicable country-wide. Local innovations in water harvesting and conservation will find wide application as rural livelihoods increasingly depend on adaptation strategies to climate change effects. A Participatory Impact Monitoring and Evaluation mechanism is an important design element of project implementation to promote the identification and sharing of best practices.

92. A systemic approach to capacity development at national level supports key institutions for land management, research and training, and builds linkages between agencies (horizontal linkages) and within levels of agencies (vertical linkages). The approach focuses on systemic support to building capacity and competency for SLM and combating desertification through assisting in developing overall training strategies that will enable government to coordinate donor-support to their own agenda, as opposed to donor-support driving the agenda.

93. The project approach in developing capacity for SLM and combating desertification, however, extends beyond institutional capacity building. The skills and knowledge base in-country will be broadened and strengthened through support to the primary research institution on desertification, and outreach and extension mechanisms piloted in the target areas will lead the way to broadly develop the capacity of resource users for SLM and combating desertification.

94. A key legal reform is the current drafting of a pastureland law. The Constitution of Mongolia protects livestock and places all pasture land under state ownership, to be managed as common use resource. While this provides the basis for pastoral mobility and thereby sustainable management of grasslands, a legal basis for local regulations of pastureland use and for incentive mechanisms for long-term investment into SLM by pastoralists needs to be provided with the new pastureland law. By piloting its implementation in the target areas, the project makes an important contribution in strengthening the legal and regulatory framework to support SLM and combating

desertification, and to help maintain Mongolia's heritage of nomadic livestock husbandry as a key strategy for the sustainable management of the country's rangeland, that are of global importance as the world's last remaining large grassland expanses.

95. On-the-ground investments will focus on areas related to sustainable grassland management and sylvopastoralism and will be implemented in 13 soums located in 4 Aimags. Pilot projects will demonstrate, validate, and scale-up best practices in local-level institutional strengthening, joint planning, including financial management mechanisms, participatory processes, and good governance. Pilot projects will cover best practices on community based water management, pasture rehabilitation, fodder production, local protected area management, fuel efficiency, renewable energy, alternative livelihood, sustainable sylvopastoralism and integration of forest conservation, landscape values and biodiversity conservation in the context of sustainable pastoralism. Local innovations in water harvesting and conservation will be tested and demonstrated as rural livelihoods increasingly depend on adaptation strategies to climate change effects.

96. Project support in enhancing fuel efficiency covers a range of activities including promotion of renewable energy. Activities in fuel efficiency include identification and dissemination of local and appropriate technologies related to fuel efficient stoves, alternative fuels, fuel presses, research and development to improve local technologies where applicable, education and training, and linkages to manufacturers and distributors of technology including solar cookers. The latter are now produced in Mongolia at affordable prices, and local NGOs are working in collaboration with relevant ministries in educating communities and linking them to sources. These NGOs may play a role in implementation of activities.

97. Renewable energy is already fairly widely used in Mongolia, with promotion by the government and donors; better-off herder households, or communities, are using small wind turbines and/or solar panels to generate power to run TV, radio and lights.

98. The use of wind and solar power may be explored for operating water pumps. For solar power, limitations are given by the depth of the water table; deep wells would require very large panels to generate sufficient wattage. Solar power for wells is being piloted with support by ADRA, - in two Soum centers in Zavkhan Aimag so far. The price for one unit is approximately 15,000 USD. Installation on the roof of a well house may be an option, although security concerns would remain, except at sites with a permanent settled well attendant nearby. 15 – 45 meters of depth are feasible according to pilot experiences. "Mobile Solar Water Pumping" is practiced in the Western United States to provide livestock water supply in remote pastures and promote livestock distribution. Mobile units consist of four 75-Watt solar panels, a submersible pump (to pump water from surface water sources into watering troughs), 2 troughs and piping. All is mounted on a flat-bed trailer towed by car. The average unit cost is approximately 7,000 USD in the US. The units are used to lure livestock away from water sources and prevent trampling by livestock along riverbanks and other fragile water sources.[3]

[3] Kenneth Primrose and Gary Delaney 2007: Mobile Solar Water Pumping. Providing Off-Site Watering as an Aid to Livestock Distribution and Improved Riparian Condition. – Rangelands. Vol. 29. April 2007.

99. Feasibility studies will be necessary to evaluate cost-benefits, and very good group organization, capacity development for maintenance, and financial sustainability mechanisms need to be developed before investments in renewable energy are made.

100. The project is part of a broad framework to tackle land degradation in the country. It is a key element of the country's long-term and concerted effort to arrest land degradation in the light of severe threats to the environment and rural livelihoods due to greater climate variability. Through the development of inter agency partnerships and the mobilization of development resources, this project seeks to reverse the land degradation process. The project will build on the baseline activities being undertaken Government's line agencies and their provincial counterparts with support by various donors. The GEF incremental intervention will be integrated with, and complement, on-going efforts for promoting sustainable land management practices and combating desertification.

Project Rationale and Policy Conformity

101. The proposed full-scale project is fully in line with the objectives and guidelines of the Global Environment Facility and its Operational Programme 15 on sustainable land management (OP 15). The project is also fully consistent with Mongolia's National development policies and programmes as reflected in policy documents such as the Government Plan of Action 2004-2008, the Economic Growth and Poverty Reduction Strategy (EGSPRS) and National Millennium Development Goals (MDGs) and implementation Strategy. It is also consistent with the UNCCD-NAP and will operate in accordance with the objectives and guidelines of the National Committee for Combating Desertification in Mongolia. The proposal has the endorsement of the National CCD focal point. While the project is designed under the Land Degradation Focal Area of the GEF, focusing, as it does on rangeland issues, it also has the potential to provide synergistic benefits for biodiversity and climate change.

102. The project will contribute to the achievement of the United Nations Development Assistance Framework (UNDAF) Outcome 1: Pro-poor good quality socio-economic services available to vulnerable population in disadvantaged regions and areas; and Outcome 3: A holistic approach to environmentally sustainable development promoted and practiced for improving the well-being of rural and urban poor, with particular focus on improved environmental governance.

Fit with GEF Operational Program and Strategic Priority

103. In terms of meeting the requirements of GEF, Operational Programme 15 (OP-15) – Sustainable Land Management (SLM), the proposed project meets the two strategic objectives of OP-15, namely: (a) Targetted capacity building – by fostering the appropriate enabling environment and institutional capacity to support sustainable land management, particularly harmonizing relevant planning and policy frameworks and establishing

institutional mechanisms for joint planning and management of natural resources at the local level; and (b) Piloting innovative and indigenous sustainable land management practices - by supporting on-the-ground investments to facilitate innovation, demonstration, and replication of sustainable land management practices including indigenous management systems. These investments comprise packages to improve the livelihood of local people and to preserve or restore the ecosystem health, and thus the flow of goods and services the ecosystems provide.

Linkages with other projects and programs

104. The Government of Mongolia has taken steps in recent years to address land degradation and desertification. The National Action Program for Combating Desertification in Mongolia (NAP) was approved by the Government in 1996 and a number of activities have been initiated, since then, in the areas of policy development and planning, capacity building, pastureland management and improving livestock quality. The Government has also initiated broader measures to address poverty and rising socioeconomic disparities such as the Mongolian Action Programme for the 21st Century (MAP-21) and the national Millennium Development Goals. Many donors are supporting the government's efforts in areas related to land degradation, such as land use policies and land registration system, pastoral risk management, livestock farming systems, sustainable grassland management, emergency drought response, value addition to livestock products, forest policy, and enhancing non-livestock income sources for the rural population.

105. In the area of NRM, UNDP's approach continues to balance upstream initiatives (policies, program management, and capacity development) with downstream activities (grassroots' participation and replicable pilot projects), strengthen the Government's capacity for environment and natural resource management, support local community initiatives to address and anticipate environmental problems. Major GEF co-financing has been a feature of UNDP assistance since 2001. The Second Country Cooperation Framework for Mongolia 2002– 2006 was designed to apply UNDP-developed models, such as: (a) Sustainable Development of the Eastern Steppe Region; (b) Altai-Sayan; and (c) Gobi (Great Gobi Special Protected Area) areas, and to refine and expand community-based sustainable livestock management. The UNDP/GEF Project "Community Based Conservation of Biodiversity in the Mountain Landscapes of the Altai Sayan Eco-region" (Dutch co-funded) aims to ensure the long-term conservation of the biodiversity of Mongolia's Altai-Sayan region by mitigating threats and encouraging sustainable resource use practices by local communities. The UNDP/GEF Project "Conservation of the Great Gobi Ecosystem and its Endangered Species" aimed to ensure the long-term conservation of the Great Gobi ecosystem and its umbrella species by building the capacity of the park management authority, improving participation of local communities in the management of the special protected area (SPA) and supporting research and environmental monitoring activities.

106. The project aims to create an enabling environment to catalyse and add value and synergy to a number of on-going baseline activities and, in particular, to promote implementation of the National Action Programme on Combating Desertification.

107. The project will draw from the experiences and lessons learned from a number of recently completed and ongoing projects in sustainable land management, with particular reference to sustainable grassland management. In this context, the following projects are important:

(i) Sustainable Grassland Management Project (SGMP) – *funded by UNDP and the Government of the Netherlands:* The goal is to increase the welfare of herding families through sustainable management of Mongolian grasslands. The strategy of the project to achieve the goal is to strengthen and formalize existing customary herder community institutions, and to strengthen linkages between them and formal governance structures and the private sector. The project has four immeditate objectives, namely: (a) stengthening existing customary forms of cooperation among herders and between local communities of land users; (b) facilitating the articulation of the new herder communities and to wider governance structures, manily, the bag and the soum; (c) building the capacity of herder community associations to negotiate with third party providers for inputs and services; and (d) strengthening the ability of central government to create and manage the legal and economic environment for sustainable rural livelihoods and grassland development. The pilot areas of the project include 12 soums in three aimags, namely Bayankhongor, Uvurkhangai and Selenge. Duration of the project is 5 years and it is currently at its 5th year, due to be completed in December 2007. The Midterm Evaluation Report (MTR) and the Project Progress Reports (PPR) indicate that the project has made good progress and a number of experiences and lessons learned deserve replication and scaling-up. This is particularly so in relation to establishment of (formal) herder community groups, establishing community revolving funds, co-management of grazing areas and associated natural resources, promotion of alternate income activities in the context of formation of herder groups as a resource management unit, establishing Pasture Improvement Revolving Fund, possession of pasture tenure, improving degraded pastures and educating herding communities to balance animal numbers and pasture resources, participation of poor households in alternative income generation activities. Important result to be replicated by SLM project are capacity building activities of Soum level Land Planning, training of Soum Land Officer, and implementation of Soum Land Plan.

(ii) Coping with Desertification in Mongolia Project (CDMP) – *funded by Swiss Development Cooperation (SDC).* The goal is to support the NCCD to improve the effectiveness of national and international efforts on combating desertification and promote sustainable livelihoods in arid and semi-arid areas. The project has four immeditate objectives, namely: (a) strengthening the National Committee on Combating Decertification (NCCD), (b) supporting the development of regional natural resource use plans based on integrated use of natural resources and assist in their implementation; (c) raising environmental awareness and knowledge and initiating behavioral changes about the fragile ecosystems among Mongolia's youth; and (d) synthesizing and disseminating appropriate technologies and methods for coping with desertification and managing arid areas. The 1-year inception phase of CDMP has just begun. Phase II is planned 2010 to 2014. The proposed project will work very closely with the Phase I project. SDC has agreed in principle to co-finance the proposed FSP through a "parallel funding mechanism" on the basis that the FSP is "in-line" with SDC's priority areas of assistance

in Mongolia. SDC's involvement in Mongolia focuses on the improvement of the livelihood systems of the rural population aiming to reduce poverty, create income and promote sustainable use of natural resources. In this context, SDC undertook a mission in 2005 to assess possible "action lines" and niches for SDC's engagement in the livestock sector of Mongolia. The mission's recommendations for possible interventions include (a) land tenure issues and access to pasture and water; (b) capacity building; and (c) stakeholder coordination.

(iii) Conservation and Sustainable Management of Natural Resources (Gobi component) – *GTZ project which ended in December 2006* – The project had a focus on community based natural resource management and generated important lessons in community organization for poverty reduction and drylands management through mobile pastoralism, and mechanisms for scaling-up through community based learning. The FSP will draw on the experiences of this project, particularly in designing pilot activities in the Gobi-desert ecological region.

(iv) Sustainable Livelihoods Project II (SLP II) **–** *A project supported by the World Bank:* The overall purpose of the project is: "vulnerability reduced and secure and sustainable livelihoods achieved by targeted poor and vulnerable near-poor households and individuals nationwide". One of the components of the project is "Pastoral Risk Management" (PRM). The objective of the component is to scale up and replicate effective strategies to prepare for and respond to pastoral risk. Four sub-components will be implemented under PRM, namely, (a) risk forecasting, preparedness and response planning; (b) pasture-land tenure, management and use; (c) demonstrating good practice in pastoral livelihood improvement; and (d) institutionalizing pastoral risk management. The proposed FSP will work in partnership with the PRM component of the World Bank project particularly in the context of subcomponents (b), (c) and (d). While this project has been approved by the World Bank, it has not yet been approved by the parliament.

(v) Rural Poverty Reduction Programme (RPRP) – *A project supported by an IFAD loan:* The long-term goal of the RPRP is to achieve sustainable and equitable poverty eradication for vulnerable rural households living in an environment with increasingly degraded natural resources. The overall objective is to achieve a sustainable increase in productive capacity for herders, cultivators and the general public and to offer increased access to economic and social resources, including education, health and social networks. The specific outputs of the RPRP include:

- rangeland management systems strengthened and herder resilience to natural calamities improved;
- support services for livestock development strengthened;
- poverty sensitive livestock and crops extension service established and supported;
- income generating activities supported;
- poverty and gender sensitive financial services provided by private rural financial contributions;
- access to social services improved, especially for herding communities living in isolated locations;

- beneficiary-responsive management institutions established at all levels.

It has five interrelated components: (i) livestock and natural resources management; (ii) other economic activities; (iii) rural financial services; and (iv) social development and (v) management. The activities of the Livestock and Natural Resource Management component include:

- organization of rational rangeland management systems, including rangeland management institutions, well rehabilitation, rodent control and winter fodder;
- improvement of livestock support services, notably veterinary, breeding and livestock extension services;
- establishment of a dzud emergency fund.

The programme area covers four aimags, comprising Arhangai and Huvsgul, Bulgan and Hentii.

RPRP is implemented over a seven year period, beginning 2003. The total RPRP cost over seven years, inclusive of contingencies, taxes and duties, is estimated at USD 19.1 million. The cost of the livestock and natural resources management component is 5.585 million or 33% of the total programme cost.

Preparatory work carried out under PDF-B

108. The PDF-B project was approved in August 2006; and it became officially operational in October 2006. The total budget of the BDF-B is USD 370, 000, of which the GEF grant is USD 350,000 and the UNDP contribution is USD 20,000.

109. The Project Preparation Unit (PPU) was established in October 2006 as a small unit with 2 main personnel. It became a fully-staffed unit in mid-February 2007 with 6 full-time staff. The project oversight bodies were established by the Project Inception Workshop (PIW) and are functional since then. One of the important items discussed at the Project Inception Workshop (PIW) was the selection of aimags and soums for pilot studies under the FSP. The PIW approved the criteria to be adopted in selecting the pilot sites. On the basis of these criteria, 13 soums located in 4 aimags were selected for pilot studies. More information on pilot sites is given under a separate section in this document. It should be noted that the pilot project areas selected by the PDF-B Team were approved by the Project Steering Committee.

110. Altogether, five Study Teams consisting of 3 International and 38 National Consultants were recruited to conduct the various studies. The Teams were:

- Team 1 - Baseline study on land degradation, desertification and ecosystem integrity (completed).

- Team 2 - Stakeholder/institutional analysis at national and aimag levels - government institutions, research/academic and training institutions, and NGOs (completed)

- Team 3 - Participatory analysis of local stakeholders, linkages between livelihoods and land degradation/SLM, local needs for developing SLM, and socio-economic baseline study (completed).

- Team 4 - Gap Analysis for NAP, and review of legal and policy framework with regard to mainstreaming SLM (completed).

- Team 5 - Feasibility studies for locally adapted solutions, such as increasing local livestock productivity and/or intensification of livestock production (completed).

Summaries of these studies are provided in Annex 17.

111. A large number of stakeholder consultations were held under PDF-B. A summary of the process of stakeholder consultations and of project design is provided in Annex 18. A summary of the stakeholder workshops and consultations is presented below:

Ongoing consultations with stakeholders at the national level include the following:

- Representatives of MoFA, MNE, MUDC
- Representatives of relevant government agencies
- Faculty of universities and other academic/research institutions
- Donor-supported programs (incl. UNDP, WB, ADB, IFAD, GTZ, SDC, etc.)
- Private sector – Mining companies
- NGOs and CBOs

112. Two Regional Workshops were held. The 1st Regional Workshop was held on May 1 2007 at Saynshand representing Dornogobi and Sukhbaatar Aimags. The 2nd Regional Workshop was held on May 3 2007 at Dzuun Mod representing Tuv and Uvurkhangai Aimags. These regional workshops were attended by representatives of MoFA, MNE, Aimag and soum governments, rural citizens, NGOs, and community organizations/herder groups. The objectives of the regional workshops were to:

- Discuss root causes of LD and desertification.
- Jointly evaluate ongoing activities in the respective regions to address LD and desertification, and identify successes and best practices.
- Jointly identify barriers to addressing LD and desertification in relation to legislation and policies, institutional and human capacity.
- Developed consensus on local priorities to address LD and desertification
- Jointly developed draft action plans, determine roles and cooperation arrangements of stakeholders and identify needs for project support.

113. A Logical Framework Analysis workshop was held on 19 and 20 June 2007. The Workshop was attended by some 40 participants representing MoFA, MNE, MCUD, Ministry of Trade and Industry (MTI), ALAGaC, Research organizations, the Private sector, NGOs, Representatives of Aimag and Soum Governments, representatives of UNDP, GEF and multi- and bilateral donors.

The workshop had three inter-related objectives, namely:

- To review the results of major studies undertaken by the Study Teams;
- To review, discuss and agree on the proposed Outcomes and Outputs of the proposed FSP;
- To conduct a participatory Logical Framework Analysis of the proposed project's objectives, outcomes and outputs; and
- To review and discuss proposed project's implementation arrangements, budget and monitoring and evaluation.

A summary of the outcome of the LFA Workshop is provided in Annex 19

Criteria for Selecting Pilot Sites

114. The following criteria for selecting pilot sites were reviewed and agreed upon at the Project Inception Workshop.

- Dryness index, frequency of drought (number of droughts in more than 15 years for 1982-2003, with dryness index of 0.10-0.19);
- Percentage of goats in the livestock herd and number of the livestock per hectare.
- Percentage of degraded pastureland over 50%.
- Budgetary and management/logistics considerations
- Include as many ecological zones as possible in order to maximize benefits from pilot activities (MNE)
- Other pasture/desertification related projects were not implemented in the soums and
- The aimags/soums are specifically named within 19 projects of UNCCD-NAP of Mongolia.

115. On the basis of the above criteria, the following pilot sites were selected for demonstrations and on-the-ground investment.

Aimag	Soums	Climatic Zone
Tuv Aimag	Buren, Bayantsagaan, Bayan Unjuul Soums	Steppe
Uvurkhangai Aimag	Uyanga and Dzuun Bayan Ulaan Soum	Forest steppe
	Bogd and Baruun Bayan Ulaan Soums	Sub-desert

Dornogobi Aimag	Orgon, Altanshiree, and Delgerekh Soums	Desert steppe and sub-desert
Sukhbaatar Aimag	Bayandelger, Uulbayan, Tuvshinshiree Soums	Desert steppe

With funding from the Japanese Government, the "Ecosystem Research Center" of the Agricultural University is supporting research activities in the Baruun Bayan Ulaan Soum, in the Uvurkhangai Aimag on dryland ecosystems – focusing on pastureland management, forestry and livelihood improvement through value addition to livestock products and income diversification.

The FSP also proposes to work in this soum. The FSP will ensure cooperation and coordination with the Ecosystem Research Center project in order to avoid duplication of efforts. Since the activities by the Ecosystem Research Center project are research-focused (with supporting activities in NRM and livelihood development), synergetic implementation of both projects in the soum will add value to the overall outcome.

Annex 20 shows the location of the pilot Aimags and Soums.

Cooperation with the SDC/GoM Project on Coping with Desertification in Mongolia

116. During the PDF-B period and the formulation phase of the FSP, preparation of a project on "Coping with Desertification in Mongolia" was carried out by the Swiss Development Cooperation (SDC) and the Government of Mongolia. This project would be a co-financing project of the proposed FSP (under the parallel financing arrangement), as the objective and many outputs of the SDC/GoM project coincide with those of the FSP. Cooperation between these two projects will serve as a good example to illustrate the principles of donor harmonization and cooperation and the Principles of the Paris Declaration. Complementary implementation of activities by both projects is proposed. Annex 19 provides a brief description of the SDC/GoM project on "Coping with Desertification in Mongolia".

Project Goal, Objective, Outcomes and Outputs/Activities

117. The long-term goal of the project is to ensure that the pasture, agricultural, forest and other terrestrial land uses of Mongolia are sustainable productive systems that maintain ecosystem productivity and ecological functions while contributing directly to the environmental, economic and social well-being of the country.

118. The objective of the project is to strengthen the enabling environment for sustainable land management by building capacities in appropriate government institutions and user groups and demonstrating good practice in SLM through on-ground interventions that are integrated with national economic and social development policies.

119. The project has three outcomes, namely,

- Strengthened coordination mechanisms, institutional and human resources capacity and knowledge base to promote SLM and desertification control.
- SLM mainstreamed into national, provincial and local policies, strategies and regulatory framework; and
- Pilot testing, demonstrations and scaling-up community based approaches in integrated natural resources management with focus on grassland and water management and sylvopastoralism[4]

Outcomes Outputs, Targets and Activities

120. **Outcome 1: Strengthened coordination mechanisms, institutional and human resources capacity, and knowledge base to promote SLM and desertification control.**

(GEF US$247, 500; Co-financing US$ 375, 000)

121. ***Output 1.1: Coordination and monitoring capacity of the National Committee for Combating Desertification (NCCD) strengthened with regard to UNCCD-NAP and SLM.*** *[This output is achieved jointly with the SDC/GoM Project on Coping with Desertification in Mongolia]*.

Following the ratification of the UNCCD and adoption of the UNCCD- NAP in 1996, GoM established a National Committee for Combating Desertification (NCCD) within the MNE. Although the major mandate of this Committee was to guide the implementation of the UNCCD-NAP, it was vested with the responsibility of coordination and monitoring all activities that relate to land degradation. It was designed to be an intersectoral body with membership from relevant ministries, academic institutions and the civil society. However, over the years of its existence, NCCD has suffered from inadequate capacity and financial support. Strengthening of this intersectoral coordination mechanism is urgently needed not only to accelerate the implementation of the UNCCD-NAP, but also to provide an over-arching policy and monitoring function to implement a comprehensive programme on SLM, to which the GoM is fully committed. Instead of creating another parallel mechanism to coordinate SLM, it is proposed to utilize the existing UNCCD mechanism to coordinate and monitor SLM activities and implementation of UNCCD-NAP in an integrated manner.

This output will strengthen the NCCD to become an effective policy guidance and monitoring body for implementing SLM and desertification control programmes, projects and activities within and outside the NAP. The project will assist MNE to (a) review and restructure NCCD's membership, broaden the membership to include membership from civil society, (b) update the mandate and operational modality of NCCD and (d)

[4] Silvopastoralism is widely practiced in various forms. Silvipasture is the grazing of livestock and growing of trees on the same piece of land. Silvipastures can be developed by establishing trees in existing pastures or by establishing pastures within or under existing tree stands.

strengthen the capacity of NCCD secretariat by means of staffing, training, and providing basic operational funds.

122. ***Targets***

1) Plans for strengthening NCCD developed, workshop organized with stakeholders and the new NCCD model finalized by the 1st 6 months of PY1
2) The implementation of the strengthening activities begins by mid- PY1 and completed by end of PY1
3) Training and capacity building activities completed by PY2
4) Support to secretariat and some operational activities continues through PY5

123. ***Activities***

- Develop a revised and strengthened NCCD coordination mechanism.
- Hold formal and informal discussions and stakeholder workshops, and validate the revised NCCD model.
- Provide technical assistance to MNE to implement the revised coordination model, including the establishment of the NCCD unit within MNE.
- Provide training and strengthen the coordination, monitoring and evaluation capacity of NCCD.
- Support NCCD's operational activities

124. ***Output 1.2: Human resources capacity of aimag, and soum and bag level officers strengthened in SLM and desertification control and herder community leaders and young herders trained in indigenous and new knowledge in grassland management and pastoralism.***

At the central level, individual capacity in land management in the key ministries, namely, MoFA, MNE and MCUD is fair, but there is room for improvement. However, there is inadequate technical capacity of aimag and soum level land officers, agricultural officers and environmental inspectors and bag governors. The experiences of several programs point out to the need to strengthen the capacity of soum and bag level officers in areas such as land use planning, implementation of land use plans, rehabilitation of degraded grasslands and other activities that are important to SLM and combating desertification.

Herder groups and individual herders play a critical role in implementing SLM and desertification control practices. Herders, particularly young herders and "new herders" need to be educated in traditional pastoral practices. For this purpose, there is a need to compile best indigenous pastoral practices and such knowledge should be used in the training of herders.

This output will enhance the technical knowledge and skills of aimag, soum and bag level officers in SLM and combating desertification; and indigenous and new knowledge in

grassland management and pastoralism among herders, particularly the young and new herders.

125. ***Targets***

1) An overall plan for training officers at aimag, soum and bag levels; and herder community leaders and young herders, developed by PY1.
2) Training modules developed by PY1– includes subjects, among others, such as planning, preparing and implementing soum-level land use plans and rehabilitation of degraded pasture and other land uses; and traditional and new knowledge in pastoralism and grassland management.
3) Traditional knowledge in pastoralism and grassland management synthesized by PY1.
4) 20 persons selected from relevant ministries (MoFA, MNE, and MCUD), universities, and specialized institutions and experienced herders "trained as trainers" by PY1. The trained trainers will lead training activities at the aimag, soum, bag and herder levels.
5) A minimum of 10 persons at the aimag level trained by PY1 – 4 land officers, 4 agricultural officers, and 4 environmental inspectors, at the aimag level (and possibly 2-4 NGOs who are active at aimag level).
6) A minimum of 35 persons at the soum and bag levels trained by PY2 - 14 land officers, 14 agricultural officers, and 14 environmental officers.
7) About 50 herder community leaders and young herders trained by PY2 in traditional knowledge in pastoralism and grassland management.
8) A training impact report covering all training activities prepared by PY4.

126. ***Activities***

- Develop an overall plan for training aimag, soum and bag officers; and herder community leaders and young herders.
- Develop training modules- subject includes, among others, such as preparing and implementing soum-level land use plans and rehabilitation of degraded pasture and other land uses.
- Synthesize traditional knowledge in pastoralism and grassland management. Prepare training packages for herders.
- Train 10 trainers, selected from relevant ministries (MoFA, MNE, and MCUD), universities, and specialized institutions and experienced herders.
- Train a minimum of 10 persons at the aimag level by PY1 – 4 land officers, 4 agricultural officers, and 4 environmental inspectors, at the aimag level (and possibly 2-4 NGOs).
- Train a minimum of 35 persons at the soum and bag levels- 14 land officers, 14 agricultural officers, and 14 environmental officers.
- Train 50 herder community leaders and young herders in traditional knowledge in pastoralism and grassland management.
- Prepare a training impact report covering all training courses.

127. ***Output 1.3 Capacity of government institutions strengthened to plan their own institutional capacity development in SLM and desertification control.***

It is now well accepted that for capacity building to be sustainable, it should not be donor driven, but country driven. There is a need for each country to set its own capacity development agenda. To do so, developing country national institutions may require donor support to strengthen their planning capacity. There are three types of capacity building, namely, individual, institutional and systemic. Institutions should be strengthened at all levels – often human resources development processes have been overly centralized. There is need to shift attention as well as resources for capacity development at local levels.

Within the above guidelines, the project will support the development of (a) an overall short- and medium-term strategy for institutional capacity building in SLM and desertification control in government institutions under the guidance of NCCD; and (b) capacity building plans for relevant departments/units of MoFA, MNE and MCUD under the framework of the strategy.

128. ***Targets***

1) A draft short- and medium- term strategy to build individual, institutional and systemic capacity in SLM and desertification control by PY1
2) Formal and informal consultations and workshops with a wide range of stakeholders, concerned ministries, capacity building institutions, donors, etc. and validation of the strategy by PY1.
3) Capacity building plans for relevant departments/units of MoFA, MNE and MCUD prepared by PY1 (one for each concerned ministry).
4) Suitable national and regional and international institutions for training and other capacity building activities identified and resources mobilized by PY3.

129. ***Activities***

- A draft short- and medium- term strategy to build individual, institutional and systemic capacity in SLM and desertification control.
- Hold formal and informal consultations and workshops with a wide range of stakeholders, concerned ministries, capacity building institutions, donors, etc. and validate the strategy.
- Support the preparation of capacity building plans by relevant departments/units of MoFA, MNE and MCUD.
- Identify suitable national and regional and international institutions for training and other capacity building activities and mobilize resources.

130. ***Output 1.4: Courses on SLM at B.Sc. degree level offered in the Mongolian National University and Agricultural University. Curriculum developed and implemented in the two institutions for 2 academic years.***

Mongolia has good institutions of higher education (universities), both public and private, offering degrees at B.Sc., M. Sc., and Ph.D. levels in natural sciences, agriculture, and

fields related to ecology, environment and natural resources management. At least four institutions of higher learning can be mentioned in this regard, namely: the National University of Mongolia, the Agricultural University of Mongolia and the Technology University and a private higher-education institution called Eco-Asia. The Faculty of Biology of the National University of Mongolia, for example, offers degree programmes in Zoology, Botany, Ecology, Microbiology, Biochemistry, Genetics, Biophysics and Forestry.

The project, through this output, will provide support to two institutions of higher education (tentatively, the National University of Mongolia and the Agricultural University) to develop curriculum on SLM and desertification control, preferably a 3-credit course, to be offered to undergraduate students in biological and earth sciences. This output complements an output under the SDC's "Coping with Desertification in Mongolia Project", which supports the GoM in modernizing eco-education for primary and secondary schools and developing a modern ecology curriculum accompanied by teachers' guides.

The "Sustainable Livelihoods Project" (World Bank supported) has supported, through the sub-contractor "Center for Policy Research" (CPR), the development of a university degree course centered on pasture management, pastoral risk management and land-use planning procedures. The B. Sc. Course proposed to be developed under this project will provide students with a wider range of skills and knowledge on SLM theory and practice, and regional and international experiences, approaches and methodologies in SLM. It provides the students with a more-practical knowledge on land rehabilitation and proven international and national technologies to combat desertification.

131. ***Targets***

1) Feasibility studies to introduce B.Sc. level courses on SLM and desertification control at the undergraduate level in the Mongolian National University (Faculty of Earth Sciences) and Agricultural University completed by PY1.
2) The offering of the courses negotiated with relevant authorities by PY1.
3) The curriculum, course work, including lecture notes and handouts prepared by Y2
4) Offering of the course becomes operational by Y2
5) An impact report prepared by Y5

132. ***Activities***

- Carryout a feasibility study to introduce B.Sc. level courses on SLM and desertification control at the undergraduate level in the Mongolian National University and Agricultural University.
- Initiate discussions with concerned academic institutions on means and ways of implementing the proposed courses of study.
- Support the institution to develop appropriate course outlines and lecture material.
- Support the offering of the course for the academic years.
- Carryout a study on the impact of the course.

133. ***Output 1.5: Center of Desertification Study strengthened with particular focus on research and outreach in SLM and desertification control, with specific reference to (a) water harvesting, (b) land degradation assessment, (c) sylvopastoralism, and (d) windbreak systems.***

The Center of Desertification Study is one of the four divisions of the Institute of Ecology. The mission of the Center is to study trends of desertification in Mongolia and prepare scientific recommendations for combating desertification, develop and pilot test tools and methodologies to combat desertification, and demonstrate actions for controlling sand movement in some settlements of the Gobi and the Desert Gobi regions. The Center presently has six full-time researchers and it employs about 4 part-time scientists. It plays a key role in providing scientific information and qualified resources persons in SLM and desertification control. However to be more effective, the Center needs strengthening of its research and outreach capacity.

In this context, this output will strengthen the research and outreach capacity of the Center in SLM and desertification control, including technical, economic and social aspects.

With respect to Land Degradation Assessment in Drylands, this output will build technical capacity in this field in the Center and support the Center to develop a methodology to assess land degradation in drylands, based on the internationally recognized LADA model, adapted to Mongolian conditions.

With respect to water harvesting, this output will build technical capacity in water harvesting in the Center and support the Center to produce manuals and guidelines, tailor made to the hydro-ecological and social conditions of Mongolia.

With respect to windbreak systems, this output will support the Center to build a knowledge base in windbreak systems – with respect to designing, establishing and managing appropriate small-scale windbreaks and shelterbelts systems in drylands.

With respect to sylvopastoralism, the project will provide support to the Center to create a knowledge base on integrated forest-grassland management system to support sustainable livestock production, facilitate mobile pastoralism, protect forest and water sources and diversify sustainable livelihoods.

134. ***Targets***

1) A plan to strengthen research and outreach in SLM and desertification control completed by PY1
2) 2 scientists trained in methodologies in Land Degradation Assessment in Drylands (LADA methodology) through study tours and/or short courses (4 to 6 weeks duration) by PY2
3) 2 scientists trained in water harvesting through study tours and/or short courses (4 to 6 weeks duration) by PY2

4) 1 scientist in sylvopastoralism supported for 5 years, beginning PY1
5) 1 social scientist in outreach supported for 5 years, beginning PY1
6) 1 scientist in windbreak systems supported for 5 years, beginning PY1
7) A dryland degradation assessment model developed, based on the internationally recognized LADA model and adapted to Mongolian conditions, by PY2.
8) The Mongolian dryland land degradation assessment model pilot tested in two Aimags by PY3.
9) Water harvesting manuals and guidelines, tailor made to the hydro-ecological and social conditions of Mongolia developed by PY2.
10) An outreach programme, with focus on technology transfer in SLM and desertification control developed by PY2.
11) Technical support provided to implement the outreach programme beginning PY2.
12) Knowledge base (synthesis of the state-of-the-art and guidelines) on windbreak systems created by PY3
13) Knowledge base (synthesis of the state-of-the-art and guidelines) on sylvopastoralism created by PY3

135. ***Activities***

- Prepare a plan to strengthen research and outreach capacity in SLM and desertification control.
- Train 2 scientists in methodologies in Land Degradation Assessment for Dryland Areas (LADA methodology) through study tours and/or short courses (4 to 6 weeks duration).
- Train 2 scientists in water harvesting through study tours and/or short courses (4 to 6 weeks duration).
- Support 1 scientist in windbreak systems for 5 years, beginning PY1
- Support 1 scientist in sylvopastoralism for 5 years, beginning PY1
- Support 1 social scientist in outreach for 5 years, beginning PY1
- Develop a dryland degradation assessment model, based on the internationally recognized LADA model and adapted to Mongolian conditions.
- Pilot test the Mongolian dryland land degradation assessment in two Aimags.
- Produce water harvesting manuals and guidelines, tailor made to the hydro-ecological and social conditions of Mongolia.
- Develop an outreach programme, with focus on technology transfer in SLM and desertification control.
- Provide technical support to implement the outreach programme.
- Synthesis knowledge base (synthesis of the state-of-the-art and guidelines) on windbreak systems.
- Synthesis knowledge base (synthesis of the state-of-the-art and guidelines) on sylvopastoralism.

136. **<u>Outcome 2: SLM mainstreamed into national, provincial and local policies, strategies and regulatory framework.</u>**

(GEF US$ 82, 500; Co-financing US$ 100, 000)

137. ***Output 2.1: The Pastureland Law, Land Law and associated environmental legislation are mainstreamed into Aimag, Soum, Bag and community level planning and programming processes with special reference to land use planning and co-management of natural resources*.**

The newly formulated Pastureland Law provides a number of legal provisions on sustainable management of pastureland, including herders' rights and co-management of natural resources. Such provisions also exist in the Land Law and in a number of environmental regulations. There is need to review these legal provisions and streamline them in Aimag, Soum, Bag and community level planning and programming processes with special reference to land use planning and co-management of natural resources. In this regard methodological guidelines for general land management planning, based on Provision 25.1.4 of Law on Land of Mongolia, approved by Resolution 36 of 2001 of the Minister of Environment have already been developed and adopted by ALAGaC. The aim of the soum/district annual land management planning guidelines is to define an optimum way for developing annual land use plans within the soum/district as well as organizing land protection and rehabilitation activities based on calculations, analyses and mapping. This was a joint activity of ALAGaC, the Sustainable Grassland Management Project, World Bank Project – Sustainable Livelihood Project II, and "Green Gold" project.

As a follow-up to the above activity, this output will contribute to mainstreaming of the Pastureland Law, Land Law and associated environmental legislation into Aimag, Soum, Bag and community level planning and programming processes with special reference to land use planning and co-management of natural resources.

138. ***Targets***

1) Education and awareness creation of the implications of the pastureland law, land law and associated environmental legislation related to sustainable grassland management among Aimag, Soum and Bag level officers and to herder communities and households by PY2
2) Suggestions on up-dating guidelines for planning procedures, and local governance structures on the basis of the lessons learnt from the project and new pastureland law in relation to access to resources, co-management of pasturelands, possession rights, taxation, etc. by PY2.

139. ***Activities***

- Review the Pastureland Law, Land Law and associated environmental legislation and analyze the relevant by-laws and provisions that deal with pastureland management – access to resources, co-management of pasturelands, possession rights, taxation, etc.
- Hold formal and informal discussions with aimag, soum and bag governments and herder community groups.
- Educate herders, herder groups and, local governments on the use and implications of the pastureland law.

- Mainstream Pastureland law into planning procedures, and governance structures on the basis of the new pastureland law, access to resources, co-management of pasturelands, possession rights, etc.

140. ***Output 2.2: UNCCD NAP up-dated and mainstreamed into national and sectoral planning.*** *[This output is achieved jointly with the SDC/GoM Project on Coping with Desertification in Mongolia]*.

The Mongolian UNCCD-NAP was formulated in 1996 and was subsequently updated in 2003. The 1996 NAP document was a comprehensive document that outlined a strategy, implementation modality and coordination mechanisms, and elaborated 19 projects to tackle priority issues that concern land degradation and desertification in Mongolia. NAP is meant to be dynamic in nature, meaning, it has to be reviewed and revised and/or updated from time to time in order to meet the changing needs and emerging new challenges. A revision of the NAP in 2008 is needed to satisfy, among other, two specific requirements:

Phased implementation: The NAP is designed to be implemented in a phased manner, and the Phase II begins in 2008. This requires an evaluation of what has been achieved up to 2007 and prepare implementation plan for the period 2008 to 2011.

UNCCD – 10 Year Strategy: UNCCD is calling for the updating of all NAPs to bring them in-line with a new UNCCD's 10-year strategy, beginning 2008.

Besides the above requirements, a gap analysis on the Mongolian NAP carried out under the PDF-B project recommends that the NAP be updated in order to (i) reflect current thinking regarding SLM, (ii) accommodate emerging environmental pressures faced by Mongolia and (iii) represent accurately Mongolia's changed socio-economic conditions.

The purpose of the output is to revise/update the Mongolian UNCCD-NAP in relation to (i) structure, (ii) content, (iii) implementation and, (iii) monitoring and evaluation. The revised NAP will be mainstreamed into national and sectoral development plans and into Aimag and sum level planning processes and developmental activities. A medium-term investment plan will be prepared to implement NAP. This will serve as an important instrument for resource mobilization.

141. ***Targets***

1) Updating the NAP in the light of the Gap Analysis of the PDF-B recommendations completed by PY1
2) A detailed plan of action of NAP prepared for Phase II implementation by PY1.
3) A 10-year strategy of NAP to meet the requirements of UNCCD prepared by PY1.
4) Updated NAP mainstreamed into national and sector policy and planning framework by PY2.
5) A medium-term investment plan for NAP implementation will be completed by PY3.

142. ***Activities***

- Update the NAP in the light of the Gap Analysis of the PDF-B recommendations.
- Prepare a detailed plan of action of NAP for the Phase II implementation by PY1.
- Prepare a 10-year strategy of NAP to meet the requirements of UNCCD.
- Mainstream the updated NAP into national and sector policy and planning framework.
- Prepare a medium-term investment plan for NAP implementation.

143. ***Output 2.3: Policy, regulatory framework and tax incentives strengthened to ensure financial sustainability of soum-level land improvement activities, and efficient use and management of community organization funds.***

The Sustainable Grassland Management project has achieved good results with regard to fostering an enabling environment for the herder groups to manage funds for pasture management, livestock production and livelihood diversification and other investments. The project established Pasture Improvement Funds (PIF) under the pasture Co-management Committees for providing loans to herder groups, according to agreed regulations in order to assist activities initiated by herding communities in grassland management.

Building on this experience, the proposed project, through this output, proposes to further strengthen the ability of herder communities to set-up their own community funds and develop fund management norms. Under the project, tax incentives for the sustainable pasture use (seasonal/rotational grazing, use of remote pasture), ecologically adjusted herd structure and fuel efficiency measures will be experimented with. The project will also experiment with activities such as fees for passing - through livestock herds, and promoting the reinvestment of revenues form land use/resource use into local land use planning and SLM and combating desertification.

144. ***Indicators***

1) Feasibility study on the re-investment of revenues form land/resource use fees into local land improvement activities completed by PY2.
2) The feasibility study disseminated among policy makers by PY2.
3) Norms for community fund management developed by PY 2.
4) Herder groups share experiences among themselves on fund management beginning PY2 and continued practical support provided throughout the project.
5) A feasibility study on tax incentives for herders adopting best practices in grassland management completed by PY2.
6) Herders, local communities and local government officials educated on the tax incentive proposal by PY2.
7) The feasibility study disseminated among policy makers by PY2

145. ***Activities***

- Review laws, regulation and practices concerning re-investment of tax revenues on land use.
- Prepare a feasibility study on the re-investment of revenues form land/resource use fees collected from commercial activities, into local land improvement activities.
- Disseminate the feasibility study among policy makers.
- Develop norms for the management of herder community funds, based on the Grassland Project and GTZ project.
- Provide a forum for herder groups to share experiences among themselves on fund management.
- Assist herder groups on practical aspects of fund management.
- Conduct a feasibility study on tax incentives for herders adopting best practices in grassland management such as: (a) use of remote pasture, (b) seasonal and rotational grazing, (c) optimum herd structure, and (d) alternate sources of fuel and fuel efficient practices.
- Educate herders, local communities and local government officials on the proposed tax incentive scheme.
- Disseminate the feasibility study among incentives for herders policy makers

146. **Outcome 3: Pilot testing, demonstrations and scaling-up community based approaches in integrated natural resources management with focus on grassland and water management and sylvopastoralism.**

(GEF US$ 990, 000; Co-financing US$ 1, 478, 000)

147. ***Output 3.1: Pilot activities in all 13 soums to develop and scale up effective local institutional framework for participatory planning processes and to implement best practices for co-management of pastureland and other natural resources.***

An institutional framework is necessary to implement and sustain activities and results. It includes functional community organizations as the main actors in community based natural resource management and partners in collaborative management, a local level (bag and soum) body for collaborative management with representatives of community organizations, local government, NGOs and business. The capacity of involved organizations to perform their functions and to collaborate should be strengthened. In developing this local institutional basis, the project will draw on best practices and lessons learnt that have emerged from ongoing and past projects on community organization, co-management and local governance[5]. The activities under output 3.1 will build the basis for implementing the technical pilot activities in the project soums.

[5] including the "Sustainable Grasslands Project" (UNDP-MoFA), the "Sustainable Livelihoods Project (World Bank), the IDRC supported project "Collaborative Management of Common Property Pastureland Resources" of MNE, the Gobi Component of the GTZ assisted program "Conservation and Sustainable Management of Natural Resources" (MNE), the "Green Gold" Project (SDC supported), the IFAD supported "Rural Poverty Reduction

The project approach builds on the experiences of past and ongoing projects that have promoted collective action for poverty reduction, livelihood improvement and community based management of natural resources. Community based organizations are to be the main actors in implementation of activities, sustain them beyond the project life and will play a key role in experience sharing and promoting up-scaling. They will have their own resource persons/trainers for each technical pilot activity, identified by the group/community organization and trained with project support.

It will be important that good process facilitation is provided, starting with participatory analysis of problems and opportunities with households, and to reflect on benefits of collective action. Support in identifying common objectives, group norms and in participatory planning will be provided. As groups strengthen, they should be encouraged to establish their own fund, with member contributions, and develop fund management norms. Such community funds have proven to be important mechanisms to strengthen groups. Having their own fund enables the groups to undertake activities in resource management and conservation, support training and education of members, provide aid to members in need, and to support member households through micro-credits for income generation, winter preparation or other purposes. Experiences from other areas also suggest that community organizations/herder groups should have not only an elected leader but a council (3-5 persons) that supports the community leader; the council includes an accountant/fund manager of the community fund.

Various terms are used in this project document to refer to community based organizations, such as "herder group", "community organization", or "communities". When facilitating community organization at the pilot sites, any existing genuine grassroots organizations (groups, local movements, community based organizations) and, most importantly, customary institutions such as Khot Ail, or "People of one Valley/River" should be built upon and strengthened as an institution to implement pilot activities. An initial workshop will bring together representatives from community based organizations facilitated by different donor-supported programs and identify lessons learnt and best practices in community organization, community based natural resource management, and collective action for poverty reduction and livelihood improvement.
Findings of the workshop will inform the process for community organization for this project, as well as the closely collaborating SDC-GoM project "Coping with Desertification".

There is an emerging pattern of structure, activities and objectives that rural community organizations choose; while the basis of social organization is the natural resources that households manage communally, community groups engage in income generating and social activities, either as a whole or in sub-groups. Group size and internal norms are dependent on natural resource use patterns, and project support should be flexible and not prescribe certain norms but encourage communities to develop their own norms and structure. The legal framework for "community organizations" is evolving and providing

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Program" and the IFAD supported project "Good Governance for Sustainable Natural Resource Management and Poverty Reduction – Scaling-up through community-led learning" (NZNI-IPECON).

an enabling environment for the empowerment and sustainability of community organizations, not only for NRM and livelihoods, but also as a driving force in local development and rural civil society. The project can rely on the legal status of community organizations, defined as civil society organizations "Nukhurlul" in the civil law. This provision in the civil law is based on lessons learnt in 3 Gobi Aimags, where "communities" have become strengthened organizations. Moreover, the new forest law defines "forest user groups" (also named "Nukhurlul") and provides a legal basis for community based conservation activities.

148. ***Targets***

1) At least 4 herder groups (in each of the first 7 soums is operational (i.e. has developed group objective, norms, leadership, and established a fund) in first half of PY 2.
2) Herder groups/CBOs at each pilot site in the first 7 soums are implementing own action plans and have their own impact monitoring system in the second half of PY2
3) At least 4 herder groups in each of the remaining 6 soums is operational (i.e. has developed group objective, norms, leadership, and established a fund) to implement pilot activities in second half of PY 2.
4) Herder groups/CBOs at each pilot site in the remaining 6 soums are implementing own action plans and have their own impact monitoring system in the first half of PY3
5) In first 7 soums, local co-management bodies have developed their norms and own action plans by second half of PY1
6) In the remaining 6 soums, local co-management bodies have developed their norms and own action plans by first half of PY2
7) In all soums, groups and co-management bodies have developed sustainability plans outlining roles, responsibilities and funding sources to maintain activities, structures and all other results of project support in PY 4
8) Center for Desertification Studies, other extension mechanisms, and educational institutions have documentation on best practices and lessons learnt for each thematic pilot activity by PY5
10) A study tour itinerary and information package on pilots is developed that enables government, extension and outreach institutions, NGOs, CBOs and donors to organize and support learning visits to pilot sites by PY5.
11) Starting in PY 2, at least 1 pilot site for each thematic pilot in each Aimag has received visitors from other soums of the same Aimag at least twice a year
12) At least 5 participants from each of the 13 soums have visited sites of best practice of the "Sustainable Grasslands Project" and "Herder Field Schools" in Gobi Aimag by PY3.

149. ***Activities***

- Workshop to identify best practices and lessons learnt in community based and co-management of natural resources country-wide
- Synthesize, document findings and prepare for dissemination to policy makers
- Series of workshops to facilitate establishment of co-management committees in first 7 soums

- Participatory analysis with local communities at pilot sites in first 7 soums to initiate community organization
- Series of workshops to facilitate establishment of co-management committees in remaining 6 soums
- Ongoing support in evaluating mechanisms and impacts of co-management.
- Participatory analysis with local communities at pilot sites in 6 remaining soums to initiate community organization
- Follow-up meetings with communities at pilot sites in first 7 soums for community development, livelihood diversification, CBNRM activities
- Follow-up meetings with communities at pilot sites in remaining 6 soums for community development, livelihood diversification, CBNRM activities
- Study tours to sites of "Sustainable Grasslands Project" and South Gobi "Herder Field Schools"
- Facilitate preparation of sustainability plans with co-management committees and herder groups.
- Identify and document best practices and lessons learnt for each thematic pilot activity, and make accessible to outreach mechanisms and educational institutions within and beyond the project scope.
- Identify most successful pilots, design study tour itinerary and disseminate to government, NGOs, CBOs and donors

150. ***Output 3.2: Pilot activities in all 13 soums on soum-wide land-use planning.***

The output 3.2 will develop the enabling environment for SLM and combating desertification at local level in each project soum by facilitating integrated land-use planning. The planned technical pilots will be incorporated into the land-use plans. Activities will support land-use planning procedures with all local stakeholders, based on approved procedures and best practices developed by several donor-supported projects, and by developing local capacity in pastureland management and assessment including scientific and traditional knowledge. The lessons learnt during implementation will be documented to inform policy makers on needs and opportunities for further enhancing the legal and regulatory framework for the management of pastureland and other natural resources.

151. ***Targets***

1) Land-use planning processes involving community based organizations, local government and other relevant local stakeholders, incorporating science based assessment of pasture condition and traditional practices are being applied in 7 soums after PY1, in all soums after PY2.
2) Number of herder households undertaking seasonal and rotational moves within herder groups involved in pilot activities in first 7 soums has increased by 50 % in PY 2
3) Number of herder households undertaking seasonal and rotational moves within herder groups involved in pilot activities in the remaining 6 soums has increased by 50 % in PY 3
4) Soum Khural has approved annual land-use plan in first 7 soums in PY 2

5) Soum Khural has approved annual land-use plan in the remaining 6 soums in PY 3
6) Pastureland maps of all 13 soums are available as basis for planning by PY2
7) Policy brief for policy makers available by PY5.

152. ***Activities***

- Technical Assistance to upgrade pastureland maps in 13 soums
- Ongoing support/backstopping in preparing land-use and pastureland management plans
- Workshops/experience sharing events among project soums on lessons learnt and best practices in local land-use planning, and documentation
- Prepare policy brief for policy makers

153. ***Output 3.3: Pilot activities in all 13 soums on community based approaches in integrated water and pasture management, pasture rehabilitation and fodder production based on local plant species and traditional practices, on local protected area management, and on fuel efficiency.***

This output will address the removal of key barriers for sustainable land management and combating desertification that are serious in Mongolia:

Limited and increasingly dwindling pasture water supplies are a significant challenge to pastoral mobility.
Fuel needs are impacting forest resources and desert vegetation with functions in soil conservation and livestock fodder supply.
Winter fodder provision is key for pastoral risk management and to enable pastureland rehabilitation.
To maintain ecosystem functions and integrity, and conservation values of global significance, local capacity for conservation of protected areas and special sites has to be built in the face of the large territory of the country, the diversity of conservation values, limited government capacity to extend management functions, and to build ownership of local communities in line with government policies that favour community based approaches to conservation and natural resource management.

This output addresses these barriers with a package of best practices to be piloted in each soum, thereby developing demonstrations applicable to different ecological zones. The demonstrations include:

Community based integrated water management is a key support to adaptation strategies to climate change being developed by local communities. Activities will include water harvesting, protection of surface water sources (springs), and the establishment and/or rehabilitation of both deep wells and hand-dug wells.

Pasture Rehabilitation will be integrated with the soum wide pasture use plan, and will include targeted training in pasture condition assessment by experts (botanists) and in

traditional mobile pastoral practice, re-seeding and fencing of pastures where feasible and best practices in fertilizing pasture and rodent control.

Fodder production promoted and supported by the project will be based on local plant species and traditional practices, as identified and developed as best practice by the "Sustainable Grasslands Project". It will involve identification of species, protection of sites and related ecology; fencing, fodder preparation, and SME activities in fodder production.

Local Protected Area Management – this relates to sites and areas of high biodiversity conservation or landscape value, or cultural/historic significance that have been put under formal protection by local governments, sites held sacred by local communities, or any areas local communities and/or government deem worth of special protection due to their significance in ecosystem functions. It will involve small scale infrastructure for protection, visitor management, information and public awareness, monitoring, and identifying opportunities for income generation through developing ecologically and socially responsible tourism services and products.

Fuel Efficiency activities will include assessment of potential for production of alternative fuel based on locally available materials, technology for briquette making, promotion of fuel efficient dung stoves, manufacturing of dung stoves, support to manufacturing fuel efficient stoves, training by local stove makers, and promotion of energy efficiency through improved insulation of buildings and gers, and support to installation of modern, fuel efficient central heating systems in public buildings.

Not less than 3 pilots will be established in each soum. At pilot sites, community organization will be facilitated, and community organizations (herder groups) will be the main actors in implementing and sustaining activities and the primary beneficiaries in the long-term.

SLM and Livelihood Support Fund - The "SLM and Livelihood Support Fund" is designed as a Soum-level funding mechanism to support activities by local residents, groups and the wider local community in SLM and combating desertification, and to broaden options for rural livelihood strategies that indirectly will enhance outcomes in SLM and combating desertification.

For each project soum, USD 13,461 has been budgeted as seed money for the fund; - the seed money may be disbursed over several years. It will be important to first strengthen the local institutional framework before the fund is established.

It is proposed that the support fund be used for activities in:

- Livestock breed improvement
- value addition of livestock products (dairy, wool, etc.)
- livelihood diversification including vegetable growing, tourism, services, and others.

- fuel efficiency
- fodder production and risk management

The fund is to be managed by the soum level committee for collaborative management. Groups should be prioritized as recipients of support; a precondition being that the group is strengthened and has a track record of own fund management.
The project will support committees to develop fund management guidelines (the guidelines will build on experiences with the revolving funds established by the "Sustainable Grasslands Project" and on experiences of managing and using Buffer Zone Funds in Gobi Aimags.

Guidelines should be such that the fund becomes a sustainable mechanism beyond project life, - i.e. repayment is 100 %, with a low "interest rate" as a management fee (to be determined by the committees; experience with microfinance in rural Mongolia suggests that the rate should not exceed 2%). The project will also provide training to identified individuals from within the co-management committees on accounting and financial management. (The training activities are to be financed from the funds allocated for soum level trainings for co-management bodies).

The fund should be established as a sustainable mechanism, beyond the project life, and all training activities should be geared towards that. Experiences with other soum level funds (small project fund, Buffer Zone Fund) in the Gobi provide lessons learnt on how to develop a sustainable mechanism.

154. ***Targets***

1) Pilot sites/areas, - at least one pilot site/area and not less than 3 thematic pilots in each soum-, are reviewed and validated by first half PY1
2) At least 13 demonstrations in water harvesting will be established by PY 3
3) At least 13 demonstrations in fodder production based on local plants species and traditional practices will be established by PY3
4) Groups involved in pilots on fodder production have increased fodder supply for winter by 2 additional types of fodder by PY 3
5) Groups involved in pilots on fodder production have increased fodder supply for winter on average by 20 % (tons) by PY 4
6) Report on assessment of status of surface water resources, and on needs and opportunities for protection and restoration is completed for all pilot sites on integrated water management by PY 3
7) All herder groups involved in pilot activities in water management have implemented protection measures for at least one spring, oasis or other surface water source by PY 3
8) A survey report on identified water points for hand dug wells is available for all pilot areas for integrated water management by end of PY 1
9) At all pilot sites for pastureland rehabilitation, monitoring sites (exclosures) are established by PY 3
10) All herder groups involved in pilot activities have own resource persons/trainers for each thematic pilot (water harvesting, fuel efficiency, fodder production, pasture

rehabilitation, windbreaks, local protected area management, sylvopastoralism) relevant to their local area by PY 4
11) In all pilot areas for integrated water and pasture management, all herder households undertake seasonal and rotational moves to agreed schedules by PY 5.
12) In all pilot areas for pastureland rehabilitation that experienced favorable weather from PY1, 50 % of pastureland area assessed as degraded show recovery in PY 3.
13) Survey report identifying sites with palatable plants feasible for protection in order to harvest fodder plants available for all pilot areas for fodder production by end PY 2.
14) Survey report on local technologies in fuel and energy efficiency, and strategy to develop/enhance and scale-up local technologies available by PY 2
15) Educational activities (events, distribution of materials) on energy efficiency have taken place in all 13 soums by PY 3
16) Call for proposals by groups, individuals and local business entities on SME development relevant to fuel efficiency has been announced for all 13 soums by end of PY 2
17) At least 3 small enterprise activities related to fuel and energy efficiency are underway in all 13 soums by end PY 3
18) All 13 soums have at least two resource persons/trainers on fuel and energy efficiency by PY 4
19) By PY 3, the use of saxaul as fuel for public buildings and in households of group members involved in pilots has decreased by 50 %
20) A fair/experience sharing event bringing together local groups, individuals and SME from 13 soums, NGOs, business, distributors, researchers and practitioners in fuel and energy efficiency has taken place in one project Aimag at end of PY 3
21) A survey on all local protected areas and sites of special conservation value in all pilot areas is available by end PY 2
22) Resource/conservation value inventories for all local protected areas and special sites in all pilot areas are completed jointly by local community groups and researchers
23) Management plans prepared jointly by local community, local government and researchers by end PY 3
24) Local protected areas and special sites in 7 soums have improved infrastructure for protection, visitor management and education by PY 4
25) All local protected areas and special sites in pilot areas have trained community ranger with ID issued by relevant government authority by PY 3
26) In at least 2 soums, at least 3 herder households (group members) involved in pilots on local protected area management are increasing their household income through providing services/products in tourism
27) Documentation of lessons learnt and best practices for all thematic pilots, and for community based and collaborative management of NRM, developed in two regional experience sharing workshops with representatives of groups, local government, co-management committees is available by end PY 3.
28) An up-dated documentation of lessons learnt and best practices for all thematic pilots, and for community based and collaborative management of NRM, developed in two follow-up regional workshops with representatives of groups, local government, co-management committees is available by end PY 4.

29) A policy brief based on the analysis of lessons learnt in community based and collaborative management of NRM, SLM and combating desertification is distributed to policy and decision makers in PY5.

155. ***Activities***

- Validate all pilot sites identified during PDF-B
- Provide support in identifying water points for hand wells
- Support preparation of integrated water management plan in pilot area
- Facilitate government support in well rehabilitation
- Assess surface water resources status, and needs and opportunities for protection and restoration
- Provide support to herder groups for protecting springs, oasis, and other water sources
- Provide TA to design and implement water harvesting pilots in at least 13 sites, train local resource person/trainer at each site, provide follow-up support and refresher training.
- Introduce best practices in fodder production based on native plant species and traditional practices
- Identify sites with palatable plants suitable for fodder production in herder group areas with herder groups
- Implement pilot activities in protecting sites with fodder plants by fencing and/or grazing exclusion , and provide follow-up support
- Assess pasture land condition in herder group areas with herders and train local trainers/resource persons in each group, and identify priority areas for releasing or other rehabilitation measures (fertilizing, fencing, seeding in forest steppe areas)
- Establish monitoring/demonstration sites (grazing exclosures)
- Develop schedule of seasonal and rotational pasture use, and releasing reserve pasture, with herder groups in pilot areas for integrated water management and pasture rehabilitation
- Follow-up support in monitoring, planning and implementation of activities
- Identify local technologies in fuel efficiency, and potential for developing and enhancing such technologies locally.
- Educational and promotional activities in all 13 soums on alternative energy sources and technologies.
- Provide training and backstopping in small enterprise development
- Train local trainers/resource persons on fuel efficiency within all groups
- Organize experience sharing event/fair on fuel efficiency, bringing together local users/producers, researchers, businesses, distributors, NGOs and relevant government agencies.
- Prepare with local community inventory of conservation values/resources/biodiversity of local protected areas.
- Support preparation of management plan for protected area/community conservation area with local community
- Provide material support for infrastructure for protection, visitor management, education, research and monitoring as determined

- Train local trainer/resource persons/community ranger and environmental inspector/ranger in monitoring
- Facilitate official recognition of community ranger (provision of ID) for monitoring and law enforcement tasks
- Develop schedule of fees for sites of visitor interest and mechanism of benefit sharing among community and local government
- Identify opportunities for income generation for local community through providing visitor services
- Support local community in developing and marketing products and services for income generation.
- Workshops/experience sharing events among project soums on lessons learnt and best practices. Prepare documentation.
- Prepare policy brief for policy makers

156. ***Output 3.4: Pilot activities in two Gobi Soums Bogd and Baruun Bayan Ulaan (sub-desert) of Uvurkhangai Aimag, Bayandelger and Uulbayan Soum (desert steppe) in Sukhbaatar Aimag, and Orgon Soum (desert steppe) in Dornogobi Aimag on establishing windbreaks for the protection of infrastructure, plantations, water sources or land under rehabilitation.***

Windbreaks will be piloted as a measure to protect infrastructures, plantations/nurseries, vegetable growing plots, pasture under rehabilitation, and water sources while providing livestock fodder; income generating opportunities will be tested and piloted by introducing crop trees/shrubs into the windbreak systems. Windbreak systems are introduced to complement other activities that address root causes of land degradation and to enhance local microclimate to create favourable conditions for rehabilitation, income diversification of livelihoods and coping with climate change. Key support by the project includes design of windbreaks based on national and international experiences both in terms of plant ecology and aerodynamics, piloting the use of species that provide multiple benefits, selecting appropriate species for different ecological zones (elm, tamarisk, sea-buck-thorn as well as species suitable for intercropping such as Sweet Grass in desert steppe and sub-desert soums; willow, poplar and crop species such as currant in steppe and forest steppe), and experimenting with new species.

157. ***Targets***

1) Sites to establish pilots for windbreaks are reviewed and finalized with input from national and international consultants by PY1.
2) At least 5 pilots for windbreaks are designed, and establishment has commenced by end PY 2
3) By the end of PY 3, experiments on at least 3 crop tree/shrub species integrated into windbreaks and at least 2 fodder plant species for intercropping have been documented, and suitable species have been selected.
4) By the end of PY 5, each group involved in windbreak pilots has at least one resource person/trainer on the subject

158. ***Activities***

- Finalize site selection
- Design windbreaks/shelterbelts in 5 pilot sites, and oversee establishment
- Provide continued follow-up support and guide experiments with and selection of appropriate species of trees and shrubs, and possible fodder and crop species
- Train local resource persons/trainers

159. ***Output 3.5: Pilot projects in "sub-desert zone"[6], in two Gobi Soums (Bogd and Baruun Bayan Ulaan) of Uvurkhangai Aimag on saxaul protection and rehabilitation***

The two Soums already provide a basis for experience sharing on best practices for community organization for pasture and water management with emphasis on traditional mobile pastoral practices, for community based management of protected sites and related diversification of incomes through tourism, and for poverty reduction through community organization. Moreover, they offer experiences in local level co-management of natural resources, joint local development planning as well as soum level and community group level funding mechanisms.

Saxaul protection and rehabilitation measures are a key activity to enhance both soil conservation in the Gobi and maintain crucial pasture resources in particular for Camel. As the camel is the most ecologically adapted livestock species in the Gobi, which exerts the least pressure on Gobi pastures, the protection of saxaul is key to both sustainable land management and livelihoods in the Gobi.

Building on the already strengthened local institutions in the two soums, project activities in saxaul protection will focus on a) setting aside protection zones within saxaul forest areas, and facilitate community organization and joint agreements of local stakeholders to support enforcement of protection from grazing and fuel wood collection. The success of the measure is largely dependent on social organization and governance. Already, community groups in Bogd Soum, are restoring successfully restored a saxaul area within their community managed area; this site and group will be used as a demonstration site, and lends itself to further activities such as piloting b) seeding of saxaul in heavily effected areas, in order to enhance restoration. This activity will be smaller in scale and will include training and TA.

160. ***Targets***

1) By the end of PY 1, in each pilot area, reference sites are identified and baseline is documented (photos)
2) By the end of PY 1, experimental sites for saxaul rehabilitation are identified, and pilot sites for seeding are fenced.
3) By the end of PY 1, protection management plans, and roles in implementation, are agreed by herder groups and environmental inspector.

[6] According to the Mongolian National Atlas

4) By the end of PY 2, grazing and fuel wood collection in the designated protection areas has seized
5) By the end of PY 4, the number of young saxaul plants has increased by 30 % in the protection area as compared to year one of protection and compared to neighboring areas
6) By the end of PY 5, at least 200 ha of saxaul have been excluded from grazing and fuel collection, and show signs of recovery in terms of density, growth of individual plants and number of young saxaul plants
7) By the end of PY 3, at least one public building in each of the two Gobi Soums has installed modernized, efficient central heating system

161. ***Activities***

- Establish baseline documentation (photos) at selected reference sites
- Facilitate consensus on protection measures (exclude grazing, enforce ban on fuel collection) and develop plan with herder groups, and environmental inspector
- Identify experimental sites for rehabilitation measures (seeding)
- Fence rehabilitation sites, implement rehabilitation through seeding and/or fencing,
- Follow-up support, and train local resource persons/trainers

162. ***Output 3.6: Pilot projects in "forest steppe" zone"[7], in two Soums (Uyanga and Dzuun Bayan Ulaan) of Uvurkhangai Aimag on community based approaches in sylvopastoralism***

Sylvopastoralism activities will address barriers to sustainable grasslands management due to the loss of water resources as a result of deforestation in watershed areas. In turn the loss of water sources impacts on pastoral mobility leading to concentration of herds near fewer water sources, contributing to land degradation.

163. ***Targets***

1) Site selection for sylvopastoral activities has been finalized and boundaries of pilot areas defined considering watershed function, income opportunities and feasibility of community group organization by early PY 2

2) In each of the two soums, establishment of 2 forest "Nukhurlul" has been initiated through participatory analysis and planning with local communities by end of PY 1
3) By PY 2, 4 Nukhurlul are officially registered
Forest, pasture and water resources inventory for areas of 4 Nukhurlul are completed in second half of PY 2
4) By end of PY 2, management plans for forest and pasture areas of 4 Nukhurlul are developed.
5) A report on opportunities for income generation based on forest products for member households of 4 Nukhurlul is completed by PY 3

[7] According to the Mongolian National Atlas

6) At least 20 % of member households of Nukhurlul have received training to enable development of diversified income based on forest products by PY 4
7) At least one non-timber forest product and one value added timber product is being developed for diversified income generation for Nukhurlul member households
8) At least 2000 ha of forest are under protection from illegal cutting and collection by PY 3
9) At least 200 ha are under reforestation by PY 3
10) By PY 4, 80 % of planted trees are alive.

164. ***Activities***

- Finalise site selection considering social and ecological criteria.
- Facilitate establishment of 2 "Nukhurlul" (forest user communities) in each of the 2 soums, and support required documentation, mapping
- Document baseline of status of forest, pasture and water resources
- Prepare restoration and integrated resources management plan
- Support reforestation activities, provide follow-up support and train local trainers/resource persons
- Identify income generation opportunities and training needs
- Provide skills training as needed
- Support development and marketing of products as determined

Project Indicators, Risks and Assumptions

165. **Outcome 1:** Strengthened coordination mechanisms, institutional and human resources capacity and knowledge base to promote SLM and desertification control

Indicators

- Donor and government programes for SLM and desertification control are guided and monitored by NCCD.

- As a result of improved technical and indigenous knowledge in SLM and desertification control, local government and resource users, particularly young herders, are improving land-use in the project area.

- The capacity of Government institutions relevant to SLM is being developed according to their own capacity building plans.

- Young professionals (B.Sc. level) with specialized knowledge and skills in SLM practice are becoming available as technical and managerial staff in relevant departments and organizations.

- Center for Desertification Studies has staff qualified in water harvesting, windbreak systems, land degradation assessment in drylands, and in sylvopastoralism.

- Resource users are accessing outreach services in SLM and desertification control of the Center of Desertification Studies.

- Technology transfer is facilitated by Center of Desertification Studies

Assumptions and Risks

- Services for extensive livestock husbandry are maintained and improved.
- The Government and donors are improving services – the risk is low.
- Regional and rural development strategies are implemented by GoM – this will build the enabling environment for sustainable pastoralism by providing services, infrastructure and support for marketing.

166. **Outcome 2:** SLM mainstreamed into national, provincial and local policies, strategies and regulatory framework

Indicators

- Resource users and local government prepare and implement land-use plans based on the provisions of the pastureland law, relevant environmental legislation and based on principles of collaborative management of natural resources.

- National and sectoral development and local planning is guided by and reflects an up-dated/revised NAP to promote SLM and desertification control.

- SLM and NR rehabilitation to promote SLM improves in the project areas as a result of innovative financing mechanisms, piloted fiscal reforms and improved financial strengths of community organizations.

- Based on the pilot activities and on feasibility studies, policy makers are presented with options for developing fiscal policies that promote SLM and enable local governments and resource users to sustain and promote land productivity.

Assumptions and Risks:

- GoM continues to support participatory approaches and co-management of NR. An enabling legal environment and support from government are important factors to sustain these approaches.

- GoM, Ministry of Finance is open to adjustments of fiscal regulations in favor of SLM investments on local level

- Pastureland law is passed by parliament in 2007 autumn session (It is already prepared and is to be discussed in the spring session, but postponed to the autumn session).

167. **Outcome 3:** Pilot testing, demonstrations and scaling-up community based approaches in integrated natural resources management with focus on grassland and water management and sylvopastoralism.

Indicators:

- Based on best practices and lessons learnt, within and beyond the project area, all 13 soums have established a local institutional framework of herder groups (or other CBOs) and a soum level co-management body as the core organizations to implement pilot activities, experience sharing and up-scaling.

- Based on jointly developed land-use plans, pastureland mapping and approval through local parliament, pasture land in all 13 soums is under improved management through seasonal and rotational grazing, and technical pilot activities are incorporated into land-use plans.

- In the project area, protection and rehabilitation of ecosystem functions and of the pastoral resource base are promoted by enhancing pastoral mobility, pastoral risk management, fuel efficiency and community based approaches in integrated water and NRM and conservation.

- Water sources, land under rehabilitation, infrastructure and plantations are protected by wind break systems.

- Pasture resources for camel are under recovery and soil stability is improved through protection of saxaul forest area.

- Water sheds in pilot areas are under restoration through community forestry and water sources to promote pastoral moves are being restored.

Assumptions and Risks:

- GoM continues to develop legal framework for grassroots organizations for NRM – as enabling environment for sustainability of organizations.

- Local governments are supportive of co-management approach

- Pastureland law is passed by parliament in 2007 autumn session

- Inter-Aimag and inter-soum collaboration for grazing reserve management and otor regulation is improved – crucial mechanism in extreme events and to regulate mobility in droughts and dzuds.

- Regulation of mining activities and mitigation of impacts improved

- Enforcement of laws and regulations on environmental protection and mitigation is improved.

- Environmental governance issues are being addressed by government and/or donor-support

Expected Global, National and Local Benefits

168. The global, national and local benefits of the project are closely inter-linked. At the global level, the project will contribute to improved ecosystem stability and productivity. The major global benefit of the project would be restoration of degraded dry-land ecosystems for enhancing their structural and functional stability and arrest trends of severe regional climate change. Global benefits also include (i) improved transboundary water management, (ii) protection of species of global significance, and (c) maintaining carbon sinks through forsts, pasture and permafrost. The cross-sectoral nature of the project would help in meeting Mongolia's obligation under UNCCD as well as other conventions—CBD, UNFCC. Thus, other global benefits include improved carbon sequestration and conservation of plant and animal species of global significance (also see discussion of global benefits under Situation Analysis).

169. At the national level, in broad terms, the project will contribute to achievement of Mongolian MDG, Goal 1: "Reduce poverty and hunger", and Goal 7: "Ensure Environmental Sustainability". More specifically, the national level contribution of the project is enhancing the welfare of herding families of Mongolia through sustainable management of grasslands and thereby providing sustainable livelihoods for a significant proportion of the rural people. Further, the project will contribute to improving individual, institutional systemic capacity building, strengthening coordination and monitoring mechanisms; mainstreaming SLM in national, provincial and local level policies, planning and regulatory frameworks; and effective implementation of UNCCD-NAP.

170. At the local level, piloting technologies, strengthening herder community institutions and promotion of participatory models for resource management, conservation and rehabilitation will empower local communities in decision making process and make them as principal beneficiaries. Investments in building physical improvements and social infrastructure will contribute to collective actions by the communities and their improvement - benefits that go beyond the project life.

Target Beneficiaries

171. The primary beneficiaries of the project interventions are nomadic and semi-nomadic pastoral communities. Certain activities, such as enhancing fuel efficiency and promoting income generating activities will also benefit communities in rural centers where the incidence of poverty is highest.

172. An estimated 800-1,000 herder households will directly benefit from the pilot projects which include substantial on-the ground investments on improved pasture land management, pasture rehabilitation, improvement of pasture supplies including water harvesting, support to risk management through improved fodder production, establishment of windbreaks to protect land under rehabilitation, plantations and infrastructure, protection and management of important pastoral resources and other sites of resource or conservation value significance, saxaul protection and rehabilitation, fuel efficiency and improved management of pasture-forest-land resources in forest steppe areas.

173. By building on the strengthening of pastoral grassroots organizations as the main actors in implementing and sustaining interventions, the project design mobilizes a variety of mechanisms of poverty reduction in pastoral, and other rural, communities as a result of labor division, collective action in marketing and processing, improved access to services, benefit sharing and employment provided within groups. Group formation is a crucial strategy to respond to natural disasters and for risk management; it enables poorer herders otherwise unable to move to undertake seasonal moves, and provides better-off herders with labor to manage their herds. Moreover, it is an important mechanism for poor herders to pool their resources and escape the cycle of poverty and inability to move. The project therefore tackles both land degradation and poverty which are mutually enhancing factors, and reaches resource users coping with increasingly degrading land resources.

174. Given that improved land-use and pastureland planning will generate benefits for the whole population of the respective soums, the target population is approximately 8,000 – 10,000 rural households. Moreover, demonstrations and the in-built up-scaling mechanisms through study tours, inter-community learning and dissemination of lessons learnt, will share the experiences of the project with a wider portion of the population of the country. Moreover, through the project supported interventions, herding communities in adjacent provinces should experience benefits as well, as improved management of pastoral resources in the project area alleviates pressure on surrounding regions.

175. At local level institutional level, bag governors, and aimag and soum level officers will benefit from pilot demonstrations and targeted capacity building in grassland management and sustainable land management for desertification control. Moreover, the strengthened institutional framework for collaborative management will enhance their capacity to deliver services and fulfill their functions in governance.

Sustainability

176. The project is designed to ensure institutional and environmental sustainability of its interventions. Many interventions have been designed with the aim of enabling herder communities and herder households to implement the interventions themselves with the help of bag and sum-level officers, such as co-management of resources, preparation of annual land use plans, managing rotational and long distance grazing by the end of project. In designing pilot activities, the aim was to gain a minimum of four years of experience in a reasonable number of field sites in sustainable livestock-based livelihoods through the sustainable management of herds and natural resources. The sustainable management of wells, water harvesting, alternate sources of fuel, management of local protected areas and saxaul protection ad rehabilitation would be ensured by pilot-testing and adopting a community-based approach.

177. The project through the establishment of herder groups would build socially viable and sustainable forms of cooperation at community level as a basis for implementing joint activities such as grazing management, well-rehabilitation and fodder production. The purpose of creating a 100 percent self contributed "herder group fund" and helping the herder groups to manage the funds would be to further promote group-level funds run and managed by herders themselves on a self-sustaining basis. In order to encourage community led initiatives and SLM related entrepreneurship among herders and rural center citizens (experience that already exist in Gobi Aimags), the project has set up "a matching fund" from which 50 percent matching funds will be made available to herder households which invest on a pre-established list of SLM activities.

178. The sustainability of the proposed project interventions is further ensured by the fact that the basis of these interventions is broad-based stakeholder participation – the stakeholders themselves identified the root causes of land degradation, barriers to SLM, and ways and means of removing the barriers.

179. Sustainability of the project and its interventions are ensured by the fact that the project is country driven – it is formulated on the strong commitment of the GoM to SLM and combating desertification. GoM is committed to the implementation of UNCCD-NAP and the project's contribution in strengthening the capacity of NCCD will contribute not only to efficient and timely implementation of NAP, but also to providing over-arching policy support to and monitoring of SLM activities throughout he country. Through mainstreaming the Pasture Law at soum and local levels, and mainstreaming of NAP into sector and local level planning, and preparing medium-term investment plans and mobilizing resources for implementing the plans, the project ensures the sustainability of its interventions beyond the project life.

180. Strong commitments, and in-kind contributions by local government, will further promote sustainable outcomes. Aimag and Soum governments of the project area will make available office space for the Aimag and Soum level project implementing units and allow free-of-charge use of room for workshops and training undertaken with project support. Local governments should make every effort to sustain outcomes achieved with project

support, and reflect necessary support in their annual planning and budgets to the extent possible. Local governments will actively promote the development of sustainability plans of all local stakeholders involved in project implementation. Local governments, and the soum level working groups, will pay specific attention to give their support to the strengthening of collaborative management at soum level, and to the establishment and management of the soum-level "SLM and Livelihoods Support Fund".

Replicability

181. The project is designed to implement a strategy for integrated, locally adapted SLM systems that can be replicated on a larger scale across the country through parallel and follow-up investments by the government and donor agencies. For example, a key element to enhance replicability is the preparation and implementation of local level land use plans with the involvement of local communities, district governments, and line agencies.

182. The project will demonstrate a number of already proven and innovative SLM practices in specific ecological zones in the country. Lessons learned from implementation of such agro-ecosystem specific interventions could be applied not only to other parts of the country with similar conditions, but also the sub-region which has similar ecological zones. Thus, the project has the potential to have a larger geographical impact in the sub-region.

183. During the implementation of the pilot projects, replicability of each intervention will be further analyzed and a strategy will be prepared to ensure implementation of successful models in similar eco-zones. The emphasis will be on identifying and developing cost-effective ways of rehabilitating and managing degraded rangelands, restoring watering points and constructing new watering sources to revive the mobility of grazing, harvesting and utilizing rainwater, achieving fuel efficiency, and protection of water resources and enhancing fodder reserves through sylvopastoralism.

PART III: MANAGEMENT ARRANGEMENTS

184. The project will be implemented over a period of five years beginning in October 2007. Project execution will adhere to UNDP nationally executed project requirements. The Ministry of Finance and Economy (MFE) is the focal point for coordinating UNDP's technical cooperation in Mongolia. The Implementing Partners of the project will be MoFA and MNE jointly responsible for the timely delivery of inputs and outputs and for coordination with all other Responsible parties including ALAGAC of the Ministry of Construction Urban Development, and UNDP Mongolia. Detailed division of responsibilities is given in Annex 9, and Annex 1 provides the institutional framework for project implementation.

185. The project will receive high-level guidance and oversight from a Project Steering Committee (PSC). The PSC will be composed of designated senior-level representatives of MNE, MoFA, MCUD, Governors of Pilot Aimags, Chair of NCCD, GEF Focal Point, Representative of the SDC Project on Coping with Desertification in Mongolia, and UNDP Resident Representative. The Steering Committee will be chaired by the State Secretary of

the MNE. Appointments to the PSC will be on an honorary basis and no fees will be paid. The TOR and composition of the PSC are presented in Annex 2.

186. A Project Technical Committee (PTC) will provide technical support to the project. It will be composed of individuals from government, research institutions, universities and civil society, selected on the basis of their competence in their respective fields. The TOR of the PTC is presented in Annex 3.

187. A Project Management Unit (PMU) will be created and it will play a key role in project execution. It will be attached to the MoFA and will be headed by a National Project Manager (NPM). He/she will be a national professional designated for the five-year duration of the project. The NPM will be responsible for the application of all UNDP administrative and financial procedures and for the use of UNDP/GEF funds. TOR of NPM is presented in Annex 5. The NPM will work under the direction of a National Project Director (NPD) appointed by MoFA from a department dealing with strategy, policy planning, pasture land use management, and livestock husbandry. The NPD will be responsible for ensuring the proper implementation of the project on behalf of the Government. In doing so the NPD will be responsible for overseeing proper project implementation for the Government of Mongolia. Terms of reference of NDP is given in Annex 4. An alternate NPD will be nominated by MNE.

188. The UNDP Country Office will support project implementation by assisting in monitoring project budgets and expenditures, recruiting and contracting project personnel and consultant services, subcontracting, procuring equipment, and providing other assistance upon request of the line ministries. The UNDP Country Office will also monitor the project implementation and achievement of the project outputs and ensure the proper use of UNDP/GEF and other donor funds. Financial transactions, reporting and auditing will be carried out in compliance with national regulations and UNDP rules and procedures for national execution. The UNDP Country Office will carry out its management and monitoring functions through an assigned Programme Officer in Ulaanbaatar, who will be also responsible for the project coordination with the project team.

189. NPM will be supported by a core technical and support staff. The following is proposed:

- 3 professional staff
- 1 Administration and Finance Officer
- 1 secretary
- 2 drivers

Four Aimag Coordination Officers (ACOs) will be selected corresponding to the four participating aimags. Two ACOs should be a working at the Aimag Government Office, in charge of land management, agricultural development and environmental management issues respectively. ACOs will work under the supervision of the NPM and will receive guidance from the Aimag Governor as well. ACOs will be responsible for guiding the Soum level Project Officer to implement project activities at the soum level. TOR of ACOs is presented in Annex 6.

At the Soum level, a Soum-level Field Office (SFO) will be established. A Soum-level Project Officer (SPO) will be attached to each SFO. SPO will be responsible for the implementation of all pilot activities and is supported by one administrative officer whose work is focused on community-based field level activities and a driver. In order to facilitate a participatory decision making, transparency and good governance, a Soum-level Working Group (SWG) will be established. SWG will be composed of ACO, SPO, Soum Governor, Soum Parliament Chair Person, Bag Governor, Soum-level Agricultural Officer, Soum-level Land Officer, Soum-level Extension Officer (where applicable) and Herder-Group representatives.

A GEF logo should appear on all relevant GEF project publications, including among others, project hardware and vehicles purchased with GEF funds. Any citation on publications regarding projects funded by GEF should also accord proper acknowledgment to GEF. The UNDP logo should be more prominent -- and separated a bit from the GEF logo if possible as, with non-UN logos.

Legal Context

The Project Document shall be the instrument referred to as such Article I of the Standard Basic Assistance Agreement (SBAA) between the Government of Mongolia and the United Nations Development Programme, signed by the parties 28 September 1976. The host country-implementing agency shall, for the purpose of the Standard Basic Assistance Agreement, refer to the government cooperating agency described in that Agreement.

UNDP acts in this Project as Implementing Agency of the Global Environmental Facility (GEF), and all rights and privileges to UNDP as per the terms of the SBAA shall be extended mutates mutandis to GEF.

The UNDP Resident Representative in Mongolia is authorized to effect in writing the following types of revision to this Project Document, provided that he/she has verified the agreement thereto by GEF Unit and is assured that the other signatories to the Project Document have no objection to the proposed changes:

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

Collaboration between PMU/FSP and PMU/SDC-GoM

The PMU of the FSP will work very closely with the PMU of the SDC-GOM project and interact and exchange information on a regular basis. More specifically, this collaboration will consist of:

- Representation in the respective Steering Committees;

- Regular bi-monthly meetings between the two projects;
- Exchange of all important information such as work plans, study findings, reports, etc.
- Where feasible, common consultancies, missions, field visits, planning, evaluation and monitoring.

PART IV: MONITORING AND EVALUATION

189. Project monitoring and evaluation will be conducted in accordance with established UNDP and GEF procedures and will be provided by the project team under the guidance of the UNDP Country Office, with support from UNDP-GEF. The **Logical Framework** will form the basis for the project Monitoring and Evaluation system.

190. The Monitoring and Evaluation Plan, including indicators and baseline information, will be refined and finalized at the project **Inception Workshop** (IW). The IW develop a detailed **Annual Work Plan and Budget (AWP)** and agree on timeframes for reporting project activities to the different levels within the governance structure, including project review meetings and national and local provincial committee functions. Finally, the inception workshop will provide an opportunity to inform the project team on UNDP project-related budgetary planning, budget reviews, and reprogramming as necessary. In subsequent years, a brief annual workshop will be held to develop AWPs and make new adjustments to the monitoring and evaluation system as necessary.

191. An **Inception Report** will be prepared immediately following the Inception Workshop. This will include a review of the project context, including any changes since the design phase which may affect implementation, and will detail the different levels of monitoring and evaluation that will take place throughout the project with specific information on the roles, responsibilities, activities, and indicators to be monitored during the first year of operations. For the benefit of all stakeholders, the following specific UNDP mechanisms will be defined and programmed with actions included in the inception report: annual **Project Implementation Review** (PIR), the **Annual Project Report** (APR), **Tripartite Review (TPR)** meetings, as well as the nature and timing of the **Mid-Term** and **Final Evaluations**.

192. ***Day to day monitoring*** of implementation progress will be the responsibility of the NPM with oversight by UNDP. Based on the project's Annual Work plan and its indicators, the Project Team will inform the UNDP-CO 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. Targets and indicators will be based on those agreed upon at the inception workshop and will be redefined at a new workshop to be held at the beginning of each project year, following a similar revision as implemented at the inception workshop.

193. ***Periodic monitoring*** of implementation progress will be undertaken by the UNDP-CO through quarterly meetings with the project staff. This will allow parties to review and troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth

implementation of project activities. UNDP-CO, UNDP-GEF, RCUs, UNCCD focal point and national steering committee members will conduct yearly visits to field sites to assess project progress first hand. A Field Visit Report will be prepared by the CO and circulated to all stakeholders.

194. A terminal TPR meeting will be held in the last month of project operations. MoFA and MNE will be jointly responsible for preparing the **Terminal Report** and submitting it to UNDP-CO, GEF, and the UNCCD focal point for distribution. It will be prepared in draft at least two months in advance of the terminal TPR in order to allow review, and will serve as the basis for discussions in the TPR. The TPR has the authority to suspend disbursement if project performance benchmarks (developed at the Inception Workshop) are not met.

195. The NPM will be responsible for the preparation and submission to UNDP and UNDP-GEF the following mandatory reports: Inception Report (IR), Annual Project Report (APR), Project Implementation Review (PIR), the Project Terminal Report. Specifications for additional internal and external progress reports will be defined during the IW.

196. The project will be subjected to at least two independent external evaluations. The first will be an independent **Mid-Term Review** (MTR), in mid-PY3. This will determine progress being made towards the achievement of outcomes and will identify course correction if needed, focusing on effectiveness, efficiency and timeliness of project implementation; highlight issues requiring decisions and actions; and present initial lessons learned about project design, implementation and management. The timing of the mid-term evaluation will allow coordinators to make any modifications necessary to incorporate improvements or changes in the project's activities for the remaining project period. An independent **Final Evaluation** will take place six months prior to the terminal tripartite review meeting.

197. Financial audits are also considered. The NPM will provide the UNDP-CO with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of UNDP (including GEF) funds according to the established procedures set out in the Programming and Finance manuals. The Audit will be conducted by the legally recognized auditor of the Government, or by a commercial auditor.

198. To facilitate the sharing of information, the project staff will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects, and report will be submitted to the UNDP-CO, RCU and UNCCD at the end of each year. UNDP/GEF shall provide a format and assist the project team in categorizing, documenting and reporting on lessons learned. If requested, the project staff will prepare project specific technical reports and technical publications. The technical reports will represent the project's substantive contribution to specific areas, and be used in efforts to disseminate relevant information and best practices at local, national and international levels.

Indicative Monitoring and Evaluation Work Plan and Corresponding Budget

Type of M&E activity	**Responsible Parties**	**Budget US$** *Excluding project team Staff time*	**Time frame**
Inception Workshop	NPM UNDP CO UNDP GEF		Within first two months of project start up
Inception Report	Project Team UNDP CO	None	Immediately following IW
APR and PIR	Project Team UNDP-CO UNDP-GEF	None	Annually
TPR and TPR report	Government Counterparts UNDP CO Project team UNDP-GEF Regional Coordinating Unit	None	Every year, upon receipt of APR
Steering Committee Meetings	Project Manager UNDP CO	4,000	Following Project IW and subsequently at least once a year
Periodic status reports	Project team	5,000	To be determined by Project team and UNDP CO
Technical reports	Project team Hired consultants as needed	8,000	To be determined by Project Team and UNDP-CO
Mid-term External Evaluation	Project team UNDP- CO UNDP-GEF Regional Coordinating Unit External Consultants (i.e. evaluation team)	20,000	At the mid-point of project implementation.
Terminal Report	Project team UNDP-CO External Consultant	20,000	At least one month before the end of the project
Publication of Lessons learned	Project team UNDP-GEF Regional Coordinating Unit (suggested formats for documenting best practices, etc)	10,000 (average 2,000 per year)	Yearly
Audit	UNDP-CO Project team	0 (Cost to borne by CO)	Yearly
Final Evaluation	Independent Consultants	50,000	Six months prior to the terminal tripartite review meeting.
TOTAL indicative COST		**US$ 120,000**	

PART V: RESULTS AND RESOURCES FRAMEWORK

Incremental cost analysis

Broad Goals

199. One of the top priority goals of the Government of Mongolia is to combat land degradation and to ensure that the terrestrial land uses of Mongolia are sustainable productive systems that maintain ecosystem productivity and ecological functions while contributing directly to the environmental, economic and social well-being of the country. Towards achieving this objective, GOM is planing to implement a full sized project on sustainable land management, the main objective of which is to strengthen the enabling environment for sustainable land management by building capacities in appropriate government institutions and user groups and demonstrating good practice in SLM through on-ground interventions that are integrated with national economic and social development policies.

Global Environmental Objectives

200. At the global level, the project will contribute to improved ecosystem stability and productivity. The major global benefit of the project would be restoration of degraded dry-land ecosystems for enhancing their structural and functional stability. The cross-sectoral nature of the project would help in meeting Mongolia's obligation under UNCCD as well as other conventions—CBD, UNFCC. Thus, other global benefits include improved carbon sequestration and conservation of plant and animal species of global significance. In addition, SLM activities under the project will promote the integrity of watersheds with indirect trans-boundary impacts.

Baseline

201. Annex 13 presents the problem tree, which describes the threats facing the land resources of Mongolia and the accompanying barriers that have so far hindered the application of sustainable land management practices. The problem tree arose from a participatory process of threat analysis. The conclusion of this analytical process was that the main threats and barriers could be grouped under the following problem areas:

202. Problem 1: Shortcomings in human resources and institutions, particularly for outreach, incomplete knowledge base and poor mechanisms for coordination and for collaborative planning and management at local level are the most significant and most systemic barrier to successfully addressing important root causes of LD and desertification.

203. Problem 2: NAP requires updating and mainstreaming. Existing policy, legislative and institutional structures, particularly at local community level do not provide adequate support for implementing SLM.

204. Problem 3: Herders and forest resource users have few alternatives to unsustainable use of grasslands and natural resources and to adapt to impacts of climate change. They are entrapped in a vicious circle of poverty and degradation of natural resources.

205. Taken together, the above three problem areas constitute the baseline upon which the present project seeks to build. Each of the problems is summarized briefly below:

Problem 1: Weak institutions and mechanisms for collaborative planning

206. As described in the main text, at the central level, responsibilities for policies and programme implementation related to SLM are presently distributed among several ministries and implementing agencies, and barriers to SLM are present that pertain to coordination among departments, and to resource and staff needs to facilitate effective linkages to line agency staff in the provinces, and outreach to local areas.

207. While MNE is the focal point for the three MEAs, and is particularly in-charge of coordinating the implementation of UNCCD-NAP, it lacks resources and capacity to implement the NAP in a coordinated manner. The NCCD, created to coordinate the implementation of NAP is neither truly intersectoral, nor it is strong enough to provide policy guidance for and monitoring of NAP implementation. MoFA has the mandate, among others, to ensure sustainable livestock development, but did not have the mandate, until recently, for grassland management. However, even with the creation of a Pastureland Division within MoFA, its capacity for grassland management is very limited. The ALAGaC, an authority under the MCUD, while having the consolidated functions of land use planning, surveying and mapping, land administration, and registration of immovable property, is severely limited in its capacity for outreach. On top of the above fractured responsibilities, these relevant institutions operate mainly in isolation.

208. A Center of Desertification studies was specially created under the Institute of Geo-Ecology to undertake applied research for combating desertification and provide a scientific basis for designing and implementing desertification control programmes of the country. The Center lacks trained staff and resources to carryout its mandate and does not have the much needed outreach capacity.

209. At the local level, soums have a critical role in providing technical assistance to herder associations and herder households in joint planning and co-management of natural resources. Often soum governments are unable to provide the critical support needed by resource users due to weak capacity and very limited resources available to them. While herders recognize the advantage of some form of organizing themselves into community groups, the capacity of the herders to organize themselves under a market economy and a new social order remains to be strengthened.

210. Under the baseline scenario, i.e. in the absence of GEF support for strengthening coordination mechanisms, institutional and human resources capacity and knowledge base to promote SLM, it is unclear whether substantial progress would be made in eliminating the above-described problems. Further, baseline projects are designed to address

components of capacity building in the context of immediate national benefits and not in the context of ecosystem functions and services. As a result, global environmental benefits would be a minimum and grasslands and associated ecosystems such as the saxaul forests will continue to be depleted, resulting in the loss of globally significant biodiversity and ecological functions that these ecosystems provide.

211. Baseline spending for strengthening coordination mechanisms, capacity building of national and local level institutions, strengthening herder institutions, strengthening the Center of Desertification Studies has been roughly estimated at USD: 240,000.

212. **Problem 2:** Existing policy, legislative and financial incentives, particularly at local community level, do not provide adequate support for implementing SLM. NAP requires updating and mainstreaming.

213. Under the baseline scenario, a pastureland law is being formulated and expected to be adopted by the Parliament in the autumn of 2007. However there is no planned activity to mainstream the pastureland law into local level planning.

214. The UNCCD-NAP was first formulated in 1996. This is a fairly comprehensive document, and it included an elaborate mechanism for implementation, monitoring, and resource mobilization. It had identified 19 priority projects. However the actual performance has been far below the expectation mainly due to lack of capacity, inability to foster intersectoral collaboration and inadequate resources. In 2003, NAP was reviewed and somewhat updated, and a phased implementation was proposed. However this revision did not address the implementation difficulties such as inter-sectoral rivalries, and poor coordination and monitoring capacity. Baseline activities are now being initiated to strengthen the capacity of the National Committee for Combating Desertification (NCCD) and, prepare a comprehensively updated version of NAP within a framework of phased implementation (Phase II implementation is scheduled for 2007-2012) and a 10-year UNCCD strategy. Even then, the planned baseline activities do not address the need for mainstreaming NAP into national and sector policies, local level planning and programme implementation, and budget allocation processes. Therefore in the absence of the GEF alternative, the baseline activities are not likely to result in a sustained improvement in implementing NAP and SLM practices.

215. In order to improve co-management of natural resources, effort is being made under the baseline scenario to prepare guidelines on annual sum-land use planning with some participation of local communities, but this may not be the ultimate solution for participatory management of pasture and related natural resources by herders. A more comprehensive approach is needed and this is what the GEF alternative proposes to do.

216. Under the baseline scenario, spending within the activities described above i.e. formulation and adoption of the pastureland law, implementation of UNCCD-NAP, preparation of guidelines for baseline for co-management, would amount to an estimated USD150, 000.

217. **Problem 3:** Herders and forest resource users have few alternatives to unsustainable use of grasslands and natural resources and to adapt to impacts of climate change. They are entrapped in a vicious circle of poverty and degradation of natural resources.

218. Studies conducted by a team of consultants during the PDF B stage show that, in general, local government capacity and links to effectively facilitate joint planning with rural communities and to implement NRM are weak. Through some on-going baseline projects in two soums in the project area, co-management, community organization and better local governance are being experimented. However, in the majority of the project area, there are no baseline activities to strengthen the local institutional framework. In the absence of the GEF alternative, local communities in these areas will not be able to organize themselves and implement SLM practices. The GEF alternative addresses the local-level institutional and governance issues more comprehensively.

219. While all 13 soums have maps of pastureland resources (developed under completed or on-going baseline projects) land-use planning and implementation is limited. Basic pasture use maps will have to be further developed into sum-level land use implementation maps by incorporating all pilot activities that are to be established. Without the GEF alternative, such implementation LUP maps will not be produced.

220. In the project areas, limited and dwindling water resources are a significant challenge to pastoral mobility. While herders respond with hand-dug wells where possible, there is not enough labor available within the herder community for well rehabilitation. Among the baseline activities on well rehabilitation, is a government programme that provides financial support through local governments for well rehabilitation and drilling of new wells.

221. Lessons learnt in community based natural resources management (CBNRM) are available in two project soums; they include good practices in community based conservation, protection of biodiversity values; and community based development of pasture water supplies. Fodder production and risk management activities are carried out in two baseline projects.

222. Under the baseline scenario, spending within the activities described above i.e. piloting community organization models, preparation of annual soum-wide land use maps, government contribution to well rehabilitation and construction of new wells, and CBNRM, fodder production, etc. would amount to an estimated USD1,695,000.

GEF Alternative

223. It should be noted that some progress has already been made under the PDF-B process. The PDF B process has contributed to the identification of forms and impacts of LD, root causes of LD and barriers to SLM and consequently in establishing the “system boundary” for project interventions and the identification of Outcomes and Outputs. The following PDF-B studies are particularly relevant to the preparation of the project document:

- Baseline study on land degradation, desertification and ecosystem integrity (completed).

- Stakeholder/institutional analysis on national and aimag levels - government institutions, research/academic and training institutions, and NGOs (completed)

- Participatory analysis of local stakeholders, linkages between livelihoods and land degradation/SLM, local needs for developing SLM, and socio-economic baseline study (completed).

- Gap Analysis for NAP, and review of legal and policy framework with regard to mainstreaming SLM (completed).

- Feasibility studies for locally adapted solutions, such as increasing local livestock productivity and/or intensification of livestock production (completed).

224. As called for by standard LFA methodology, the three problem areas discussed in the previous sections have been "flipped" into outcomes to be achieved by the proposed FSP on SLM. These are discussed below:

225. **Outcome 1:** Strengthened coordination mechanisms, institutional and human resources capacity, and knowledge base to promote SLM and desertification control.

This outcome will help to strengthen coordination mechanisms, build individual and institutional capacities at national and local levels and fill gaps in knowledge base. More specifically, the contribution of this Outcome towards establishing an enabling environment includes the following:

a) Strengthening the NCCD to become effective policy guidance and monitoring body for implementing SLM and desertification control programmes, projects and activities within and outside the NAP. Strengthening of this intersectoral coordination mechanism is urgently needed not only to accelerate the implementation of the UNCCD-NAP, but also to provide an over-arching coordination policy and monitoring guidance function to implement a comprehensive programme on SLM, to which the GoM is fully committed. Instead of creating another parallel mechanism to coordinate SLM, it is proposed to utilize the existing UNCCD mechanism to coordinate and monitor SLM activities and the UNCCD-NAP in an integrated manner.

b) Enhancing technical knowledge and skills of aimag, soum and bag level officers in SLM and combating desertification; and indigenous and new knowledge in grassland management and pastoralism among herders, particularly the young.

c) Development of a short- and medium-term strategy for institutional capacity building in SLM and desertification control in government institutions and capacity

building plans for relevant departments/units of MoFA, MNE and MCUD under the framework of the strategy.

d) Offering undergraduate level courses in SLM and desertification in two universities in Mongolia.

e) Strengthening the research and outreach capacity of the Center of Desertification Studies in SLM and desertification control, including technical, economic and social aspects.

226. Total costs of this component of the GEF alternative are estimated at USD 622, 500, of which USD 247, 500 will be provided by GEF and USD 375, 000 will be provided through co-financing.

227. **Outcome 2**: SLM mainstreamed into national, provincial and local policies, regulatory framework and financial incentive mechanisms.

This outcome will mainstream SLM and UNCCD NAP into national, provincial and local policies, regulatory framework and financial incentive mechanisms with particular reference to mainstreaming the recently enacted Pastureland Law at local-level planning. The Outcome will also promote reinvestment of revenues form land use/resource use into local land use planning and implementation of local level SLM activities. More specifically, the contribution of this Outcome includes the following:

f) Mainstreaming of the Pastureland Law, Land Law and associated environmental legislation into aimag, soum, bag and community level planning and programming processes with special reference to land use planning and co-management of natural resources.

g) Updating the UNCCD-NAP in relation to (i) structure, (ii) content, (iii) implementation and, (iii) monitoring and evaluation. The revised NAP will be mainstreamed into national and sectoral development plans and into aimag and soum level planning processes and developmental activities. A medium-term investment plan will be prepared to implement NAP.

h) Helping herder communities to set-up their own community funds and develop fund management norms; piloting tax incentives for sustainable pasture use (seasonal/rotational grazing, use of remote pasture), ecologically adjusted herd structure and fuel efficiency measures; and promoting the reinvestment of revenues form land use/resource use into local land use planning and SLM and combating desertification.

228. Total costs of this component of the GEF alternative are estimated at USD 182,500 of which USD 82, 500 will be provided by GEF and USD 100, 000 will be provided through co-financing.

229. **Outcome 3:** Pilot testing, demonstrations and scaling-up community based approaches in integrated natural resources management with focus on grassland and water management and sylvopastoralism.

Under Outcome 3, innovative sustainable land management practices will be piloted while building on Indigenous practices. On-the-ground investments will be made to facilitate innovation, demonstration, and replication of sustainable land management practices including indigenous management systems. These investments comprise packages to improve the livelihood of local people and to preserve or restore the ecosystem health, and thus the flow of goods and services the ecosystems provide. More specifically, the contribution of this Outcome includes the following:

i) Strengthening the capacity of community organizations to perform their functions. The project will draw on best practices and lessons that have emerged from ongoing and past projects on community organization, co-management and local governance.

j) Facilitating integrated and participatory land-use planning, developing local capacity in pastureland management and assessment including scientific and traditional knowledge. The lessons learnt during implementation will be documented to inform policy makers on needs and opportunities for further enhancing the legal and regulatory framework for the management of pastureland and other natural resources.

k) Demonstrating community based approaches in integrated water and pasture management; pasture rehabilitation and fodder production based on local plant species and traditional practices; local protected area management; and fuel efficiency. Under the baseline, fuel efficiency is being addressed on very small scale, with need and opportunities for up-scaling local technologies. In this regard, the GEF alternative is the only project that will address these issues in a systematic manner.

l) Piloting establishment of windbreaks for the protection of infrastructure, plantations, water sources and land under rehabilitation.

m) Piloting saxaul protection and rehabilitation measures to enhance soil conservation in the Gobi Region and maintain the crucial pasture resources, in particular for Camel. As the camel is the most ecologically adapted livestock species in the Gobi, which exerts least pressure on Gobi pastures, the protection of saxaul is key to both sustainable land management and livelihoods in the Gobi.

n) Demonstrating sylvopastoralism activities to address barriers to sustainable grasslands management due to the loss of water resources as a result of deforestation in watershed areas. In turn the loss of water sources impacts on pastoral mobility leading to concentration of herds near fewer water sources, contributing to land degradation.

230. Total costs of this component of the GEF alternative are estimated at USD 2,515, 000, of which USD 990,000 will be provided by GEF and USD 1,525,000 will be provided through co-financing.

Scope of Analysis

231. The scope of the present incremental cost analysis has geographic and thematic aspects. Geographically, the scope of on-the-ground investments is limited to 13 soums in four aimags, which are the entire set of outputs and activities under Outcome 3. Thematically, the project is closely focused on trageted capacity building, strengthening coordination and policy guidance and the development of innovative and locally adapted technologies and management practices in water harvesting, integrated water management, rehabilating the productivity of pastures, windbreak systems, fuel efficiency, protection of saxaul vegetation and sylvopastoralism.

232. In terms of defining baseline and GEF alternative levels of spending, the above defined scope means that spending related to realizing the outputs defined within the three Outcomes. However project management and monitoring and evaluation expenditures are excluded from the analysis.

Costs

233. Baseline expenditures within the system boundary of the project outputs are estimated at USD 2,085,000. These are best estimated costs of all relevant investments and programmes that would have taken place in the absence of a GEF project.

234. The total cost of the GEF alternative project necessary to ensure sustainable land management and maintain ecosystem productivity and ecological functions is USD 4, 150, 000 (excluding parallel funding and in-kind contribution from GoM) . The total additional or *incremental cost*, which is the difference between the baseline and the GEF alternative, is USD 2, 065, 000.

Sustainable Land Management to Combat Desertification

Incremental cost Matrix

Benefits/Costs	Baseline (B)	Alternatives (A)	Increment (A-B)
Domestic Benefits	– Herder Groups have been formed in some areas, but they were not self sustainable. – Co-management of natural resources not very successful due to lack of guidelines for joint planning and difficulties in preparing integrated soum-level land use plans. – Herders' mobility is limited due to lack of adequate numbers of functional watering points, lack good long distance grazing and lack of indigenous knowledge among young and new herders. – Pastureland Law is not enacted nor existing Land Law is mainstreamed into local level planning; herders are not aware of their legal rights with regard to grazing rights, possession, and other provisions in the law. – UNCCD-NAP requires revision; and it is not mainstreamed into national, regional and sector planning. – Limited institutional capacity. – Capacity building is ad-hoc; institutions do not have capacity building strategies and plans. – Line agencies are not collaborating in integrated management of natural resources. – Research and outreach capacity in SLM and desertification control is weak.	– Herders in project soums are organized into effective and self sustainable Herder Groups and involved in co-management of resources, joint land use planning and rotational grazing activities. – In the project areas, pastoral mobility is gradually revived, pasture quality has improved, and herders are using new and rehabilitated water sources and practicing rotational and long distance grazing. – Awareness and knowledge on sustainable pastoralism increased among young and new herders; herders are adopting practices that conserve water, improve fuel efficiency and protect specially protected areas. – Pastureland Law and other related legislation are mainstreamed into local level planning. Herders are aware of tenure rights, procedures to secure possession and other legal provisions. – Financial incentives are provided to promote sustainable livestock and grassland management practices; and reinvestment of local tax revenues to support local initiatives promoted. – UNCCD strengthened to provide policy guidance, coordination and monitoring SLM and UNCCD-NAP implementation. – NAP updated, mainstreamed into national, sectoral and regional development policies and an investment plan to implement SLM prepared. – Institutions prepare their own capacity development strategies and plans in a	– Grasslands in project areas rehabilitated and pastoral mobility revived. – Ecosystem stability and integrity restored at the pilot sites. – Protection of specially protected areas results in bi-diversity conservation, restoration of ecosystem functions, and protection of cultural values. – Knowledge and awareness barrier among herders overcome – Innovative funding mechanism devised. – Enhance individual and institutional capacity. – Improved coordination and monitoring mechanisms for SLM and NAP implementation. – NAP is implemented efficiently. Funds are available for NAP implementation. – Mainstreaming SLM into land use planning. – Technology transfer and knowledge dissemination enhanced through effective outreach mechanism. – Integrated NRM promoted. – Enabling policy and institutional framework.

Benefits/Costs	Baseline (B)	Alternatives (A)	Increment (A-B)
		coordinated manner. Young university graduates have improved knowledge and better understanding of the land degradation and desertification process and control measures. – Research and outreach capacity in SLM enhanced; and knowledge base in SLM strengthened and indigenous knowledge synthesized and promoted through outreach mechanisms.	
Global Benefits	– Current grassland management practices are unsustainable. – Existing sectoral policies and laws do not provide enabling environment for SLM. – Degradation of grasslands around watering points and peri-urban areas due to loss of livestock mobility – Loss of saxaul vegetation and natural vegetation leading to further extension of desert into the steppe region. – Rapid loss of globally threatened species. – Limited understanding of land degradation and desertification process and their consequences. – Limited human and institutional capacity. – NAP not mainstreamed into national, regional sectoral polices and planning process. – High incidence of rural poverty.	– Enabling environment for SLM provided. – Restoration of degraded grassland ecosystems. – Conservation of biological diversity of global significance. – Improved Carbon sequestration. – Local communities better adapted to climate change related extreme events – Local communities adopt alternate sustainable livelihoods. – Enhanced technical capacity and financial resources for SLM. – SLM principles integrated into land use planning. – Enhanced knowledge and awareness.	– Local communities and private sector become active partners. – Co- management regimes introduced at local levels. – SLM interventions provide demonstration value for replication of best practices to other parts of the country and in the region. – Lesson learnt and best practices documented and disseminated. – Enhanced carbon sequestration. – Indigenous knowledge and land use practices documented and strengthened. – Conservation of globally significant plant and animal species.

Outcome	Baseline (B)	GEF Alternative (A)	Increment (A-B)
Outcome 1: Strengthened coordination mechanisms, institutional and human resources capacity, and knowledge base to promote SLM and desertification control	• MNE is supporting the secretariat of National Committee for Combating Desertification (NCCD), which is supposed to foster coordination and monitor NAP implementation. • UNDP is providing assistance for strengthening coordination of MEAs under the "Environmental Governance" project. • SDC plans to strengthen UNCCD under its "Combating Desertification in Mongolia" project. • World Bank under its "Sustainable Livelihoods Project" is strengthening ALAGaC. **The Total Cost of Baseline (B) on activities related to Outcome 1 = USD 240,000.**	• Coordination and monitoring capacity of the National Committee to Combat Desertification (NCCD) strengthened. • Human resources capacity of aimag, and soum and bag level officers in SLM and desertification control strengthened • Herder community leaders and young herders trained in indigenous and new knowledge in grassland management and pastoralism. • Capacity of government institutions strengthened to plan their own institutional capacity development. • Courses on SLM offered at the university level for B.Sc. degrees in the Mongolian National University and Agricultural University. • Center for Desertification Study strengthened on research and outreach in SLM and desertification control, with specific reference to (a) water harvesting, (b) land degradation assessment, (c) sylvopastoralism, and (d) windbreak systems. **The total cost of Alternative (A) with respect to Outcome 1 = USD 622,500**	**USD 622, 500 – 240, 000 = 382,500**
Outcome 2: SLM mainstreamed into	• GoM prepares UNCCD-NAP	• The Pastureland Law, Land Law	**USD 182,000 – 150,000**

Outcome	Baseline (B)	GEF Alternative (A)	Increment (A-B)
national, provincial and local policies, regulatory framework and financial incentive mechanisms	Phase II plans and 10-year strategy • SDC plans to update UNCCD under its "Combating Desertification in Mongolia" project • World Bank providing support to implementation of Pastureland Law.	and associated environmental legislation are mainstreamed into Aimag, Soum, Bag and community level planning and programming processes. • Norms prepared on Herder Group fund management and herders trained in fund management. • Reinvestment of tax revenues in local resources management activities promoted. • Financial incentives provided to promote sustainable grassland management practices. (Matching funds) • **UNCCD -** NAP updated and mainstreamed into national and sectoral planning. • UNCCD-NAP Phase II plan and 10-year strategy prepared. • UNCCD-NAP/SLM investment plan prepared	**= 32,000**
	The total cost of Baseline (B) on activities related to Outcome 2 = USD 150,000.	**The total cost of Alternative (A) with respect to Outcome 2 = USD 182,500**	
Outcome 3: Pilot testing, demonstrations and scaling-up community based approaches in integrated natural resources management with focus on grassland and water management and sylvopastoralism	• GoM has investment in well rehabilitation and drilling new wells within the project's pilot areas. • World Bank under its "Sustainable Livelihoods Project" is strengthening herder groups within the project's pilot areas on pastoral risk management.	• Pilot activities in 13 soums to develop and scale-up effective and financially self-sustaining Herder Groups, institutional framework for participatory planning processes and co-management of pastureland and other natural resources • Pilot activities in all 13 soums on soum- wide land use	**USD 2,515,000 – 1,695,000 = 820,000**

Outcome	Baseline (B)	GEF Alternative (A)	Increment (A-B)
	•	planning. • Pilot projects in all 13 soums on community based approaches in integrated water and pasture management, pasture rehabilitation, fodder production based on local plant species and traditional practices, on local protected area management and fuel efficiency. • Pilot projects in 5 soums on establishing windbreaks for the protection of infrastructute, plantations, water sources and land under rehabilitation. • Pilot projects in the 2 Gobi region soums, on saxaul protection and rehabilitation. • Pilot projects in two Forest Steppe soums on sylvopastoralism **The total cost of Alternative (A) with respect to Outcome 3 = USD 2,468,000**	
	The total cost of Baseline (B) on activities related to Outcome 3 = USD 1,695,000		

Logical Framework Analysis

Project Summary	Performance Indicators	Baseline	Target	Means of Verification	Assumptions & Risks
Goal: The pasture, agriculture, forest and other terrestrial land uses of Mongolia are sustainable, productive systems that maintain ecosystem integrity and ecological functions while contributing directly to the environmental, economic and social well-being of the country.					
Objective: To strengthen the enabling environment for sustainable land management with special reference to sustainable management of grasslands and forests for livestock production, while ensuring broad-based political support and local level participation for the process.	National Committee for Combating Desertification (NCCD) strengthened for coordinating and monitoring NAP and SLM activities. It is functioning beginning PY1	CCD is weak, lacks capacity. and under-funded	strong NCCD established by PY1.	Progress reports Independent evaluation report Country report to UNCCD Project Termination Report	No Dzud Intensity of drought in Sukhbaatar and Dornogobi Aimags decreasing No significant out-migration of participating herder households Pastureland law is passed by parliament in 2007 autumn session
	Government institutions at all levels, research institutions, universities, NGOs and CSOs have improved capacity in SLM and are actively involved in SLM and desertification control activities.	Capacity of government institution in SLM is weak; Universities do not offer courses on SLM Center of Desertification Studies has only a skeleton staff and not well equipped to undertake outreach.	A short and medium term capacity building strategy and implementing plans completed by PY1. SLM courses offered at the Mongolian National University and Agricultural University in PY 3 and PY4 Capacity for outreach in SLM established in the Center for Desertification Study by PY1 and support provided through PY5.	Progress reports Independent evaluation reports Country report to UNCCD Reports of sector ministries and departments	
	Enabling environment created by (a) mainstreaming Pastureland Law into provincial and local level planning; (b) mainstreaming an updated NAP into national and sectoral policies; and (c) improving financial viability of herder associations and local level actions.	Pastureland Law not mainstreamed into aimag and local level planning NAP requires updating and not mainstreamed into sector policies and plans. Revenue from local resource utilization is largely not re-invested	Pastureland law mainstreamed into aimag and soum level planning by PY3; NAP mainstreamed into national and sector policy and planning framework by PY2	Progress reports National and sectoral policies and annual planning soum level land use plans plan	

Project Summary	Performance Indicators	Baseline	Target	Means of Verification	Assumptions & Risks
		into local NRM Community organizations lack financial sustainability			
	SLM practices are scaled-up to larger geographic area (13 soums) through demonstration of best practices in grassland management and sylvopastoralism and for combating desertification and land degradation	Pilot activities are at best random, and there is little effective up-scaling	SLM practices introduced at 7 sites by PY1 and up-scaled to 13 sites by PY2 Desertification and land degradation controlled in 40% at pilot sites by PY 3 and 100% by PY 5	Independent evaluation at the end of PY 3 and 5. Monitoring/Progress reports Impact assessment reports	
	The public has medium awareness and medium understanding of SLM. There is specific budget allocation for SLM in the national budget.	While awareness of encroaching desertification is high among the public, awareness of causes and barriers, and understanding of integrated approaches and SLM is low. No specific budget allocation in the national budget	By PY 4, public in the project area has high awareness and understanding of SLM as a result of learning from pilot activities By PY 5, Ministry of Finance plans annual budget allocation for SLM for the following year	Independent evaluation at the end of PY 4 and 5. Monitoring/Progress reports Impact assessment reports Annual budget of GoM for 2013	

Project Summary	Performance Indicators	Baseline	Target	Means of Verification	Assumptions & Risks
	Number of participating Herder Households engaged in sustainable grassland and sylvopastoral activities and The decrease of number of poor households in their group	To be determined by PY1 through social mapping with all participating groups	Herder Households participating in the pilot activities are engaged in sustainable grassland and sylvopastoral activities and the number of poor households in their group has decreased by 50 %	Poverty related studies and herder household surveys at project sites Socio-economic survey reports	
Outcome 1: Strengthened coordination mechanisms, institutional and human resources capacity and knowledge base to promote SLM and desertification control	Donor-supported and government programming for SLM and desertification control is guided and monitored by NCCD	NCCD has insufficient capacity and finances to fulfill coordinating functions	By PY 1, a revised model of NCCD is agreed by stakeholders; by PY 4, NCCD unit within MNE is effectively guiding programming for SLM and desertification control	NCCD ual reports al reports	Services for extensive livestock husbandry are maintained/improved Regional and rural development strategies are implemented by GoM
	As a result of improved Technical and indigenous knowledge in SLM and desertification control, local government and resource users, particularly young herders, are improving land-use in the project area	At Aimag, soum and bag level, technical capacity is inadequate, and particularly the young herders, lack indigenous knowledge for sustainable drylands management	By PY 1, training modules are developed. By PY 2, 3 government officers in each of the 13 soums, and altogether 50 herders are trained	Training Plan Training Impact Report	
	The capacity of Government institutions relevant to SLM is being developed according to their own capacity building plans;	A professional standard for SLM, capacity building plans and strategy do not exist	Relevant Units/departments of MoFA, MNE and MCUD have Capacity Building plans by PY 1	Strategy Document for Institutional Capacity Building for SLM Capacity Building Plans of relevant units/departments Annual reports of units/departments within the 3 ministries	

Project Summary	Performance Indicators	Baseline	Target	Means of Verification	Assumptions & Risks
	Trained professionals (B.Sc. level) in SLM are becoming available as technical and managerial staff in relevant departments and organizations	Institutions of higher education train students in land management, but no degree course exist in SLM and desertification control	Undergraduates in biological and environmental sciences have option to acquire B.Sc. in SLM at two institutions in Mongolia by PY 2	Curricula at two institutions Records of two institutions on students, courses/degrees offered, and graduates Impact Report	
	Center for Desertification Studies has staff qualified in water harvesting, windbreak systems, land degradation assessment in drylands, and in sylvopastoralism Resource users are accessing outreach services in SLM and desertification control of the Center for Desertification Studies. Technology transfer is facilitated by Center for Desertification Studies	Center for Desertification Studies is very limited in capacity and has no effective outreach	Technical experts in water harvesting, windbreaks and sylvopastoralism are staff members at the Center for Desertification Studies by PY 5. Dryland Degradation Assessment Model applicable to Mongolia developed and agreed among leading experts/institutions. Center for Desertification Studies has an effective Outreach Program focusing on Technology Transfer by PY 3 Guidelines/Synthesis documents on water harvesting, wind breaks systems, sylvopastoralism available to resource users and organizations by PY 3	Guidelines/Synthesis documents on water harvesting, wind breaks systems, sylvopastoralism available to resource users and organizations. Annual report of Center for Desertification Studies Brochure/Document on the Outreach Programme of the Center for Desertification Studies	
	The capacity of Government institutions relevant to SLM is being developed according to their own capacity building plans; Professional staff are qualified according to the set competency				

Project Summary	Performance Indicators	Baseline	Target	Means of Verification	Assumptions & Risks
	standards for SLM and desertification control				
Outcome 2: SLM mainstreamed into national, provincial and local policies, strategies and regulatory framework.	Resource users and local government prepare and implement land-use plans based on the provisions of the pastureland law, relevant environmental legislation and based on principles of collaborative management of natural resources	A methodological guideline for soum-level annual land-use planning has been developed, but is not applied widely and does not incorporate provisions of the new pastureland law and the summary experiences of several projects on collaborative management of natural resources at soum level	In all 13 soums in the project area, land-use plans are prepared annually that incorporate the existing guidelines, provisions under the new pastureland law by PY 3 Local government and resource users are educated about the pastureland law, land law and environmental legislation	Land –use plans in 13 soums Training reports Training manuals	GoM continues to support participatory approaches and co-management of NR. GoM, Ministry of Finance is open to adjustments of fiscal regulations in favor of SLM investments on local level Pastureland law is passed by parliament in 2007 autumn session
	National and sectoral development and local planning is guided by and reflects an up-dated/revised NAP to promote SLM and desertification control	NAP exists as a document, but is not shared by stakeholders and key decision makers as a guiding document for planning and programming. NAP phase one is completed, and phase two is to be designed to comply with 10 year UNCCD strategy. NAP is not suitable for (donor) resource mobilization	By PY 2, up-dated NAP provides guidance to sectoral planning. By PY 1, action plan to implement phase 2 of NAP is developed. By PY 3, an investment plan for NAP implementation is prepared	Revised NAP document Investment plan to implement t NAP Sectoral development plans	

Project Summary	Performance Indicators	Baseline	Target	Means of Verification	Assumptions & Risks
	SLM and NR rehabilitation to promote SLM improves in the project areas as a result of innovative financing mechanisms, piloted fiscal reforms and improved financial strengths of community organizations. \ Based on the pilot activities and on feasibility studies, policy makers are presented with options for developing fiscal policies that promote SLM and enable local governments and resource users to sustain and promote land productivity.	Current regulations and fiscal procedures are counterproductive to local SLM and rehabilitation; sustainable use of grasslands is not rewarded by tax schemes; local community organizations capacity for financial management and for investments is low	Feasibility study on tax incentives to promote sustainable land-use available to policy makers by PY 2. Feasibility study on improved re-investment of revenues from land/resource use into local SLM Herder groups have shared experiences on fund management among themselves and have developed fund management norms by PY 2,	Feasibility study documents Norms for community group fund management. Records/Reports of experience sharing/workshops/training with herder groups	
Outcome 3: – Pilot testing, demonstrations and scaling-up community based approaches in integrated natural resources management with focus on grassland and water management and sylvopastoralism	Based on best practices and lessons learnt, within and beyond the project area, all 13 soums have established a local institutional framework of herder groups (or other CBOs) and a soum level co-management body as the core organizations to implement pilot activities, experience sharing and up-scaling.	In general, local government capacity, and links to effectively facilitate joint planning with rural communities and to implement NRM are weak; however, lessons learnt on co-management, community organization and better local governance have been generated by several projects. In two soums of the project area, co-	In 13 soums, herder groups (CBOs) at all pilot sites are implementing their own action plans by PY 2. In 13 soums, groups and co-management bodies have developed their own norms and action plans by PY 2. By PY 4, in all 13 soums, groups and co-management bodies have developed sustainability plans to maintain activities supported by the project. By PY 5, documentations on all pilot activities and lessons learnt are available to national outreach/extension	Action plans of herder groups Action plans of co-management bodies and herder groups Sustainability plans. Documentations on best practices of all Technical Pilots. Itinerary for Study Tour to best sites/practices of pilot activities.	GoM continues to develop legal framework for grassroots organizations for NRM Local governments are supportive of co-management approach Pastureland law is passed by parliament in 2007 autumn session Inter-Aimag and inter-soum collaboration for grazing reserve management and otor regulation is improved

Project Summary	Performance Indicators	Baseline	Target	Means of Verification	Assumptions & Risks
		management bodies and strengthened community organizations are operational; in the majority of the project area, however, a local institutional framework needs to be developed.	organizations		Regulation of mining activities and mitigation of impacts improved Enforcement of laws and regulations on environmental protection and mitigation is improved. Environmental governance issues are being addressed by government and/or donor-support
	Based on jointly developed land-use plans, pastureland mapping and approval through local parliament, pasture land in all 13 soums is under improved management through seasonal and rotational grazing, and technical pilot activities are incorporated into land-use plans.	While all 13 soums have maps of pastureland resources (completed or under preparation), land-use planning and implementation is limited. Baseline plans incorporating all pilot activities are to be established.	By PY 2, in all 13 soums, land use planning processes involving community organizations, local government, incorporating science based assessment of pasture condition and traditional practice, are being applied. Soum Khurals are approving annual land use plans by PY 3 Policy brief summarizing experiences in land-use planning developed by PY 5	Land-use plans of Soums Policy paper.	
	In the project area, protection and rehabilitation of ecosystem functions and of the pastoral resource base are promoted by enhancing pastoral mobility, risk management and fuel efficiency through pilot activities in community based approaches in integrated water and NRM and conservation,	In the project areas, limited and dwindling water resources are a significant challenge to pastoral mobility. While herders respond with hand digging wells where possible, labor division in herd management and migrations, and	In the project area, protection and rehabilitation of ecosystem functions and of the pastoral resource base are promoted by enhancing pastoral mobility, risk management and fuel efficiency through pilot activities in community based approaches in integrated water and NRM and conservation,	In the project areas, limited and dwindling water resources are a significant challenge to pastoral mobility. While herders respond with hand digging wells where possible, labor division in herd management and migrations, and government implements a well-rehabilitation program, a systematic approach of community based integrated	

Project Summary	Performance Indicators	Baseline	Target	Means of Verification	Assumptions & Risks
		government implements a well-rehabilitation program, a systematic approach of community based integrated resources management is not implemented. Lessons learnt in CBNRM are available in two project soums; they include good practices in community based conservation, protection of biodiversity values, community based development of pasture water supplies; Lessons in fodder production and risk management are available from several donor supported projects. Activities in water harvesting are rudimentary and of little success. Fuel efficiency is being addressed on very small scale, with need and opportunities for up-scaling local technologies		resources management is not implemented. Lessons learnt in CBNRM are available in two project soums; they include good practices in community based conservation, protection of biodiversity values, community based development of pasture water supplies; Lessons in fodder production and risk management are available from several donor supported projects. Activities in water harvesting are rudimentary and of little success. Fuel efficiency is being addressed on very small scale, with need and opportunities for up-scaling local technologies	

Project Summary	Performance Indicators	Baseline	Target	Means of Verification	Assumptions & Risks
	Water sources, land under rehabilitation, infrastructure and plantations are protected by wind break systems	Tree planting to provide protection and to manipulate micro-climate is frequent but largely unsuccessful due to lack of skills and knowledge, because maintenance responsibilities are not agreed sufficiently. Windbreak systems comprised of several species of different height and function are not present and the technology is not well known at all	By PY 2, 5 pilots for windbreaks are established. By PY 3, species for multiple benefits have been tested and selected. Local trainers/resource persons are qualified to share experiences and maintain systems.	Reports on pilot activities and impacts Designs of windbreaks. Photo documentations Training reports Soum annual reports	
	Pasture resources for camel are under recovery and soil stability is improved through protection of saxaul forest area	Local communities have begun to set aside saxaul reserve areas, with encouraging results. Community organization in the target soums for this pilot activity is well underway with several groups; it can be up-scaled and be built upon with pilot activities for saxaul protection. Local governments are	By PY 2, grazing and fuel collection in the agreed protection zones have ceased. By PY 4, number of young saxaul plants in the protection areas has increased by 30 %. By PY 5, at least 200 ha are excluded from grazing and collection, and show signs of recovery in density of plants, growth of plants, and number of young plants.	Photo documentations on saxaul status Written agreement/commitment of local stakeholders on protection zone Training reports, workshop/meeting documentations	

Project Summary	Performance Indicators	Baseline	Target	Means of Verification	Assumptions & Risks
		supportive of community organization and CBNRM.			
	Water sheds in pilot areas are under restoration through community forestry and water sources to promote pastoral moves are being restored	Sustainable grassland use is significantly hindered in the two soums since water sources have declined dramatically as a result of both deforestation and climate change. Reforestation is currently not undertaken, and no group organization exists to facilitate protection of forest resources and benefits to local communities from sustainable use of forest products	By PY 2, four forest resource user groups are established and management plans for forest and pasture resources are developed. Income diversification options have been studied and viable options are being promoted 200 ha are under reforestation by PY 3, and by PY 4, 80 % of planted trees are alive.	Registration documents and maps of forest user groups. Management plans of areas under group responsibility. Study report on income diversification options. Forest monitoring reports/records. Training reports. Soum annual plans and reports	

SECTION II: WORKPLAN AND BUDGET

PART VI: TOTAL BUDGET AND WORKPLAN

Award ID:	tbd
Award Title:	PIMS XXXX Sustainable Land Management for Combating Desertification in Mongolia
Business Unit:	MNG10, UNDP Mongolia
Project Title:	PIMS XXXX Sustainable Land Management for Combating Desertification in Mongolia
Implementing Partner (Executing Agency)	MoFA, MNE

Indicative Activities	Responsible party	Budget Account	ATLAS Budget	Fund	Donor	2007	2008 (USD)	2009 (USD)	2010 (USD)	2011 (USD)	2012 (USD)	Total (USD)
Outcome 1. **Strengthened coordination mechanisms, institutional and human resources capacity, and knowledge base to promote SLM and desertification control**	MoFA MNE	71200	International Consultants	62000	GEF		40,000	0	0	0	0	40,000
		71300	Local Consultants	62000	GEF		3,000	5,000	1,300	0	0	9,300
		71600	Training/Wkshop	62000	GEF		35,000	18,500	0	0	0	53,500
		73100	Rent of premises and equipment	62000	GEF		5,000	2,000				7,000
		72500	Supplies	62000	GEF		10,000	5,000				15,000
		72100	Contractual Services	62000	GEF		10,500	40,000	24,000	2,500	23,000	100,000
		74200	Publications	62000	GEF		7,500	7,500	5,000	0	0	20,000
		71600	Travel	62000	GEF		1,000	1,700	0	0	0	2,700
		74500	Miscellaneous	62000	GEF							0
			GEF Sub-Total			**0**	**112,000**	**79700**	**30300**	**2500**	**23000**	**247,500**
		71200	International Consultants	30000	Dutch		40,000	0	0	0	0	40,000
		71300	Local Consultants	30000	Dutch		12,000	5,000	0	3,000	0	20,000
		71600	Training/Wkshop	30000	Dutch		30,000	3,000	0	0	0	33,000
		72500	Supplies	30000	Dutch		8,000					8,000
		72100	Contractual Services	30000	Dutch		15,000	82,000	45,000	46,500	0	188,500
		74200	Publications	30000	Dutch		2,500	10,500	2,630	0	0	15,630

		71600	Travel	30000	Dutch		9,500	7,800	0	0	0	17,300
		74500	Miscellaneous	30000	Dutch		0	0	0	0	0	0
		75100	GMS	30000	Dutch		8806.45	8151.61	3585.05	3725.8		24,269
			Dutch Sub-total			**0**	**125,806**	**116451.6**	**51215**	**53225.81**	**0**	**346699**
		71200	International Consultants	04000	UNDP		0	0	0	0	0	0
		71300	Local Consultants	04000	UNDP		5,000	4,800	200	0	0	10,000
		71600	Training/Wkshop	04000	UNDP		5,000	8,500	1,500	0	0	15,000
		72100	Contractual Services	04000	UNDP		0	0	0	0	0	0
		74200	Publications	04000	UNDP		0	0	0	0	0	0
		71600	Travel	04000	UNDP		1,000	1,000	1,000	1,000	1,000	5,000
		74500	Miscellaneous	04000	UNDP		0	0	0	0	0	0
			UNDP Sub-total			**0**	**11000**	**14300**	**2700**	**1000**	**1000**	**30,000**
			Total of Outcome 1			**0**	**248806.5**	**210451.6**	**84215.05**	**56725.81**	**24000**	**624,199**
Outcome 2. **SLM mainstreamed into national, provincial and local policies, strategies and regulatory framework**	MoFA MNE	71200	International Consultants	62000	GEF		15,000	0	0	0	0	15,000
		71300	Local Consultants	62000	GEF		8,500	18,000	2,200	0	0	28,700
		71600	Training/Wkshop	62000	GEF		6,000	10,000	4,000	0	0	20,000
		72100	Contractual Services	62000	GEF		0	0	0	0	0	0
		74200	Publications	62000	GEF		2000	4,300	0	0	0	6,300
		71600	Travel	62000	GEF		3,000	3,500	1,000	0	0	7,500
		74500	Miscellaneous	62000	GEF		2000	3000	0	0	0	5,000
			GEF Sub-Total			**0**	**36500**	**38800**	**7200**	**0**	**0**	**82500**
		71200	International Consultants	30000	Dutch		15,000	0	0	0	0	15,000
		71300	Local Consultants	30000	Dutch		10,000	23,000	4,000	0	0	37,000
		71600	Training/Wkshop	30000	Dutch		4,000	10,000	2,500	0	0	16,500
		72100	Contractual Services	30000	Dutch		0	0	0	0	0	0
		74200	Publications	30000	Dutch		1,000	3,500	612	0	0	5,112
		71600	Travel	30000	Dutch		3,000	3,500	1,000	0	0	7,500
		74500	Miscellaneous	30000	Dutch		1000	1500	500	0	0	3,000

		75100	GMS	30000	Dutch		2559.14	3123.66	648.21			6,331
			Dutch Sub-total			**0**	**36559.14**	**44623.66**	**9260**	**0**	**0**	**90443**
		71200	International Consultants	04000	UNDP		0	0	0	0	0	0
		71300	Local Consultants	04000	UNDP		2,000	2,000	0	0	0	4,000
		71600	Training/Wkshop	04000	UNDP		2,000	2,000	0	0	0	4,000
		72100	Contractual Services	04000	UNDP		0	0	0	0	0	0
		74200	Publications	04000	UNDP		1,000	1,000	0	0	0	2,000
		71600	Travel	04000	UNDP		0	0	0	0	0	0
		74500	Miscellaneous	04000	UNDP		0	0	0	0	0	0
			UNDP Sub-Total			**0**	**5000**	**5000**	**0**	**0**	**0**	**10,000**
			Total of Outcome 2			**0**	**78059.14**	**88423.66**	**16460.22**	**0**	**0**	**182,943**
Outcome 3. **Pilot testingm demonstrations and scaling-up community based approaches in integrated natural resources management with focus on grassland and water management and sylvopastoralism**	MoFA MNE	71200	International Consultants	62000	GEF		40,000	20,000	20,000	0	0	80,000
		71300	Local Consultants	62000	GEF		40,000	40,000	40,000	40,000	40,000	200,000
		71600	Training/Wkshop	62000	GEF		20,000	20,000	38,000	0	0	78,000
		73100	Rent of premises and equipment	62000	GEF		3,000	3,000	8,000			14,000
		72500	Supplies	62000	GEF		2,000	2,000	4,000			8,000
		72100	Contractual Services	62000	GEF		100,000	100,000	25,000	0	0	225,000
		72300	Materials and Goods	62000	GEF		50,000	75,000	75,000	0	0	200,000
		74200	Publications	62000	GEF		5,000	5,000	5,000	5,000	0	20,000
		71600	Travel	62000	GEF		26,000	26,000	26,000	12,000	10,000	100,000
		74500	Miscellaneous	62000	GEF		16,000	11,000	10,000	14,000	14,000	65,000
			GEF Sub-Total			**0**	**302000**	**302,000**	**251000**	**71000**	**64000**	**990000**
		71200	International Consultants	30000	Dutch		20,000	0	60,000	20,000	0	100,000
		71300	Local Consultants	30000	Dutch		33,000	56,000	16,000	11,500	8,500	125,000
		71600	Training/Wkshop	30000	Dutch		18,500	44,000	36,000	47,000	6,000	151,500
		71300	Rent of premises and equipment	30000	Dutch		3,000	5,000	4,000	5,000	0	17,000
		72500	Supplies	30000	Dutch		1,500	3,000	2,000	2,000		8,500

		72100	Contractual Services	30000	Dutch		144,000	117,000	34,000	0	0	295,000
		72300	Materials and Goods	30000	Dutch		12,000	114,000	24,000	50,000	10,000	210,000
		74200	Publications	30000	Dutch		16,000	13,000	5,500	11,500	6,000	52,000
		71600	Travel	30000	Dutch		20,000	19,000	12,000	42,000	45,000	138,000
		74500	Miscellaneous	30000	Dutch		32,000	37,000	36,000	35,159	32,000	172,159
		75100	GMS	30000	Dutch		22580.64	30709.67	17274.19	16872	8091.40	95,528
			Dutch Sub-total			**0**	**322580.6**	**438709.7**	**246774.2**	**241031.2**	**115591.4**	**1,364,69**
		71200	International Consultants	04000	UNDP		20,000	0	0	0	0	20,000
		71300	Local Consultants	04000	UNDP		10,000	10,000	10,000	9,000	0	39,000
		71600	Training/Wkshop	04000	UNDP		0	20,000	20,000	0	0	40,000
		72100	Contractual Services	04000	UNDP		0	0	0	0	0	0
		72300	Procurement	04000	UNDP		0	0	0	0	0	0
		74200	Publications	04000	UNDP		0	0	0	0	0	0
		71600	Travel	04000	UNDP		7,000	7,000	7,000	0	0	21,000
		74500	Miscellaneous	04000	UNDP		0	0	0	0	0	0
			UNDP Sub-total			**0**	**37000**	**37000**	**37000**	**9000**	**0**	**120,000**
			Total of Outcome 3			**0**	**661580.6**	**777709.7**	**534774.2**	**321031.2**	**179591.4**	**2,474,69**
Outcome 4. **Monitoring and evaluation**	MoFA MNE	71200	International Consultants	62000	GEF		0	0	0	0	40,000	40,000
		71300	Local Consultants	62000	GEF		0		3,000	0	3,000	6,000
		74200	Publications	62000	GEF		0	0	0	0	0	0
		71600	Travel	62000	GEF		0	0	2,000	0	0	2,000
		74000	Miscellaneous	62000	GEF		400	400	400	400	400	2,000
			GEF Sub-total			**0**	**400**	**400**	**5400**	**400**	**43400**	**50000**
		71200	International Consultants	30000	Dutch				15,000		20,000	35,000
		71300	Local Consultants	30000	Dutch		2,600	2,600	2,600	2,600	4,600	15,000
		74200	Publications	30000	Dutch		0	0	0	0	0	0
		71600	Travel	30000	Dutch		0	0	0	0	5,000	5,000

		74500	Miscellaneous	30000	Dutch		400	400	400	400	400	2,000
		75100	GMS	30000	Dutch		225.81	225.81	1354.84	225.81	2258.06	4,290
			Dutch Sub-total			**0**	**3225.81**	**3225.81**	**19354.84**	**3225.81**	**32258.06**	**61,290**
		71200	International Consultants	04000	UNDP		0	0	0	0	0	0
		71300	Local Consultants	04000	UNDP		0	0	0	0	0	0
		74200	Publications	04000	UNDP		2,000	2,000	2,000	2,000	2,000	10,000
		71600	Travel	04000	UNDP		0	0	0	0	0	0
		74500	Miscellaneous	04000	UNDP		0	0	0	0	0	0
			Sub-total			**0**	**2000**	**2000**	**2000**	**2000**	**2000**	**10000**
			M&E Sub Total			**0**	**5625.806**	**5625.806**	**26754.84**	**5625.806**	**77658.06**	**121290.3**
Outcome 5. **Project support**	MoFA MNE	71200	International Consultants	62000	GEF		0	0	0	0	0	0
		71300	Local Consultants	62000	GEF		45,000	45,000	45,000	45,000	45,000	225,000
		71400	Admin. Support	62000	GEF		0	0	0	0	0	0
		72300	Materials and Goods	62000	GEF		0	0	0	0	0	0
		72200	Equipment/Furniture	62000	GEF	4000	4,500	0	0	0	0	8,500
		71600	Travel	62000	GEF		3,000	3,000	3,000	3000	3000	15,000
		74200	UNDP Advocacy 1%						7,500	5000	4000	16,500
		72500	Supplies	62000	GEF	1000	2,000	3,000	3,000	3,000	3,000	15,000
			Sub-total GEF			**5000**	**54500**	**51000**	**58500**	**56000**	**55000**	**280000**
		71200	International Consultants	30000	Dutch		0	0	0	0	0	0
		71300	Local Consultants	30000	Dutch	3200	8,200	11,400	11,400	11,400	11,400	57,000
		71400	Admin. Support	30000	Dutch	3000	19,000	22,000	22,000	22,000	22,000	110,000
		72300	Procurement	30000	Dutch		0	0	0	0	0	0
		72200	Equipment/Furniture	30000	Dutch	40000	78,000	0	0	0	0	118,000
		73400	Maint. Transportation eq	30000	Dutch		19,600	18,600	18,600	18,600	18,600	94,000
		72500	Supplies	30000	Dutch		0	0	0	0	8799	8,799
		74200	UNDP 1% Advocacy	30000	Dutch		9000	9500				18,500

		75100	GMS	30000	Dutch	3477.42	10070.97	4629.03	3913.98	3913.98	4576.27	30,582
			Sub-total Dutch			**49677.42**	**143871.0**	**66129.03**	**55913.98**	**55913.98**	**65375.27**	**436880.6**
		71200	International Consultants	04000	UNDP		0	0	0	0	0	0
		71305	Local Consultants	04000	UNDP		0	0	0	0	0	0
		71400	Admin. Support	04000	UNDP		0	0	0	0	0	0
		72300	Procurement	04000	UNDP		0	0	0	0	0	0
		72200	Equipment/Furniture	04000	UNDP		4,000	0	0	0	0	4,000
		73400	Maint. Transportation eq	04000	UNDP		0	0	0	0	0	0
		72500	Supplies	04000	UNDP		6,800	4,800	4,800	4,800	4,800	26,000
			Sub-total UNDP			**0**	**10800**	**4800**	**4800**	**4800**	**4800**	**30000**
			Project Management Sub Total			**54677**	**209171**	**121929**	**119214**	**116714**	**125175**	**746881**
			PROJECT TOTAL			**54677**	**1203243**	**1204140**	**781418**	**500097**	**406425**	**4150000**
			GEF Total			**5000**	**505400**	**471900**	**352400**	**129900**	**185400**	**1650000**
			Dutch net			46200	587800	622300	355742	328659	198299	2139000
			Dutch GMS			3477	44243	46840	26776	24738	14926	161000
			Dutch Total			**49677**	**632043**	**669140**	**382518**	**353397**	**213225**	**2300000**
			UNDP Total			**0**	**65800**	**63100**	**46500**	**16800**	**7800**	**200000**
			Project Total			**54677**	**1203243**	**1204140**	**781418**	**500097**	**406425**	**4150000**
			Years			**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**Total**

Budget Summary

Outcome/Donor	GEF (FSP)	Dutch gov	UNDP	SDCD parallel funding)	MGL Gov in kind	Total
Outcome 1	247,500	346,699	30,000			624,199
Outcome 2	82,500	90,443	10,000			182,943
Outcome 3	990,000	1,364,687	120,000			2,474,687
Outcome 4	50,000	61,290	10,000			121,290
Outcome 5	280,000	436,881	30,000			746,881
				2,000,000	200,000	2,200,000
Donor total	**1,650,000**	**2,300,000**	**200,000**	**2,000,000**	**200,000**	**6,350,000**

Parallel Funding from Swiss Development Cooperation (SDC) – Coping with Desertification in Mongolia Project

Components/Outputs of the SDC Project	Corresponding Outcomes/Outputs of FSP	Budget in USD
Component 1 – Output 1.1 NCCD capacity assessment	Outcome 1 – Output 1.1 Strengthening NCCD	680,000
Component 1 – Output 1.2 Updating NAP	Outcome 2 – Output 2.2 Updating NAP	
Component 1 - Output 1.3 NCCD development	Outcome 1 – Output 1.1 Strengthening NCCD	
Component 1 – Output 1.4 NCCD Capacity building	Outcome 1 – Output 1.1 Strengthening NCCD	
Component 2 – Output 2.1 User groups formed	Outcome 3 – output 3.1 user groups formed	1,000,000
Component 2 – Output 2.2 Pilot activities	Outcome 3 – Output 3.3 Pilot demonstrations	
Component 4 – Output 4.1 Synthesis of technologies	Outcome 1 – Output 1.5 Knowledge synthesis	320,000
Total parallel Funding		2,000,000

Indicative Workplan

Output	Activities	Y1		Y2		Y3		Y4		Y5	
Goal**:** The pasture, agricultural, forest and other terrestrial land uses of Mongolia are sustainable, productive systems that maintain ecosystem integrity and ecological functions while contributing directly to the environmental, economic and social well-being of the country. **Objective:** To strengthen the enabling environment for sustainable land management with special reference to sustainable management of grasslands and forests for livestock production, while ensuring broad-based political support and local level participation for the process.											
		1st half	2nd half	1st half	2nd half	1st half	2nd half	1st half	2nd half	1st half	2nd half
Outcome 1: Strengthened coordination mechanisms, institutional and human resources capacity and knowledge base to promote SLM and desertification control.											
Output 1.1: Coordination and monitoring capacity of the National Committee to Combat Desertification (NCCD) strengthened.	1.1.1: Review existing coordination of mechanism of UNCCD and develop a new and effective coordination mechanism.										
	1.1.2: Organize stakeholder consultations and workshops to validate the proposed UNCCD model										
	1.1.3. Implement the new NCCD unit within MNE.										
	1.1.4: Provide support for the establishment and operation of the unit.										
	1.1.5: Build the capacity of the NCCD in coordination, and monitoring and evaluation and reporting skills										
Output 1.2: Human resources capacity of aimag, and soum and bag level officers strengthened in SLM and desertification control and herder community leaders and young herders trained in indigenous and new	1.2.1. Develop an overall plan for training aimag, soum and bag officers and herder community leaders and young herders.										
	1.2.2. Develop training modules-subject includes, among others, such										

Output	Activities	Y1	Y2	Y3	Y4	Y5
knowledge in grassland management and pastoralism.	as preparing and implementing soum-level land use plans and rehabilitation of degraded pasture and other land uses.					
	1.2.3. Synthesize traditional knowledge in pastoralism and grassland management. Prepare training packages for herders.					
	1.2.4. Train 10 trainers, selected from relevant ministries (MoFA, MNE, and MCUD), University, and specialized institutions and experienced herders.					
	1.2.5. Train a minimum of 10 persons at the aimag level by PY1 – 4 land officers, 4 agricultural officers, and 4 environmental inspectors, at the aimag level (and possibly 2-4 NGOs).					
	1.2.6. Train a minimum of 35 persons at the soum and bag levels- 14 land officers, 14 agricultural officers, and 14 environmental officers.					
	1.2.7. Train 50 herder community leaders and young herders in traditional and knowledge in pastoralism and grassland management.					
	1.2.8. Prepare a training impact report covering all training courses PY4.					
Output 1.3: Capacity of government institutions strengthened to plan their own institutional capacity development, including establishing competency standards in SLM and desertification control.	1.3.1. A draft short- and medium-strategy to build individual, institutional and systemic capacity building in SLM and desertification control.					
	1.3.2. Hold formal and informal consultations and workshops with a wide range of stakeholders, concerned					

Output	Activities	Y1	Y2	Y3	Y4	Y5
	ministries, capacity building institutions, donors, etc. and validate the strategy.					
	1.3.3. Support the preparation of capacity building plans by relevant departments/units of MoFA, MNE and MCUD.					
	1.3.4. Identify suitable national and regional and international institutions for training and other capacity building activities and mobilize resources.					
Output 1.4: Courses on SLM (3 credit courses) at the university level for B.Sc. degrees in the Mongolian National University and Agricultural University. Curriculum developed and implemented in two institutions for 2 academic years.	1.4.1: Initiate discussions on the feasibility offering B. Sc level courses in SLM at Mongolian National University and Agricultural University.					
	1.4.2: Support development of appropriate course material and handouts by the concerned academic institutions.					
	1.4.3: Support the implementation of the courses for two academic years.					
	1.4.4: Carryout a study on the impact of the university level courses.					
Output 1.5: Center for Desertification Study strengthened with particular focus on research and outreach in SLM and desertification control, with specific reference to (a) water harvesting, (b) land degradation assessment, (c) sylvopastoralism, and (d) windbreak systems.	1.5.1. Prepare a plan to strengthen research and outreach capacity in SLM and desertification control.					
	1.5.2. Train 2 scientists in methodologies in Land Degradation Assessment in Drylands by study tours or short courses.					
	1.5.3. Train 2 scientists in water harvesting through study tours and or short courses.					
	1.5.4. Support 1 scientist in					

Output	Activities	Y1	Y2	Y3	Y4	Y5
	windbreak systems for 5 years, beginning PY1.					
	1.5.5. Support 1 scientist in sylvopastoralism for 5 years, beginning PY1.					
	1.5.6. Support 1 scientist in outreach for 5 years, beginning PY1.					
	1.5.7. Develop a dryland degradation assessment model, based on the internationally recognized LADA model.					
	1.5.8. Pilot test the Mongolian dryland land degradation assessment model pilot in two Aimags.					
	1.5.9. Produce water harvesting manuals and guidelines, tailor made to the hydro-ecological and social conditions of Mongolia.					
	1.5.10. Develop an outreach programme, with focus on technology transfer in SLM and desertification control.					
	1.5.11. Provide technical support to implement the outreach programme.					
	5.1.12. Synthesis knowledge base (synthesis of the state-of-the-art and guidelines) on windbreak systems.					
	1.5.13. Synthesis knowledge base (synthesis of the state-of-the-art and guidelines) on sylvopastoralism.					
Outcome 2: SLM mainstreamed into national, provincial and local policies, strategies and regulatory framework.						

Output	Activities	Y1	Y2	Y3	Y4	Y5
Output 2.1: The Pastureland Law, Land Law and associated environmental legislation are mainstreamed into Aimag, Soum, Bag and community level planning and programming processes with special reference to land use planning and co-management of natural resources.	2.1.1. Review the Pastureland Law, Land Law and associated environmental legislation and analyze the relevant by-laws and provisions that deal with pastureland management.					
	2.1.2. Educate herders, herder groups and, local governments on the use and implications of the pastureland law.					
	2.1.3. Mainstream Pastureland law into provincial and local-level planning procedures					
Output 2.2: UNCCD - NAP updated and mainstreamed into national and sectoral planning.	2.2.1. Update the NAP in the light of the Gap Analysis of the PDF-B recommendations.					
	2.2.2. Prepare a detailed plan of action of NAP for the Phase II implementation by PY1.					
	2.2.3. Prepare a 10-year strategy of NAP to meet the requirements of UNCCD.					
	2.2.4. Mainstream the updated NAP into national and sector policy, planning framework and national budget allocation process.					
	2.2.5. Prepare a medium-term investment plan for NAP implementation					
Output 2.3: Policy, regulatory framework and financial incentives strengthened for pastureland management by community organizations.	2.3.1. Assist herder communities to establish and manage Herder Community Funds.					
	2.3.2. Develop norms for fund management.					
	2.3.3. Train all herder community groups on fund management and continue providing support.					

Output	Activities	Y1	Y2	Y3	Y4	Y5
	2.3.4. Conduct feasibility study on tax incentives. 2.3.5. Conduct feasibility study on re-investment of revenues form land use/resource use fees into local land use planning.					
Outcome 3: – Pilot testing, demonstrations and scaling-up community based approaches in integrated natural resources management with focus on grassland and water management and sylvopasturalism.						
Output 3.1: Pilot activities in 4 Aimags and 13 Soms. To develop and scale-up effective local institutional framework for participatory planning processes and to implement best practices for co-management of pastureland and other natural resources.	3.1.1. Workshop to identify best practices and lessons learnt in community based and co-management of natural resources 3.1.2. Synthesize, document findings and prepare for dissemination to policy makers 3.1.3. Series of workshops to facilitate establishment of co-management committees in the first 7 soums 3.1.4 Participatory analysis with local communities at pilot sites in the first 7 soums to initiate community organization 3.1.5. Series of workshops to facilitate establishment of co-management committees in remaining 6 soums 3.1.6. Ongoing support in evaluating mechanisms and impacts of co-management. 3.1.7. Participatory analysis with local communities at pilot sites in 6 remaining soums to initiate					

Output	Activities	Y1	Y2	Y3	Y4	Y5
	community organization					
	3.1.8. Follow-up meetings with communities at pilot sites in first 7 soums for community development, livelihood diversification, CBNRM activities					
	3.1.9. Follow-up meetings with communities at pilot sites in remaining 6 soums for community development, livelihood diversification, CBNRM activities					
	3.1.10. Study tours to sites of "Sustainable Grasslands Project" and South Gobi "Herder Field Schools"					
	3.1.11. Facilitate preparation of sustainability plans with co-management committees and herder groups.					
	3.1.12. Identify and document best practices and lessons learnt for each thematic pilot activity, and make accessible to outreach mechanisms and educational institutions within and beyond the project scope.					
	3.1.13. Identify most successful pilots, design study tour itinerary and disseminate to government, NGOs, CBOs and donors					
Output 3.2: Pilot activities in all 13 soums on soum wide land use planning.	3.2.1. Technical Assistance to prepare pastureland maps in 3 soums of Dornogobi Aimags (all other soums have maps prepared with support of Sustainable Livelihoods Project)					

Output	Activities	Y1	Y2	Y3	Y4	Y5
	3.2.2. Ongoing support/backstopping in preparing land-use and pastureland management plans					
	3.2.3. Workshops/experience sharing events among project soums on lessons learnt and best practices in local land-use planning, and documentation					
	3.2.4. Prepare policy brief for policy makers					
Output 3.3: Pilot projects in all 13 soums on community based approached in integrated water and pasture management, pasture rehabilitation, fodder production based on local plant species and traditional practices, on local protected area management and fuel efficiency.	3.3.1. Validate all pilot sites identified during PDF-B					
	3.3.2. Provide support in identifying water points for hand wells					
	3.3.3. Support preparation of integrated water management plan in pilot area					
	3.3.4. Facilitate government support in well rehabilitation					
	3.3.5. Assess surface water resources status, and needs and opportunities for protection and restoration					
	3.3.6. Provide support to herder groups for protecting springs, oasis, and other water sources					
	3.3.7. Provide TA to design and implement water harvesting pilots in at least 13 sites, train local resource person/trainer at each site, provide follow-up support and refresher training.					
	3.3.8. Introduce best practices in fodder production based on native plant species and traditional practices					
	3.3.9. Identify sites with palatable plants suitable for fodder production					

Output	Activities	Y1	Y2	Y3	Y4	Y5
	in herder group areas with herder groups					
	3.3.10. Implement pilot activities in protecting sites with fodder plants by fencing and/or grazing exclusion , and provide follow-up support					
	3.3.11. Assess pasture land condition in herder group areas with herders and train local trainers/resource persons in each group, and identify priority areas for releasing or other rehabilitation measures (fertilizing, fencing, seeding in forest steppe areas)					
	3.3.12. Establish monitoring/demonstration sites (grazing exclosures)					
	3.3.13. Develop schedule of seasonal and rotational pasture use, and releasing reserve pasture, with herder groups in pilot areas for integrated water management and pasture rehabilitation					
	3.3.14. Follow-up support in monitoring, planning and implementation of activities					
	3.3.15 TA to identify local technologies in fuel efficiency, and potential for developing and enhancing such technologies locally.					
	3.3.16. Educational and promotional activities in all 13 soums on alternative energy sources and technologies.					
	3.3.17. Provide training and backstopping in small enterprise development					

Output	Activities	Y1	Y2	Y3	Y4	Y5
	3.3.18. Train local trainers/resource persons on fuel efficiency within all groups					
	3.3.19. Organize experience sharing event/fair on fuel efficiency, bringing together local users/producers, researchers, businesses, distributors					
	3.3.20. TA to prepare with local community inventory of conservation values/resources/biodiversity of local protected areas.					
	3.3.21. Support preparation of management plan for protected area/community conservation area with local community					
	3.3.22 Provide material support for infrastructure for protection, visitor management, education, research and monitoring as determined					
	3.3.23. Train local trainer/resource persons/community ranger and environmental inspector/ranger in monitoring					
	3.3.24. Facilitate official recognition of community ranger (provision of ID) for monitoring and law enforcement tasks					
	3.3.25. Develop schedule of fees for sites of visitor interest and mechanism of benefit sharing among community and local government					
	3.3.26. Identify opportunities for income generation for local community through providing visitor services					

Output	Activities	Y1	Y2	Y3	Y4	Y5
	3.3.27. Support local community in developing and marketing products and services for income generation.					
	3.3.28. Workshops/experience sharing events among project soums on lessons learnt and best practices. Prepare documentation.					
	3.3.29. Prepare policy brief for policy makers					
Output 3.4: Pilot projects in Bogd, Baruun Bayan Ulaan, Bayandelger, Uulbayan, and Orgon soums on establishing windbreaks for the protection of infrastructute, plantations, water sources and land under rehabilitation.	3.4.1. Finalize site selection					
	3.4.2. Design windbreaks/shelterbelts in 5 pilot sites, and oversee establishment					
	3.4.3. Provide continued follow-up support and guide experiments with and selection of appropriate species of trees and shrubs, and possible fodder and crop species					
	3.4.4. Train local resource persons/trainers					
Output 3.5: Pilot projects in the 2 Gobi region soums, (Baruun Banyan Ulaan and Bogd) on saxaul protection and rehabilitation.	3.5.1. Establish baseline documentation (photos) at selected reference sites					
	3.5.2. Facilitate consensus on protection measures (exclude grazing, enforce ban on fuel collection) and develop plan with herder groups, and environmental inspector					
	3.5.3. Identify experimental sites for rehabilitation measures (seeding)					
	3.5.4. Fence rehabilitation sites, implement rehabilitation through seeding and/or fencing,					

Output	Activities	Y1	Y2	Y3	Y4	Y5
	3.5.5. Follow-up support, and train local resource persons/trainers					
Output 3.6: Pilot projects in two Forest Steppe soums (Uyanga, Dzuun Banyan Ulaan) on sylvopastoralism.	3.6.1. Finalise site selection considering social and ecological criteria.					
	3.6.2. Facilitate establishment of 2 “Nukhurlul” (forest user communities) in each of the 2 soums, and support required documentation, mapping					
	3.6.3. Document baseline of status of forest, pasture and water resources					
	3.6.4. Prepare restoration and integrated resources management plan					
	6.6.5. Support reforestation activities, provide follow-up support and train local trainers/resource persons					
	3.6.6. Identify income generation opportunities and training needs					
	3.6.7. Provide skills training as needed					
	3.6.8. Support development and marketing of products as determined					

SECTION III: ADDITIONAL INFORMATION

PART I: ENDORSEMENT LETTER FROM GEF FOCAL POINT

Separate File

PART II: GOVERNMENT ENDORSEMENT AND CO-FINANCING LETTERS