GOVERNMENT OF MONGOLIA

MINISTRY OF ENVIRONMENT AND GREEN DEVELOPMENT

Mongolia's National REDD+ Readiness Roadmap

June 2014

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UN-REDD PROGRAMME

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Acronyms, Abbreviations and Technical Terms

AAC	Annual Allowable Cut
AD	Activity Data
ADB	Asia Development Bank
aimag	Province
ALAGC	Administration of Land Affairs, Geodesy, Cartography
bagh	Local-level administrative unit in Mongolia
BBOP	Business and Biodiversity Offset Programme
CBD	Convention on Biological Diversity
CCBA	Climate, Community and Biodiversity Alliance
CCCO	Climate Change Coordination Office
CDM	Clean Development Mechanism of the Kyoto Protocol
COP	Conference of the Parties
CSO/LC	Civil society organizations/local communities
DBH	Diameter at breast height (standard forest tree measurement parameter)
DCPI	Department of Coordination for Policy Implementation
DFCRM	Division of Forest Conservation and Reforestation Management, MEGD
DPAA	Department for Protected Areas Administration
dzud	Severe winter weather that can contribute to extensive losses in livestock
EF	Emission Factor
EIC	Environmental Information Centre
EITI	Extractive Industries Transparency Initiative
FAO	Food and Agriculture Organization of the United Nations
FCPF	Forest Carbon Partnership Facility of the World Bank
FDI	Foreign Direct Investment
FLEGT	Forest Law Enforcement, Governance and Trade
FPIC	Free, Prior and Informed Consent
FRDC	Forest Research and Development Centre
FUG	Forest User Group
GASI	General Agency for Specialized Inspection (formerly called the 'State Specialized Inspection Agency')
GDCMP	Green Development Concept and Mid-Term Programme
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse Gas
GIS	Geographic Information System
GiZ	Technical cooperation agency (of the German Government)
ILO	International Labour Organisation
IP	Indigenous peoples
IPCC	Intergovernmental Panel on Climate Change
kural	Traditional Mongolian decision-making mechanism, similar to a parliament
LULUCF	Land use, land use change and forestry
MARCC	Mongolia: Assessment Report on Climate Change
MDG	Millennium Development Goals
MECC	Mongolian Environmental Civil Council
MED	Ministry of Economic Development

MEGD	Ministry of Environment and Green Development (Established in 2012 to take on the pertinent responsibilities of the former Ministry of Nature, Environment and Tourism (MNET))
MIA	Ministry of Industry and Agriculture
MNET	Ministry of Nature, Environment and Tourism (replaced in 2012 by MEGD)
MNT	Tugruks (Mongolian currency)
MRV	Measurement, Reporting and Verification
NAMA	Nationally Appropriate Mitigation Action
NC	National Communication (to the UNFCCC Conference of Parties)
NCT	National Climate Taskforce
NDS	MDG-based National Development Strategy for Mongolia (2007-2021)
NFI	National Forest Inventory
NFMS	National Forest Monitoring System
NFMS-AP	National Forest Monitoring System – Action Plan
NGO	Non-Governmental Organisation
NSO	National Statistics Office
NTFP	Non-Timber Forest Product
NUM	National University of Mongolia
PA	Protected Area
Permafrost	Where sub-surface soil remains below zero degrees Celsius for two consecutive years or more
PES	Payments for Environmental Services
PFM	Participatory Forest Management
PIDP	Positive Incentives Distribution Plan
REDD+	Policy approaches and positive incentives for issues relating to reducing emissions from deforestation and forest degradation in developing countries, and conservation of forest carbon stocks, sustainable management of forests and enhancement of forest carbon stocks in developing countries (forest mitigation activities for developing countries under the UNFCCC)
RELs/RLs	Forest Reference Emission Levels/Forest Reference Levels (performance benchmarks for REDD+ activities)
R-PP	Readiness Preparation Proposal (referred to in this document as the 'Roadmap')
RS	Remote Sensing
SDC	Swiss Agency for Development Corporation
SEPC	Social and Environmental Principles and Criteria (of the UN-REDD Programme)
SESA	Strategic Environmental Social Assessment
SFM	Sustainable Forest Management
soum	District-level government administrative unit
SPA	Special Protected Area (includes the high conservation sub-category of 'Strictly Protected Areas')
State Great Khural	National Parliament of Mongolia
steppe	Grassland plain without trees
tC	Tonnes of carbon (a measure of greenhouse gases)
tCO_2e	Tonnes of CO_2 equivalent (a measure of greenhouse gases)
TF	Task Force
TNC	The Nature Conservancy

TOR	Terms of Reference
TWG	Technical Working Group
UNCT	United Nations Country Team (in Mongolia)
UNDAF	United Nations Development Assistance Framework for Mongolia 2012-2016
UNDP	United Nations Development Programme
UNDRIP	United Nations Declaration on Rights of Indigenous Peoples (2007)
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change (1992)
UN-REDD	United Nations Collaborative Programme on Reducing Emissions from Deforestation and forest Degradation
WCS	World Conservation Society
WWF	World Wide Fund for Nature

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Note: the national elections in June 2012 resulted in the formation of a new government. The incoming government administration raised the profile of the Green Development in Mongolia by changing the name and position of the Ministry responsible for environment to the Ministry of Environment and Green Development (MEGD). This new Ministry took on most of the functions of the former Ministry for Nature, Environment and Tourism (MNET). MEGD is one of the two central ministries to oversee the national planning process in order to ensure country's progress toward green development.

Through this change, the policy and regulatory functions of the former Forestry Agency were transferred to a new division within MEGD (the Division of Forest Conservation and Reforestation Management under the Department of Policy Implementation). This Division also retained some implementation responsibilities. However, most implementation responsibilities were transferred to the newly created Forest Research and Development Center. These changes provide an opportunity to raise the profile of the sector.

Executive summary

As a signatory to both the UN Framework Convention on Climate Change (UNFCCC, in 1992) and the Kyoto Protocol (1997), Mongolia is fully aware of the causes and potential impacts of climate change. Mongolia is therefore striving to reduce its greenhouse gas (GHG) emissions while maintaining its path of economic development.

The Conference of the Parties (COP) to the UNFCCC has taken a number of decisions to encourage developing country Parties to take forestry climate change mitigation actions. These measures relate to '*policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries*', known as "REDD+". The COP decisions set out a process by which the voluntary actions of developing country Parties may be rewarded through results-based payments.

Although still largely a poor country, Mongolia has recently experienced rapid rates of economic growth due to growth in the exploitation of mineral resources. However, there is a risk that the benefits of this boom will be unequally distributed to all of Mongolia's people. Moreover, unless astutely managed, the growth may have negative impacts on the environment and the natural resource base. Compounding this, climate change threatens to reverse socio-economic advances. Recognizing these inter-related challenges, the Government has recently committed to a green development path, notably through the creation of the Ministry of Environment and Green Development and the preparation of the Green Development Concept and Mid-Term Programme. REDD+ has the potential to contribute to green development by protecting global environmental resources (forest carbon stocks and biodiversity), helping to reverse land degradation, promoting the improvement of rural livelihoods and aiding adaptation to climate change.

Mongolia's vast surface area includes approximately 13 million hectares of forest – an area roughly the size of Nepal. These forests can be categorised into two broad zones: northern boreal forests and southern Saxaul forests. The northern boreal forests cover approximately 10.9 million hectares, and are being lost at an annual rate of 0.74%, or just over 80,000 hectares. The southern Saxaul forests cover 1.9 million hectares, and are estimated to be lost at the alarming rate of 6.5% per year[1].

Mongolia is the first country with significant boreal forest cover to become a partner country of the United Nations collaborative initiative on Reducing Emissions from Deforestation and forest Degradation in developing countries (UN-REDD Programme). Mongolia has significant potential to reduce its forest carbon emissions, and enhance and sustainably manage its forest carbon stocks, through the implementation of REDD+ activities.

[1] These statistics are taken from *State of the World's Forests* (FAO, 2011), and are consistent with the figures provided in Mongolia's FAO Forest Regional Assessment report for 2010. The Government's figures in *State [of] Forest Land in Mongolia 2011* (Forestry Agency, 2011) report total forest cover as being much higher at 12.9 million hectares, of which boreal forest cover is 10.6 million hectares, and Saxaul 2.2 million hectares.

Summary of Roadmap components

Mongolia became a partner country of the UN-REDD Programme in June 2011 and has quickly taken steps to start implementing REDD+ readiness activities. This Roadmap sets out how Mongolia will implement its REDD+ Readiness activities and develop a comprehensive National REDD+ Strategy in Phase 1 of REDD+. The Roadmap has six components.

Under Component 1, Mongolia will establish the management structure to manage the REDD+ Readiness process and to develop its National REDD+ Strategy. A multi-stakeholder National REDD+ Taskforce will be created, which will be supported by three Technical Working Groups providing guidance and coordination support. A National REDD+ Programme Unit will be established within government to provide day-to-day operational support. The Division of Forest Conservation and Reforestation Management of the Ministry of Environment and Green Development (MEGD) will be at the core of the management structure, and it will Chair of the National REDD+ Taskforce.

The Government of Mongolia will engage a broad range of non-government stakeholders in the REDD+ implementation process. To achieve this, a Civil Society Organisation/Local Community Forum will be established. The Forum will be a mechanism for stakeholder consultation and engagement both within the non-government sector, and between the non-government sector and government. The Forum will nominate representatives to sit on the National REDD+ Taskforce. Key local stakeholder groups that will be represented on the Forum include herder communities, Forest User Groups, civil society and private sector representatives.

A Consultation and Participation Plan will also be developed under Component 1. This Plan will address the need for public awareness raising on REDD+ and for educating key stakeholders on REDD+. Related to this, National Guidelines on Free, Prior and Informed Consent (FPIC) will be developed and field-tested. A REDD+ Grievance Mechanism, in line with existing systems, will also be developed and field-tested.

Under Component 2, Mongolia will prepare its National REDD+ Strategy. The first task is to identify the major drivers of deforestation and forest degradation in Mongolia. These drivers are expected to be different from tropical countries – due to the different ecological characteristics of boreal forest and the different pressures on Mongolia's forest resources. A preliminary analysis of drivers, undertaken during the preparation of this Roadmap, tentatively identified the main drivers of deforestation and forest degradation to be: forest fires (many of which are caused by humans), legal and illegal logging (a combination of fuel wood gathering, collection of timber for livelihoods and commercial logging), pest invasion, tree diseases and the impacts of mining and mineral exploration.

Under this Component, the drivers will be analyzed and verified through detailed studies. Three priority drivers will be selected, and strategies to address them tested through demonstration activities. Part of the analysis under this Component will include an assessment of the legal and institutional framework for forest management, leading to recommendations for policy alignment and institutional arrangements for REDD+.

Component 2 also includes the process to identify and elaborate effective REDD+ strategies to address drivers. Preliminary strategies have been identified and include: strengthening forest management and governance; supporting research into improved forest management (e.g. to address problems related to fires, pests and diseases); reducing external pressures on forests; and raising awareness on forest protection and sustainable forest management.

Component 2 will also establish the implementation framework for REDD+, including a National REDD+ Fund and a Positive Incentive Distribution Plan. This will also include the Social and Environmental Safeguard Policy Framework.

A range of demonstration and pilot REDD+ activities will be implemented under Component 2, all in accordance with FPIC principles and processes. These activities will generate lessons and provide feedback to the REDD+ development and implementation process.

Under Component 3, Mongolia will establish its national forest Reference Emission Level and/or forest Reference Level (REL/RL), with sub-national forest RELs/RLs as potential interim measures. RELs/RLs will provide the benchmarks against which future forest carbon emissions reductions and removals will be measured. The emphasis of this Component will be the collection of data on historical land-use and the analysis of relevant national circumstances, as well as the development of specific capacities to further develop, pilot and implement RELs/RLs under a full National REDD+ Strategy.

Under Component 4, Mongolia will develop a national forest monitoring system, comprising a monitoring function and a Measurement, Reporting and Verification (MRV) function. The monitoring function will serve to assess whether REDD+ activities are results-based, while the MRV function will be used to assess and report on the mitigation performance of REDD+ activities to the UNFCCC. This component also develops the Safeguard Information System to share transparently information on how Mongolia is addressing and respecting the UNFCCC REDD+ safeguards, and generating co-benefits and reducing risks.

Workplan and Budget

Table 1 contains a summary of a three-year workplan and budget to implement this National REDD+ Readiness Roadmap. Table 2 summarizes the sources of finance. A detailed budget is provided in Component 5. The detailed monitoring framework, with indicators and targets, is in Component 6.

Table 1: Summary of Workplan and Budget

Outcome/Output	Three Year Budget (US$)
OUTCOME 1a: NATIONAL REDD+ MANAGEMENT ARRANGEMENTS ESTABLISHED	**920,000**
Output 1a.1: Establish a broad-based, multi-stakeholder National REDD+ Taskforce	120,000
Output 1a.2 :Establish National REDD+ Programme Unit	550,000
Output 1a.3: Establish CSO/LC Forum	250,000
OUTCOME 1c: IMPROVED STAKEHOLDER AWARENESS AND EFFECTIVE STAKEHOLDER ENGAGEMENT	**870,000**
Output 1c.1: Public Awareness Raised	300,000
Output 1c.2: Consultation and Participation Plan	120,000
Output 1c.3: National FPIC Guidelines	300,000
Output 1c.4: REDD+ Grievance Mechanism	150,000
OUTCOME 2: NATIONAL REDD+ STRATEGY PREPARED	**2,800,000**
Output 2a: 1) Drivers of deforesting and forest degradation identified 2) Legal and policy alignment needs identified	350,000
Output2b: 1) Identification of strategies to reduce D&D 2) Undertake demonstration activities to test identified drivers and strategies	1,500,000
Output 2c: Implementation framework developed for REDD+	
Output 2c.1 National Fund Management and Mechanism for Distribution of Positive Incentives	350,000
Output 2c.2 Capacity-Building Action Plan	150,000

Output 2c.3 Gender analysis	100,000
Output 2c.4 REDD+ Social and Environmental Safeguard Policy Framework	300,000
Output 2d (Components 1 and 2 combined)	50,000
OUTCOME 3: FOREST REFERENCE EMISSIONS LEVELS AND FOREST REFERENCE LEVELS DEVELOPED	**1,100,000**
Output 3.1: Capacity-building and activity planning	150,000
Output 3.2: Historical data assessed	500,000
Output 3.3: Assessment of national circumstances completed	150,000
Output 3.4: Testing of different FRELs/FRLs methodologies completed	300,000
OUTCOME 4: NATIONAL FOREST MONITORING SYSTEM AND SAFEGUARDS INFORMATION SYSTEM DEVELOPED	**4,050,000**
OUTPUT 4a.1: Capacity Building and National forest monitoring system Action Plan Development	150,000
OUTPUT 4a.2: Satellite land monitoring system established	200,000
OUTPUT 4a.3: Multi-purpose national forest carbon inventory (NFI) designed and implemented	3,200,000
Output 4a.4: Capacity built for producing accurate and transparent GHG inventories for the LULUCF sector	150,000
Output 4a.5: NFMS-related research supported	150,000
OUTPUT 4b: Information systems for measuring multiple-benefits, other impacts, governance and safeguards established	200,000
Total Cost of the 3-year National REDD+ Programme	**9,740,000**

Table 2: Summary of Mongolia REDD+ Funding Sources

Organization/Activity	Activity	Amount (USD)
Government of Mongolia	All around support to all components and activities. This includes both in-kind support and cash support.	2 million
UN-REDD National Programme	Support to the implementation of the REDD+ Readiness Roadmap	3.74[2] million (TBC)
GIZ	Support to the preparation of a REDD+ Compatible Forest Inventory. This support is to Component 4, and mostly to Output 4.a.3	1.04 million
UNDP (UN-REDD TS)	Targeted support to key activities under Components 1 and 2, as determined jointly with government.	0.1 million
FAO (UN-REDD TS)	Targeted support to key activities under Components 3 and 4, as determined jointly with government.	0.1 million
UNEP (UN-REDD TS)	Targeted support to key activities under Components 3 and 4, as determined jointly with government.	0.1 million
FAO/GEF "*Mainstreaming biodiversity conservation, SFM and carbon sink enhancement into Mongolia's productive forest landscapes*"	This project will pilot REDD+ at the local level. This will most notably contribute to: awareness raising; developing positive incentive distribution mechanisms; and developing participatory forest monitoring.	0.9 million
Total		7.98 million

[2] This figure does not include the 7% indirect support cost of the UN-REDD Programme.

Introduction

The UNFCCC Framework for REDD+

The Intergovernmental Panel on Climate Change (IPCC) has identified deforestation and forest degradation as a major contributor to global greenhouse gas (GHG) emissions, contributing over 17% of total emissions in 2004[3]. In an attempt to reduce these emissions from the forest sector in developing countries, the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP) is in the process of designing a mitigation mechanism entitled "*Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries*". This is generally referred to as REDD+.

REDD+ actions are voluntary, whereby developing countries may receive results-based payments for undertaking mitigation actions related to forests. The intention is to provide incentives for developing countries to reduce their emissions from deforestation and forest degradation, and to increase their forest carbon stocks.

UNFCCC COP Decision 1/CP.16 (Para. 70) lists five REDD+ activities, namely:

(a) Reducing emissions from deforestation;
(b) Reducing emissions from forest degradation;
(c) Conservation of forest carbon stocks;
(d) Sustainable management of forests, and;
(e) Enhancement of forest carbon stocks.

Several sources of emissions and removals by sinks exist on a land. These can vary considerably over time and depend on land-use and land-use changes. In the context of reducing GHG emissions and establishing GHG inventories, countries will have to pay particular attention to their major sources of emissions, as they are required to report on them with increasing accuracy. Large sources of emissions have been coined 'Key Categories' by the IPCC. Countries will therefore have to prioritise their resources and monitoring efforts to provide accurate estimates of such Key Categories[4]. Hence, as a minimum, countries that choose to implement REDD+ will have implemented the REDD+ activities that fall into such 'Key Categories', and may or may not choose to additionally address REDD+ activities that are not considered a 'Key Category'.

Once REDD+ becomes operational under the UNFCCC, activities will be implemented and monitored at the national scale. All changes in forest carbon will be measured at the national level – which will reduce the risks of emissions leakage within the country. Moreover, the implementation of REDD+ activities will require the formulation and coordination of policies and measures at the national level, although these may be implemented at the sub-national level. Hence, under the UNFCCC, REDD+ activities are not project-based – unlike the Clean Development Mechanism (CDM).

The UNFCCC COP has adopted a series of decisions relating to REDD+ that provide a framework for implementation. In decision 1 CP/16 (the so called Cancun Agreements), a work programme on

[3] IPCC Working Group 3, 2007. *Fourth Assessment Report*
[4] Maniatis D and Mollicone D (2010) Options for smapling and stratification for national forest inventories to implement REDD+ under the UNFCCC. Carbon Balance and Management 2010, 5:9

methodological issues was carried out by the Subsidiary Body for Scientific and Technical Advice (SBSTA) as mandated by the COP (Decision 1/CP16, annex x). At COP19 (Warsaw) most of the work programme has been finalised, only pending further guidance on some aspects related to safeguard information systems[5].

The guidance published to date decides that REDD+ activities in developing countries should be implemented through a phased approach, in order to allow a learning-by-doing approach. The three phases of REDD+ can be interpreted as follows (see Figure 1 below):

(i) **Phase 1**: Preparation: Development of necessary capacities and institutions to implement REDD+ at the national level, and development of strategies and action plans;
(ii) Phase 2: Demonstration and Piloting of Policies and Measures: Field testing of practical measures and strategies may be done, through demonstration activities, in addition to continuous capacity building and development of new policies and legislation;
(iii) **Phase 3**: Implementation of REDD+: A national performance-based system of results-based payments for verified results-based actions.

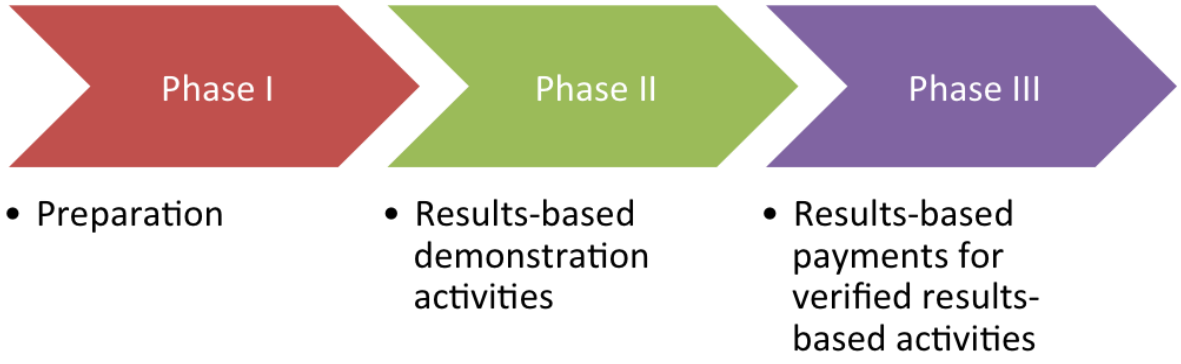


Figure 1: Three-Phased Approach to REDD+ under UNFCCC Framework

Phases 1 and 2 together comprise the "REDD+ Readiness" Phase, during which countries build capacity, develop strategies and action plans, test different approaches to REDD+ implementation at demonstration/pilot sites and subsequently refine their approaches based on feedback. In practice, the three phases overlap to an extent, e.g. with demonstration/piloting and capacity building activities overlapping.

Mongolia is presently in the early stages of Phase 1. It is focusing on building initial capacity and planning for REDD+ and the development of strategy documents. These latter include the present REDD+ Readiness Roadmap and will include the National REDD+ Strategy.

Mongolia is a party to both the UNFCCC (ratified in 1992) and the Kyoto Protocol (1997). The Ministry of Environment and Green Development (MEGD) is the focal point for these two international agreements.

[5] At the COP19 in Warsaw 7 decisions were reached on REDD+, otherwise known as the Warsaw Framework for REDD+: (1) REDD+ finance; (2) coordination of support for the implementation of REDD+ activities; (3) national forest monitoring systems; (4) summary on information on safeguards; (5) forest reference emissions levels; (6) measuring, reporting and verification (MRV) of forest-related emissions; (7) drivers of deforestation and forest degradation.

Since becoming a party to the UNFCCC, the Government of Mongolia has made significant efforts to formulate policies and measures to mitigate its GHG emissions and to adapt to some of the expected impacts of climate change. Specifically, in relation to forestry, Mongolia has identified REDD+, including improved forest management, as a critical mitigation action as part of its *Nationally Appropriate Mitigation Actions* (NAMAs) that it submitted to the UNFCCC in 2010[6].

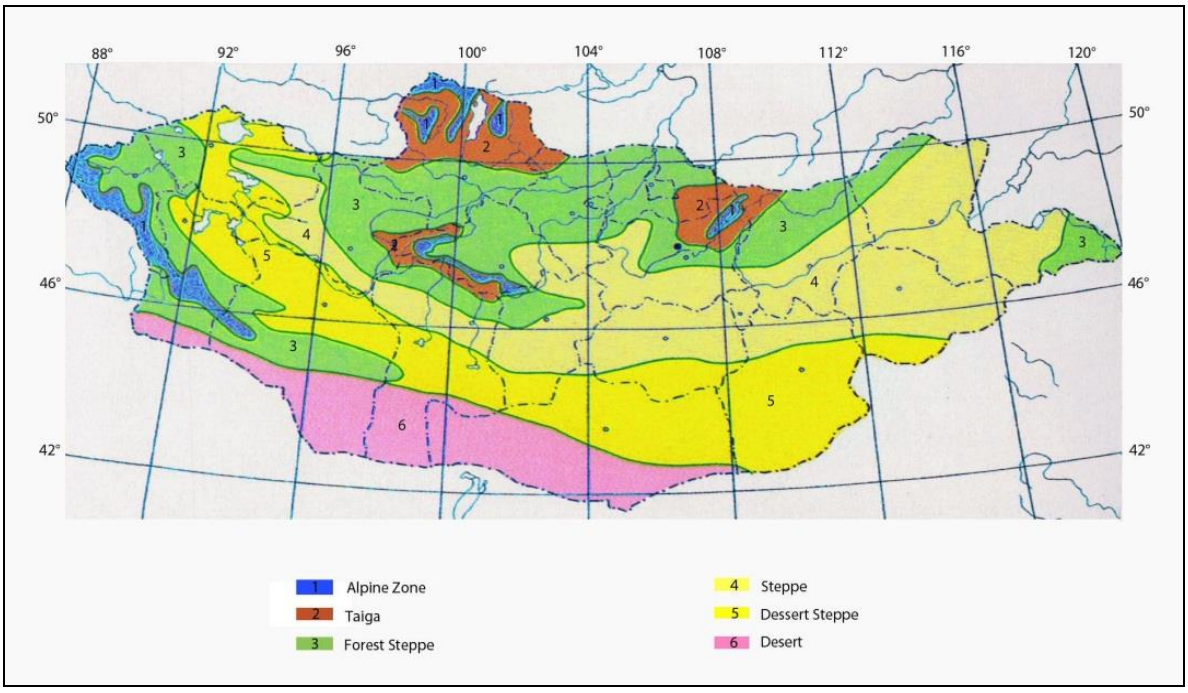
Following this priority setting, Mongolia applied and was accepted to become a partner country of the UN-REDD Programme in June 2011. Mongolia has since taken steps to prepare for the implementation of REDD+ activities.

The purpose of this Roadmap is to set out how Mongolia will implement its REDD+ Readiness activities and develop a comprehensive National REDD+ Strategy in Phase 1 of REDD+

[6] Submitted to the UNFCCC on 28 January 2010 in response to the UNFCCC COP request in the Copenhagen Accords.

Country Overview

Mongolia is a land-locked country located in Central and Eastern Asia between Russia and China. More than 80% of Mongolia's territory lies above 1,000m. Mongolia covers 1.56 million km^2 and is the world's seventeenth largest country. Mongolia spans parts of the deserts of Central Asia (in the south), large areas of steppe grasslands, and the Siberian taiga forests (to the north) (see Map 1). Almost half of Mongolia is desert - the Gobi Desert covers approximately 42.5% of the country. Due to its continental geography and high altitudes, Mongolia has a very harsh climate characterized by temperature extremes. Average summer and winter temperatures are 20˚C and -20˚C, respectively.



Map 1: Ecological Zones of Mongolia (SDC 2011)

Following the collapse of the USSR in 1990, Mongolia began the process of transition from socialism to a democratic market economy. The revised Constitution (1992) established an independent parliamentary republic with a President, who is directly elected for a term of four years. The national Parliament, the *State Great Khural*, has 76 members, all of whom are elected for four-year terms.

Population and Demographics

Mongolia has a population of approximately 2.9 million people, growing at an annual rate of 45,000 or 1.8%.[7] With a population density of only 1.84 people per km^2, it is the world's least densely populated country[8]. Mongolia's population is highly urbanized, with approximately 64.4% of the total population, or 1,867,600, living in urban areas, mostly in the capital, Ulaanbaatar. This urbanized nature is the result of significant migration from rural areas in recent years. The continuing trend of urban drift is placing

[7] National Statistic Office, 2014. *Mongolia Statistical Yearbook, 2013*
[8] National Statistic Office, 2014

pressure on forest resources near urban centres, particularly those near Ulaanbaatar, in order to meet the growing demand for fuel wood for heating and cooking, and for timber for construction.

Livestock herding has played a significant role in Mongolian culture for thousands of years. In 2013, there were approximately 160,000 herder households in Mongolia. Many herder households live in or near forested areas and may therefore be affected by the implementation of REDD+ activities[9].

Ethnic minorities

Over 80% of the Mongolian population is from the majority *Khalkh Mongol* ethnic group. In addition, there are almost 20 recognised indigenous and ethnic groups, some of which live in and near forested areas. For example, the Tuvinian-speaking Tsaatan, also known as the *Dukha,* are traditionally nomadic reindeer herders living in the northern *aimag*[10] of Khuvsgul. The Dukha are one of the smallest of the minorities. Other indigenous peoples and ethnic minorities located in the northern forested areas include the *Darkhad* (totalling 21,558 in number, of which 82.2% live in Khuvsgul *aimag*), the *Khotogoid* (15,460, of which 84.6% live in Khuvsgul *aimag)*, and the *Khamnigan* (537, of which 49.9 % live in Khentii *aimag*)[11].

It is unclear at present how the implementation of REDD+ activities may affect these minorities. Box 1 summarizes the existing national mechanisms to protect the rights of indigenous peoples and ethnic peoples in Mongolia.

Annex 1c-1 contains a full list of indigenous peoples and ethnic minorities in Mongolia.

Annex 2a-4 contains a list of the international human rights treaties relevant to REDD+ and the status of ratification by Mongolia.

Box 1: Existing Mechanisms to Protect the Rights of indigenous and Ethnic Minorities in Mongolia

Mongolia is a party to most major international treaties protecting indigenous and ethnic rights, including the *International Convention on the Elimination of All Forms of Racial Discrimination 1966*. It also voted in favour of the General Assembly resolution to adopt the *United Nations Declaration on the Rights of Indigenous Peoples 2007*. Moreover, the Constitution protects the right of national minorities to use their native languages in education and communication, and prohibits discrimination on the basis of ethnic origin, language or race (Constitution, Arts. 8.2 and 14.2). In 2001, Mongolia established an independent National Human Rights Commission that can review citizen complaints concerning alleged violations of human rights.

However, concerns have been raised that Mongolia has been slow to recognise its national minorities and that it lacks the necessary domestic mechanisms to enforce the protection of their rights. For example, Mongolia does not have any anti-discrimination legislation or a designated institution to enforce non-discrimination (UN Country Team, Universal Periodic Review, 2010).

[9] UNDP, 2012a. *Mongolia Human Development Report, 2011*
[10] Aimag is an administrative division similar to a Province.
[11] National Statistic Office, 2011

Economic Context

Mongolia is currently undergoing a significant and rapid economic transformation, driven primarily by growth in the mining sector. Mongolia's GDP grew by 6.1% in 2010, 17.5% in 2011[12], 12.3% in 2012 and 12% in 2013 . In 2010, the mining sector accounted for 22.7% of GDP. But last years these figures are declined to as 17.96% in 2012 and 18.47% in 2013. The second largest sector was agriculture, forestry and fishing, which accounted in 2010 for 15.9% of GDP, 14.1% in 2012 and 14.42% in 2013. Mineral products, including coal, copper, gold, zinc, iron ore, molybdenum and uranium, are the main export products. Mineral exports increased from 35.2% of total export commodities in 2000 to 81% of total exports in 2010[13].

Foreign direct investment (FDI) plays an important role in driving economic growth, driven by foreign investment in the mining sector. In 2010, FDI accounted for 69.2% of all investment in the Mongolian economy, increasing from 57.1% in the previous year.[14] There are concerns that the soaring levels of FDI in the mining sector will not translate into poverty reduction, food security, job creation and the transfer of technology[15].

There is also an issue of emerging land use conflict between mining and forestry. Informal, but unverified, reports suggest that mining in the northern and central areas of Mongolia is causing increasing levels of land and forest degradation, particularly in watershed areas. The toxic chemicals used to extract mining ores, such as mercury and cyanide, are contaminating land and causing land and forest degradation[16]. Some analysis suggests that the economic growth created by the mining boom is also driving demand for timber for construction[17]. In 2010, the scale of domestic construction sector increased by 54.4%, and 65% of this growth took place in Ulaanbaatar[18]. Given these levels of growth in the economy and in the construction sector, it is reasonable to expect increased pressure on forest resources.

Socio-Economic Indicators

Average household incomes have increased significantly in recent years, more than doubling between 2007 and 2010 to 448,000 Tugriks/month (US$340), although much of this increase is due to salaries in the finance and mining sectors[19]. The average wage is high compared to the legal minimum wage (*Law on Minimum Wages*, 1998, which is currently set at approximately 192,000 Tugriks/month (US$105) since the 1st September 2013. Inequality in consumption remains relatively high, with the richest 20% of the population consuming, on average, 5.3 times more than the poorest 20%, on average[20]. Inflation and unemployment are both relatively high, both of which affect the poor disproportionately, with inflation

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[12] ESCAP, Economic and Social Survey of Asia and the Pacific 2012. These GDP growth figures are in line with Mongolia's Comprehensive National Development Strategy (2007-2021) which sets a goal of achieving an average annual economic growth rate of 14% and an increase to GDP per capita to at least US$5,000 for 2007-2015. For the period 2016-2021, the NDS sets a goal of achieving annual economic growth at no less than 12% with an increase in GDP per capita to US$12,000 (NDS 2008:12).

[13] National Statistic Office, 2013

[14] National Statistic Office, 2013.

[15] United Nations Country Team, 2010. *United Nations Development Assistance Framework*

[16] UNDP, 2012a.

[17] See, for example, FAO (2010), Mongolia Forestry Outlook Study.

[18] National Statistic Office, 201

[19] National Statistic Office, 2011

[20] National Statistic Office, 2011

running at 14.3% in 2012 and at 10.5% in 2013 and the unemployment at 8.23% in 2012 and 9.9% in 2013[21].

Rural Poverty

Poverty rates remain relatively high in Mongolia, despite the recent economic growth. In 2010, the number of people living below the national poverty line was decreased by 39.2%, in 2011 at 33.7% and 27.4% at 33.7%. Poverty is concentrated in rural areas, with 49.0% of the rural population living below the national poverty line in 2010 and at 35.5% in 2012, compared to 32.2% in urban areas[22] in 2010 and 23.2% in 2012[23]. The positive incentives received for the implementation of REDD+ activities may present an opportunity to improve livelihoods and overcome poverty in rural areas.

The lack of access to clean sources of energy and heating, and the lack of access to improved water and sanitation, remain key challenges for many rural households[24]. The *Millennium Development Goals (MDGs)-based Comprehensive National Development Strategy* (see below) identifies the need to implement a regional development policy in order to reduce the development gap between urban and rural areas.

Land Tenure

Most land in Mongolia, including forest land, is owned by the State. During the socialist period, traditional land-use and land ownership regimes were often not fully respected and this may have undermined their relevance and effectiveness. One consequence is that many aspects of "ownership" and "rights" are still being clarified. Further, the concept of private land ownership is not fully accepted. The definition and meaning of "land tenure" remains a challenging issue in Mongolia and continues to evolve through law and policy, such as through the *Law on Land* (2002). This latter regulates the possession and use of land by citizens, private entities and organizations.

The rapidly changing economic and political landscape is giving rise to competing land-use pressures, for example between the mining, livestock and forestry sectors. This makes the clarification of land tenure and land use both urgent and challenging. One response in the forest sector has been to introduce limited forest use rights to local communities through Forest User Groups (FUG). Under the *Law on Forest* 2012, and in line with certain conditions, FUGs can now secure access to State forest land for up to 60 years.

Unlike in many other countries in Asia, herder communities (local communities) do not hold customary land tenure over the pastures they graze. Rather, they enjoy "open access" to pasturelands - a policy put in place following the end of the socialist era. Coupled with the removal of limits on herd numbers, this policy has contributed to overgrazing in many grassland areas and nearby forest landscapes. In turn, this has exacerbated problems with land degradation and desertification (see Component 2a for more information).

Gender

Mongolia has adopted a number of initiatives in recent years to improve gender equality. Gender equality is guaranteed in Mongolia under both the Constitution (1992) (Art. 14) and the *Law on Gender Equality*

[21] National Statistic Office, 2014
[22] National Statistic Office, 2013
[23] World Bank, 2013
[24] UNDP, 2012a

(February 2011). Mongolia has also ratified the Convention on the Elimination of All Forms of Discrimination Against Women (1979), as well as the Optional Protocol to the Convention (1999) which allows individuals to submit complaints directly to the UN Committee on the Elimination of Discrimination against Women.

Notwithstanding the above advances, Mongolia is not on track to meet the MDG related to promoting gender equality and the empowerment of women. Although women are, on average, better educated than men, women's involvement in management and decision-making levels in both government and the private sector is still relatively low and could even be declining[25]. Representatives on the National REDD+ Roadmap Taskforce (Working Group 2 on Safeguards) raised this issue. It was noted that although women may have decision-making power in their families, in organizations and in FUGs, their ability to influence policy making is still very limited.

The Government has identified the need to create conditions for ensuring gender equality at decision-making levels as a key development priority in its Comprehensive National Development Strategy (2007-2021, Chapter 4). Reflecting this, the government is keen to encourage greater representation of women in the State Great Khural to ensure that women's voices are heard at the political level. Following the 2012 elections, the number of seats held by women in the Great State Khural tripled from 3 to 9 (out of 76). The government has also expressed its desire for women to play a greater role in decision-making in professional life.[26]

In forest management, women often have quite different roles to men. For example, women are often responsible for collecting non-timber forest products (NTFPs). Women are also more likely to be engaged in community-based forestry (e.g. through the FUGs), mainly because these activities generate a low (or no) cash return compared to other cash-generating jobs, such as herding. Women also often work in local administrative and government forest-related agencies, such as Forest Units. Along with children, women often hold the lowest paid jobs in the timber sector, such as harvesting timber and operating sawmills[27].

National Development Priorities and Their Relation to REDD+

The following discussion demonstrates that a National REDD+ Strategy is supportive of the Mongolian national development priorities. The main development policies are:

- MDGs-based Comprehensive National Development Strategy;
- National Security Concept of Mongolia 2010; and
- National Strategy for Green Development (approved by Cabinet but is still awaiting Parliamentary approval).

There are also environmental sector policies and other natural resource sector-specific policies that are relevant to REDD+, such as the *Government Food and Agriculture Policy* and the *Government Policy on Herders* (Resolution of the Great State Khural, No. 29, 4 June 2009) – see Component 2a. For example, the *Policy on Herders* recognizes that herders are the main productive force behind the broader state policy of

[25] National Statistic Office, 2011

[26] See: Asia Foundation website article, *Number of Seats Held by Women in Mongolia's Parliament Triples*, by Carol H. Yost, 22 August 2012.

[27] World Bank, 2006a. *Wood Supply in Mongolia: The Legal and Illegal Economies*.

agricultural development and intensification. This policy aims to improve the economic viability of herding and improve the livelihoods of herding households. This is to be achieved through the provision of social security, and through the development of skills and organizational capacity in the herder communities.

MDGs-based Comprehensive National Development Strategy 2008-2021

The *MDGs-based Comprehensive National Development Strategy* (NDS) was approved in 2008 and covers the period up to 2021. It is also referred to as the Integrated National Development Policy. The overall objective of the NDS is to develop Mongolia into a middle-income country through achieving its MDGs. The aim is to meet the MDGs by 2015.

While Mongolia is on track to achieving 66% of its MDG targets by 2015,[28] it is unlikely to meet the following four (see UN Country Team, 2010b):

- (**MDG 1) Eradicating poverty and hunger** – Despite the nation's recent economic growth, this has not translated into demonstrable levels of poverty reduction. The widening gap between poverty levels in cities and rural areas is probably related to the nationwide trend of rapid urbanisation.
- (**MDG 3) Promoting gender equality and empowering women** – One of the most telling indicators of the poor state of gender equality in Mongolia is the extremely low rate of participation of women in politics and their concomitant representation at decision-making levels (see earlier discussion).
- (**MDG 7) Ensuring environmental sustainability** – An estimated 70% of Mongolia's pastureland is degraded, and forest and water resources are under threat. Strong political leadership is required to assist with a move towards a 'green' economy.
- (**MDG 9) Democratic governance and human rights** – The Great State Khural adopted an additional MDG *to Strengthen Human Rights and Foster Democratic Governance and Anti-corruption*. Notwithstanding, it appears that this MDG target is unlikely to be met. There is growing public dissatisfaction with the perceived lack of attention to poverty reduction, urban air pollution, environmental and land degradation, and the delivery of basic social services. Efforts to curb corruption have not yet translated into any measureable improvements, with Mongolia ranked 83 out of 189 countries on Transparency International's Corruption Index 2013.

A well-designed National REDD+ Strategy has the potential to help achieve these four MDGs, notably through:

- A REDD+ distribution system can be targeted to ensure that benefits from REDD+ implementation are channelled to improving rural livelihoods and helping to alleviate rural poverty (MDG 1);
- Decision-making systems for REDD+ implementation, from the national to the local level, can be structured to encourage the engagement of women (MDG 3);
- The implementation of REDD+ activities could provide an incentive to improve the sustainability of forest management (MDG 7); and

[28] The MDGs that Mongolia is on track to meet by 2015 are: (MDG2) providing primary education for all children by 2015; (MDG 4) Reducing by four times, between 1990 and 2015, the under-five mortality rate; (MDG 5) Providing access to reproductive health services to all individuals of appropriate age and reducing the maternal mortality ration by four times; (MDG 6) Combating STIs/HIV/AIDS, TB and reverse other diseases; (MDG 8) Developing a Global Partnership for Development: source UNDAF 2012-2016.

- Efforts to improve forest governance as part of the implementation of REDD+ activities, coupled with the development of national guidelines to ensure the free, prior and informed consent (FPIC) of Mongolia's indigenous peoples and ethnic minorities, can assist the country in meeting MDG 9.

This document describes how the above aims will be operationalized.

Development Priority (No. 5) in the NDS is to improve the State's Environmental Policy. It has a specific Strategic Objective (No. 4) to establish the enabling conditions for sustainable forest management (SFM) (see Box 2 below).

Box 2: The National Development Strategy and the Strategic Objective on Forests

Strategic Objective 4 on forests provides for:

> "Conditions for sustainable use and protection of forest reserves, reforestation and maintaining ecological balance shall be created [by]:
> - Explor[ing] forest reserves by using satellite data and remote sensing, determine the sprawl, structure and composition of forests, develop forest mapping and sustainable forest management programmes, and create a forest database based on geographical information systems
> - Within the framework of a medium-term strategic objective, undertak[ing] measures to make climate milder, restock woodlands and create green zones in Gobi and steppe regions to facilitate the fight against desertification, soil erosion, and sand movement
> - Strengthen[ing] forest protection through the introduction of modern management methods;
> - creat[ing]a liability system to ensure proper use and protection of forests by allowing local residents and communities to own up to 20% of forests on a contractual basis."

Source: Millennium Development Goals (MDGs)-based Comprehensive National Development Strategy, Chapter 6 on Environmental Policy, Strategic Objective 4.

National Security Concept of Mongolia (2010)

Mongolia's National Security Concept was adopted by the Great State Khural in 2010. The National Security Concept contains the following provisions that specifically address biodiversity and forest resources:

"Article 3.5.3 Conserve biodiversity and prevent from insufficient resource

Article 3.5.3.3	*Forest fund resource shall be increased by 2 percent as a result of prohibiting harvest cutting (final cutting) and export of Non-timber forest products and natural plants.*
Article 3.5.3.4.	*Policy on increasing import volume of wood and wooden products, resolving issues of fuel wood in a complex way as a result of stepping up production of this type of product, and supporting the introduction of advanced technology in order to provide substitutes for fuel wood, shall be implemented respectively."*

During the consultation process for this REDD+ Readiness Roadmap, some stakeholders from the private forestry sector expressed concern that the objective of increasing forest stocks by 2% in the Concept is

inconsistent with the objective of developing a viable forest sector. This apparent policy conflict will be analysed and clearly addressed during the development of Mongolia's National REDD+ Strategy.

- **Green Development Concept** (currently under preparation)

A green economy is one that *'results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. In its simplest expression, a green economy can be thought of as one which is low carbon, resource efficient and socially inclusive'*[29]. A green development path should maintain, enhance and, where necessary, rebuild natural capital as a critical economic asset and source of public benefits, especially for poor people whose livelihoods and security depend strongly on nature.

The Government has recently committed to a green development path, notably through the creation of the Ministry of Environment and Green Development and the preparation of the Green Development Concept and Mid-Term Programme (GDCMP). While still in the draft stages, the aim is to shift Mongolia to a green economic growth path that is low carbon, resource efficient and socially inclusive. The draft GDCMP set out how Mongolia's development can lead to improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities, and where possible increasing natural capital.

GDCMP makes several references to absorbing carbon, sustainably managing forests and conserving forest biodiversity. For example, Objective 3 includes "*preserving….. at least 60 percent of forest areas"* and Objective 9 includes "*Enhance the carbon absorption capacity of forests..".* Moreover, the GDCMP includes many other principles, goals and objectives that are fully aligned with the principles, goals and objectives of REDD+.

Hence, the linkages between REDD+ and the GDCMP are beneficial two-ways. On the one hand, implementing REDD+ will contribute to the GDCMP through several mechanisms. Firstly, REDD+ is intrinsically about improving ecological resources. Moreover, the REDD+ safeguards and co-benefits should lead to improved livelihoods, equity and governance. Further, REDD+ should mobilize additional finance for investments in green areas of growth. Finally, REDD+ can decrease vulnerability to climate change in forest areas – another key component of green development, and a priority in Mongolia.

On the other hand, aligning REDD+ with the GDCMP will raise awareness of REDD+ and ensure it is prominent on the national agenda. This will facilitate the mainstreaming of REDD+ (and associated sustainable forest management) into fiscal, financial and economic policy and planning at the national level. It will also facilitate the mainstreaming of forests objectives into the sectors affect forests, such as water, tourism, energy, mining and agriculture. This will also lead to a better integration of the goals and policy objectives from other sectors into forestry – possibly diversifying the purposes for which forests are managed and increasing the overall contribution of forests to the economy.

- **The UNDAF and the Role of the United Nations Country Team**

The UN Country Team (UNCT) works with the Government of Mongolia to implement the NDS. In 2010, the UNCT prepared the *United Nations Development Assistance Framework* for Mongolia (UNDAF), in

[29] United Nations Environment Programme (UNEP), 2011a. *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication*.

partnership with the Government of Mongolia. This sets out the UNCT work plan for the period 2008-2021.

The UNDAF identifies four Strategic Priorities for cooperation between the Government of Mongolia and the UNCT:

1. Economic development is inclusive and equitable contributing towards poverty alleviation;
2. Equitable access to, and utilization of, quality basic social services and sustainable social protection;
3. Improved sustainability of natural resources management and resilience of ecosystems and vulnerable populations to the changing climate; and,
4. Strengthened governance for protection of human rights and reduction of disparities.

While a National REDD+ Strategy can help to address Strategies Priorities 1 and 4, it is particularly relevant to Strategic Priority 3, which lists as an Outcome (No. 7) "*Increased sector capacity for sustainable resources management with the participation of primary resource users*".

Forest Cover, Characteristics and Rates of Forest Loss

Mongolia has over 18.19 million hectares of forest[30] – an area nearly twice the size of Sri Lanka – yet, due to its extensive land area (155 million hectares), forest cover represents only 11.89% of its total land area.[31] Mongolia's forests can be divided into two broad zones: northern boreal (85% of total forest cover), and southern Saxaul (15%).[32] The key species in the northern boreal are larch, pine, birch and pine (see Figure 2).

Unlike tropical forests, boreal forests are slow-growing due to the cold climate. The productivity and carbon balance of boreal forests is largely determined by the silvicultural practices employed (e.g., thinning and cleaning), the harvesting regimes and the level of human disturbance (e.g. of forest fires[33]).The slow growth makes boreal forests very sensitive to over-exploitation.

As illustrated in Map 2[34] below, 16 of the 24 *aimags* in Mongolia contain coniferous/boreal forest. The other eight *aimags* contain only Saxaul forest (yellow areas). **Annex 2a-1** contains a complete table of all forest resources in Mongolia, by *aimag*.

[30] MEGD and UN-REDD/FAO, 2014, Result report of the Assessment on Land Use, Land Use Change and Forest (LULUCF)

[31] These statistics are taken from the FAO 2011 *Global Forest Resource Assessment*, which is consistent with the FAO Forest Regional Assessment data for Mongolia. However, these figures differ quite significantly from those held by the Forestry Agency, which generally reports forest cover as being much higher (see Mongolia's *Forestry Agency State [of] Forest Land in Mongolia 2011*). Annex 1 contains a brief explanation of the discrepancy between the FAO and Forestry Agency (now DFCRM) data.

[32] FAO, 2010.

[33] Pan, Y. et al., 2011. *A Large and Persistent Carbon Sink in the World's Forests*, Science Express

[34] Source: Forestry Agency, Government of Mongolia.

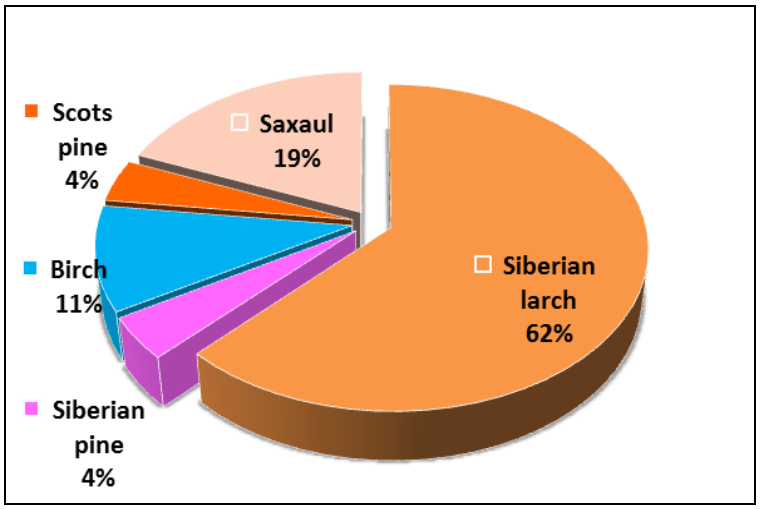


Figure 2: Tree Species in Mongolia, by Area

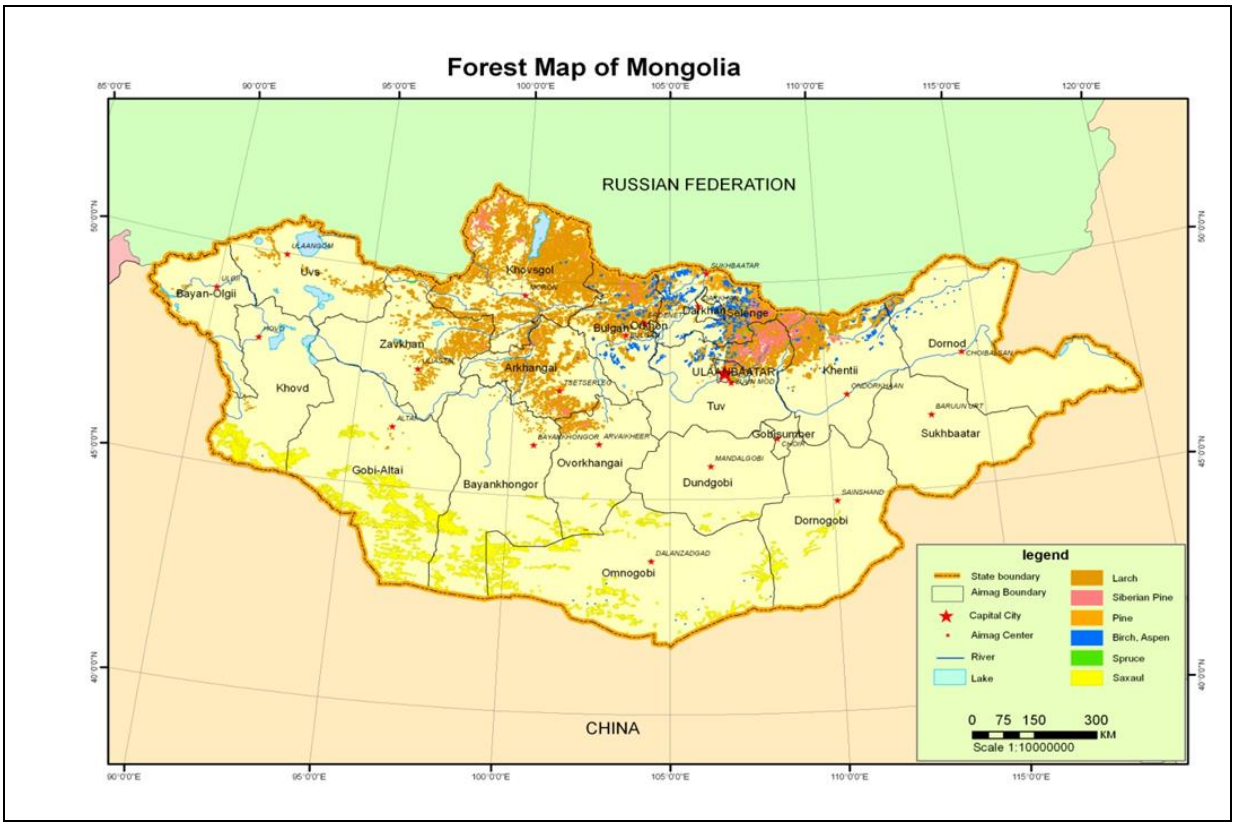
Forest Zoning

According to the *Law on Forest 2012*, Mongolia's forests are divided into two administrative zones for the purpose of forest resource management: the Protected Forest zones and the Utilization Forest zone. Approximately 85% of Mongolia's forests fall under the Protection Zone. This includes protected areas, special protected areas, national parks, nature reserves and cultural monuments, where limited exploitation is permitted to meet local subsistence needs for fuel wood and NTFPs. The remaining forest in the Protected Zone covers forests around bodies of water such as rivers and lakes, or around cities, towns, roads and railways, where commercial logging is strictly controlled and harvesting of fuel wood and NTFPs for domestic consumption is permitted to a limited degree. In the Protected Forest zone, activities are limited mostly to "forest cleaning", i.e. collection of deadwood and harvesting of fire-damaged trees.

Rate of Forest Loss

Based on data from FAO (2010), total forest area in Mongolia in 2008 was 12.8 million hectares. The boreal forests accounted for 10.9 million of these. Annual forest loss is estimated to be about 0.74%, or just over 80,000 hectares. The Saxaul forests covered 1.9 million hectares in 2008.

Previous analyses suggest that the main drivers of deforestation and forest degradation in Mongolia vary significantly depending on the type of forest. Boreal forests are primarily affected by legal and illegal logging (for timber for construction, private use and fuel wood), forest fires, insect attack, disease and grazing. Southern Saxaul forests are mainly affected by fuel wood collection and grazing.



Map 2: Forest Map of Mongolia

(brown = Larch; pink = Siberian Pine; orange = Pine; blue = Birch, Aspen; green = Spruce; yellow = Saxaul)

■ Carbon Stock Assessment

Carbon is currently not measured as a parameter in Mongolia's national forest inventory (NFI) and little research on forest carbon has been undertaken. Hence, no accurate assessments of the carbon stocks forests are available. Component 4a below sets out a plan to address this deficiency, and prepare a REDD+ aligned NFI. Table 3 provides the best available estimates for national carbon stock in Mongolia.

Table 3: Forest Carbon Stock Estimates for Mongolia[35]

FRA 2010 category	Carbon (million metric tonnes)			
	Northern forests		***Southern Saxaul forests***	
	2005	*2010*	*2005*	*2010*
Carbon in above-ground biomass	488	470	2.25	2.18
Carbon in below-ground biomass	117	113	1.03	1
Total living biomass	605	583	3.28	3.18

These estimates have been determined simply by using a carbon conversion factor of 0.47, as suggested by FAO, and applied to biomass estimates[36]. They have not been ground-truthed.

[35] FAO, 2010
[36] See FAO, 2012, p. 31, which refers to FAO 2008, Guidelines for Country Reporting to FRA 2005.

There are no estimates of carbon stock for the other three carbon pools (i.e. dead wood, litter and organic soil). These latter typically contain approximately 60% of the total forest carbon stock in similar forests (Pan *et al.*, 2011). Consequently, the carbon stock estimates in Table 3 are likely to significantly underestimate the carbon stocks in Mongolia's boreal forests.

Using these figures, the rate of forest loss of 0.74% per year translates to a loss of approximately 4.4 million tonnes of carbon (tC) per year, or 16.1m tonnes of carbon dioxide equivalents (tCO_2e). There is therefore significant scope for emissions reductions from Mongolia's forests.

Contribution of Forests to the Economy

According to official statistics, the forest sector makes only a small contribution to overall economic activity. The recorded contribution of the forest sector to GDP in 2009 was estimated to be 0.25%[37]. The share of wood and wood products in gross industrial output was just MNT[38] 15.67 billion (US$ 11.26 million) or 0.8% of total manufacturing[39]. NSO (2013) recorded wood and wood products manufacturing employ that a little over 1,200 people, comprising 4.5% of manufacturing employment. In 2010, tax revenues from the forestry sector revenues (from timber, fuelwood and hunting) accounted for just 0.2% of central government tax revenues and 0.8% of local government tax revenues.

The apparently low importance of forestry is partly due to the dominance of the livestock and mining sectors in the economy. However, it is also a result of the way statistics have been compiled and calculated in the past. First, data on the forest sector is combined into overall agriculture sector data – along with livestock, crops, fisheries and hunting. Hence, the figures for forestry may not be complete. Secondly, and more significantly, economic and development statistics include only formal and commercial activities (i.e. those associated with licensed wood production and registered forest industries). Most economic activity in the forest sector takes place outside formal markets through un-licensed activities, and is not recorded in official figures. As a result, official statistics massively underestimate the actual contribution of the forest sector to the economy.

For example, a World Bank study estimated that natural capital (including forest, land and subsoil assets) constitutes almost 60% of Mongolia's total wealth – more than twice that of produced capital (World Bank 2006a). Forests and protected areas accounted for almost one third of this value, equivalent to almost US$ 2,000 per capita Mongolian at 2013 prices. Ykhanbai (2010) undertook a forest resources accounting study that estimated the costs of forest degradation to be in the range of MNT 521 billion in 2006, equivalent to almost 20% of GNP. The Ministry of Economic Development (MED) is currently working with the NSO and MEGD to routinely collect more detailed information on environmental costs and benefits, including their contribution to GDP, and to incorporate them into economic and development indicators. It can be anticipated that much better data on the role of the forest sector in the economy will be available in the future.

A recent UN-REDD study (Emerton and Enkhtsetseg 2013) aimed to provide a more accurate estimate of the contribution of the forest sector to the economy. The study quantified the key values associated with

[37] Ykhanbai, 2010. *Mongolia Forestry Outlook Study*, Asia-Pacific Forestry Sector Outlook Study II, Working Paper No. APFSOS II/WP/2009/21, Bangkok.
[38] Mongolian Tugruks
[39] *National Statistic Office (NSO), 2013.* Mongolia Statistical Yearbook, 2012

forest sector goods and services in Mongolia. This estimates the net value-added from boreal forests to be in the range of MNT 431.5 billion (US$ 310 million) a year, equivalent to MNT 42,900 (US$ 31) per hectare of boreal forest. Around 8% of this value accrues as public revenues, while the remainder flows to the users of forest goods and services. It is noted that this represents only a partial valuation, using rough estimates and based on conservative assumptions. Hence, even these figures represent only a share of the total economic value of forest goods and services to the Mongolian economy.

The study revealed that the market value of wood products, NTFP, hunting and forest-based tourism is more than fifteen times as high as the recorded value of forest sector sales. For example, national forest carbon sequestration and watershed protection services for Ulaanbaatar generate values of over MNT 100 billion a year, almost seven times greater than the recorded gross industrial output for the wood manufacturing sector For users, the largely unrecorded values accruing from forest goods and services are substantial when compared to official GDP: for example, the net value-added to rural households from fuelwood use, NTFP collection and forest grazing was estimated to be equivalent to more than 12.5% of per recorded capita GDP. In total, the annual direct value-added from the forest sector is equivalent to approximately 3.1% of the recorded GDP, while the public revenues directly generated are equivalent to around 1.4% of all tax revenues. Details of estimated forests values are provided in Table 4.

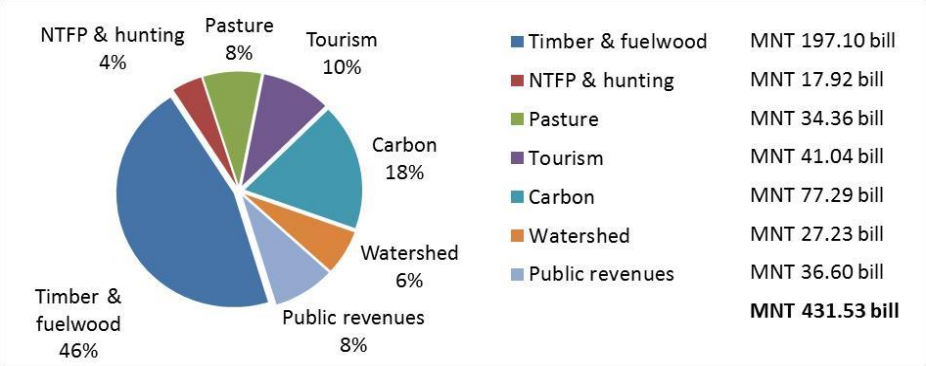


Figure 3: Partial Estimate of the Economic Value of Forest Goods and Services (2013, in MNT billion)

Table 4: Summary of Forest Economic Values and Development Indicators

Forest good/service	Volume/quantity indicators	Direct and indirect monetary indicators	Direct and indirect development indicators
Licensed timber	271 million m^3 harvested	MNT 40,668 million retail value MNT 15,641 million business profits MNT 1,417 million public revenues	Supplies part or all of the fuelwood needs of 390,000 households – average per household value of MNT 265,000/year Provides income to 900 community FUG Supports 230 SMEs in boreal aimags Supports >700 other wood-based enterprises
Unlicensed timber	469 million m^3 harvested	MNT 52,802 million retail value MNT 27,078 business profits (MNT 2,829 million public revenues foregone)	
Licensed fuelwood	956 million m^3 harvested	MNT 40,781 million retail value MNT 7,646 million business profits MNT 1,167 million public revenues	
Unlicensed fuelwood	1,964 million m^3 harvested	MNT 62,847 retail value MNT 15,712 million business profits (MNT 3,846 million public revenues foregone)	
Wild plants	4,200 tonnes of NTFP collected	MNT 12,388 million local home consumption value MNT 4,141 million local sale value	Provides food, medicines and income to 65,000 households – average per household value of MNT 260,000/year
Pasture and hay	55,000 ha utilised	MNT 34,359 million livestock gross margins	3.8 million SEU or 12.5% of herds in boreal aimags partially supported Provides grazing sufficient for all livestock for 20,000 households – average per household value of MNT 1,777,000/year
Tourism and recreation	90,000 international visitors	MNT 22, 700 million direct spending MNT 1,600 million public revenues MNT 48,835 million wages MNT 93,860 million sales income MNT 28,000 million value-added to economy MNT 17,000 million capital formation	Contributes MNT 144,300 million to GDP Supports 1,000 enterprises, including 300 ger camps in rural areas Supports 15,000 jobs
Licensed hunting	3,000 animals and birds hunted under permit	Between MNT 91 million local trade value and MNT 2.69 billion trophy hunting value MNT 417 million government revenues	
Carbon sink	4.6 million tonnes CO_2e sequestered	MNT 77,500 million value	Boreal forest adds carbon values of MNT 7,000/ha/year
Watershed protection	176 million m^3 water regulated	MNT 27,000 million net value added to water users from forest in Tuul watershed MNT 31,500 million added public revenues from forest in Tuul watershed	Forest in Tuul watershed adds water values of MNT 5,400/ha/year Boreal forest areas secure 45 million m^3 water for households, 8 million m^3 water for towns, 34 million m^3 water for industry, 28 million m^3 water for energy sector, 27 million m^3 water for livestock and 35 million m^3 water for irrigation.

Prospects for REDD+ in Mongolia

Although small in percentage terms, the overall forest area in Mongolia is large by global standards. Ongoing deforestation and forest degradation is leading to significant GHG emissions. This suggests that it should be possible to introduce policies, activities and measures to reduce GHG emissions from this sector. REDD+ in Mongolia has the potential to reduce GHG emissions. Table 12 below sets out the REDD+ activities of relevance for Mongolia. The National REDD+ Strategy will initially focus on the most significant activities.

Moreover, there are reasons to believe that the opportunity costs for shifting to more sustainable forestry practices are likely to be relatively low, since the current demand for timber is not export driven. Demand for timber is mainly domestically driven; for fuelwood for household use and for timber for use by small-scale private and commercial use. It should be possible to address these issues through public policy measures and incentives, coupled with improved forest management and alternative timber sources (i.e. sustainable plantations on non-forested lands). Other drivers, such as forest fires and pest infestations and diseases may also be addressed through an increase in active forest management.

Mongolia has many of the building blocks in place for REDD+ implementation, such as an active programme to support community-based forest management through FUGs. In addition, there are strong

synergies with the work being undertaken by Mongolia's development partners, in particular the Asian Development Bank (ADB), FAO, the German Government (through GIZ) and the Swiss Government (through SDC). These could all collaboratively support Mongolia's REDD+ readiness process.

Finally, improved forest management has been identified as a priority in Mongolia's national development plans and in its Second National Communication to the UNFCCC, and as an important mitigation measure in Mongolia's NAMA portfolio. REDD+ payments could be invested in sustainable forest management efforts, which could ultimately benefit the country's national economy, rural livelihoods of forest dependent communities and forest ecosystems. A well-designed REDD+ programme could also contribute to sectoral strategies designed to support the country's green development agenda, for example for water, energy mining and agriculture.

A National REDD+ Strategy for Mongolia

This National REDD+ Readiness Roadmap sets out the steps Mongolia will take to complete Phase 1 of REDD+ implementation and position it to enter Phase 2. Implementing the steps in this workplan will include: laying the foundations for good forest governance; building technical and other capacities; carrying out studies that influence policies and decision-making processes; establishing effective communication and coordination systems; developing a system to identify strategies to implement REDD+ activities; build a set of standards for ensuring compliance with social and environmental safeguards, and for monitoring this; and establishing the system to measure and monitor and report on forest changes and carbon levels, and; the development of a full National REDD+ Strategy through an iterative, learning-by-doing and step-wise approach.

In order to obtain results-based payments, Mongolia will develop its capacity to meet the following key requirements clarified in the Warsaw Framework through the implementation of this Roadmap: 1) a national strategy or action plan; 2) an assessed FREL/FRL; 3) Measuring, Reporting and Verification (MRV) of results, reported through a technical annex of the Biennial Update Report (BUR) and analysed by a technical team of experts (as per 2/CP.17 Annex IV); 4) information on the National Forest Monitoring System (as per the BUR technical annex); and 5) a summary of Safeguards Information System.

This Roadmap provides information on:

- Drivers of deforestation and forest degradation (Component 2a);
- Potential strategic directions for formulating a REDD+ strategy to help address these drivers (Component 2b);
- The manner in which REDD+ preparatory work will be organized and managed in Mongolia, including institutional arrangements and safeguards (Component 1a, 2c);
- Procedures for communication, information sharing, networking, and consultations for participation by various stakeholder groups (Component 1c);
- The processes involved in the development of forest reference emission levels/forest reference levels (FRELs/FRLs) and a national forest monitoring system (Components 3 and 4a);
- The process to design an information system for safeguards, multiple benefits, governance and other impacts through the implementation of REDD+ activities (Component 4b);
- A plan and schedule for the identified Outcomes, Outputs and Activities (Component 5);
- A monitoring/adaptive management framework (Component 6).

Component 1: Organize and Consult

Component 1a: National REDD+ Readiness Management Arrangements

Standard 1a the R-PP text needs to meet for this component:

National readiness management arrangements

The cross-cutting nature of the design and workings of the national readiness management arrangements on REDD, in terms of including relevant stakeholders and key government agencies in addition to the forestry department, commitment of other sectors in planning and implementation of REDD+ readiness. Capacity building activities are included in the work plan for each component where significant external technical expertise has been used in the R-PP development process.

Objective of Component 1a

The success of Mongolia's efforts to develop and implement a National REDD+ Strategy will depend greatly on the effectiveness of the management structures.

The Objective of this Component is therefore to set up the necessary institutional structures and supporting arrangements to manage and co-ordinate the REDD+ Readiness process in Mongolia. These institutional structures should:

- Ensure that the national REDD+ implementation framework is supported by technical capacity, effective communication (including awareness raising and consultation), capacity building and human resource development;
- Mainstream REDD+ into broad and cross-cutting development plans and programmes, including national development goals, green development goals and climate change goals;
- Link REDD+ into pertinent sectoral planning and programmes;
- Ensure that REDD+ implementation is underpinned by the necessary decision-making authority, expertise, and wide-ranging stakeholder participation at varied societal levels.

This section provides an initial analysis of the existing institutional arrangements and cross-sectoral coordination mechanisms in Mongolia that are relevant to REDD+. This includes several structures established specifically for REDD+. It then proposes a management structure for REDD+ in Mongolia. It then sets out the steps and activities required to establish the management structure - in the form of an indicative workplan for Component 1a.

Existing Stakeholders and Structures that are Relevant to REDD+

In order to design appropriate institutional arrangements for REDD+ implementation, it is necessary to first identify the existing institutions that may play a role in REDD+ (e.g. through policy, legal, fiscal management, regulation of socio-economic impacts, forest inventory and GHG data collection, etc.). The key actors are described in the following paragraphs.

Climate Change Coordination Office

The Climate Change Coordination Office (CCCO) sits within MEGD and operates under the supervision of the Chairman of the National Climate Taskforce (NCT) (see next paragraph). In January 2011, the CCCO was restructured to make it responsible for both adaptation and mitigation issues at the national level.

The CCCO carries out day-to-day activities to implement international commitments and is responsible for preparing both the GHG inventory and the National Communication to the UNFCCC. It will therefore also

be responsible for reporting on REDD+. Mongolia's CDM National Bureau and Green Growth Committee are both under the CCCO. The CCCO will therefore play an important role in REDD+ implementation, management and reporting.

The NCT is an inter-sectoral Taskforce led by the Minister for Environment and Green Development. It is tasked with guiding and coordinating national activities, policies and measures for climate change adaptation and mitigation. However, as of mid-2012, this Taskforce is no longer functioning and therefore appears unlikely to play a functional role in REDD+.

Ministry of Environment and Green Development

When established after the national elections in 2012, the MEGD took on most of the mandate of the former Ministry of Nature, Environment and Tourism (MNET). The Ministry was elevated from a line ministry to the status of a general orientation Ministries. This enables MEGD to oversee the overall national development planning process based on the country's green development agenda. At the same time, the Forestry Agency was transformed into the Division of Forest Conservation and Reforestation Management (DFCRM) within MEGD (see Figure 5 for an organigram of the MEGD).

In the forest sector, MEGD has overall responsibility for the management of forests in Mongolia. Its roles and responsibilities include the formulation and implementation of forest legislation, and making and enforcing rules and regulations for forest protection at national, provincial (aimag) and local (soum) levels. It also ensures inter-sectoral coordination for forest protection, and undertakes some practical measures such as setting the Annual Allowable Cut (AAC), approving aimag forest management plans, and issuing or withdrawing licences for Forestry Professional Organizations (Forest Law 2012, Art. 13). MEGD is also the focal point for the UNFCCC through its CCCO. Within MEGD, and under the Department of Coordination for Policy Implementation (DCPI), the DFCRM takes the operational lead in overseeing forest sector policy formulation and implementation.

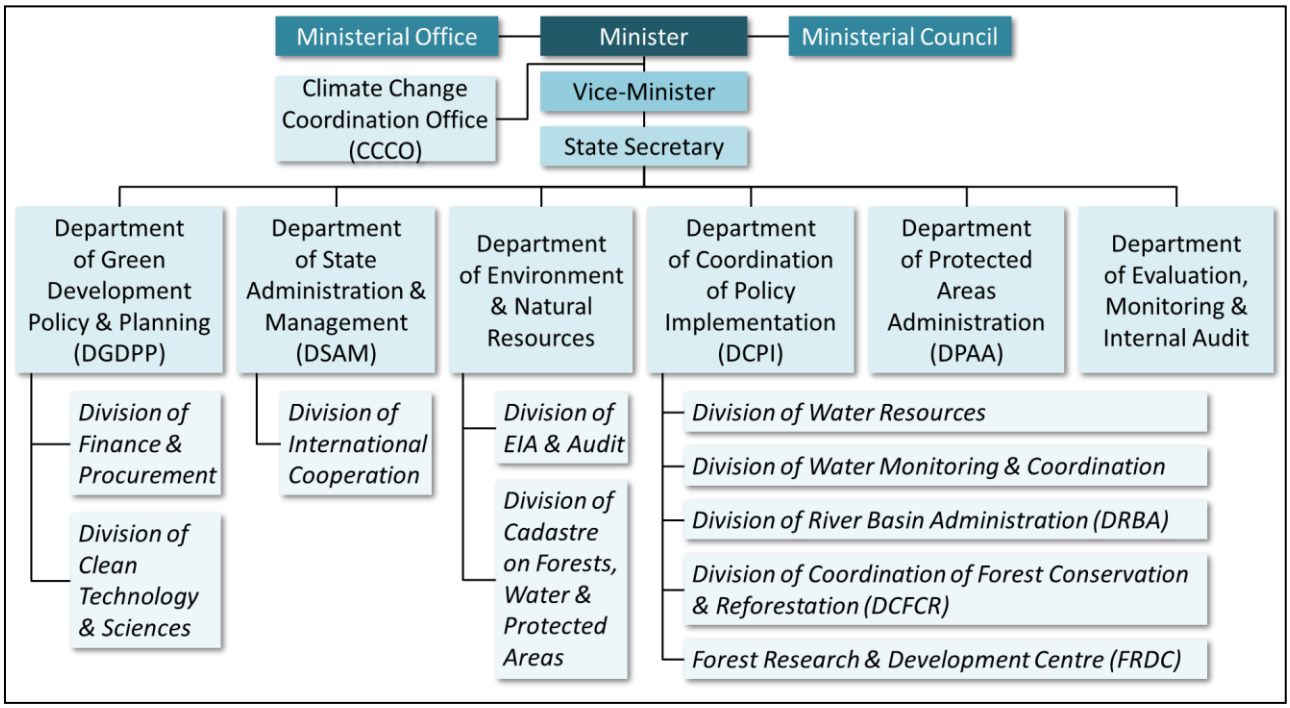


Figure 4: Organigram of the MEGD

The Forestry Research and Development Centre (FRDC) is responsible for organizing activities for reforestation, rehabilitation after forest fires, or disease or insect infestation, conducting the national forest inventory (NFI), and providing technical and professional guidance to private logging companies and FUGs. This includes the development of model management plans (Forest Law 2012, Art. 13). FRDC was also established after the elections in 2012 (resolution # 89). It is a state-owned enterprise under the guidance and supervision of the DCPI.

The Department of Protected Areas Administration (DPAA), also under MEGD, is responsible for implementing policies relating to Mongolia's protected areas system and to the UN Convention on Biological Diversity. DPAA regulates and manages the protected area system, including protected area buffer zones.

■ Other Key National Government Agencies

Table 5 below provides additional information on the above, and provides a comprehensive list of all national level government agencies that could be involved in implementing the National REDD+ Readiness Roadmap.

Table 5: Description of Related National Government Agencies, and Their Potential Involvement in Implementing REDD+ Readiness Roadmap

Ministries with a role	Main state agencies involved	Potential role in REDD+
Ministry of Environment and Green Development	Division of Forest Conservation and Reforestation Management (DFCRM)	Responsible for formulating and implementing REDD+ policies and measures at national and provincial levels; and for designing the national forest inventory.
	Forestry Research and Development Centre (FRDC)	Responsible for organizing activities for reforestation, rehabilitation, conducting the national forest inventory and providing technical and professional guidance to Forest User Groups and the private sector
	Climate Change Coordination Office (CCCO) under National Climate Taskforce (NCT)	Responsible for preparing both the GHG inventory and the National Communication to the UNFCCC. It will therefore also be responsible for reporting on REDD+.
	Department of Protected Areas Administration	Responsible for implementing REDD+ policies and measures relating to protected areas. It has four employees. DPAA works closely with the UNPD supported project, Strengthening of the Protected Area Network in Mongolia (SPAN) (eight full-time employees).
	Department of Green Development Policy and Planning	Responsible for strategic coordination and planning to ensure that activities within and outside of the MEGD are aligned with the country's green development agenda. Can ensure that REDD+ and green development are mutually supportive at all levels.
	National Agency for Meteorology, and Environment Monitoring	Will be involved in forest monitoring for REDD+.
Ministry of Construction and Urban Development	Administration of Land Affairs, Geodesy, Cartography (ALAGC)	Responsible for land use planning. ALAGC is preparing the National Land Management Master Plan (most recent version 2004-2023), and investigation and resolution of land disputes. It is establishing a National Land Information System with cadastral mapping showing land ownership, using GIS and remote sensing. This will be linked to the national forest

Ministries with a role	Main state agencies involved	Potential role in REDD+
		monitoring system under REDD+.
Ministry of Industry and Agriculture (MIA)	Small and Medium-sized Enterprises	MIA is developing programmes to support the wood processing industry (chipboard and briquette manufacturers) and to improve transport infrastructure in forest areas. MIA works closely with FUGs. It also works closely with herder communities. MIA activities relevant to REDD+ include regulating haymaking, windbreaks and livestock husbandry. MIA has established the Pastureland Coordination Working Group to address land degradation.
Ministry of Economic Development	Development Policy, Strategic Planning and Coordination	MED is responsible for ensuring national-level planning and coordination. MED is currently preparing a common law on development planning to coordinate national and sub-national policy and plans. MED will therefore play an important role in ensuring policy coordination and alignment across sectors relevant to REDD+.
Ministry of Finance	Mongolian Tax Administration	The Ministry provides funds for afforestation/reforestation, conservation and other forest activities. The Ministry will play an important role in transparent management of REDD+ revenues.
Ministry of Mining	Mineral Resources Authority	Responsible for issuing mineral exploration and mining licences. Can support the design and implementation of REDD+ strategies to reduce mineral exploration and extraction in forested areas.
	Petroleum Authority (PA)	PA can assist with developing low-carbon energy alternatives to wood-fuel.
Ministry of Justice	Environmental Crimes Unit of the Mongolian National Police	Responsible for prosecuting breaches of environmental, forest and mining laws.
	General Authority for Border Protection	Plays a role in enforcement of environmental and forest laws in border areas.
Deputy Premier	National Emergency Management Agency	Responsible for managing and preventing forest and steppe fires. Forest fire is a major driver of forest degradation in Mongolia.
	General Agency for Specialized Inspection (GASI)	GASI is responsible for investigating reported breaches of environmental laws. GASI will play an important role in enforcement of forestry laws.
	Independent Commission Against Corruption	This Commission can assist to ensure the integrity and transparency of REDD+ activities and related transactions.
National Human Rights Commission		Established by statute. Its purpose is to supervise and protect the human rights as listed in the Constitution. The Commission will play a role in designing and overseeing implementation of the social safeguards for REDD+.
National Committee on Gender Equality		Reports directly to the Prime Minister. It should be engaged in the development of the National REDD+ Strategy to ensure Strategy is developed in a gender responsive manner as well promotes the effective participation of women, particularly in decision making.

Ministries with a role	Main state agencies involved	Potential role in REDD+
Ministry of Population Development and Social Welfare		Responsible for administering social welfare programs, such as the Child Money program and financial resources from the Human Development Fund. It could provide useful lessons and knowledge of the impacts and effectiveness of cash transfers on livelihoods, which could assist in the design of an effective benefit distribution mechanism.

Finally, relevant Parliamentary Standing Committees may play a role in designing and implementing the National REDD+ Strategy. This notably includes the Parliamentary Standing Committee on Environment, Food and Agriculture, which monitors the implementation of the Government Policy on Herders[40].

■ Regional and Provincial Government Stakeholders

Mongolia has a highly decentralized form of government, with the Constitution providing for self-government at three sub-national administrative levels through governors and citizen parliaments (*khurals*). Under the 2012 Forest Law, many forest regulatory and management responsibilities have been devolved to regional, district and local governors, and to *khurals*. To assist forest management, Forest Bureaus have been established at Aimag level, and Forest Units at inter-Soum and/or Soum level. The transferred responsibilities are very broad and include: setting local level logging and fuel wood quotas, issuing logging and fuel wood licences, and collecting forest use fees and charges. The Forest Units work closely with Forest User Groups (FUGs), and this is likely to be an important mechanism for implementing REDD+ at the community level.

The devolution of forest management responsibilities throughout this highly decentralized government structure means that it will be essential to carry out capacity building on REDD+ at all levels, and to introduce and mainstream the implementation of REDD+ activities throughout all levels of government. Table 6 introduces the key governmental players at Aimag, Soum and local levels.

Table 6: Sub-National Levels of Government Relevant to REDD+

Level of government	Mongolian term	Governors	Parliament (*Khural*)	Forest administrative unit
Province	*Aimags* (21)	*Aimag* governors	*Aimag* representative khural	Forest Bureaus
District	*Soums* (329)	*Soum* governors	*Soum* representative khural	Forest Unit
Local	*Baghs* and *Khoroos* (1,568)	*Bagh* governors	*Bagh* public meetings	

■ Non-Governmental and International Stakeholders

The Cancun Agreements (UNFCCC COP Decision 1/CP.16, Para. 72, and Appendix I on safeguards) require developing countries, when developing and implementing national REDD+ strategies, to ensure the full and effective participation of stakeholders. The key concerned non-governmental stakeholders in Mongolia, and their potential role in REDD+, are introduced in Table 7.

Table 7: Key Non-Governmental Stakeholder for Roadmap Implementation (provisional)

Other stakeholders	Capacity and Potential Role in REDD+

[40] Resolution of the Great State Khural, No 29, 4 June 2009

Other stakeholders	Capacity and Potential Role in REDD+
Academic institutions	
National University of Mongolia (NUM)	Has expertise in forest management and inventory. Established a remote sensing laboratory in its Department of Ecology in 2005. Potential REDD+-related support from NUM includes assistance to develop a new methodology for the national forest inventory, forest research (e.g. allometric equations), and the development of curricula on REDD+ for forestry subjects/courses.
Mongolian Academy of Sciences, Institute of Botany	Has expertise on forest health and management.
Forest resource users	
Private economic entities	This includes private companies engaged in logging, forest cleaning, and reforestation. All such entities must be authorized by MEGD to operate and must operate under a licence. They are expected to play a role in forest management for REDD+ (e.g. implementation of the 'sustainable management of forests').
Forest User Groups (FUGs)	FUGs are the mechanism for community-based forest management. FUGs can lease forested land from the State for up to 60 years. Over 900 FUGs have been established, typically with a membership of around 20 households, and responsible for up to 6,000 hectares. However, for the most part, they exist only on paper, and undertake almost no forest management activities. FUGs present a significant opportunity for delivering results at the community level in REDD+ activities.
Herder groups (e.g. Mongolian Society for Rangeland Management)	In 2010, there were over 160,000 herder households, with 216,600 households owning private livestock[41]. This includes some indigenous ethnic groups such as the Dukha in the Taiga in the northern aimag of Khuvsgul (nomadic reindeer herders). REDD+ may require some changes in herder behaviour to control grazing in and near forest edges. REDD+ strategies which have the potential to affect the livelihoods of herders and other indigenous peoples will need to be carefully assessed in accordance with the proposed social safeguards for REDD+ (see Component 2c) in order to mitigate or avoid any adverse impacts.
Civil society organizations	
Mongolian Environmental Civil Council (MECC)	MECC is an umbrella organisation for over 500 environmental NGOs. It can help to build awareness about REDD+ with its member NGOs and it can prepare local trainers. It can also: organise training for forest user groups and herder groups using local branches and employing trainers; organise discussions on REDD+ planning and policy development among NGOs, and; conduct external monitoring of REDD+ activities and expenditure of funds.
MONFEMNET	A national network of women's NGOs and civil society organizations dedicated to human development and women's rights within Mongolia. MONFEMET may assist with identifying and addressing gender impacts of REDD+ activities.

[41] National Statistic Office, 2011

Other stakeholders	Capacity and Potential Role in REDD+
Mongolian Nature Protection Civil Movements Coalition	Could assist to build awareness of REDD+ with member organisations and to channel participation in the development of REDD+ processes from member groups.
Transparency International Mongolia	Could play a role in raising awareness on the role of civil society organizations in promoting and demanding transparency and accountability in REDD+
Donors and development partners with activities relevant to REDD+	
ADB	Currently implementing a project on "*Strengthening Carbon Financing for Regional Grassland Management in Northeast Asia*". This will provide useful lessons for Measuring, Reporting and Verification (MRV) and distribution of incentives.
The Asia Foundation	Implemented a programme on Responsible Mining in 2009.
FAO	Aims to commence, in early 2014, the Project "*Mainstreaming biodiversity conservation, SFM and carbon sink enhancement into Mongolia's productive forest landscapes*", financed by GEF. The objective is: *sustainable forest management in Mongolia's forest landscape secures the flow of multiple ecosystem services and benefits, including biological diversity, reduced degradation, and carbon storage, while enhancing resilience to climate change*. This project focuses mostly on improving forest management capacity of FUGs, and has a component to pilot sustainable forestry and REDD+ actions.
GIZ	Implementing, on behalf of the German Government, the "*Climate Change and Biodiversity Program".* GIZ have previously worked with FUGs and will continue to do so. From 2011 they also work to support small-scale private timber companies. GIZ's work has a growing focus on supporting biodiversity in Protected Areas, including in buffer zones around PAs. GIZ also supports Mongolia to participate in the FLEGT process (see later). GiZ is also directly supporting building capacity to develop a REDD+ aligned national forest inventory and capacity development of professional economic entities (this is described in more detail in Component 3).
Finnish Forest Research Institute	Has expertise in sustainable forest management of boreal forests, including productivity gains from improved silvicultural practices. This includes efficient forest regeneration, young stand management and thinning of stands. Has existing relationships with the NUM (Department of Forest Sciences) and the Forestry Agency (now DFCRM), including learning exchanges.
Millennium Challenge Corporation	Has an environment programme to help identify, promote and scale up the use of energy efficient technologies for homes, and to develop commercial wind power in Mongolia.
Netherlands-Mongolia Trust Fund for Environmental Reform	A joint effort between the Netherlands Government, the World Bank and the Government of Mongolia. Began in 2005 and has worked on the Business and Biodiversity Offsets Program in the Gobi.
Swiss Development Cooperation (SDC)	Current project on "*Linking Herders to Carbon Markets: Development of methods and approaches for Grassland Carbon Finance in Mongolia*", which may provide useful lessons for REDD+ in MRV for carbon and incentive distribution.
UNDP Mongolia (Country Office)	Has conducted projects to improve governance (anti-corruption), and is supporting projects to strengthen the management of Mongolia's protected area network.
USAID Mongolia	Programmes include increasing the effectiveness and accountability of governance. USAID conducted the Mongolia Anti-Corruption Support

Other stakeholders	Capacity and Potential Role in REDD+
	Project (Nov 2005 – July 2011) and the Strengthening Political Institutions and Accountability Program (April 2010 – March 2011). These provide useful lessons for addressing corruption in the forest sector and improving the rule of law and governance. USAID's Adapt Asia project is to provide support in developing the government's capacity in ecosystems valuation, with links to the forest sector and REDD+.
International environmental NGOs	
The Nature Conservancy (TNC)	TNC opened an office in Mongolia in 2008. It is working on supporting land-use zoning, planning, infrastructure and protection areas to support biodiversity, as well as Ecosystem–based Adaptation. TNC is also working with Rio Tinto to develop a Biodiversity Action Plan for the company's operations in Mongolia. There is potential to transfer this knowledge to other mining operations in forested areas.
Wildlife Conservation Society (WCS)	WCS has had a full-time office in Mongolia since 2003. WCS focuses on landscape-scale conservation and has experience working with community herder groups and law enforcement. WCS is supporting the development of Business Biodiversity Offset Programmes (BBOP).
WWF – Mongolia	WWF is working to establish a Payments for Environmental Services (PES) mechanism in north-eastern parts of Mongolia and has experience in establishing Mobile Anti-Poaching Units in some high biodiversity areas and establishing a volunteer rangers' network. WWF also works with Rio Tinto to improve its environmental Impact Assessment processes.

Current Management Structures With Dedicated REDD+ Responsibilities

The National REDD+ Taskforce and Working Groups

Mongolia became a partner country of the UN-REDD Programme in June 2011. After an initial review of the potential for REDD+ in Mongolia by UNDP[42], Mongolia decided to take steps to prepare this National REDD+ Readiness Roadmap. Accordingly, on 4 October 2011, MNET issued a Decree[43] to formally establish the National REDD+ Taskforce.

Under the Chair of the Director of the DFCRM, the Taskforce initially had 17 members. This has since been expanded to 20. Currently, the 20 member Taskforce reflects a broad cross-sectoral representation. **Annex 1a-1** contains a description of the current National REDD+ Taskforce, a list of all current Taskforce members and the sectors they represent.

Details of the consultations regarding the establishment of the Taskforce are provided in Component 1b.
Three informal Technical Working Groups supported initial consultation on REDD+. These TWGs do not yet have official status. They will be formalised into the management arrangements to implement this Roadmap (see next section).

[42] UN-REDD Programme, 2011. *UN-REDD Country-level Support to REDD+ Readiness in Mongolia*, 22 April 2011 [DRAFT].
[43] No. A-336

Proposed Management Arrangements for Implementing the National REDD+ Readiness Roadmap

There are currently no existing institutional structures that can address the breadth of activities and coordination required to implement the REDD+ Readiness Roadmap. It will therefore be necessary to create some new institutional structures. The arrangements proposed here are provisional and are subject to stakeholder consultation and validation.

The proposed management arrangements will guide the design and later the implementation of the National REDD+ Strategy. They are intended to provide inter-agency and sectoral coordination. During Roadmap implementation, their capability to provide a "whole-of-government" response to REDD+ will be assessed, as will their ability to integrate and influence national development planning processes.

Figure 6 illustrates the proposed institutional structures. The elements are further explained below, and more details (including Terms of Reference, TORs) are provided in **Annex 1a-2.**

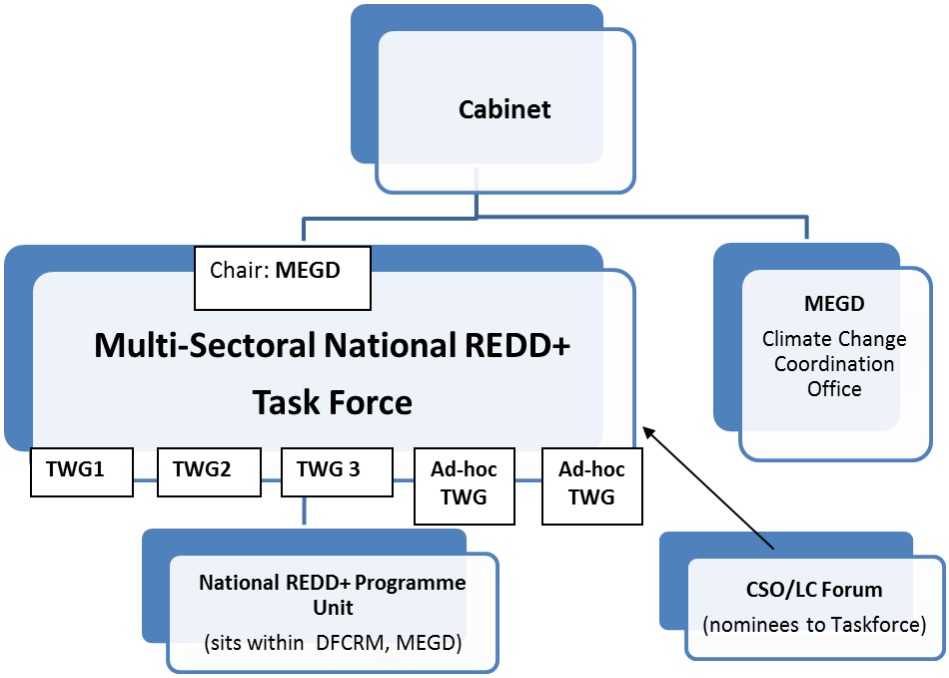


Figure 5: Proposed National Management Structure for Implementing the National REDD+ Readiness Roadmap

The Multi-Sectoral National REDD+ Taskforce

This Taskforce will be an advisory and coordination body. Its role will be to provide overall guidance and direction to the implementation of the REDD+ Readiness Roadmap, including the development of Mongolia's National REDD+ Strategy. The Taskforce will report to the National Cabinet and be chaired by the MEGD. The National REDD+ Programme Unit (see below) will provide secretarial services to the Taskforce.

The Taskforce will be broadly cross-sectoral in nature. It will therefore create a mechanism to ensure the overall coordination and collaboration between all sectors and REDD+ initiatives. In this, it will be supported by various development partners and national institutions, in order for Mongolia to attain REDD+ Readiness in the most cost-effective and coherent manner. The Taskforce will also be responsible for ensuring that REDD+ readiness is integrated into Mongolia's national development planning process. Provisional TOR for the Taskforce are in **Annex 1a-2**.

Membership of the Taskforce: The existing National REDD+ Taskforce will transition into the new Taskforce. However, before the transition, there will be a review of the effectiveness and breadth of the existing Taskforce membership. Consideration will be given during further consultation on this Roadmap to adding: (i) representatives of the local Forest Bureaus/Forest Units in order to ensure stronger sub-national institutional links and; (ii) the Climate Change Coordination Office. Particular consideration will be given to ensure that the new Taskforce is linked in to the national development planning process (notably the NDS), and to the emerging momentum around the national Green Development Concept. Once the Taskforce is established, the related capacity-building needs of the members will be assessed (this is included under Component 2c on REDD+ Implementation).

Mongolia is committed to ensuring that civil society and local communities are included in the decision-making structures for REDD+, including in the National REDD+ Taskforce. The main mechanism for this will be through Civil Society Organization/Local Community (CSO/LC) Forum (described below). The CSO/LC Forum will nominate representatives to sit on the Taskforce, such as representatives from herder communities, FUGs, and/or women's groups. Further consultation will take place to clarify the relationship between the Taskforce and the CSO/LC Forum.

The Technical Working Groups

Three informal Technical Working Groups (TWG) have supported initial consultations on REDD+ - they will be modified as necessary and formalized to support the National REDD+ Taskforce. The necessity for only three permanent Technical Working Groups was determined as this was found to have worked effectively during initial stages of the preparation of this Roadmap. Given that Mongolia is a relatively small country with a relatively small population, it does not have the capacity to spread stakeholders across more than three working groups. Provisional TOR for the Technical Working Groups are in **Annex 1a-2**. The TWGs will comprise both Taskforce and non-Taskforce members, such as development partners and civil society representatives.

However, on a needs basis, during the implementation of the Roadmap, as issues emerge, additional temporary, issue-based TWGs may be established.

The three permanent Technical Working Groups proposed are:

(1.) TWG on **REDD+ Governance, Policies and Measures.** During the Roadmap implementation phase, it is responsible for: harmonizing national policies, laws and plans with REDD+; developing governance and social and environmental safeguards; identifying drivers of deforestation and degradation, and; formulating the REDD+ Strategy; and creating a transparent and equitable framework to manage REDD+ revenues.

(2.) TWG on F**REL/FRL and the nationa**l **forest monitoring system.** During the Roadmap implementation phase, it is responsible for: proposing methodologies for the development of FRELs/FRLs and for conducting pilot demonstrations; responsible for providing technical support to the designing and piloting the national forest monitoring system.

(3.) TWG on **Communication and Stakeholder Engagement.** During the Roadmap implementation phase, it is responsible for: preparing and implementing a gender

responsive [44] Consultation and Communication Plan. This ensures that REDD+ is implemented with effective stakeholder engagement and in accordance with the principle of Free, Prior and Informed Consent (FPIC). This TWG will also be responsible for supporting the work of the CSO/LC Forum and its members.

The National REDD+ Programme Unit

Implementing the Roadmap, including the preparation of Mongolia's National REDD+ Strategy, will demand considerable human resources, effort and management flexibility. A National REDD+ Programme Unit will therefore be established and will be responsible for the operational work and day-to-day implementation of the Roadmap. The Unit will be responsible for the coordination, communications and administrative matters including procurement and financial management. It will also support the work of the TWGs and the Taskforce to carry out the required operational tasks.
It is proposed that the Unit be initially housed within DFCRM. A capacity assessment of the Unit will be carried out and a capacity building plan will be prepared. Provisional TOR for the National REDD+ Programme Unit are in **Annex 1a-2**.

The Civil Society Organizations/Local Community Forum

As mentioned above, the CSO/LC Forum will be established as the primary mechanism to facilitate direct input from civil society to the implementation of the Roadmap. The CSO/LC will also serve as the principal outreach and communication platform for the development of the National REDD+ Strategy, and can later serve to provide CSO/LC input during the Strategy's implementation.

Members of the Forum will include civil society groups, environmental groups, herder communities, FUGs, forest dependent Indigenous Peoples (IPs), women's groups and ethnic minorities and other non-government sector interests. This Forum will be self-organized and independently managed by the members.

Given that the CSO/LC Forum will contain a broad range of interest groups, it may be necessary to establish sub-forums where particular stakeholder groups can meet and consult separately. For example, civil society groups may have different interests to local community groups, and Forest User Groups, indigenous peoples and private sector groups may have separate interests.

To facilitate communication between the National REDD+ Taskforce and the CSO/LC Forum, the Forum will nominate a representative (or several representatives) to sit on the Taskforce. A flexible approach will be maintained to ensure that all groups that seek representation are accommodated. Reports and minutes of meetings of the Taskforce will be shared with all CSO/LC Forum members.

The role of the Forum will be to:

- ensure REDD+ policy dialogue and the formulation of Mongolia's National REDD+ Strategy reflects the opinions and concerns of its members;
- facilitate networking between civil society and local community groups;
- exchange information and lessons learned on REDD+;

[44] Given socio-economic and political barriers, women are oftenunintentionally excluded from the process in these types of consultations. Making such a Plan gender responsive to help address some of the previously identified decision-making and political barriers faced by women within the country is therefore crtical.

- assist with capacity-building;
- act as a first point of reference for all REDD+ consultation processes and validation requirements; and
- participate in monitoring compliance with social and environmental safeguards.

The Forum will determine its own TOR to clarify these roles. Once the Forum membership is established, a capacity needs assessment of the Forum members will be carried out, and a capacity-building plan prepared (the process for this is in Component 2c).

Indicative Workplan for Component 1a

OUTCOME 1a: National REDD+ management arrangements established		
Output 1a: **Establish a broad-based, multi-stakeholder National REDD+ Taskforce**	Activity1a.1.1. Activity1a.1.2. Activity1a.1.3. Activity1a.1.4. Activity1a.1.5. Activity1a.1.6.	Conduct detailed institutional mapping for REDD+, including sub-national levels (Forest Units, etc.) Review operation of current Taskforce and identify any changes required (e.g. to functions, mandate and membership) Prepare draft terms of reference for the Taskforce and Technical Working Groups, including membership list Undertake capacity assessment for members of taskforce and TWGs Hold national level workshop to consult and validate the proposals Establish permanent National REDD+ Taskforce by ministerial decree (at same time, establish National REDD+ Unit)
Output 1a.2: **Establish the National REDD+ Programme Unit**	Activity1a.2.1. Activity1a.2.2. Activity1a.2.3. Activity1a.2.4. Activity1a.2.5.	Review options for establishing National REDD+ Programme Unit (e.g. where can it be best placed to ensure broad-based, cross-sectoral engagement?) Prepare ToR for National REDD+ Programme Unit Recruit Unit staff Establish links between Unit and the Prime Minister's Office, the Cabinet, the MEGD, the CCCO, etc. Identify capacity development needs of National REDD+ Programme Unit and develop and implement a capacity development plan.
Output 1a.3: **Establish CSO/LC Forum**	Activity1.3.1. Activity1.3.2. Activity1.3.3. Activity1.3.4. Activity1.3.5.	Conduct detailed stakeholder mapping of non-government sector. Prepare proposal for structure, membership and ToR of CSO/LC Forum, and any sub-fora (e.g. FUGs, IPs, private sector, women's groups, etc.), and undertake initial capacity assessment Consult and validate proposal at national level workshop Support self-organization and independent management of the Forum Provide support to organize regular meetings and carry out capacity building.

Component 1b: Information Sharing and Early Dialogue with Key Stakeholder Groups

Standard 1b the text needs to meet for this component:

Information Sharing and Early Dialogue with Key Stakeholder Groups:

The R-PP presents evidence of the government having undertaken an exercise to identify key stakeholders for REDD-plus, and commenced a credible national-scale information sharing and awareness raising campaign for key relevant stakeholders. The campaign's major objective is to establish an early dialogue on the REDD-plus concept and R-PP development process that sets the stage for the later consultation process during the implementation of the R-PP work plan. This effort needs to reach out, to the extent feasible at this stage, to networks and representatives of forest-dependent indigenous peoples and other forest dwellers and forest dependent communities, both at the national and sub-national level. The R-PP contains evidence that a reasonably broad range of key stakeholders has been identified, voices of vulnerable groups are beginning to be heard, and that a reasonable amount of time and effort has been invested to raise general awareness of the basic concepts and process of REDD-plus including the SESA.

The Cancun COP *Decision 1/CP.16,Appendix I*:

Indigenous Peoples and Local Communities (selected text)

"2…(c) Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples;

(d) The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities, in the actions referred to in paragraphs 70 and 72 of this decision;…"

***Appendix I* Guidance and safeguards (selected text):**

"…2. When undertaking the activities referred to in paragraph 70 of this decision, the following safeguards should be promoted and supported:

…(c) Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples;

(d) The full and effective participation of relevant stakeholders, in particular, indigenous peoples and local communities, in actions referred to in paragraphs 70 and 72 of this decision; …

[1] *Taking into account the need for sustainable livelihoods of indigenous peoples and local communities and their interdependence on forests in most countries, reflected in the United Nations Declaration on the Rights of Indigenous Peoples, as well as the International Mother Earth Day."*

Objectives of Component 1b

After becoming a UN-REDD partner country in June 2011, Mongolia took steps to begin the process of preparing this National REDD+ Readiness Roadmap.

This Section simply describes the consultations that have taken place to date and the previous efforts to raise awareness of REDD+ in the country.

Given that the concept of REDD+ is still very new to Mongolia, much remains to be done to raise awareness and share information on REDD+. These needs are addressed in Component 1c.

Introduction

From mid-2011 to mid-2012, national and regional consultations and REDD+ awareness raising events were held with stakeholders. Feedback provided during these consultations indicates that people are very unsure about the potential benefits from REDD+ to their livelihoods. Those consulted feel that the financial returns are very uncertain. Hence, they are reluctant to undertake any additional actions in their daily lives, such as replanting. Moreover, herder communities and those supporting them have expressed concerns about potential limitations on making hay near forest areas and on using forest resources for grazing. This is particularly important given the harsh winters experienced in Mongolia. Despite these concerns caution, FUGs have expressed enthusiasm at the prospect of generating a cash return for their conservation and replanting efforts.

At the above-mentioned consultations, private sector groups expressed concern that REDD+ should not adversely affect their livelihoods - which currently depend on both measuring (inventory) and exploiting (logging, thinning and cleaning) forest resources.

Previous REDD+ Consultation and Awareness Raising Activities

With the support of the UNDP Country Office Mongolia, UNDP Asia Pacific Regional Centre and FAO, the Government of Mongolia carried out a range of consultation and awareness raising activities on REDD+ between March 2011 and March 2012.

Methods and tools

The following methods and tools were used during the early information sharing and dialogue on REDD+ and readiness Roadmap preparation process:

- Workshops;
- Interviews;
- Focus group meetings with local communities;
- Expert consultations;
- Meetings with relevant agencies.

National and regional workshops

The following consultation and awareness raising activities have taken place in relation to REDD+ and Mongolia's proposal to develop this national REDD+ Roadmap:

- an initial scoping mission by UNDP/UN-REDD Programme in March 2011;
- a national level workshop held in Ulaanbaatar on 13 September 2011, attended by 49 participants;
- representatives from UNDP/UN-REDD held face-to-face meetings with government agencies and other stakeholders during two UN-REDD missions in September and November 2011. **Annex 1b-1** contains a list of people consulted during these missions.
- A presentation on "How can REDD+ assist with adaptation in Mongolia?" was made to the Second Conference on Climate Change Adaptation – Reducing Vulnerabilities in Agriculture and Forestry Sectors, GIZ, held on 17-18 November 2011, Ulaanbaatar, Mongolia;
- a regional workshop on 20 November 2011 in Selenge *aimag*, 200 kilometres north of Ulaanbaatar, attended by 52 participants from Forest Bureaus, Forest Units, Forest User Groups, environmental rangers, and other regional stakeholders (see Regional Consultation Report on the UNPD Mongolia website);

- a consultation with members from three Forest User Groups in Mandal *soum*, Selenge *aimag* (21 November 2011);
- a two-day workshop conducted by FAO held on 28-29 November 2011 in Ulaanbaatar on REDD+ Monitoring and MRV, which was attended by over 50 stakeholders;
- a national level workshop held in Ulaanbaatar on 13 March 2012 to review and invite additional inputs from key stakeholders to the draft framework of this Roadmap;
- a regional workshop on 14-18 March 2012 in Khuvsgul aimag (the workshop report is available on the UNDP Mongolia website;
- a validation workshop on Forest sector financing flows and economic values in Mongolia study on 23 April 2013;
- a regional workshop on 28-29 April 2013 in Arkhangai aimag;
- a validation workshop on Institutional Context Analysis (ICA) conducted by UNDP held on 25 October 2013 in Ulaanbaatar;
- a two day consultation workshop on Mongolia's National Forest Monitoring System for REDD+: Action Plan conducted by FAO held on 19-20 November 2013 in Ulanbaatar;
- a regional workshop on 08-10 November 2013 in Khuvsgul aimag;
- a workshop on Capacity Dvelopment Framework of the Un-REDD programme in Mongolia on 25 January 2014; and
- an Assessment on Land Use, Land Use Change and Forest conducted by FAO in 17 Febraury – 05 March 2014.

Key discussion topics during the consultations:

REDD+:

- Drivers of deforestation and forest degradation in Mongolia;
- Reducing emission from deforestation and forest degradation (REDD+) ;
- Stakeholders concerns and expectations about REDD+;
- REDD+ readiness arrangement in Mongolia;
- Initial concerns on the environment and social implication of REDD+; and
- How can Forest User Groups engage in REDD+.

Economic, social and environmental impacts of REDD and the mitigation of risks:

- Land-use rights and land management conflicts;
- Ownership of carbon and trees;
- REDD+ benefits and equitable benefit distribution ;
- Issues of forest governance;
- Institutional, policy and regulatory frameworks;
- Opportunity costs of land use (e.g. mining, pasture);
- Interest of Forest User Groups;
- Existing and future monitoring systems for forests and forest emissions;
- Inclusive participation in the design and implementation of REDD strategies; and
- Role of REDD+ in green development.

The information received from the discussions was used to formulate this Roadmap. Consultation and information sharing process will be continued throughout the Readiness phase.

Annex 1b-1 provides additional information on the consultations held to date.

Early Dialogue on Drivers of Deforestation and Forest Degradation and on Potential REDD+ Activities, Policies and Measures

This Roadmap identifies, provisionally, a list of drivers of deforestation and forest degradation (see Component 2a) and some proposed activities, policies and measures for removing these drivers (Component 2b). This list was compiled based on the following interactions:

- feedback from a Working Group meeting on drivers during the national level workshop in Ulaanbaatar held on 13 September 2011;
- feedback from a Working Group meeting on drivers during a regional level workshop in Selenge *aimag* held on 20 November 2011; and
- detailed submission on Drivers prepared by TWG 2 (Governance, Policies and Measures) of the current National REDD+ Taskforce.

Concerns about REDD+ Arising From Stakeholder Consultations

A number of questions and concerns were raised by participants in consultations during the preparation of this Roadmap and during the First National Validation Workshop (March 2012) as to how a National REDD+ Strategy might work, and how it might affect some sectors of the community.

In particular, the following questions and concerns were raised:

- Whether herder communities and FUGs would be represented on the National REDD+ Taskforce (they are not currently represented on the REDD+ Roadmap Taskforce);
- Whether Saxaul forests would be included in REDD+, and whether the Green Wall Programme would be eligible to participate? Stakeholders appear keen not to pre-empt any decision as to whether Saxaul forest will be included in Mongolia's National REDD+ Programme until further studies and consultations are undertaken (hence Activity 2b.2 includes which a cost-benefit analysis of including southern Saxaul forests in REDD+);
- REDD+ Roadmap Taskforce Working Group members (TWG 2 on Governance, Policies and Measures) and some other workshop participants raised concerns that fuel wood use should be considered as a 'driver' of deforestation, because many people have no alternative but to use or sell fuel wood, due to their impoverished situation;
- Representatives of the private sector were concerned that REDD+ should not try to stop logging altogether in Mongolia, as there is still a significant demand for timber;
- What will happen if one *aimag* performs well in reducing deforestation and degradation, whereas others do not? Will the poorer-performing *aimag* still receive REDD+ benefits?;
- How can REDD+ revenues be protected from corruption, and how would the government ensure that REDD+ revenues actually reach local communities?;
- There is a desire in local communities not to confront herder communities over their grazing activities in forests, particularly given that many family groups are engaged in both FUGs and herding activities (e.g. the husband may be a herder, and the wife may be involved in the local FUG); and
- In terms of the positive incentives that REDD+ might bring, would FUGs be rewarded per tree or per hectare for replanting trees?

Addressing Future Needs

Given that the concept of REDD+ is still very new to Mongolia, much remains to be done to raise awareness and share information on REDD+. **Likewise, more needs to be done to ensure full consultation and participation at the national level. These needs are addressed below through Component 1c. Therefore, there are no activities under Component 1b.**

Component 1c: Consultation and Participation Process

Standard 1c the text needs to meet for this component:

Consultation and Participation Process:

Ownership, transparency, and dissemination of the R-PP by the government and relevant stakeholders, and inclusiveness of effective and informed consultation and participation by relevant stakeholders, will be assessed by whether proposals and/ or documentation on the following are included in the R-PP (i) the consultation and participation process for R-PP development thus far (ii) the extent of ownership within government and national stakeholder community; (iii) the Consultation and Participation Plan for the R-PP implementation phase (iv) concerns expressed and recommendations of relevant stakeholders, and a process for their consideration, and/or expressions of their support for the R-PP; (v) and mechanisms for addressing grievances regarding consultation and participation in the REDD-plus process, and for conflict resolution and redress of grievances.

Box 1c-1: The Cancun *COP Decision 1/CP.16*, Considerations to Address in National Action Plans

"72. Also requests developing country Parties, when developing and implementing their national strategies or action plans, to address, inter alia, the drivers of deforestation and forest degradation, land tenure issues, forest governance issues, gender considerations and the safeguards identified in paragraph 2 of appendix I to this decision, ***ensuring the full and effective participation of relevant stakeholders, inter alia indigenous peoples and local communities****;…"*

Source: http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf

Box 1c-2: The Cancun COP *Decision 1/CP.16, Appendix I*: Guidance and safeguards for policy approaches to REDD-plus (selected text)

"(c) Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples;

(d) The ***full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities****, in the actions referred to in paragraphs 70 and 72 of this decision;…"*

Source: http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf

Objectives of Component 1c

The overall objective of this Component is to ensure thorough, effective and constructive stakeholder participation in REDD+ readiness and implementation. This encompasses consultation and participation of a full range of stakeholders from forest communities to national decision-makers, including private sector, NGOs, experts, international partners, etc. It covers ***all*** actions under REDD+: policies, activities and measures - from community level to national policy making.

Component 1c has four specific sub-objectives:

(1.) To share information and raise public awareness;
(2.) To strengthen the national consultation process and participation in the development and initial implementation of the National REDD+ Strategy;

(3.) To design and establish a national FPIC process and procedures that will ensure that the rights of indigenous peoples, other forest-dependent communities, and local communities are respected[45]; and
(4.) To design and establish a national Grievance mechanism.

A key mechanism to facilitate participation is the CSO/LC Forum, which will facilitate direct input from civil society to the planning and development work of the National REDD+ Taskforce. The Forum will also serve as the principal outreach and communication platform during the development and implementation of the National REDD+ Strategy. This Forum is established under Component 1a.

This Section rapidly assesses the current situation with regards to consultation, awareness raising and participation in Mongolia. It then proposes approaches to (i) raising awareness (ii) consultation (iii) FPIC; and (iv) grievance mechanisms. It then sets out the steps and activities required to meet the above objectives in the form of an indicative workplan.

Situation Analysis

Mongolia is well placed to develop open and consultative mechanisms for REDD+. The country has positive enabling conditions, with open and cooperative relationships between civil society groups, the private sector and government. It has a vibrant non-governmental sector, and existing institutions for debate and information sharing. The on-going cooperation and information exchange between these groups will be facilitated through communication between the CSO/LC Forum and the National REDD+ Taskforce.

In particular, Mongolia has a well-functioning environmental civil society sub-sector, with umbrella organisations for environmental groups such as the Mongolian Environmental and Civil Council (MECC) and the Environmental Parliament. These will also facilitate the dissemination of information on REDD+ and its exchange within and across the NGO/CSO sector. One particular challenge will be ensuring that the broad range of groups, from environmental groups to private sector groups, are able to effectively network and obtain representation through the CSO/LC Forum.

The vast land area and very low population density create specific logistical and cost challenges for information sharing and consultation. This may be particularly true with regards to operationalizing the free, prior informed consent process (FPIC – see below). The recent surge in mobile phone use however offers a new opportunity to connect with remote populations from a logistical perspective.[46]

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[45] This process will be guided by the joint FCPF and UN-REDD Programme's Guidelines on Stakeholder Engagement in REDD+ Readiness with a Focus on the Participation of Indigenous Peoples and Other Forest-Dependent Communities, which is to inform the design, implementation, monitoring and evaluation of activities relating to stakeholder engagement at the national level. In addition, UN-REDD has Guidelines on Free, Prior and Informed Consent, which set out the normative framework for the FPIC principle based on the provisions of the United Nations Declaration on the Right of Indigenous Peoples (2007). Also, Oxfam Australia has just completed a Mongolian version of its Guide to Free Prior and Informed Consent, which is written mainly from a project viewpoint, and shows what communities affected by those projects should do to ensure their rights are upheld. Although the examples in the guide are mining, it is broad enough to be applicable to other sectors.

[46] During the past few years the number of mobile phone users in Mongolia has increased exponentially. While only 52 people in every 1,000 households have a land-based telephone line, 918 of every 1,000 citizens have a mobile phone (National Statistic Office, 2011).

The challenges of communicating REDD+ through written materials will be facilitated by Mongolia's very high literacy rates, with an estimated 97.6% of the population aged 15 and above literate[47]. Nevertheless, given that Mongolia has approximately 20 indigenous and ethnic minorities, it will be important to ensure that written materials are produced in all the appropriate languages.

Approach to Information Sharing and Raising Awareness

This work will be led and implemented by the Technical Working Group on Communication and Stakeholder Engagement, in close consultation with CSOs and other non-government stakeholders.

At the outset, very few people in Mongolia have an understanding of REDD+. A first step is therefore to develop a strategy to raise awareness of REDD+, in order to build knowledge and facilitate a national debate on the approaches to REDD+ implementation. A detailed awareness raising plan will be prepared to identify specific details such as roles and responsibilities of implementation partners as well as sources of funds and timeframes, etc. The plan will be will be reviewed annually.

It is likely that, initially, public awareness raising on REDD+ generally can be undertaken through national-level communication materials produced in the appropriate languages. These will include:

- Printed materials: Preparation of posters, leaflets, and written information materials on REDD+ such as a regular newsletter.
- Radio programmes: these could involve discussions between government and non-government representatives, and descriptions from those engaged in early action on REDD+.
- Website: A national website on REDD+ will be established where all documents can be posted. This will assist with ensuring the transparency of processes. However, it is recognised that this may have limited use in terms of disseminating information to local communities given that there is a relatively low use of computers in Mongolia.[48]
- Television: Consideration will be given to preparing a short film or documentary on REDD+. This may be effective as many households, including herder households, have access to television.[49]

Information-sharing and consultation processes could be supported by the following organizations:

- **Mongolian Environmental Civil Council**, which is well-placed to assist with information sharing and consultation regarding REDD+, being the umbrella organisation for about 550 environmental NGOs and having 14 offices in throughout Mongolia;
- **Mongolian Nature Protection Civil Movements Coalition;**
- The **'Environmental Parliament',** which was established by a group of NGOs and is supported by MEGD. The Parliament held its first meeting on 26 January 2011**; and**
- **Mongolian National University.**

[47] National Statistic Office, 2011.
[48] The rate of computer use in Mongolia is relatively low, with only 85 inhabitants per 1,000 having a computer (National Statistic Office, 2011).
[49] In 2010, over 120,600 households had cable TV (Tugruks 2010: 56). Of the 160,300 herder households, 75.2% have TV (National Statistic Office, 2011).

Approach to Continuous Strengthening of the National Consultation and Participatory Processes

The first step will be to prepare a Communication and Participation Plan. This will be designed to cover the broad range of stakeholders, all concerned sectors (e.g. forestry, herder groups, mining, etc.), diverse agencies and sectors within government, as well as the various levels of government decision-making (e.g. National level Ministers and Parliamentarians, through to *aimag* and *soum* level government).

The Communication and Participation Plan will consist of a series of targeted communication strategies, each targeting one of the defined stakeholder groups and each meeting the different information and consultation needs of that group. [50]

The day-day work to develop the Consultation and Communication Plan will be led by the Technical Working Group on Communication and Stakeholder Engagement, in close consultation with CSOs and other non-government stakeholders. All consultation and participation will take place in accordance with the principles of gender equality, women's empowerment and FPIC.

The Working Group will be responsible for:

- Guaranteeing the quality and comprehensiveness of the work to prepare and implement the Plan;
- Assuring stakeholder engagement, decision-making and communication in the preparation of the Plan;
- Ensuring effective coordination between and within the different stakeholder groups in the preparation and implementation of the Plan; and
- Ensuring effective communication between the CSO/LC Forum members and the National REDD+ Taskforce on issues related to this Plan preparation and implementation. This will include (i) regularly informing the Taskforce of developments and sharing information (ii) advocating to the Taskforce and its members for actions and decisions needed to improve the Plan and its implementation.

The CSO/LC Forum will play a key role in overseeing preparation and implementation of the Communication and Participation Plan – particularly with regards to reaching out to civil society and local communities.

In preparing the Consultation and Communication Plan, a two-step approach is to be followed:

(a) Identification of different stakeholder groups which might be affected by REDD+, or which might be influential in REDD+, and should therefore be considered under the Consultation and Participation Plan[51].
(b) Identification of appropriate communication goals, communication methods and required communication materials for each stakeholder group. Each group may have different needs for

[50] The Consultation and Participation Plan will be consistent with the Guidelines on Stakeholder Engagement in REDD+ Readiness with a Focus on Indigenous Peoples and Other Forest-Dependent Communities, designed jointly by the UN-REDD Programme and Forest Carbon Partnership Facility of the World Bank.
[51] A methodology for identifying stakehodlers and their interest and influence levels will follow the Institutional and Context Analysis Guidance Note, prepared by UNDP

communication as well as preferred methods of consulting and networking with one another. Proposed methods will include, for example, written materials and issue-specific workshops for each group. Examples of the delivery mechanisms and means for each stakeholder group are provided in Table 8.

Table 8: Probable Groups, Methods and Delivery Channels for the Consultation and Participation Plan

Stakeholder group	Methods of communication	Delivered through:
Forest User Groups	Written materials on REDD+; regional/soum level workshops	DFCRM/FRDC; Aimag/soum Forest units; FAO project to support FUGs
Herder communities	Written materials on REDD+	MIA
Private economic entities	Written materials on REDD+; workshops	DFCRM/FRDC; Forest Units; Industry bodies
Local governments	Written materials on REDD+; workshops	National REDD+ Taskforce; TWGs; DFCRM; and other sectoral ministries
Central sectoral ministries (e.g, finance, economic development, mining, agriculture, justice, etc.)	Written materials on REDD+; workshops; focus group meetings (i.e., taskforce, TWGs)	National REDD+ Taskforce; TWGs; DFCRM
Members of the Parliament	Written materials on REDD+; focus group meetings	Standing Committee on Environment, Food and Agriculture; National REDD+ Taskforce

Approach to Establishing a Free, Prior and Informed Consent (FPIC) Process

The implementation of REDD+ activities may affect the land, resources and activities of indigenous peoples and other forest-dependent communities that have traditional and/or legal rights to the land or to the forest resources. The principle of FPIC is to ensure that any such activities take place with the full consent of these communities, including both women and men. In this regard, it is noted that the UNFCCC Cancun Agreements (COP Decision 1/CP.16) request developing countries to prepare their National REDD+ Strategies with the full and effective participation of all relevant stakeholders, including indigenous peoples and local communities (Para. 72).

The Cancun Agreements also specify a number of safeguards, one of which requires REDD+ activities to be consistent with 'relevant international conventions'[52], which includes the *United Nations Declaration on the Rights of Indigenous Peoples* 2007 (UNDRIP)[53]. UNDRIP contains a detailed description of the right to FPIC and when FPIC should be applied.

Although the right to FPIC is sometimes applied only to indigenous peoples, in Mongolia the right to FPIC will be extended to all forest-dependent communities who may be affected by the implementation of REDD+ activities, including herder communities and nomadic ethnic minorities. Compliance with FPIC principles will therefore be a key indicator by which the quality of stakeholder engagement will be assessed during the design and implementation of Mongolia's National REDD+ Strategy.

[52]Mongolia is not a party to the *International Labor Organization Convention 169 on Indigenous and Tribal Peoples 1989 but did vote in favor of the UN Declaration on the Rights of Indigenous Peoples*.

[53] The UN-REDD Programme has developed Guidelines on Free, Prior and Informed Consent. The aim of the Guidelines is to set out the normative, policy and operational framework within which UN REDD partner countries should apply FPIC.

The proposed process to prepare National FPIC Guidelines

Mongolia will prepare National FPIC Guidelines in line with the guidance provided in the UN-REDD Programme Guidelines on Free, Prior and Informed Consent.

The day-to-day work will be guided by the Technical Working Group on REDD+ Governance, Policies and Measures. The work will be done in consultation with TWG on Communication and Stakeholder Engagement.

The following steps will be taken to develop the National FPIC Guidelines:

1. Identify the international legal framework for FPIC, and consider Mongolia's obligations to provide FPIC to communities under international law and national law;
2. Review existing traditional decision-making frameworks for indigenous peoples and local communities (e.g. the '*Khot-Ail*' socio-economic groupings in which 3-7 families of nomadic herders make collective decisions on herd management[54]; and the emerging decision-making structures for FUGs). This is important as FPIC principles provide that indigenous peoples and local communities are entitled to reach decisions according to their own traditional decision-making processes, and to be represented through their own representative institutions (UNDRIP, Art. 19);
3. Identify and analyse the effectiveness of other existing consultation and consent mechanisms under statute law or other structures;
4. Prepare draft national (or sub-national, if more appropriate) FPIC Guidelines, using multi-stakeholder, consultative mechanisms. This may need to be preceded by capacity-building on FPIC for those involved in preparing the new Guidelines. The Guidelines should specify which activities during the design and implementation of the National REDD+ Strategy should be subject to FPIC, such as proposed changes to forest use rights, or the selection of the location(s) of pilot projects;
5. Consult with the National REDD+ Taskforce, CSO/LC forum and other stakeholders as relevant and identify a pilot location for demonstrating how FPIC can be applied in a real case;
6. Pilot test the draft FPIC Guidelines in one or more demonstration activity sites, preferably at a site with concrete forest management activities requiring consent. This will include capacity building on FPIC for those involved in pilot-testing the Guidelines;
7. Independently evaluate the outcomes of the field test of the draft Guidelines;
8. Amend the draft FPIC Guidelines, as necessary;
9. Undertake stakeholder consultations and validation of the final version of the Guidelines, and consider options for institutionalizing the Guidelines (e.g. through legislation); and
10. Undertake further capacity building with government and non-government stakeholders on how to conduct FPIC activities and how to apply the FPIC Guidelines at national and sub-national levels (*aimags* and *soums*) for REDD+ activities.

Approach to Establishing a National REDD+ Grievance Mechanism

The provision of a mechanism to address grievances and to monitor compliance with REDD+ legislation, guidelines, safeguards and policies is of critical importance to ensuring that REDD+ operates in a transparent, legitimate, and effective way. A mechanism will be established to address grievances both during the preparation of the Strategy and during its implementation, for communities who consider that they have been negatively affected as a result of these activities.

[54]Bold, Bat-Ochir, 1996. *Socio-economic segmentation – Khot-Ail in nomadic livestock keeping of Mongolia*, Commission on Nomadic Peoples, Nomadic Peoples, No. 39 of 1996.

The National REDD+ Grievance Mechanism will be established through the following steps:

1. Conduct a rapid assessment of existing formal or informal feedback and grievance mechanisms in Mongolia (see Box 3), including an assessment of how these existing mechanisms could be modified to ensure that the eventual mechanism is accessible, transparent, fair, affordable, and effective in responding to challenges in REDD+ design and implementation;
2. Develop a framework for the proposed grievance mechanism, including steps that will be taken to define the structure, functioning and governance of such a mechanism (who, how, when and where can complaints be made), taking into account traditional grievance approaches and best practices, where feasible; and
3. Describe how information sharing and consultation on the proposed mechanism will occur.

Box 3: Existing Formal Rights of Complaint in Mongolia

Under Mongolia's 1992 Constitution, all citizens have the right to submit a petition or complaint to any state body or official (Art. 16.1.12).

In addition, all citizens have the right, either individually or collectively, to complain to the Human Rights Commission of Mongolia that his or her human rights have been violated (*Law on Human Rights Commission (2000),* Art. 9).

It is important to note that the grievance mechanism is not only relevant to the FPIC process, but will also apply to all other elements of REDD+ such as benefit distribution, the national forest monitoring system, and compliance with social and environmental safeguards (see Component 2d).

The REDD+ Grievance Mechanism will be based on the principles of independence, fairness, transparency, professionalism, accessibility and effectiveness. In addition, the mechanism will systematically disclose information regarding how issues have been addressed and handled. It is also important that stakeholders, including both women and men, especially at the local communities, are made fully aware of the existence and process of the grievance mechanism through awareness-raising and regular communications.

The global UN-REDD Programme is currently developing guidance for national grievance mechanisms and the process for developing the Mongolian REDD+ Grievance Mechanism will closely follow this guidance.

Indicative Workplan for Component 1c

OUTCOME 1c: Improved stakeholder awareness and effective engagement	
<u>Output 1c.1:</u> **Public Awareness Raised**	Activity1c.1.1. Develop and implement national public awareness-raising strategy on REDD+ Activity1c.1.2. Identify the role of television, internet, radio programmers and printed materials and the use of appropriate languages Activity1c.1.3. Develop and implement an awareness raising plan, with details of target audience, indicators of success, communication media, costs and responsible parties.

Output 1c.2: **Consultation and Participation Plan**	Activity1c.2.1. Activity1c.2.2. Activity1c.2.3. Activity1c.2.4. Activity1c.2.5.	Identify target stakeholder groups and appropriate communication methods, materials, targets and media for each group Review communication processes for CSO/LC Forum Establish guideline for creating sub-national stakeholder forums Prepare draft Consultation and Participation Plan, including full details of audience, communication tools, responsible parties, targets, etc. Organize regular meetings and workshops for communication and capacity building
Output 1c.3 **National FPIC Guidelines**	Activity1c.3.1. Activity1c.3.2. Activity1c.3.3. Activity1c.3.4. Activity1c.3.5. Activity1c.3.6. Activity1c.3.7.	Conduct study of international and national law obligations, traditional and statutory decision-making and consent processes for forest communities for natural resource management Prepare draft National FPIC Guidelines Conduct field testing of draft Guidelines Independently evaluate the field test Amend the draft FPIC Guidelines, if necessary Undertake stakeholder consultation and validation of final Guidelines Consider how to institutionalize Guidelines (e.g. in law).
Output 1c.4 **REDD+ Grievance Mechanism**	Activity1c.4.1. Activity1c.4.2. Activity1c.4.3. Activity1c.4.4.	Conduct assessment of existing formal and informal grievance mechanisms relevant to REDD+ Prepare draft REDD+ Grievance Mechanism Validate REDD+ Grievance Mechanism with stakeholders Raise awareness of REDD+ Grievance Mechanism

Component 2: Prepare the National REDD+ Strategy

The overall objective of Component 2 is to develop the Mongolia REDD+ Strategy. The Strategy will include the priority policies and measures needed to address the drivers of deforestation and forest degradation. The Strategy is expected to be revised, strengthened and expanded over time. Mongolia will implement REDD+ activities in an iterative manner, strategically integrating lessons from the ground and engaging in the UNFCCC process in a step-wise approach, working with tangible policies and measures that can become increasingly more complex and sophisticated over time. Initially Mongolia will focus on emissions from deforestation, identifying priority public policy measures which achieve results that may be recognised through the UNFCCC Warsaw Framework and attract initial performance-based payments.

These drivers are first assessed and analysed in Component 2a. Potential response strategies are identified and discussed in Component 2b. The Strategy will also define the implementation framework for managing REDD+ funds and for the equitable and transparent distribution of positive incentives (Component 2c). Component 2c also covers the steps required to meet the Cancun safeguards.

The Mongolia REDD+ Strategy will also include a robust and transparent national forest monitoring system to monitor the outcomes of REDD+ activities and to report on the mitigation performance of REDD+ policies and measures. These are developed through Component 4.

Component 2a: Assessment of Land Use, Forest Law, Policy, Governance and Other Drivers

Standard 2a the R-PP text needs to meet for this component:

Assessment of Land Use, Forest Policy, and Governance:

A completed assessment is presented that: identifies major land use trends; assesses direct and indirect deforestation and degradation drivers in the most relevant sectors in the context of REDD; recognizes major land tenure and natural resource rights and relevant governance issues and shortcomings; documents past successes and failures in implementing policies or measures for addressing drivers of deforestation and forest degradation; identifies significant gaps, challenges and opportunities to address REDD; and sets the stage for development of the country's REDD strategy to directly address key land use change drivers.

UNFCCC COP Decision 1/CP.16 requests developing countries that wish to undertake REDD+ activities to develop a national strategy or action plan. The strategy should address, inter alia, the drivers of deforestation and forest degradation, land tenure issues, and forest governance issues (Para. 72).

Objectives of Component 2a

The objectives of this Component are to:

(1.) assess: the current status of forest cover and forest cover change; overall land use; forest related laws and policy; forest related governance, and; ongoing actions for forest conservation, sustainable management of forests, and for enhancement of forest carbon stocks;
(2.) identify and assess the key drivers of deforestation and forest degradation; and
(3.) develop REDD+ strategies.

This section introduces the forestry sector. It provides initial information on forests. It summarizes existing forestry policies and laws. It rapidly assesses financial values and flows in the forest sector. It then provides a preliminary analysis of the drivers of deforestation and degradation, the root causes, and it provides additional information on two economic sectors that affect forests – mining and livestock.

This section then sets out the steps and activities required to develop and design comprehensive strategies for REDD+ in Mongolia.

Northern Boreal and Southern Saxaul Forests

The forest areas of Mongolia are divided into two broad zones: the northern boreal forests, and the southern Saxaul forests.

- **Boreal forests:** (boreal, montane and mixed-forest steppe). The boreal forests are part of the transitional zone between the Siberian taiga forest (boreal forest) to the north and the grasslands (steppe) to the south. They typically grow on mountain slopes between 800 meters and 2,500 meters above sea level. These forests are located in the critical zone for forest growth. They belong to the southern edge of Siberia's vast taiga forest – the largest continuous forest ecosystem on earth. These are found on the forest steppe and in mountainous areas and cover 11.5 million hectares, of which approximately 10.4 million hectares are intact, while 1.1 million hectares are degraded. Species found in the northern forest are Siberian larch, Betula, Siberian pine, Scots pine, Poplar, Siberian Spruce, Willow, and Siberian Fir. **Annex 2a-1** contains a table showing northern forest areas found in each *aimag*.
- **Saxaul forests**: These are desert plants found in the southern desert and on the desert steppe. They are known in Mongolian as 'zag' (*Haloxhlon ammodendron*). Saxaul forest is an important barrier to sand movement and can act as a buffer against desertification. Saxaul forest is classified in the *Global Forest Resources Assessment* [55] as 'Other wooded land' because they are less than 4 metres in height (i.e. below the threshold of some definitions of forest). Unlike tree species in boreal forests, Saxual forest has a very low carbon content.

Based on the statistics in the FAO (2010), Mongolia's boreal forests are being lost at an annual rate of 0.74%, which represents just over 80,000 hectares. Saxaul forests are being lost at the higher rate of 6.5% each year.

This analysis focuses mostly on boreal forests, given their significantly greater coverage and carbon content.

[55] FAO, 2010.

Forest Law and the Forest Policy Framework

Mongolia has a complex legislative and policy framework covering forestry and protected areas. Forestry is regulated under the *Law on Forest* 2012. This Law establishes the institutional framework and responsibilities between national and sub-national levels of government for forest management and establishes the rules for dividing forests into Protection and Utilization Zones. It also creates the framework for community-based forest management through Forest User Groups.

It should be noted that protected areas are regulated in part under the *Law on Forest* and in part under the *Law on Special Protected Areas*. In addition, the buffer zones surrounding Protected Areas are regulated under the *Law on Buffer Zones*. Mongolia currently lacks a comprehensive law to address use of pastureland - a draft law has been prepared but has not been approved by Parliament.

Annex 2a-3 contains a preliminary examination of the relevant laws, policies and plans that are currently in place to regulate the forest sector. Mongolia is also a party to the main international treaties that are relevant to REDD+, such as the Convention on Biological Diversity, the United Nations Convention to Combat Desertification, and the United Nations Convention Against Corruption. **Annex 2a-4** contains a list of the treaties relevant to REDD+ to which Mongolia is a party.

In 2012, a packet of new and revised laws related to natural resource management and the environment was approved (see Box 4). This includes laws pertaining to: Animals; Environmental Protection; Fees for using Natural Resources; Soil and Combating Desertification; Forest and; Water. Under the revised forest Law, the government is preparing 23 implementation decrees.

Box 4: Modified Laws (2012)

1. Law on air, which introduced remuneration/incentives of people and enterprises for using energy saving or environmental friendly heating for household;
2. Law on animal, which combined the former law on animal species and animal hunting;
3. Law on Environmental Protection, which was reformulated in a sense of a paradigm shift from the exclusive state conservation to a concept of a participatory management of natural resources;
4. Law on Fee for using natural resources, which combined the laws regulating fees for using natural resources (fees for using plants, water, fuelwood, hunting)
5. Law on Waste, which introduced a 3R principle and combined several waste related laws in one;
6. Law on soil and combating desertification, which sets a framework for combating desertification and land degradation`n as well as protection of soil in settlements;
7. Law on Forest, which combined forestry relevant laws in one;
8. Law on Fee for water pollution, which set a fee amount according to a pollution degree. The payment of water cleaning measures shall be financed from this payment;
9. Law on Water, which foresees an integrated water management and decentralization of water management;
10. Law on Environmental Impact Assessment, which defines and increases the roles and responsibilities for conducting an impact assessment.

The Value of Forests and Financing the Forest Sector

Emerton and Bat-Ochir (2013) assessed the overall value of the forest ecosystem services in the northern forests, and assessed current funding for forest improvement by government and other sources. They conservatively estimated that the economic value of boreal forest goods and services is MNT 431.5 billion (US$310 million), or MNT 4.3 million/km^2 of forest (US$3,100). The economic value of forests comes from

their many services and products. Timber and fuel wood production account for almost half. Other important economic values are generated by: NTFP collection; seasonal use of forest as pasture for livestock; hunting; forest-based leisure tourism; watershed protection services; and sequestration of carbon.

In comparison, the amount of spending by government and others[56] on the forest sector totals just under MNT 15 billion (US$11 million) a year, or an average of MNT 146,000/km^2 of forests (US$105). Hence, the economic values generated by forest goods and services are substantially greater than the funds invested in their sustainable management and conservation. This suggests there could be a good argument for increasing investment in forest management or conservation – to ensure a sustainable supply of forest goods and services.

Moreover, the government receives more than MNT 36 billion (US$26.3 million) in tax and other revenues from forest product harvesting and utilisation. This figure includes fees on tourism and water use, however it excludes the taxes paid by other forest-based enterprises. Hence, the revenues received by the government from forestry are at least three times as high as the government budget allocated to forests. This suggests there could be a good argument for increasing government investment in forest management or conservation – to ensure a sustainable supply of forest related tax revenues.

Emerton and Bat-Ochir (2013) also notes that the economic values of the forest sector are distributed across a wide range of beneficiaries (including herders, SMEs, large companies and urban dwellers), at many levels of scale (household, company, soum, aimag, city and national) and in multiple sectors (agriculture, industrial, manufacturing, tourism, energy and water supply). In that sense, it seems likely that investment in the forest sector is a positive factor for efforts to reduce poverty and reduce inequality, and to diversify the economy. This also justifies the mainstreaming of forest sector issues into related sectors such as water, tourism, energy, industry and agriculture.

In the current situation, government forest budgets are focused into a narrow range of “traditional” forest production and protection activities – for example a focus on chemical pest treatment. The government budget does not adequately create the conditions for integrated, sustainable forest management (SFM). Nor does it create the conditions for forestry to optimally contribute to addressing socio-economic development objectives, even though these are stated goals in the forest sector.

There is a disconnect between the management activities on which forest funding is spent, and the forest activities that generate the highest economic values. The forest sector has an economic impact and potential that extends far beyond the current management and budgetary focus. This means that prospective investment sources and revenue streams remain untapped, and opportunities to further enhance the economic value-added of forest goods and services may also be missed.

The report identified various factors that contribute to this, in addition to an overall lack of funds. These include: a narrow funding portfolio, weak application of user pays and cost recovery principles, uneconomic pricing and costing, weak financial and economic incentives for stakeholder engagement and investment in sustainable forest activities, and a disconnect between financial planning and actual operational management needs. As a result, the report set out a series of recommendation for SFM to senior policy makers (see Box 5).

[56] Including international partners

Box 5: Recommendations to Enhance Sustainable Forest Management Financing

Building diversified portfolios which better reflect the full range of goods and services associated with the forest sector is key to enhancing long-term sustainable financing for SFM, and increasing the effectiveness and impacts of forest funding. One aspect of financial diversification is to extend funding towards non-traditional activities and approaches which will allow a much wider range of values to be generated by forests, and a more diverse group of stakeholders to become engaged in and benefit from their management. The other is to find new ways of capturing these broader values as concrete investments and financing flows for sustainable forest management. To these ends, ten financing instruments and policy recommendations are suggested which can be used to mobilise additional funding for sustainable forest management, and increase financing effectiveness and impacts:

- Integrate forests into the spending of other sectors;
- Incorporate sectoral values into forest management budgets;
- Establish payments for forest ecosystem services;
- Introduce forest biodiversity offset funding arrangements;
- Enhance value-added from sustainable forest product markets;
- Mobilize credit and investment capital for SFM;
- Create enabling incentives for SFM;
- Rationalize forest sector fees and cost norms;
- Improve earmarking and retention of forest funds; and
- Harmonize financial and management planning.

Drivers of Deforestation and Forest Degradation

Deforestation and forest degradation in Mongolia are driven by a range of factors from both within the forestry sector and from certain other economic sectors. Within the forest sector, there is an over-emphasis on conservation at the expense of utilization. This distorts the timber market, and contributes to the great disparity between legal supply and demand for timber. This, and poor law enforcement, lead to a great deal of illegal wood collection and logging. Unclear land tenure is also key, as in many countries. These factors are described in turn below, with more details provided in **Annex 2a-5.** The environmental factors of climate change and desertification also appear to be having an impact.

The other priority economic sectors that are driving land-use changes and contributing to deforestation and forest degradation are the mining sector and the livestock sector. These are described later.

Overemphasis on Conservation

Mongolia has a dedicated law for protected areas, namely, the *Law on Special Protected Areas 1994*. In 2013, approximately 17.27%, or 27.29 million hectares, were included in the category of protected areas[57].

Forested protected areas are included in the zoning provisions under the forestry laws. Under the *Law on Forest* 2012, forest areas in Mongolia are classified into two zones:

[57] MEGD, 2013

- *Protected Forest*:
  - Areas within 1 km of riverbanks, lakes and springs; areas within 'green belts' surrounding towns (30 km radius) and cities; and forests on slopes greater than 30^0; and
  - Forests located in Strictly Protected Areas (SPA) that are regulated under the *Law on Special Protected Areas 1994* (Article 8).

- *Utilization Forest* – this default category covers all other forest areas (Article 9).

As can be seen from Table 9 below, a very large part of the forests in Mongolia have been included in the protected forest zone (85%) under the Forest Law. Only 15%, a relatively small part of the total forest resource, is available for utilization[58]. For boreal forests, almost 80% is protected forest.

Table 9: Protected and Utilization Forest Zones in Mongolia (under the Forest Law)

	Forest reserve		Total
	Protected forest zone	Utilization zone	
	Coniferous / boreal forest		
Total	10,756,999	3,175,525	13,932,524
	Saxaul forest		
	4,633,026	0	
Total	15,910,921	3,175,525	4,633,026
% of forest area	85%	**15%**	18,565,550

Hence, almost 85% of Mongolia's forests are under protection, thereby restricting access to and use of forest resources. Local communities have only limited access to forests and natural resources, especially in Strictly Protected Areas. This affects local livelihoods and contributes to creating land use conflicts. The country's strictly protection focused forest policy creates a perverse incentive for individuals to engage in illegal timber harvesting through starting forest fires as the current regulation allows citizens to collect burnt wood for fuel wood.

■ Demand for Forest Resources Outstrips Official Supply

Coupled with the remoteness of many forest areas, limited area of forest plantations and a policy of setting a very low annual allowable cut (AAC), the emphasis on protection of natural forests leads to a low supply of domestic forest products in Mongolia, as the country's harvesting potential could be much larger under a more sustainable utilization approach. MEGD sets the AAC, and it is usually in the range 600,000 m^3 - 972,000 m^3[59].

Estimates of annual wood consumption lie between 1.4 million m^3 and 5.51 million m^3 (the large variation is due to the uncertainty over fuelwood use)[60]. The shortage of supply relative to demand has created an environment that is vulnerable to corruption and fosters illegal logging, which is reducing State revenues. It also means that State data on harvest, trade and wood consumption is generally unreliable.

[58] These figures are taken from the Forestry Agencies State [of] Forest Land of Mongolia Report 2011, p 11 (Forest zone of forest land). Note: The original table appears to contain some discrepancies in its totals.
[59] The 972,000 m^3 figure is the AAC for 2012, provided by the former Forestry Agency.
[60] World Bank, 2006a.

Inadequate Forest Law Enforcement

The vast areas involved, the very low population density and the relatively small number of forest rangers make enforcing forest law a challenge in Mongolia. Moreover, enforcement responsibilities are shared over a number of government agencies and different levels of government – meaning there is a need to simplify and streamline the process. This is due in part to a highly decentralized government structure and the state policy of separating regulatory and enforcement responsibilities[61]. For example, *aimag* and *soum* level governments are responsible for appointing forest rangers but they have limited enforcement powers.

The General Agency for Specialized Inspection (GASI) is responsible for assigning State chief inspectors to the *aimags* (and to Ulaanbaatar) and state inspectors to *soums*. All state inspectors report directly to GASI rather than to local level government. State inspectors have the power to order the suspension of environmentally damaging activities and can impose administrative penalties (fines).

For serious environmental matters, which may justify a criminal prosecution, breaches of forestry laws identified by forest rangers must be reported to the *soum* or *aimag* governor, who must then request GASI to investigate the matter. This information is then passed on to the Environmental Crimes Unit of the Mongolian National Police, which has the authority to prosecute environmental crimes, such as breaches of forestry and mining laws[62]. For breaches reported concerning SPAs located near to the national borders, the General Authority for Border Protection becomes responsible for law enforcement (*Law on Special Protected Areas*, Art. 5).

The general weak law enforcement capacity is a cause for concern, as much evidence suggests law enforcement is low. Clearly, this would be an obstacle to a functioning REDD+ strategy in Mongolia, and measures must be taken to correct it.

Climate Change, Desertification and the Forest Sector

Mongolia's fragile ecosystems are particularly vulnerable to climate change. Annual temperatures have increased by approximately 2.1°C between 1940 and 2005, and it is estimated that that average temperatures could continue to increase by 2.7°C by 2066, and possibly by up to 5.0°C by 2099[63].

Box 6: Key Documents on Climate Change in Mongolia

- Second National Communication on Climate Change (2010)
- National Action Plan on Climate Change
- Mongolia's Assessment Report on Climate Change (2009)
- National Action Program for Combating Desertification in Mongolia (2010-2020), draft version (2009).

[61] The law in Mongolia requires inspection units to be kept separate from the ministry that established the regulations. Hence, an attempt in 2005 to establish an Office for the Coordination of Wood and Wood Materials Inspection under the Ministry of Nature and Environment was abandoned in 2006 (World Bank, 2006a).

[62] In order to address concerns that police investigators and GASI staff lack training to enforce environmental and forestry laws, GIZ recently organized a training session on 8-9 September 2011 on 'Legal Use of Forest Resources and Capacity Development' for police investigators.

[63] MNET, 2009a. *Mongolia: Assessment Report on Climate Change* (MARCC).

Climate change is also likely to have the following effects: reduced permafrost and glacier covered areas; changes in ecosystem boundaries as the Gobi Desert moves northwards; increased snow in winter (more *dzuds*) and decreased rainfall in summer; and reduced surface water resources as rivers and streams dry up.

Desertification and drought have been increasing over the past 60 years. Sand movement, and dust and sand storms are intensifying and the desert zone is moving slowly to the north. During the past 10 years, Mongolia's arid area has extended by 3.4%[64]. Climate change also appears to be causing the thawing of permafrost (63% of Mongolia has permafrost) causing soil dryness and the breakdown of root systems, making trees vulnerable to wind blow down. Reduced water supply, drier soils and increased frequency of temperature extremes constitute major threats to forests, particularly at higher latitudes where the impacts are being most heavily felt. Effects on permafrost and how changes to the distribution and state of permafrost might affect forest ecosystem functions are additional concerns[65].

The Government of Mongolia has prepared several documents assessing and planning for climate change (see Box 6).

Unclear Land Tenure and Land Use Rights

All land is owned by the State unless private title has been granted to a citizen (Constitution 1992). In practice, only a very small proportion of land has been privatised (Law on Land Privatization 2002), and most land, particularly in rural areas, remains untitled. Land and property rights in Mongolia are in a state of transition due to the recent shift in the early 1990s from a socialist to a market economy. A recent innovation under the *Law on Forest 2012* is to allow community-based forest groups (Forest User Groups) and private economic entities to lease land for up to 60 years.

Accordingly, the situation regarding land tenure and land use rights is unclear and unstable. Whether securing land tenure and land use rights will be a requirement for implementing REDD+ in Mongolia is still unclear at this point. If the sharing of REDD+ incentives/benefits is linked to land tenure (see Component 2c), it will be important to clarify land tenure as part of the implementation of the National REDD+ Strategy.

Hence, an assessment will be first conducted to clarify whether securing land tenure and /or land use rights will be a requirement for implementing REDD+ in Mongolia, and if deemed necessary, a full analysis of the gaps in land tenure and land use rights, and in related legislation and policies and their implementation, will be carried out as part of the development of the National REDD+ Strategy[66]. Through this activity, the land tenure rights of Forest User Groups and herder communities will be addressed and clarified. Options for law reform will be identified.

The Drivers of Deforestation and Forest Degradation

The drivers of deforestation and forest degradation described in this Component have been identified through the stakeholder consultation process described in Component 1b and have been supplemented by a literature review (see References). This work is provisional and subject to further analysis and

[64] Ykhanbai, 2010
[65] Sharkuu, 2003. Recent changes in the permafrost of Mongolia
[66] This should be undertaken in accordance with FAO's Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of Food Security (FAO, 2012).

consultation, and testing through demonstration activities (see the Indicative Work Plan at the end of this Component, as well as the detailed Work Plan in Component 5).

Boreal Forests

Mongolia's boreal forests are mostly affected by degradation (loss of forest carbon stocks within remaining forest land) rather than deforestation (forest land converted to another land use). This is partly due to the fact that there is not a great deal of pressure to convert forest to agricultural use. It is also due to the homogeneity of tree species in the boreal forest (compared to a tropical forest) – this makes the forest more susceptible to degradation processes such as insect attack and disease.

The initial analysis suggests that the drivers of forest degradation are forest fires, illegal logging, pests, disease, grazing and damage from mining. Table 10 provides a provisional analysis of these causes, and of the main underlying causes and drivers for boreal forests in Mongolia.

Table 10: Drivers of Deforestation and Forest Degradation in Boreal Forests (provisional)

DRIVER	UNDERLYING CAUSE
1. FOREST FIRES	
Fire is frequent in boreal forests. It is estimated that approximately 95% of fires are caused by humans[67]. On average, fire affects about 270,000 hectares of forest each year[68], with most fires occurring in the central region (Darkhan-Uul, Selenge and Tov aimags)[69]. The natural forest fire cycle in Mongolia is 120 years, but recently this has been reduced to about 40 years. The capacity for forest regrowth of Siberian pine (but not Larix or Scotch pine) can be lost if there are 2-3 fires in close proximity.[70] Changes to forest policy and improved forest management are required to reduce the number of fires being lit; to improve fire detection and response; and to improve fire resilience.	Insufficient active forest management (for example forest cleaning) allows flammable (dead) biomass to accumulate. The national forest policy of focusing on forest conservation restricts the supply of legal fuel wood. This, coupled with forest regulations which allow citizens to collect burnt wood for fuel wood (known as 'forest cleaning'), creates a perverse incentive for individuals to start forest fires. Climate change is likely to be contributing to an increase in temperatures, reduced rainfall, and a corresponding increase in the frequency and intensity of forest fires. Weak law enforcement capacity – limited patrol capacity and low local awareness of the need for forest protection.
2. ILLEGAL LOGGING	

[67] See, for example, "Second National Communication of Mongolia under the UNFCCC", Ministry of Nature, Environment and Tourism (2010).
[68] Ykhanbai, 2010.
[69] National Statistic Office, 2011.
[70] Pers. Comm. Mr Klaus Schmidt-Corsitto, GIZ Mongolia, (November 2011).

DRIVER	UNDERLYING CAUSE
The annual allowable cut (AAC) is between 700,000 m^3– 900,000 m^3. However, the amount sold annually on the market is 2-3 times more than this. The Government does not receive royalties or taxes on timber sold illegally, and the illegal market severely distorts prices for both construction and fuel wood. Illegal logging falls into three broad types[71]:	The AAC (for all timber) per year is about 700,000 m^3, but the annual demand for fuel wood is 1-2 million m^3, and is expected to rise to 2-3 million m^3 per year[72]. Hence, the demand considerably outstrips the legal supply. The overemphasis on protection and conservation of forests under the Law on Forest and the Special Protected Areas Law creates a perverse incentive for illegal logging.
1. Collection of fuel wood for basic subsistence needs (i.e. cooking and heating).	Poverty and unemployment mean urban and rural people cannot afford to pay for legally produced fuel wood.[73] Weak planning capacity due to lack of clear data on how much fuel wood is used inhibits good regulation.
2. Small-scale logging of round wood to sustain livelihoods. Note: this is also linked to commercial logging where distribution, transport and sale of timber is organized on a commercial scale.	Some rural people have lost their income from herding livestock and are therefore turning to illegal collection and sale of timber. This is also related to poverty and unemployment. Increasing demand for timber products from the population in Ulaanbaatar. Most pressure is on forest areas within easy reach of urban areas (e.g. Selenge, Arkhangai and Tuv aimags).
3. Commercial illegal logging.	Weak forestry law enforcement and capacity (e.g. poor capacity for forest patrols, need for training of field patrols). Poor inspection processes, meaning that illegally sourced timber is often not identified. Increasing demand for timber for construction and industry. Poor forestry law enforcement and corruption.
DAMAGE FROM PESTS	
Insects (moths and beetles) damage more than 600,000 ha, or about 5%[74], of the total forest area, each year Boreal forests are more susceptible to insect attack than tropical forests because of the lower diversity of species. There are 7 groups, 56 families, 168 types and 315 species of forest insects in Mongolia[75].	Poor forest management creates conditions of forest degradation permitting growth of harmful insects. Lack of scientific data and understanding means the ability to predict reproduction stages of insects is low. Pests are usually managed using chemical and mechanical methods. Biological methods, although preferred, are underutilized due to limited laboratory capacity and lack of finance to support the preparation of bacterial cultures

[71] World Bank, 2006a.
[72] Ykhanbai, 2010.
[73] Observation from National REDD+ Roadmap Taskforce.
[74] FAO, 2011
[75] FAO, 2011

DRIVER	UNDERLYING CAUSE
	and/or predator species. The high number of forest fires creates regrowth for pests to feed on. Increase in temperature from climate change creates conditions favourable to pest invasion.
DISEASES	
Tree disease affects some forested areas. Due to the lack of research into tree disease, there is no data available on how much forest is affected each year by disease.	Lack of research and data on how much forest is affected each year by disease and how to treat these diseases.
GRAZING IN AND NEAR FOREST AREAS	
Grazing adjacent to forests. Due to the increase in livestock numbers in Mongolia, livestock grazing (particularly goats for cashmere) in areas adjacent to and within the forest edge are damaging forest regrowth. Herders that allow livestock to graze in wooded meadows, and hay-making in areas adjacent to forests, both hinder forest regeneration.	Inadequate legal framework to regulate grazing in buffer zones between pastureland and forest. Severe winters with deep snow ('*dzuds*') mean herders seek shelter and feed for livestock in forested areas where snow is not as deep. Lack of herder awareness of impact of grazing in forests and on forest edges.
MINING	
Mining is causing some deforestation and forest degradation in Mongolia, although there are no statistics available. While only small areas are disturbed directly through the mining activity, much larger areas are affected by contamination from the chemicals in mining effluent, such as mercury and cyanide. More studies are needed to confirm the real extent of soil contamination.	The overlap of mining licences in forest areas. The failure to fully implement the *Law to Prohibit Mineral Exploitation in Forest Areas and River Headwaters 2009*, which prohibits mineral exploration and extraction in forested areas with forests.

■ Southern Saxaul Forests

Unlike the northern boreal forests, Saxaul forests are not susceptible to fire or insect invasion. Rather, their relatively high rate of deforestation is due to the impacts of grazing and fuel wood collection, as well as to the impact of climate change (see Table 11).

Table 11: Drivers of Deforestation and Forest Degradation of Saxaul Forest

DRIVER	OBSERVATION
Grazing	Saxaul shoots provide essential nutrition to livestock and wildlife. However, this grazing destroy young shoots and hinders regrowth. Grazing on Saxaul shoots has intensified recently due to the degradation of other grassland vegetation and to increased aridity.
Fuel wood collection	Saxaul wood is widely used in desert and steppe areas for fuel wood. The collection of Saxaul for fuel wood was recently prohibited (under Resolution 269 of the Minister for Nature, Environment and Tourism on 5 August 2011.

The Mining Sector

As described in the Introduction above, the mining sector is currently driving much of the economic growth in Mongolia. Much attention is focussed on large scale mining projects in the southern Gobi region, such as the *Oyu Tolgoi* mine located near the border with China, scheduled to begin commercial

production in 2013 and containing the world's largest gold and copper deposits. However, it is primarily artisanal and small-scale mining that damages watersheds and causes land and forest degradation in the northern and central *aimags*. About 67,000 people obtain and derive their livelihoods from small-scale mining and artisanal mining (UNDP, 2012a).

Box 7: Land Degradation in Mongolia

Land degradation is a serious problem in Mongolia. Approximately 77.8% of Mongolia's land area is degraded and pastureland biomass has decreased by 20-30% over the past 40 years (from the National Action Program for Combating Desertification, prepared by the Ministry of Nature, Environment and Tourism (MNET) in 2009). (2009b).

The main causes of pasture degradation are:

- Herders moving less frequently, caused in part by a decline in the number of wells and water supply points and competition for proximity to market centres;
- Lack of awareness among herders of pasture management techniques;
- Increased mining and mineral exploration;
- Increased prevalence of insects and rodents; and
- An inadequate legal framework to regulate pasture management.

The main northern *aimags* with boreal forest that are affected by land degradation and contamination from mining are: Tov, Bulgan, Selenge, Khentii and Darkhan-Uul (UNDP 2011). An overlay of exploration and mining licences with forested areas, prepared by the Forestry Agency, shows that of the 13.9 million hectares of boreal forest in Mongolia, approximately 1.4 million hectares is covered by either an exploration licence or a mining licence. Approximately 14% of Selenge aimag is both forested and covered by a mining or exploration licence. **Annex 2a-2** contains a table showing the extent of overlap between mining permits and forested areas in each *aimag*.

The government has recently attempted to reduce mining in forested areas by revoking mining and exploration permits in forest and watershed areas. This process has stalled due to lack of funds for compensation for revoking mining and exploration permits (see Box 8). The implementation of REDD+ activities presents a new opportunity for Mongolia to address this land use conflict.

Box 8: Recent Legislative Attempts to Reduce Mining in Forested Areas

To address the issue of exploration and mining in forested areas, the State Great Khural adopted the *Law to Prohibit Mineral Exploitation in Forest Areas and River Headwaters 2009*. This Law prohibits mining and exploration licences in water catchments and forested areas. The Act triggered a review of nearly 2,000 mining licences, of which approximately 250 were subsequently suspended.

As of June 2010, under this Law, 37 mines had been forced to close, at a cost of US $4.7 billion in compensation to the Government of Mongolia[76]. Further implementation of the Law has been temporarily suspended due to a lack of funds to pay compensation. The Division of Forest Conservation and Reforestation Management, MEGD is currently calculating the environmental damage likely to be caused by mining activities in forested areas.

In the meantime, the President of Mongolia has suspended the approval of all new mining projects until new mining regulations are drafted that are consistent with forest protection.

The Livestock Sector

Livestock husbandry is one of the main foundations of Mongolia's economy and society. In 2013, 14.42% of GDP was produced by the agriculture sector, of which 75% was generated by the livestock husbandry. In addition, 33.5% of the total labour force is engaged in the agriculture sector (about 287,691 herdsmen)[77]. The sector also contributes more than 10% of Mongolia's export income (National Statistic Office, 2012). In 2009, Mongolia adopted a Government Policy on Herders aimed at improving the profitability and livelihoods of herders through economic development (see Box 11).[78]

Box 9: Government Policy on Herders

In 2009, Mongolia adopted a *Government Policy on Herders* (Resolution of the Great State Khural, No. 39 of 4 June 2009).

The Policy seeks to:

- Create a favourable legal, economic and business environment, which enables development of decent living and working conditions for herders, and prevention of poverty in herders through employment and social security (para. 2.3.1). This includes a specific objective of enabling herder households, herder groups and cooperatives to earn income from other directions of business (para. 3.1.4), which could potentially include REDD+; and
- Achieve changes in the lifestyle and livelihood of herders through support of development of self-assistance, self-governance civil society structures, enhancement of herders' knowledge and skills … (para. 2.3.3).

[76] Jacob, A. and Tobiason, A. (2011). *Mongolia's Biodiversity: Status, Threats, and Recommendations for Conservation*, USAID.

[77] National Statistic Office, 2014.

[78] For a detailed review of the issues affecting the livelihoods of herders, see: Olonbayar, M., (ed.) (2010). *Livelihood Study of Herders in Mongolia*, published by the Swiss Agency for Development and Cooperation and the Mongolian Society for Range Management (MSRM), Ulaanbaatar.

The Policy on Herders will be implemented in two stages: 2009-2015, and 2016-2020. It is monitored by the Parliamentary Standing Committee on Environment, Food and Agriculture. As an important statement on Mongolia's national development priorities, the National REDD+ Strategy should be consistent with the Policy on Herders and should aim to enhance its implementation.

The livestock sector is also relevant to REDD+ in Mongolia as the grazing of goats, sheep, yak and horses in and near forested areas has been identified as a major driver of forest degradation affecting both boreal forests and southern Saxaul forests.

During the socialist era (before 1990), livestock was managed by state-owned collectives which regulated livestock numbers, composition and movement. Nationally, livestock numbered around 22-25 million animals. However, with the transition to democracy in the early 1990s, the collectives were abolished and the livestock sector became market driven. Pastures became an open access resource for privately owned herds. As a result, livestock numbers in Mongolia nearly doubled from pre-1990 levels to 44.2 million in 2009, although this has since declined to 32.7 million in 2010 due to the *dzud* (the severe winter which caused extensive losses in livestock) (National Statistic Office, 2011). Statistics provided by a representative of the Ministry of Agriculture and Light Industry on the National REDD+ Roadmap Taskforce indicate that pastureland in Mongolia is presently overloaded, with livestock numbers estimated to be three to five times over carrying capacity.

Mongolia's livestock sector has responded to the recent growth in international demand for cashmere and Mongolia is now the second largest producer of cashmere in the world. The number of goats more than doubled from 2.8 million in 2007 to 19 million in 2013 (National Statistic Office, 2014). This increase in the proportion of goats in herds is accelerating land and forest degradation because goats forage in a way that is more damaging to roots and soil compared to sheep and horses.

Currently, Mongolia lacks a comprehensive legal framework to address the problems associated with livestock grazing (see Box 10 on the recent attempts to introduce new laws to regulate grazing in Mongolia).

Box 10: Recent Legislative Attempts to Regulate Grazing in Mongolia

Pasture use is regulated under the *Law on Land 2002* (Art. 52). However, this law is now outdated and fails to provide an adequate framework to address the problem of overgrazing and to guide sustainable pasture use.

In 2008, several members of Parliament, scholars and ministry experts drafted a dedicated *Law on Pastureland*. However, due to the social and political sensitivity of regulating grazing in Mongolia, debate on the legislation in the State Great Khural (Parliament) was postponed and the law has not yet been adopted.

Preliminary Assessment of Relevance of REDD+ Activities

The Cancun Agreements identify five REDD+ activities that countries may choose to implement to address significant drivers of land cover change. For each of these activities, Table 12 provides a preliminary assessment of the relevance in Mongolia, with a particular focus on the boreal forests. It also provides an observation on the implications of these activities for Mongolia's REDD+ strategy options.

Table 12: Assessment of the Relevance of REDD+ Elements to Mongolia (preliminary)

		Activity	Likely to be relevant to Mongolia	Observation
Reducing carbon emissions	**1.**	**Reducing deforestation**	Low	Mongolia does not permit clear-felling and land is not being converted to agricultural use.
	2.	**Reducing forest degradation**	High	The main drivers are forest fire, commercial and illegal logging, fuel wood collection, tree disease and insect attack. These are all causing forest degradation.
Increasing removal of carbon (the 'plus')	**3.**	**Conserving forest carbon stocks**	Medium	Mongolia has set aside large forested areas as protected areas. However, these are poorly managed and regulated, creating some opportunities for improved protection.
	4.	**Sustainable management of forest**	High	The boreal forests are very responsive to active forest management. Although current management practices are very incomplete, improved methods for logging practices, silvicultural thinning and cleaning could improve carbon storage and sequestration.
	5.	**Enhancement of forest carbon stocks**	Medium	Reforestation activities are important in boreal forests where tree growth is slow. However, careful consideration will need to be given to the management of replanted stock, given the harsh climatic conditions in Mongolia.

Indicative Workplan for Component 2a

The above sections have assessed the current situation regarding the drivers, causes and barriers regarding forest degradation and deforestation in Mongolia. The above analysis is preliminary, and is an insufficient basis to design a REDD+ Strategy. Hence the following activities are required to develop a thorough understanding of the forces, drivers, issues, barriers and causes related to forest degradation and deforestation. This thorough understanding will be the basis of the recommended approach to policies and measures – see Component 2a).

OUTCOME 2: National REDD+ Strategy prepared	
Outputs2a: **i) Drivers of deforestation and forest degradation identified** **ii) Legal and policy alignment needs identified**	Activity2a.1. Identify and analyse the drivers of deforestation and forest degradation. This will include a review and further in-depth analysis of the provisional list of drivers listed in the above sections. This will also include a thorough assessment of biophysical, socio-cultural, economic and political factors related to forests. Activity2a.2. Conduct a study on land use change in Mongolia (integrated spatial analysis of sectoral development plans and potential areas of conflict). Activity2a.3. Assess existing laws and policies. This will include a study to clarify whether securing land tenure/use rights are required for REDD+ and if necessary, on rights to land tenure and land use related to REDD+. Validate findings with stakeholders. Activity2a.4. Assess institutional framework for forest management and governance (e.g. supply of forest resource, corruption risk-mapping of forest and public finance sectors, etc). This will include an assessment of current forest management and current law enforcement. Activity2a.5. Provide policy recommendations and sectoral action plans for REDD+ (linking to energy, agriculture and transformational policies toward green economy) Activity2a.6. Validate recommendations with stakeholders.

Note that this list of activities will be complemented by activities under Component 2b (below). Notably, this contains a proposal to identify and test some key drivers of deforestation and forest degradation through demonstration activities.

Component 2b: REDD+ Strategy Options

Standard 2b the R-PP text needs to meet for this component: REDD strategy Options

The R-PP should include: an alignment of the proposed REDD+ strategy with the identified drivers of deforestation and forest degradation, and with existing national and sectoral strategies, and a summary of the emerging REDD+ strategy to the extent known presently, and of proposed analytic work (and, optionally, ToR) for assessment of the various REDD+ strategy options. This summary should state: how the country proposes to address deforestation and degradation drivers in the design of its REDD+ strategy; a plan of how to estimate costs and benefits of the emerging REDD+ strategy, including benefits in terms of rural livelihoods, biodiversity conservation and other developmental aspects; socio-economic, political and institutional feasibility of the emerging REDD+ strategy; consideration of environmental and social issues; major potential synergies or inconsistencies of country sector strategies in the forest, agriculture, transport, or other sectors with the envisioned REDD+ strategy; and a plan of how to assess the risk of domestic leakage of GHG emission reduction benefits. The assessments included in the R-PP eventually should result in an elaboration of a fuller, more complete and adequately vetted REDD+ strategy over time.

Objectives of Component 2b

Reducing deforestation and forest degradation, and conserving, sustainably managing and enhancing forest carbon stocks, require a strategic approach to address the drivers identified in Component 2a. The objective of this Component is to formulate and start implementation of activities, policies and measures to implement REDD+ activities in Mongolia. These activities, policies and measures will form a core element of the National REDD+ Strategy. This Component will include the piloting of REDD+ activities at the grassroots level, in order to demonstrate successful approaches and to learn lessons that will feed into the preparation of the Strategy.

In formulating the National REDD+ Strategy, the process will consider the following key criteria to ensure the overall sustainability of the REDD+ outcomes:

- The REDD+ Strategy will conform to and support existing and relevant laws, policies and plans, and where necessary recommend reforms to effectively address drivers of deforestation and forest degradation;
- The REDD+ Strategy will not in any way compromise the livelihoods of local communities, including indigenous peoples, women and children, nor their rights under present laws;
- The REDD+ Strategy will benefit from a strong national ownership through appropriate institutional arrangements (see Component 1a);
- The preparation and implementation of the REDD+ Strategy will benefit from adequate consultation with local communities, including indigenous peoples and other stakeholders;
- A step-wise approach will be taken to developing Mongolia's FREL/FRL and a flexible, learning-by-doing approach to demonstrating results-based actions
- The implementation of priority policies and measures will be undertaken with the aim of achieving results-based actions that can be recognised in tonnes of CO_2 equivalent;
- The Results will be measured, reported and verified through the process set out in the UNFCCC Warsaw Framework (see Component 4);
- The REDD+ Strategy will ensure that the benefits from REDD+ will be managed and applied in a transparent, accountable and equitable fashion, and local community interests will be

safeguarded at all times through a consultative approach that conforms to FPIC where and when necessary;

- Environmental, social and governance safeguards will be implemented and adhered to (see Component 2c); and
- An effective grievance framework for receiving complaints and ensuring that the complaints are addressed effectively will be available and accessible by affected individuals, communities and other stakeholder groups.

This section undertakes a preliminary assessment of strategy options. It then sets out the process for selecting the priority policies and measures to be included in the National REDD+ Strategy. Finally, in the form of a workplan, this section sets out the steps and activities required to meet the Objective of this Component.

Preliminary Assessment of Strategies to Reduce Deforestation and Forest Degradation

Some potential policies and measures have been identified to address the drivers of deforestation and forest degradation. These have been developed through a number of workshops held at both national and regional level (listed in **Annex 1b-1**), as well as by the Working Group on REDD+ Governance, Policies and Measures established under the National REDD+ Roadmap Taskforce (see process described in **Annex 1a-1**). The potential options have been synthesized and grouped into six broad strategies, each with a number of sub-strategies. These are listed in the following sections along with indicative suggested activities.

It is emphasized that the strategies and activities listed in the following sections have not been definitively determined. All strategies and activities will be assessed under this Component, involving further consultation, further evaluation and modifications based on the findings from the pilot activities.

Mongolia may initially prioritise 1 or 2 of the strategies and go through the process of demonstrating results-based action and attracting results-based payments before then expanding to address all strategies. Therefore, a further analysis of these strategies will be conducted during the implementation of the Roadmap to identify the feasibility and impact of each strategy.

Strategy #1: Strengthening Sustainable Forest Management and Productivity

Sub-strategies	Driver/s to be addressed	Contribution to Mongolia's development goals
Provide technical support and undertake research to identify ways to improve forest productivity and sustainable utilization through improved silvicultural practices (e.g. improved methods for forest thinning and cleaning, better management of young stands).	Poor forest management resulting in reduced productivity of Mongolia's boreal forests. Disparity between forest supply and forest demand, leading to illegal use of forest and poor governance.	Addresses National Development Strategy on Environmental Policy and development priority (No 4) on forests which calls for sustainable forest use. Improved rural livelihoods. Contribution to Mongolia's Nationally Appropriate Mitigation Actions (NAMAs).
Engaging local communities in community-based forest protection and management, e.g. through support for Forest User	Illegal collection of fuel wood. Forest fires, both human induced and natural.	Addresses National Development Strategy on Environmental Policy and Strategic Objective on forests, and call to allow Forest User Groups to

Sub-strategies	Driver/s to be addressed	Contribution to Mongolia's development goals
Groups to improve forest productivity and to engage with REDD+ (see Box 11).	Pests and diseases.	lease up to 20% of forest. Improved livelihoods for people in remote forest regions, including herders. MDG 3: Gender equity: engagement of women in replanting activities, management of young stands and sustainable collection of small-size fuel wood.
Strengthening the capacity of DFCRM and private economic entities (Authorized Professional Forest Organizations) to more accurately and effectively conduct forest inventory and forest monitoring, (according to the redesigned forest inventory methodology in Component 4a).	Poor data and information leading to poor forest management (and leading to loss of productivity of forests).	Addresses National Development Strategy on Environmental Policy (Priority 6) and strategic objective (No 4) on forests, which calls for an improved forest inventory and forest monitoring.
Support to conduct a scientific review to determine a rate of sustainable utilization of forest resources (e.g. a review of the scientific basis for the Annual Allowable Cut).	Overemphasis on conservation at the expense of production - which provides an incentive for illegal logging.	Addresses National Development Strategy on Environmental Policy (Priority 6) and strategic objective (No 4) on forests, which calls for developing conditions for sustainable use of forests.

Box 11: Forest User Groups in Mongolia

In 200, Mongolia introduced legislation to facilitate community forest management through the *Law on Forest 2007*. Under this Law, local communities can lease forest areas of up to 6,000 hectares from the State for up to 60 years (Art. 3.1.8). Under this mechanism, local citizens can establish voluntary forest community cooperatives, known as 'Forest User Groups'. Land is leased for a one year preparatory phase, which, if successful, can be followed by a 10-year lease, and then to a maximum of 60 years. The lease must be approved through proposals and resolutions of the local *bagh* and khoroo's – citizens public *khurals* (parliaments).

The Forest User Group is entitled to use timber and other non-timber forest products from their forest area in accordance with an approved Forest Management Plan. Unlike naturally occurring forest, any forest areas planted by the FUG will be owned by the FUG. A Forest User Group can employ volunteer rangers to guard its area. As at June 2013, there were approximately 800 registered Forest User Groups controlling over 2 million hectares of boreal forest.

In some places, groups of FUGs have joined together to form associations (Forest User Associations). These are an informal way to collaborate, share resources and ensure lessons and practices are quickly disseminated across the country. As in other countries, it is possible that these associations will ultimately form a pyramid of civil society organisation, with forest user associations existing at soum, aimag and national level. The

Government has indicated it would prefer such a situation, as it would facilitate government – FUG interactions.

Based on the successful establishment of Forest User Groups in 16 pilot sites in Mongolia,[79] FAO has successfully obtained GEF funding to expand its support for FUGs nationally. FAO is currently designing the project, to be entitled: "Mainstreaming biodiversity conservation, SFM and carbon sink enhancement into Mongolia's productive forest landscapes", which is expected to begin implementation in early 2014.

The Great State Khural (Parliament) has set a national target of allowing local communities to own up to 20% of forests on a contractual basis by 2021 (see the NDS).

Strategy #2: Strengthening Forest Sector Governance

Sub-strategies	Driver/s to be addressed	Contribution to Mongolia's development goals
Review governance weaknesses (e.g. undertaking a participatory corruption risk assessment) and provide technical and policy support to improve forest governance.	Poor forest governance that enables or encourages illegal logging.	MDG 9 aims to *Strengthen Human Rights and Foster Democratic Governance and Anti-corruption*
Enhance capacities of, and resources available to, field staff, at national, *aimag* and *soum* level, for more effective enforcement of relevant policies and measures.	Poor forest governance that enables or encourages illegal logging.	
Develop inter-agency collaboration to reduce forest degradation caused by mining and livestock activities.	Forest resources degraded by mining and grazing activities.	

Strategy #3: Support the DFCRM, MEGD and Research Institutions to Carry out Research into Forest Management and Health

Sub-strategy	Driver/s to be addressed	Contribution to Mongolia's development goals
Support for DFCRM and research institutions, such as universities, to develop improved methodologies to address insect attack and tree disease and forest fire mitigation and suppression.	Tree disease. Pest attack. Forest fires, both human-induced and natural.	Addresses National Development Strategy on Environmental Policy and development priority (No 4) on forests, which calls for strengthening forest protection through modern management methods.

[79] Gilmour, D. et al., 2011. *Capacity Building and Institutional Development for Participatory Natural Resources Management and Conservation in Forest Areas of Mongolia: Project Final Evaluation*.

Strategy #4: Reduce the External Pressures on Forest Causing Forest Degradation

Sub-strategies	Driver/s to be addressed	Contribution to Mongolia's development goals
Identify opportunities and supporting measures to reduce demand for fuel wood and timber for construction (Note: This should be undertaken in conjunction with measures to increase supply of forest stock in managed forests, which could be more productive with improved forest management).	Supply outstripping demand.	
Activities to address the competing demands of other sectors, such as mining and livestock.	Forest affected by mining and grazing.	

Strategy #5: Raise Awareness and Education on Forest protection to Enable Full and Effective Participation of Local communities and Other Stakeholders in REDD+

Sub-strategies	Driver/s to be addressed	Contribution to Mongolia's development goals
Improving the awareness of local communities of the impact of forest fires in order to reduce human-induced wild fires.	Forest fires.	
Improving herder awareness of the adverse impact of forest grazing on forest regeneration.	Grazing in and near forests.	Government Policy on Herders encourages the enhancement of herders' knowledge and skills.
Improving private sector and consumer awareness regarding sustainable consumption and use of timber and forest products.	Reducing demand for timber.	

Strategy # 6: Increase Forest Carbon Stocks

Sub-strategies	Contribution to Mongolia's development goals
Research and assistance to identify effective techniques to increase forest carbon stocks, e.g. through improved forest regeneration and better silvicultural techniques (see Boxes 12 and 13 below for a brief description of some reforestation issues).	Addresses National Development Strategy identifying Forest Policy and Strategic Objective on forests, which calls for undertaking measures to restock woodlands and fight soil erosion.
Assistance to identify and improve methods for reforestation (e.g. identifying the most suitable seed provenances, improving soil preparation and improving young stand management to improve survival). This strategy could include support to local communities to undertake replanting, possibly through supporting FUGs.	Improved rural livelihoods through employment and additional income. Increased carbon sequestration and climate change mitigation.
Improved enforcement of logging licence conditions which require the replanting of logged areas.	Improved forest governance.

Sub-strategies	Contribution to Mongolia's development goals
Improve the effectiveness/enforcement of Protected Areas.[80]	

Consideration will be given to the possibility of implementing a REDD+ demonstration activity within a Protected Area in order to identify and test strategies to improve their regulation.

Box 12: Experience of Reforestation in the Northern Boreal Zone of Mongolia

Due to the slow-growing nature of Mongolia's boreal forests, effective replanting after logging is of critical importance in order to maintain forest stocks. The most commonly replanted species are pine and larch. However, the survival rate of seedlings is only 30-65%, due to the following factors: harsh and dry climate; poor quality of seedlings from nursery; inadequate site preparation and poor planting techniques; poor maintenance of plantations; and uncontrolled grazing (Ykhanbai, 2010).

A report by the World Bank in 2006 into tree-planting in Mongolia found that the best longest-lasting means of restoring forest landscapes, for the lowest cost, is to encourage natural regeneration, rather than to invest in costly planting programs (World Bank, 2006b).

Box 13: Reforestation in the Southern Zone and the "Green Wall Programme"

Most afforestation and reforestation efforts in Mongolia are concentrated in the southern region in an attempt to combat desertification.

In 2005, the Government approved the 'Green Wall' Programme, the goal of which is to create a 'Green Wall' or 'Eco-Strip' across the transitional area between the Mongolian Gobi desert and the steppe regions in an effort to reduce the loss of forest and to reduce sand movement, dust and sand storms. The Wall is to be implemented in three phases over a 30-year period, it will have a total length of up to 2,500 kilometres and a width of not less than 600 metres. It aims to increase Mongolia's forest reserve by 1.6% (500,000 ha).

951 hectares were replanted during the first three years of the Green Wall program (2005-2007), covering 80 *soums* in 18 *aimags*, at a cost of TUG 839 million (US$610,000). The average survival rate of seedlings was 70-75%. The Green Wall Program is administered by the *Green Wall Working Service* which reports directly to the Director of the DFCRM. Local communities are encouraged to prepare project proposals for replanting which reflect their local circumstances. The Green Wall project is funded by the national and local governments, donors, loans from international organisations, technical assistance, aid grants, donations and the private sector. Notably, the Korean Government has donated US$10 million over 10 years.

Notwithstanding the Government's on-going commitment to afforestation and reforestation, some development partners, such as GiZ, have serious concerns about whether afforestation and reforestation in the southern zone of Mongolia will be sustainable in the longer term given the projected increases in temperature due to climate change. There are concerns that increases in temperature may lead to a high failure rate amongst replanted seedlings, with native species struggling to adapt and survive.[81]

[80] UNDP/GEF also has a project 'Strengthening the Protected Area Network (SPAN) in Mongolia: 2010-2015' which aims to strengthen the Protected Area Network and to enhance the effective management and sustainable financing of the protected area system.

[81] Pers. Comm., Mr Klaus Schmidt-Corsitto, GIZ Mongolia, November 2011.

Positioning of REDD+ Strategies to Look Beyond Carbon

It is an overall strategic objective of the Government of Mongolia to mainstream and harmonize the National REDD+ Strategy with other national development policies and plans (e.g. other land-based NAMAs and with Mongolia's Comprehensive National Development Strategy 2007-2021, draft National Green Development Strategy and other development priorities), with a focus on opportunities to transition towards a green economy.[82]

Accordingly, an assessment will be made of the underlying development trends and drivers in Mongolia, and of how to link REDD+ into these drivers. In particular, an assessment will be made of REDD+ in the context of the Green Development Concept and Mid-Term Programme. An assessment will be made of its objectives, outputs, financing and implementation framework. Recommendations will be made on how to link REDD+ to the Green Development Concept and implementation of the Mid-Term Programme.

Approach to Selecting/Designing Strategies and Demonstration Activities

Assessing Drivers and Designing Response Measures

The previous section provided information on the potential policies and measures that have already been identified to address the drivers of deforestation and forest degradation. The following steps will be undertaken to first select the policies and measures that will be prioritized in the National REDD+ Strategy, and then to design the policies and measures:

(1.) Carry out studies and consultations to prioritize the top three drivers of deforestation and forest degradation;
(2.) Consider the policy intervention options to achieve results-based actions in addressing identified drivers;
(3.) Engage with relevant stakeholders in considering the application of relevant policy intervention options;
(4.) Carry out detailed pilot activities that will generate field data on the intervention options;
(5.) Carry out studies and consultations to identify the main strategy, or strategies, which will address each of the prioritized drivers, including an assessment of the potential impacts of each of these strategies on poverty alleviation, and men and women;
(6.) Undertake a gender impact analysis; and
(7.) Conduct a demonstration activity to test each strategy in key aimags, including Khentii, Khuvsgul, Selenge and Bulgan, as they contain more than 70% of the country's forest cover.

This exercise will to determine the policies and measures that are feasible and effective in achieving results-based actions that can be recognised through the UNFCCC Warsaw Framework. All pilot and demonstration activities will be undertaken with the specific objective of gaining experience in achieving results-based actions that can be recognised through the UNFCCC Warsaw Framework.

[82] Work on how countries can embark on a transition towards a green economy is being led within the UN system by UNEP: see UNEP, 2011. Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication, Integrating REDD+ into a Green Economy Transition, www.unep.org/greeneconomy

Box 14: Criteria for Selecting Demonstration Aimags

The criteria for selecting an *aimag* for demonstration activities might include:

- The level of local political support;
- The strength of local capacity to generate rapid results;
- The difficulty with which the selected drivers can be addressed (alignment/conflict with sectoral policies);
- Forest area/size;
- Rates of deforestation and forest degradation;
- Presence of local communities and Forest User Groups and experience in engaging them in forest-related activities;
- Presence/absence of protected areas;
- Proximity to urban centres and infrastructure;
- Whether the effectiveness of the proposed strategies can be easily assessed; and
- Whether there could be significant co-benefits generated within the demonstration site.

Validate Consistency with National Development Strategy (2007-2021)

The relevance and suitability of drivers to be addressed and the proposed REDD+ strategies and demonstration activities will be assessed by reference to the extent to which they contribute to the achievement of Mongolia's national development priorities – as set out in its MDG-based Comprehensive National Development Strategy (2007-2021). These priorities include the development and implementation of structures to facilitate sustainable forest management, policies to achieve poverty reduction in rural areas, and efforts to create conditions for gender equality.

Priming the Pump

With support from FAO and GEF, in early 2014 the government is to launch the Project "*Mainstreaming biodiversity conservation, SFM and carbon sink enhancement into Mongolia's productive forest landscapes*". One of the expected GEF outcomes of this project is "*good (SFM/REDD+) management practices applied in existing forest*"[83].

The Project builds on previous FAO support to Forest User Groups. The Project has three objectives. The first is to make the national-level enabling environment for SFM stronger and ensure that it addresses biodiversity conservation and forest carbon management. The second objective is to help 16 already functioning FUGs to operationalize a more sophisticated form of participatory forest management (PFM), with increased revenues, improved biodiversity conservation and more attention to carbon issues. The third objective focuses on upscaling: i.e. developing the capacity of an additional 84 FUGs that currently are not active. All 100 FUG supported by this project lie in the five northern aimags (i.e. Khentii, Khuvsgul, Darkhan, Selenge and Bulgan).

In particular, the Project will test simple REDD+-type incentives in 16 functioning FUGs. In these FUGs, the Project will raise awareness, identify REDD+ activities and collect REDD+ related monitoring data - all through a consultative and participatory process. Then, drawing from best international practices, the

[83] See approved Project Identification Framework. This is in line with GEF Focal Area guidelines for sustainable forest management and REDD.

project will design and test an incentive distribution system that is suitable for Mongolia. Project funds have been set aside to cover the initial costs of these incentives. The Project will work closely with the Soum Forest Units, thereby developing their forestry and REDD+ management capacity.

The Project will closely monitor and document all progress, impacts, challenges, successes and failures under the pilot REDD+ incentives system. The Project will prepare a comprehensive lessons learnt document that will feed into the National REDD+ Strategy development process. This piloting of the system will be the so-called *priming the pump*, in order to generate experience, lessons and data from local-level REDD+ piloting that will feed national REDD+ policy formulation.

The Project will also support forest monitoring that will feed into the national forest monitoring system – in particular by supporting community forest monitoring.

■ Undertaking a Cost-benefit Analysis of REDD+ Interventions in the Saxaul Forests

As described in previous sections, there is a great deal of uncertainty regarding the potential to implement REDD+ in Saxual forests. This particularly relates to the low carbon content of Saxaul forests. Hence, as a precursor to selecting strategies to increase forest carbon stocks in Saxaul forests, **a cost-benefit analysis will be undertaken** to determine the economic feasibility of including afforestation and reforestation activities in Mongolia's southern zone in the National REDD+ Strategy.

The analysis will consider the following factors:

- The costs of replanting;
- The likely short and long term success of replanting activities;
- The potential long term impact of climate change on replanting in the southern zone of Mongolia;
- The potential long term increase in the volume of forest carbon in the southern zone, including an assessment against likely REDD+ revenues.

The analysis will consider the sensitivity of the importance of Saxaul forests in Mongolian life and culture. It will include consideration of the important roles that Saxaul forests play in Mongolia's social and economic life, including provision of fuel wood for herders (now prohibited by law), their role in combating desertification, and their cultural relevance to local communities.

Proposed Workplan for Component 2b

Output 2b: • **Identification of strategies to reduce deforestation and forest degradation**	Activity2b.1. Conduct studies and consultations to identify the major drivers of deforestation and forest degradation and strategies to address them Activity2b.2. Carry out studies and consultations to identify the main strategy, or strategies, which will address each of the prioritized drivers, including an assessment of the potential impacts of each of these strategies on poverty alleviation, and men and women; Activity2b.3. Undertake a gender impact analysis; Activity2b.4. Prepare proposed list of strategies to address deforestation and forest degradation and validate with stakeholders Activity2b.5. Conduct cost-benefit analysis of including southern Saxaul forests in REDD+;
• **Undertake demonstration activities to test identified drivers and strategies**	Activity2b.6. Conduct research in at least one demonstration aimag to more clearly identify and quantify each of the drivers; Activity2b.7. Carry out detailed pilot activities that will generate field data on the drivers; Activity2b.8. Conduct analysis and consultations to identify strategy/ies to address each driver; Activity2b.9. Establish a stakeholder engagement and consultation mechanism at aimag level, in each concerned aimag; Activity2b.10. Carry out demonstration activities within an aimag to test the effectiveness of selected strategies.

Component 2c: REDD+ Implementation and Safeguards Framework

The design of the REDD+ management structures is under Component 1(a). The Objectives of this Component are to:

- develop the required capacity for the REDD+ management structures. This will cover all agencies and stakeholders already involved in REDD+, and the new agencies to be established for REDD+. It may include demonstration activities;
- design and develop the specific elements of a REDD+ implementation framework that are required to manage funds and manage the incentive schemes. This will potentially cover a REDD+ Fund and a benefit distribution system; and
- establish the structures to ensure environmental and social REDD+ safeguards.

[Note: the Cancun Agreements require countries participating in REDD+ to develop a system for *providing information* on how the safeguards referred to in appendix I of the Cancun Agreements (COP Dec. 1/CP.16) are being addressed and respected, while respecting sovereignty. The process for establishing this *safeguard information system* is covered under Component 4(b)].

Based on the characteristics of a REDD+ management framework, this section sets out how capacity will be developed for the framework to function effectively. It then provides information on key elements in the implementation framework – those responsible for REDD+ financial management at both national and local level. It describes the approach to mainstreaming gender into the implementation framework, and the approach to developing the mechanism for safeguards. Finally, the section sets out the steps and activities required to meet the Objective of this Component.

Characteristics of the REDD+ Management Framework

The implementation framework has to respond to the following issues and concerns:

- **Institutional:** Are the institutions required to implement REDD+ strategies in place, and can they operate effectively together? What needs to be done to make the management structure outlined in Component 1a operational?;
- **Capacity building:** As REDD+ is new to most people in Mongolia, what capacity building is required for which stakeholders to enable effective participation in REDD+?;
- **Socio-ecological:** Where are the drivers of deforestation and forest degradation strongest? Where is the social and ecological potential for increased reforestation, improved forest management and/or forest conservation? How and where should the REDD+ activities be distributed across the country accordingly?;
- **Physical:** How will REDD+ activities, once selected, be implemented and where?
- **Legal:** Do the laws and regulations of Mongolia allow for REDD+ strategies to be implemented? Are there any legal provisions that need to be changed and/or created and, if possible, how can this be done?; and
- **Financial:** How will the financial resources necessary for the implementation of REDD+ be distributed effectively? Can existing distribution channels be used and, if necessary, how can new channels be set up?

Capacity Building to Operationalize the REDD+ Management Framework

Institutions Concerned

The key institutions for REDD+ readiness and implementation are described in Component 1a. Some of these are pre-existing, whereas others will have to be established.

Key pre-existing institutions include:

- Ministry of Environment and Green Development (MEGD);
- Division of Forest Conservation and Reforestation Management, MEGD;
- Forestry Research and Development Centre (FRDC), MEGD;
- Department for Protected Areas Administration (DPAA), MEGD;
- Climate Change Coordination Office (CCCO), MEGD;
- National Agency for Meteorology, and Environment Monitoring, MEGD;
- Ministry of Economic Development (MED)
- Ministry of Finance (MF)
- Ministry of Industry and Agriculture (MIA); and
- The National University of Mongolia (NUM).

Institutions to be established under the Roadmap are:

- The National REDD+ Taskforce;
- The three Technical Working Groups;
- National REDD+ Programme Unit; and
- CSO/LC Forum, including: herders, Forest User Groups and organizations involved in afforestation/reforestation.

Stakeholders involved in developing Mongolia's National Forest Monitoring System (see Output 4a) and MRV framework[84] will also be involved in the capacity building.

Capacity Building for all Institutions

REDD+ remains a very new concept for almost everybody in Mongolia, in both the government and non-government sectors. Significant capacity building on REDD+ will be required for all stakeholders to enable them to participate effectively and equitably in the design of the National REDD+ Strategy and its implementation.

Capacity building will generally be undertaken following a standard three-step process:[85]

(1.) Mobilize stakeholders and design a capacity assessment protocol. This will require the engagement of stakeholders based on the stakeholder mapping work described in Sub-components 1b and 1c above, then a clarification of the objectives and expectations with the National REDD+ Taskforce. The following will be determined at this point: the data and information to be collected and the approach to analysis; details of how the capacity assessment

[84] For example, an Action Plan for Mongolia's National Forest Monitoring System for REDD+ under the UNFCCC has been proposed which includes specific capacity-building technical elements (FAO and MEGD, draft August 2012).

[85] The capacity building process will be undertaken in accordance with UNDP's Capacity Assessment Framework, as set out in UNDP's Capacity Development Practice Note 2008.

will be conducted (team, location, etc.); and preparation of a fully-costed plan for the capacity assessment. This will take a cross-sectoral approach to the implementation of REDD+ activities that recognizes the necessity of basing the successful design and implementation of REDD+ on the participation of multiple stakeholders, across multiple sectors.

(2.) Conduct a Capacity Needs Assessment**.**

a. This will involve two steps:
b. Identify the skills required for each target group to participate in the design and implementation of REDD+, for both functional and technical capacities;
c. Assessment of existing capacities.

(3.) Summarize and interpret the results to generate a **Capacity Building Action Plan**. This will involve comparing the desired end-point in terms of capacities to the existing situation, to determine what is required to bridge the gap between them.

a. The Plan will include activities at all levels, including:
b. Engagement with initiatives in other countries, at regional and global levels to build systemic, institutional and individual capacity of REDD+ actors in Mongolia.
c. Training programmes for staff of key REDD+ institutions and other personnel involved in the design and implementation of the National REDD+ Strategy.
d. Capacity building to ensure that local communities, including indigenous peoples and ethnic minorities, can be involved in local decision-making, implementation and monitoring of the National REDD+ Strategy.
e. Capacity building of other non-state actors, such as NGOs, that may play key roles in the design and implementation of the National REDD+ Strategy.

The capacity needs assessments and activities may be undertaken in stages or across specific sectors or organisations, according to specific functional or technical needs.

The capacity-building process will be overseen by the National REDD+ Taskforce.

Meanwhile, through the UN-REDD Targeted Support during 2013 and 2014, a capacity development framework[86] was prepared to address barriers to mainstreaming financing for sustainable forest management into sectoral budgets.

This framework builds on the findings and recommendations of two studies, which were conducted earlier as part of the same Targeted Support to assist Mongolia in broadening the funding base and diversifying the sources of funding and support for sustainable forest management. The objective of this Targeted Support was to help secure a strong basis on which to establish effective REDD+ Readiness management arrangements and develop implementation capacities across relevant sectors.

The first study[87] looked at forest sector financing flows and economic values of forest products and services, and also identified a number of instruments and mechanisms that could be used to mobilise financing and increase cross-sectoral coordination and collaboration for sustainable forest management.

[86] Capacity development framework for mainstreaming financing for SFM
[87] Report: Forest Sector financing flows and economic values in Mongolia

Based on the identified entry points, a political economy analysis[88] of relevant institutions and their main incentives, interests and influence over mainstreaming financing for sustainable forest management.

The capacity development framework will be implemented during the implementation of the Roadmap.

The REDD+ Implementation Framework – Managing REDD+ Funds

In Mongolia, REDD+ requires innovative and new capacity to manage the funds associated with REDD+. This is likely to be in two parts: (i) a national-level mechanism for receiving international REDD+ finances or flows in a transparent and accountable manner that meets international REDD+ requirements and is in line with national priorities, and (ii) an in-country system to incentivize sustainable forest management and share the benefits of REDD+ with forest users.

The overall objective of this sub-component is the development of an equitable and transparent Positive Incentive Distribution Plan that covers:

- The national management of REDD+ payments; and
- The resource allocation mechanisms to incentivize economic agents and share benefits of REDD+ within the country (e.g. with aimags, soums and Forest User Groups).

Mongolia already has some experience managing similar financial resources that flow from its mining sector, from which it can draw lessons for REDD+ implementation and benefit distribution (see Box 15). Early lessons learned from this experience suggest there is a need to increase the capacity of institutions (such as the Ministry of Population Development and Social Welfare) to deliver social welfare programmes and to help manage the impact of cash transfers to families.

National Management of REDD+ Finance

In the third (and final phase) of REDD+, the country will receive REDD+ results-based payments for verified forest carbon emission reductions and increases in forest carbon stocks (UNFCCC Decision 9/CP.19). Receiving and managing REDD+ results-based payments, based on those actions fully measured, reported and verified, will require a national level mechanism, fund or facility to receive and manage these REDD+ payments. In order for this to function, Mongolia must establish a national-level facility to receive and manage these results-based payments.

Sources of such support may already exist through the Government of Mongolia, through multilateral organisations, and some private institutions, but coordination between such activities needs to be stepped up. Based on this experience, for REDD+ finances, the National REDD+ Taskforce could be among the principal bodies to help oversee incoming finances against activities and outputs. The information clearinghouse for such development financing sources will be a valuable addition to the REDD+ capacity building efforts.

The participation of the Ministry of Finance, Ministry of Environment and Green Development and Ministry of Economic Development will be essential in the design of financial instruments and mechanisms to be used for the REDD+ implementation phase. This will include defining the authority to transact international payments through REDD+ implementation.

[88] Analysis: Entry points and strategic options for mainstreaming financing for SFM into sectoral budgets

During the REDD+ Readiness phase, a study will be carried out to identify and consider options for the financial arrangements. As required, an interim Financial TWG will be created to oversee this work. This will lead to the identification and definition of the most appropriate authority. The study will also produce recommendations on the terms of reference for the management of REDD+ finances. For example, the management authority may have the following attributes:

- Independent of the REDD+ management structure;
- Ability to receive funds for results-based payments through the international mechanism for REDD+ and to create synergies, if necessary, between multiple sources of funding with clear accountability;
- Ability to enforce decisions on results-based fund disbursement for REDD+ implementation.

It should also be noted that Mongolia may already have a high capacity to build on the systems that have been followed successfully in the past.

Following steps could be considered in creating the transparent system for national level management of REDD+ finances in place.

1. Conduct study on the design of a body for management of REDD+ result-based payments;
2. Prepare options paper and recommendations for transparent and accountable management of national REDD+ finances;
3. Analyse past 'best practice' in Mongolia in the field of pubic financial management and implementing performance based development projects and initiatives ;
4. Propose a National Authority for managing the receipt of international REDD+ results-based payments in a transparent, accountable and efficient way;
5. Undertake in-depth consultation and finalize the National Authority;

Box 15: Existing Laws on Anti-Corruption in Mongolia

Mongolia has a number of laws that already focus on anti-corruption and will assist with ensuring transparent fund management. These include:

- the *Law on Fiscal Stability 2009;*
- the *Criminal Code,* which makes embezzlement and misappropriation of funds by public officials a criminal offence;
- the *Law on Anti-Corruption 2006, that* establishes the Anti-Corruption Commission;
- *the Law on Preventing Conflict of Interest in Public Service, passed by the State Great Khural on 19 January 2012, which gives effect to Mongolia's international legal obligations under the United Nations Convention Against Corruption 2005, to which Mongolia is a party.*

See: Josh Friedman, Mongolia Marks Passage of Landmark Anti-Trafficking and Corruption Legislation, 15 February 2012, Asia Foundation.

Resource allocation mechanisms to incentivize economic agents and share benefits of REDD+ within the country

For REDD+ to work, it should provide positive incentives for all actors involved in reducing emissions from deforestation or degradation and/or conserving, sustainably managing or enhancing forest carbon stocks. In many cases REDD+ results-based payments may be used to finance the cost of the public policy

measures that encourage results-based action (providing subsidies, credit guarantees, tax reductions or credits, or simply funding the cost of implementing policies – institutional, administration, awareness and enforcement costs). In some cases where results-based actions are specifically targeting local forest users, REDD+ benefits could be provided as direct incentives for forest users to use the forests in a manner that contributes to REDD+ objectives. This could involve cash transfer schemes from the National REDD+ Fund to local communities and institutions. This will depend on the analysis of policy intervention options (see Component 2b). If appropriate, a REDD+ positive incentive distribution mechanism could build on Mongolia's Law on Environmental Protection 1995, which enables the State to reward citizens, economic entities and organizations for the use and restoration of natural resources (Art. 46).

There are also several projects in Mongolia from which lessons can be drawn regarding effective positive incentive distribution. These include:

- The Swiss Development Corporation's project '*Linking Herders to Carbon Markets: Development of methods and approaches for Grassland Carbon Finance in Mongolia (2011 – 2012*)';
- The ADB's project '*Strengthening Carbon Financing for Regional Grassland Management in Northeast Asia'* (2010); and
- The proposed pilot project to establish a PES scheme in the Upper Tuul Ecosystem of Mongolia (see Box 17).

It is also noted that Forest User Groups have simple structures that allow them to receive and manage incentives. These structures could be the foundation for managing REDD+ benefits flowing to Forest User Groups.

The first step will be to assess the channels and operational modalities of present and past resource allocation schemes (including cash transfers) and public financial mechanisms such as fiscal incentives . This will lead to a study and options paper, to identify possible mechanisms for channelling REDD+ payments from the national to the local-level in Mongolia, including not only opportunities for direct payments but also other benefits. For example, this could involve the provision of training and tools for forest management, or the provision of health or education facilities. The options paper will present ways to link the REDD+ incentives with the rolling out of the Mongolia Green Development Concept, which is likely to include other forms of incentives (see the work being done by UNEP on 'transformation to a green economy' (UNEP, 2012b)). Following stakeholder validation, this will lead to recommendations on how establish an effective, transparent and equitable REDD+ positive incentives management and distribution mechanism in Mongolia. This will be in the form of a Positive Incentive Distribution Plan.

Box 16: Payments for Environmental Services: The Upper Tuul Pilot Project in Mongolia

A study on the feasibility of establishing a program for Payments for Ecosystem Services (PES) in Mongolia was recently completed (Erdenesaikhan, 2010). This study was carried out at the request of a Working Group established within the Ministry of Nature, Environment and Tourism.

The study contains a preliminary analysis of the legal and institutional framework required to establish an effective PES, including the need for a transparent and effective payment system, and sets out a plan of action to develop a pilot PES scheme in the Upper Tuul Ecosystem of Mongolia during 2012 – 2014 in conjunction with the Ulaanbaatar Water Supply and Sewerage Department.

The project area includes two strictly protected areas: the Gorhki-Terelj National Park and the Khan Khentii Strictly Protected Area (both located in Tuv *aimag*) and covers a watershed immediately to the north of Ulaanbaatar from which Ulaanbaatar's water supplies are drawn.

The pilot PES project in the Upper Tuul is likely to provide useful lessons for REDD+ in the areas of resource tenure and positive incentive distribution.

Cash transfer schemes, including the HDF, impact rural communities and livelihoods in certain ways. A thorough understanding the positive and negative impacts of these schemes on rural communities, including Forest User Groups, is an essential part of exploring potential options for REDD+ benefit management and distribution. This is particularly important as a REDD+ positive incentive distribution mechanism should be designed to not only reward local level REDD+ implementation efforts, but should also include appropriate safeguards to minimize any negative consequences – in environmental, social or economic terms.

Mainstreaming Gender into the REDD+ Implementation Framework

Mongolia is committed to improving gender equality and women's empowerment. Accordingly, it has identified the need to create conditions for ensuring gender equality at decision-making levels as a key development objective in its Comprehensive National Development Strategy (2007-2021, Chapter 4, para. 4.2). The Objective of this sub-component is to ensure that all REDD+ strategies, actions and newly created institutions are designed to optimize gender impacts[89].

The potential impacts of REDD+ activities in Mongolia on men and women are presently unclear. Therefore, a comprehensive gender analysis will be undertaken as part of the National REDD+ Strategy development process.

The activities are:

- A gender analysis of the proposed national and local institutional structures for REDD+ to ensure the full inclusion of women in these structures;
- A gender analysis of any proposed national REDD+ strategies to ensure that potential (or unintended) impacts on men and women are clearly identified and addressed. For example, a strategy that has the effect of limiting the collection of non-timber forest products may disproportionately impact women;

[89] For this work, the UN-REDD Guidance Note on Gender Sensitive REDD+ should provide useful guidance on conducting baseline studies, setting indicators and monitoring and evaluation.

- A gender analysis of any proposed demonstration activities (where relevant); and
- Development of guidelines for mainstreaming gender considerations into the implementation of the National REDD+ Strategy (e.g. incorporating gender into the social safeguards; including women as well as men in awareness raising and capacity building activities on REDD+ processes; including gender sensitive indicators for monitoring).

Implementing Social and Environmental Safeguards

Although the main objective of REDD+ activities is to mitigate GHG emissions from the forest sector, this should not occur at the expense of people's rights or the environment. The purpose of REDD+ safeguards is to reduce and, where possible, avoid any adverse social or environmental impacts (or risks) and enhance benefits. This is to be done by ensuring that the implementation framework fully addresses and respects the safeguards. The aim of this sub-Component is to establish the required the REDD+ safeguards in a timely manner.

Technical Working Group 1 on REDD+ Governance, Policies and Measures will have primary responsibility for guiding the development of the REDD+ Social and Environmental Safeguard Policy Framework.

International Framework for REDD+ Safeguards

Under the UNFCCC's Cancun Agreements (Dec. 1/CP.16), developing countries undertaking REDD+ activities must promote and support certain social and environmental safeguards when implementing REDD+ activities. These seven REDD+ safeguards are listed in Box 17 [90].

To help operationalize the UNFCCC safeguards, a number of other international initiatives have also identified more detailed REDD+ safeguard principles, criteria and indicators, such as the UN-REDD Programme's Social and Environmental Principles and Criteria 2012 (SEPC), the REDD+ Social and Environmental Standards prepared by the Climate, Community and Biodiversity Alliance (CCBA). The World Bank also has safeguard policies, many of which are applicable to REDD+ and can be applied to the readiness phase of REDD+ by carrying out a Strategic Environmental Social Assessment (SESA).

[90] See Appendix 1, Para. 2 of the Cancun Agreements (Dec. 1/CP.16).

Box 17: The UNFCCC REDD+ Safeguards (Appendix II, Decision 1/CP.16)

(a) That actions are complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements
(b) Transparent and effective national forest governance structures...
(c) Respect for the knowledge and rights of indigenous peoples and members of local communities ... noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples
(d) The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities ...
(e) That actions are consistent with the conservation of natural forests and biodiversity diversity, ensuring that [REDD+] actions are not used for the conversion of natural forests, but instead are used to incentivize the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits;1
(f) Actions to address the risks of reversals
(g) Actions to reduce displacement of emissions.

At COP 17, Parties decided that countries undertaking REDD+ activities should provide a summary of information on how the safeguards listed in the UNFCCC's Cancun Agreements are being addressed and being respected through the implementation of REDD+ activities. Component 4b below contains a description of the proposed safeguard information system for Mongolia.

■ Steps to Establishing a REDD+ Social and Environmental Safeguard Policy Framework in Mongolia

As part of its REDD+ readiness process, Mongolia will establish its National REDD+ Safeguards under a REDD+ Social and Environmental Safeguard Policy Framework**.** This Framework will ensure that, as a minimum, the safeguards set out in the UNFCCC's Cancun Agreements are promoted and supported in the development and implementation of Mongolia's National REDD+ Strategy, while respecting Mongolia's national sovereignty and development goals. Mongolia's National REDD+ Taskforce will also consider whether it wishes go beyond the UNFCCC REDD+ safeguard, as many other countries have done through the REDD+ process.

Mongolia will develop its Safeguard Policy Framework by taking the following steps:

(1.) Define clearly the objectives of the safeguards. It will first be necessary to clearly define what they are to achieve (e.g., why they are being established). It will then be important for Mongolia to carefully consider whether, in addition to ensuring that the approach responds to the Cancun Safeguards, it also needs to be designed to respond to other objectives. Safeguards could also for example respond to nationally established commitments and policy priorities in related areas, and/or donor or investor policies.
(2.) Review existing national laws and policies that could provide safeguards (e.g. environmental impact assessment processes), and analyse the extent to which these may satisfy the requirements of relevant COP decisions. Identify the extent to which new laws and policies might be required to address the selected safeguards.
(3.) Based on the results of this review, prepare a draft REDD+ Social and Environmental Safeguard Policy Framework which proposes safeguards for REDD+ in Mongolia and the legal and policy structures underpinning them. In this process, a review of existing international initiatives to establish REDD+ safeguards and guidelines will be undertaken – this may provide some useful pre-defined safeguards for Mongolia to adopt.
(4.) Determine all the actions necessary to establish the framework.

(5.) Identify the indicators that will enable people to determine whether the safeguards are being addressed and respected, and develop the monitoring and reporting methodologies for collecting this information (e.g. national census data, forest inventory data, socio-economic and conservation studies, forest protection and management plans, etc.).
(6.) Prepare a final version of the National REDD+ Safeguard Policy Framework for stakeholder validation and adoption by Cabinet/Parliament.
(7.) Link safeguards data collection and information to the national forest monitoring system for collection of data and information on the selected indicators (Components 4a and 4b).
(8.) Link the safeguards to the grievance mechanism (the process for developing this will be determined in Component 1c) to ensure that safeguards are implemented in the context of the full and effective participation of stakeholders.

Box 18 provides examples of nationally appropriate safeguards for Mongolia. In addition to these steps, the policy brief by the UN-REDD Programme, Putting REDD+ Safeguards and Safeguard Information Systems into Practice, may provide useful guidance on how to develop nationally-appropriate safeguards and what tools may be available to assist with each step along the way.

Box 18: Examples of Some Nationally Appropriate Safeguards for Mongolia (provisional)

Social

- Ensuring that REDD+ revenues are managed in a transparent and accountable manner, at aimag, soum and bagh levels, and within Forest User Groups;
- Ensuring that REDD+ activities improve rural livelihoods, and do not exacerbate rural poverty (e.g. ensuring that affordable access to fuel wood is not restricted as a result of REDD+ policies, particularly given the very harsh winter climate in Mongolia);
- Ensuring that REDD+ activities do not adversely affect women (e.g. ensuring that women's traditional access to non-timber forest products, such as pine nuts and mushrooms, is not restricted).

Environmental

- Ensuring that extraction for fuel wood and timber is not 'pushed' into other *aimags* (known as 'leakage');
- Ensuring impacts of REDD+ activities on forest carbon stocks, biodiversity and other ecosystem services are minimized.

Stakeholder Participation in the Development of Safeguards

Effective stakeholder participation is essential for the development and implementation of effective safeguards. Each of the steps described in the previous section will be carried out with full stakeholder consultation and participation, primarily through engagement with the CSO/LC Forum, but also through close supervision from the Multi-stakeholder National Taskforce.

Compliance with Safeguards

Compliance with the Safeguard Policy Framework, and with relevant national and international safeguards standards, will be monitored under Mongolia's Safeguard Information System, described in Component 4b below.

Indicative Workplan for Component 2c

Output 2c: **Implementation framework for REDD+ developed**		
Output 2c.1 National Fund Management and Mechanism for Distribution of Positive Incentives	Activity2c.1.	Assess existing systems for financial management and distribution (e.g., fee for using natural resources, micro-finance, national pension and healthcare schemes, etc.)
	Activity2c.2.	Prepare options paper and recommendations for transparent and accountable management of national REDD+ revenues;
	Activity2c.3.	If appropriate, propose establishment of National REDD+ Fund
	Activity2c.4.	Prepare options paper and recommendations on positive incentive distribution mechanism;
	Activity2c.5.	Propose a Positive Incentives Distribution Plan (PIDP)
	Activity2c.6.	Validate proposals and policy recommendations with stakeholders;
Output 2c.2 Capacity-building Action Plan	Activity2c.7.	Mobilize stakeholders and design the capacity assessment;
	Activity2c.8.	Conduct the Capacity Needs Assessment;
	Activity2c.9.	Develop a Capacity-Building Action Plan;
	Activity2c.10.	Validate proposed Action Plan with stakeholders;
Output 2c.3 Gender analysis	Activity2c.11.	Conduct a gender analysis of proposed national and local institutional structures for REDD+;
	Activity2c.12.	Conduct a gender analysis of proposed demonstration activities, where relevant;
	Activity2c.13.	Prepare a proposal and guidelines for mainstreaming gender considerations under the proposed national REDD+ strategy, including monitoring indicators;
	Activity2c.14.	Validate policy recommendations with stakeholders.
Output 2c.4 REDD+ Social and Environmental Safeguard Policy Framework	Activity2c.15.	Determine the objectives of the safeguards through a multi-sectoral consultation process;
	Activity2c.16.	Review existing national laws and policies on safeguards with respect to UNFCCC Cancun Agreement and identify whether new laws and policies are required;
	Activity2c.17.	Prepare draft REDD+ Social and Environmental Safeguard Policy Framework, while also reviewing existing international standards and initiatives on safeguards;
	Activity2c.18.	Determine actions required to establish the Framework;
	Activity2c.19.	Identify indicators and verifiers for compliance;
	Activity2c.20.	Seek stakeholder feedback and validation on draft Policy Framework;
	Activity2c.21.	Link Safeguards with Safeguard Information System and National Forest Monitoring System (Components 4a and b) and Grievance Mechanism (Component 1c).

Component 2d: Compilation of the National REDD+ Strategy

The National REDD+ Strategy will be developed based on the Outputs under this Component (2a, 2b and 2c), but also on Outputs under Components 1, 3 and 4. All the key elements (i.e., institutional arrangements, policies and measures, implementation framework, national forest monitoring system, forest FRELs/FRLs) taken together will be assembled into the National REDD+ Strategy, in order to harness all key strategies to achieve REDD+ Readiness.

Indicative Workplan for Component 2d

Output 2d: **National REDD+ Strategy**	
Activity2d.1.	Prepare draft National REDD+ Strategy based on all assessments and consultation (including under the Outcomes described under Components 1, 3 and 4);
Activity2d.2.	Validate National REDD+ Strategy with stakeholders.

Component 3: Develop a National Forest Reference Emission Level and/or a Forest Reference Level

Standard 3 the R-PP text needs to meet for this component:

Forest Reference Emission Levels and Forest Reference Levels for REDD+

Present work plan for how the reference level for deforestation, forest degradation (if desired), conservation, sustainable management of forest, and enhancement of carbon stocks will be developed. Include early ideas on a process for determining which approach and methods to use (e.g., forest cover change and GHG emissions based on historical trends, and/or projections into the future of historical trend data; combination of inventory and/or remote sensing, and/or GIS or modelling), major data requirements, and current capacity and capacity requirements. Assess linkages to components 2a (assessment of deforestation drivers), 2b (REDD+ strategy activities), and 4 (MRV system design).

(FCPF and UN-REDD recognize that key international policy decisions may affect this component, so a stepwise approach may be useful. This component states what early activities are proposed.)

The Durban COP *Decision -/CP.17*, Guidance on ... modalities relating to forest reference emission levels and forest reference levels as referred to in decision 1/CP.16

The Conference of the Parties: ...

Invites Parties to submit information and rationale on the development of their forest reference emission levels and/or forest reference levels including details of national circumstances...

Acknowledges that sub-national forest reference emission levels and/or forest reference levels may be elaborated as an interim measure, while transitioning to a national forest reference emission level and/or forest reference level....

Background and Objectives

The UNFCCC COP has issued four decisions providing guidance on development of forest reference emission levels and forest reference levels (FRELs/FRLs) for REDD+ activities. The first is Decision 4/CP.15, paragraph 7. It states that FRELs/FRLs should be developed transparently, taking into account historical data, and be adjusted for national circumstances. Secondly, Decision 1/CP.16, states '*national forest reference emission level and/or forest reference level or, if appropriate, as an interim measure, sub-national forest reference emission levels and/or forest reference levels*' is one of the four elements that developing countries aiming to undertake REDD+ activities are requested to develop; in accordance with national circumstances and the provisions set out in Decision 4/CP.15.

Thirdly, Decision 12/CP.17 totals nine paragraphs and an Annex on 'Guidelines for submissions of information on forest reference levels'. The key points are:

- FRELs/FRLs should be expressed in tonnes of carbon dioxide equivalent (tCO_2e) per year and are benchmarks for assessing a country's performance in implementing REDD+ activities;

- FRELs/FRLs should be established maintaining consistency with anthropogenic forest-related GHG emissions and removals by sinks as derived from a country's national forest monitoring system;
- A step-wise approach to developing FRELs/FRLs may be useful, allowing countries to improve them by incorporating better data, improved methodologies and, where appropriate, additional forest carbon pools (this modality reflects the phased approach to the implementation of REDD+ activities to allow a learning-by-doing process);
- Sub-national FRELs/FRLs that may cover less than the entire territory of a country may be elaborated as an interim measure, before a country transitions to a national FRELs/FRLs;
- FRELs/FRLs should be periodically updated (i.e. revised) to take account of new knowledge, new trends and any modification of scope and methodologies;
- Countries are invited to submit proposed FRELs/FRLs on a voluntary basis and to make them available on the UNFCCC REDD web platform.

Importantly, Decision 12/CP.17 allows countries the flexibility to exclude non-significant forest carbon pools when developing FRELs/FRLs and to adopt a conservative approach to estimating forest carbon stock changes. The step-wise approach also allows them to develop preliminary FRELs/FRLs while they continue to collect data and further refine methodologies.

Finally, Decision 13/CP.19 sets out guidelines and procedures for the technical assessment of submissions from Parties on proposed FRELs/FRLs. The main elements of the decision text are as follows:

- Parties and relevant international organisations are invited to support capacity building for the development and assessment of REL/RLs (areas for further capacity building may be identified in Technical Assessments) (para. 6).
- The process for the technical assessment of FREL/FRLs is described in the Annex of the decision. It starts a new process under the UNFCCC where countries can voluntarily submit their initial FRELs/FRLs and get technical feedback as part of an iterative / interactive process.
- The Annex provides detailed information on the objective (para. 1), scope (para. 2-4) and procedures for the technical assessment (including general procedures (para. 5-8), the composition of the assessment team (para. 9) and timing (para. 10-18) of FRELs/FRLs.

The objective of this Component is for Mongolia to develop its FRELs/FRLs for REDD+ through an iterative process, following the above UNFCCC guidance and modalities. Mongolia may develop several FRELs/ FRLs – covering different REDD+ activities or responding to efforts to address priority drivers. This Component has strong links to Component 2 (covering the assessment of drivers of deforestation and forest degradation and the identification and assessment of REDD+ Strategies) and Component 4 (on the design of a national forest monitoring system).

This section outlines the approach to developing the REL/RL in Mongolia and to the required capacity building. It provides a rapid assessment of historical forest trends and national circumstances – as a basis for the comprehensive assessment that will be undertaken through the implementation of this Component. This section describes how sites will be selected to pilot and to test (subnational, as appropriate) FRELs/FRLs. Finally, it sets out the activities required to establish FRELs/FRLs in the form of a workplan.

Approach to FREL/FRL Development in Mongolia

FRELs/FRLs will be developed in such a way that ensures GHG emissions and removals are directly comparable to the emissions and removals in the national forest monitoring system component, using the

same metrics to ensure consistency between FRELs/FRLs and the national greenhouse gas (GHG) inventory (see Component 4). Key features of the development of Mongolia's FRELs/FRLs will be:

- **Methodological consistency**: to ensure comparability of all future FRELs/FRLs;
- **Transparency**: to ensure that all relevant stakeholders, including those in the international community, have full access to the process and information used in the development of FRELs/FRLs.

The development of Mongolia's FRELs/FRLs will involve several activities:

- Capacity building and activity planning;
- Quantification of historic emissions/removals from REDD+ activities (for a period yet to be defined) at the national and/or sub-national scale, following IPCC guidance and guidelines;
- Assessment of Mongolia's national circumstances; and
- Investigating the possibility of developing sub-national FRELs/FRLs, taking into account that sub-national FRELs/FRLs will eventually need to be integrated into the national FRELs/FRLs L.

Capacity Building and Activity Planning

Following a formal capacity needs assessment of all stakeholders involved in the FRELs/FRLs development process, capacity building activities will be implemented to address the identified needs. A hierarchical management system for developing FRELs/FRLs (and the national forest monitoring system) will be established during Roadmap preparation, and this will be further developed under Roadmap implementation. Institutional, legal and procedural arrangements will be established to allow this system to function transparently and effectively. The roles and responsibilities of government institutions and other stakeholders will be clearly defined to ensure the necessary coordination to achieve common goals and outputs. This will involve formalization of existing and proposed collaboration and cooperation among key agencies and organizations (both governmental and non-governmental) leading to improved sharing of data and information that is vital to implementing REDD+.

As a starting point, a workshop will be held involving institutions involved with remote sensing and measurement of carbon stocks to assess existing capacities. This will lead to the development of a FRELs/FRLs Action Plan document that will include an assessment of: (a) institutional arrangements; (b) existing capacities/expertise, and; (c) infrastructure needed to design and implement a plan to establish historic emissions/removals. The institutional structure and expected roles of institutions for establishment of FRELs/FRLs and the national forest monitoring system will be developed as a priority action. The institutional aspects of Component 1a may also be examined and validated (or modified) during subsequent consultations.

Institutional arrangements will be finalized based on the assessment of the capacity, mandate and experience of each institution. This will be followed by a consultation and endorsement of the structure by the government. Based on this agreement, adequate legal, procedural and institutional arrangements should be achieved.

An important step will be the selection of REDD+ activities (of the five defined under the Cancun Agreements) that will be implemented in Mongolia. Each activity may require a distinct national and/or sub-national FRELs/FRLs - the development of which should be consistent with the national forest monitoring system developed through Component 4 – i.e. using the same metrics and ensuring methodological consistency. Nevertheless, because Mongolia will likely need to report on GHG emissions

from deforestation regardless of the formal selection of activities (following reporting standards under the UNFCCC on forest management to date), the work on this particular activity's FREL can be initiated immediately.

Assessment of Historical Trends

Mongolia will undertake a national assessment of historical trends in land use change using remote sensing data and GIS analysis over a historical period of 20 years, taking four time slices (1990, 2000, 2005, 2010). National land use will be stratified using the land use categories set out by the IPCC (forest land, cropland, grassland, wetlands, settlement and other land). These land use categories (and sub-categories) will be determined by the TWG on **FRELs/FRLs and the national forest monitoring system** (also responsible for the national forest monitoring system component - Component 4). The most recent remote sensing data will be used to compile a national forest base map for a set year (e.g. 2013, but to be determined), against which all future land use changes will be measured. This forest base map will be the same one used to monitor REDD+ activities and assess Activity Data under the national forest monitoring system component of the Roadmap (see Component 4).

Obtaining historic data for estimating emissions/removals from REDD+ activities will require the application of different approaches and methods depending on the range of drivers identified in Component 2. In addition to mapping deforestation, remote sensing will be used to map and monitor indicators of forest degradation such as fire scars, agricultural encroachments and expansion of existing slash and burn holdings and some types of forest canopy damage, as well as secondary forest recovery.

Remote sensing data are vital to map indicators that can guide field verification programmes to understand the impacts of forest degradation or enhancements of carbon stocks. As the remote sensing signal of small changes in canopy cover of forests can be short-lived, it becomes important to map these signals frequently, possibly annually, to detect forest degradation or enhancement. Thus, the use of a mix of medium and high resolution imagery should be explored to detect changes due to forest area change, fire, logging and degradation as well as forest regeneration, at the national scale.

This activity will be directly linked to the assessment of activity data as part of the development of the national forest monitoring system (see Component 4), using remote sensing data and GIS analysis to calculate spatially-explicit historical land use changes. The remote sensing analysis will also be used to stratify land uses and forest types by eco-region, which will feed into the development of FRELs/FRLs for different forest types and/or for different REDD+ activities. This sub-Component will involve training as set out in Component 4.

Assessment of National Circumstances

In addition to data on historical forest area change and associated emissions, the development of FRELs/FRLs requires information on drivers and activities at work and their specific potential contribution(s) to future national emissions. The assessment and reporting of national circumstances is a pre-existing requirement for all UNFCCC parties as part of their National Communication, though there are currently no clear guidelines for this assessment in the context of forestry and REDD+. Hence, a major area of work under this component will be the assessment of national circumstances and a determination of what they mean in the context of adjusting national and/or sub-national FRELs/FRLs (and subject to further guidance from the COP).

Mongolia began the process of outlining its national circumstances in the context of REDD+, as well as preliminary discussion on the drivers of deforestation and forest degradation, at a national REDD+ monitoring and MRV workshop held 28-29th November 2011. The outcomes of break-out discussion groups are contained in **Annex 3**.

The assessment of Mongolia's national circumstances will be based on variables including: (i) analysis of existing and historical social, political and economic data and trends; (ii) existing conservation laws and policies; (iii) analysis of projected future development in Mongolia; (iv) vulnerability to climate change and adaptive capacity; and (v) potential forest cover and carbon stock changes through a consultative process. This will also involve: (a) a further assessment of land-use policy, forest policy and governance conducted through the roadmap process with appropriate institutional structures and arrangements (under Components 1a, 2c and 2a), and; (b) new assessments undertaken as part of the REDD+ Strategy analysis to be conducted during the Roadmap implementation under Component 2b. A key work area will be the in-depth study of the drivers of deforestation and forest degradation (Component 2a), which will not only inform the development appropriate policies and measures to implement REDD+ activities, but also shed light on specific national circumstances surrounding forestry and the implementation of REDD+ activities in Mongolia.

In combination with historical data, the above aspects will constitute the tool on which to base national decisions for the establishment of FRELs/FRLs. Collating information on these aspects will provide the opportunity to harmonize REDD+ with Mongolia's conservation goals, sustainable development priorities, objectives and projects, and circumstances that will have a significant impact on the successful implementation of REDD+ activities within the broader context of national development. It will also create a platform to promote a better understanding of the country's vulnerability and adaptive capacity to deal with adverse effects of climate change.

Piloting and Testing of FRELs/FRLs

Wide stakeholder consultations will be held to determine concrete proposals for FREL/FRL formulation, based on the consideration of priority intervention options (see component 2b). This will require extensive consultations with technical experts (government and non-government) as well as stakeholders. This activity may include testing FREL/FRL development at the sub-national level, to accompany activity piloting.

RELs/RLs will be developed following a step-wise approach, allowing the progressive consideration and inclusion of better data, improved methodologies and, where appropriate, additional forest carbon pools, as these become available (Dec. 12/CP.17). FRELs/FRLs will also be updated periodically as appropriate, to take account of new knowledge, new trends and modifications of scope and methodologies. As part of the process, working group members will be assigned to collect information on and propose a number of potential methodologies for formulating national and/or subnational FRELs/FRLs, including through an analysis of approached being taken in other countries. A number of methodologies will then be adopted for demonstration sites with the objective of learning lessons and refining methodologies as necessary.

Indicative Workplan for Component 3

The development of FRELs/FRLs will be led by the FRDC of the MEGD. The TWG on **FRELs/FRLs and the national forest monitoring system** TWG will meet regularly to discuss activities and guide the implementation of this component. The process of developing FRELs/FRLs will be coordinated with other ministries and development partners (such as GIZ) that are active in Mongolia.

OUTCOME 3: Forest reference emission levels and forest reference levels developed	
Output 3.1 **Capacity building and activity planning**	Activity 3.1.1. FRELs/FRLs capacity building workshops and seminars held with stakeholders; Activity 3.1.2. Development of an Action Plan for the development of FRELs/FRLs in Mongolia; Activity 3.1.3. Study carried out into the context of FREL/FRL implementation in Mongolia and methodological options available; Activity 3.1.4. Stakeholder consultation workshop to present findings of the FREL/FRL methodological study;
Output 3.2 **Historical data assessed**	Activity 3.2.1. See activities under Component 4 on land use change analysis activities; Activity 3.2.2 Historical annual emissions calculated using emission factors from national forest monitoring system based on country's historical data (Component 4).
Output 3.3 **Assessment of national circumstances completed**	Activity 3.3.1. Assessment of the drivers of deforestation (see Component 2a), including policy and land use governance context; Activity 3.3.2 Stakeholder consultation workshop to present findings of the study on national circumstances; Activity 3.3.3 Development of potential FRELs/FRLs adjustment factors.
Output 3.4 **Testing of different FRELs/FRLs methodologies completed**	Activity 3.4.1 Consultations with stakeholder and technical experts to collate proposals for, and select, pilot sites; Activity 3.4.2. Develop a preliminary national/subnational FREL/FRL and submit to the UNFCCC Secretariat for review.

Component 4: Design Systems for National Forest Monitoring and Monitoring Safeguards

Component 4a: National Forest Monitoring System (NFMS)

BOX 4-1: Decision 4/CP.15, Methodological guidelines for activities relating to reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries

1. *"…Requests developing country Parties, on the basis of work conducted on the methodological issues set out in decision 2/CP.13, paragraphs 7 and 11, to take the following guidelines into account for activities relating to decision 2/CP.13, and without prejudging any further relevant decisions of the Conference of the Parties, in particular those relating to measurement and reporting:*

(a) To identify drivers of deforestation and forest degradation resulting in emissions and also the means to address these;

(b) To identify activities within the country that result in reduced emissions and increased removals, and stabilization of forest carbon stocks;

(c) To use the most recent Intergovernmental Panel on Climate Change guidelines and guidelines, as adopted or encouraged by the Conference of the Parties, as appropriate, as a basis for estimating anthropogenic forest-related greenhouse gas emissions by sources and removals by sinks, forest carbon stocks and forest area changes;

(d) To establish, according to national circumstances and capabilities, robust and transparent national forest monitoring systems and, if appropriate, sub- national systems as part of national monitoring systems that:

(i) Use a combination of remote sensing and ground-based forest carbon inventory approaches for estimating, as appropriate, forest-related greenhouse gas emissions by sources and removals by sinks, forest carbon stocks and forest area changes;

(ii) Provide estimates that are transparent, consistent, as agreed by the Conference of the Parties;…"

(iii) Are transparent and their results are available and suitable for review as agreed by the Conference of the Parties.

Source: http://unfccc.int/files/na/application/pdf/cop15_ddc_auv.pdf

BOX **4-2: COP Decision 1/CP.16, National Forest Monitoring System**

"*71. … (c) A robust and transparent national forest monitoring system for the monitoring and reporting of the activities referred to in paragraph 70 above, with, if appropriate, sub national monitoring and reporting as an interim measure,*[7] *in accordance with national circumstances, and with the provisions contained in decision 4/CP.15, and with any further elaboration of those provisions agreed by the Conference of the Parties;*

[7] *Including monitoring and reporting of emissions displacement at the national level, if appropriate, and reporting on how displacement of emissions is being addressed, and on the means to integrate sub national monitoring systems into a national monitoring system*"

Source: unfccc.int/files/meetings/cop_16/application/pdf/cop16_lca.pdf

Background and Objectives

Decision 4/CP.15 establishes the REDD+ MRV requirement by requesting Parties (paragraph 1(d)) to: *"…establish, according to national circumstances and capabilities, robust and transparent national forest monitoring systems and, if appropriate, sub-national systems as part of national monitoring systems that:*

i. *Use a combination of remote sensing and ground-based forest carbon inventory approaches for estimating ... anthropogenic forest-related greenhouse gas emissions by sources and removals by sinks, forest carbon stocks and forest area changes;*
ii. *Provide estimates that are transparent, consistent, as far as possible accurate, and that reduce uncertainties, taking into account national capabilities and capacities;*
iii. *Are transparent and their results are available and suitable for review as agreed by the Conference of the Parties".*

Decision 4/CP.15 also specifies that countries must follow the most recent methodological recommendations issued by the IPCC, serving as a basis for estimating the sources of anthropogenic GHG emissions, and their removal by sinks, and for measuring carbon stocks and changes in forest area. In this way, emissions estimates will be based on common (i.e. IPCC) methodological approaches. This methodological guidance indicates that national forest monitoring systems should be used to: (i) estimate emissions and removals from the forest sector (M, measurement); (ii) report this mitigation performance of REDD+ activities to the UNFCCC (R, reporting); and (iii) allow verification of the results by the UNFCCC Secretariat (V, verification) (subject to further guidance from the COP) – i.e. to fulfil the MRV function for REDD+ activities.

UNFCCC guidance on this technical element for REDD+ is further developed in Decision 1/CP.16, where developing countries aiming to participate in REDD+ are requested to develop (paragraph 71(c)):

"A robust and transparent national forest monitoring system for the monitoring and reporting of the [REDD+] activities ..., with, if appropriate, sub-national monitoring and reporting as an interim measure, in accordance with national circumstances, and with the provisions contained in decision 4/CP.15".

Decisions 4/CP.15 and 1/CP.16 together establish that countries should develop a national forest monitoring system to serve the dual functions of monitoring and MRV, as shown in Figure 7. As Figure 7 indicates, the monitoring function of the national forest monitoring system may include wider elements such as community monitoring and traditional forestry monitoring systems. Community monitoring will form an integral part of the monitoring system as communities will provide ground-level information (e.g. tree counts and locations, delimitation of community forest areas), which will feed into the web-GIS interface. Traditional forest monitoring systems are a critical consideration as the national forest monitoring system aims to build on existing systems and be based on national circumstances; these will therefore also be incorporated into the monitoring function for REDD+.

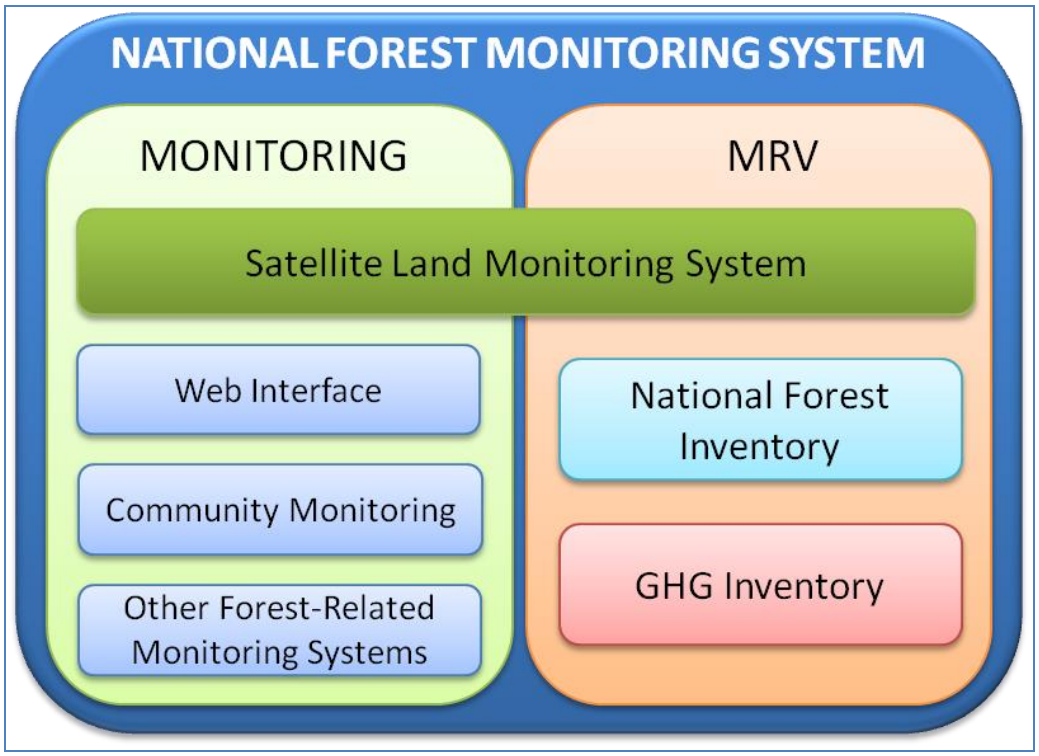

Figure 6: The Dual Functions of a National Forest Monitoring System for REDD+ (FAO/UN-REDD Programme, 2013)

The monitoring function will allow a country to assess whether REDD+ activities are resulting in positive outcomes, according to proxy indicators such as forest cover change; while the MRV function will assess the mitigation performance of REDD+ activities (see Figure 7), i.e. by allowing the assessment (following international standards) of whether REDD+ activities are contributing to measureable carbon mitigation.

Decision 11/CP.19 covers the modalities for national forest monitoring systems. The main elements of the decision text are that a country's NFMS should:

- Be in line with the most recent IPCC guidance and guidelines, and in the context of adequate and predictable support (para. 2) (as per the guidance in Decision 4/CP.15);
- Provide data and information that are transparent, consistent over time, and suitable to be measured, reported and verified (MRV) (para. 3); and
- Build upon existing systems while being flexible and allowing for improvement, reflecting the phased approach (para. 4).

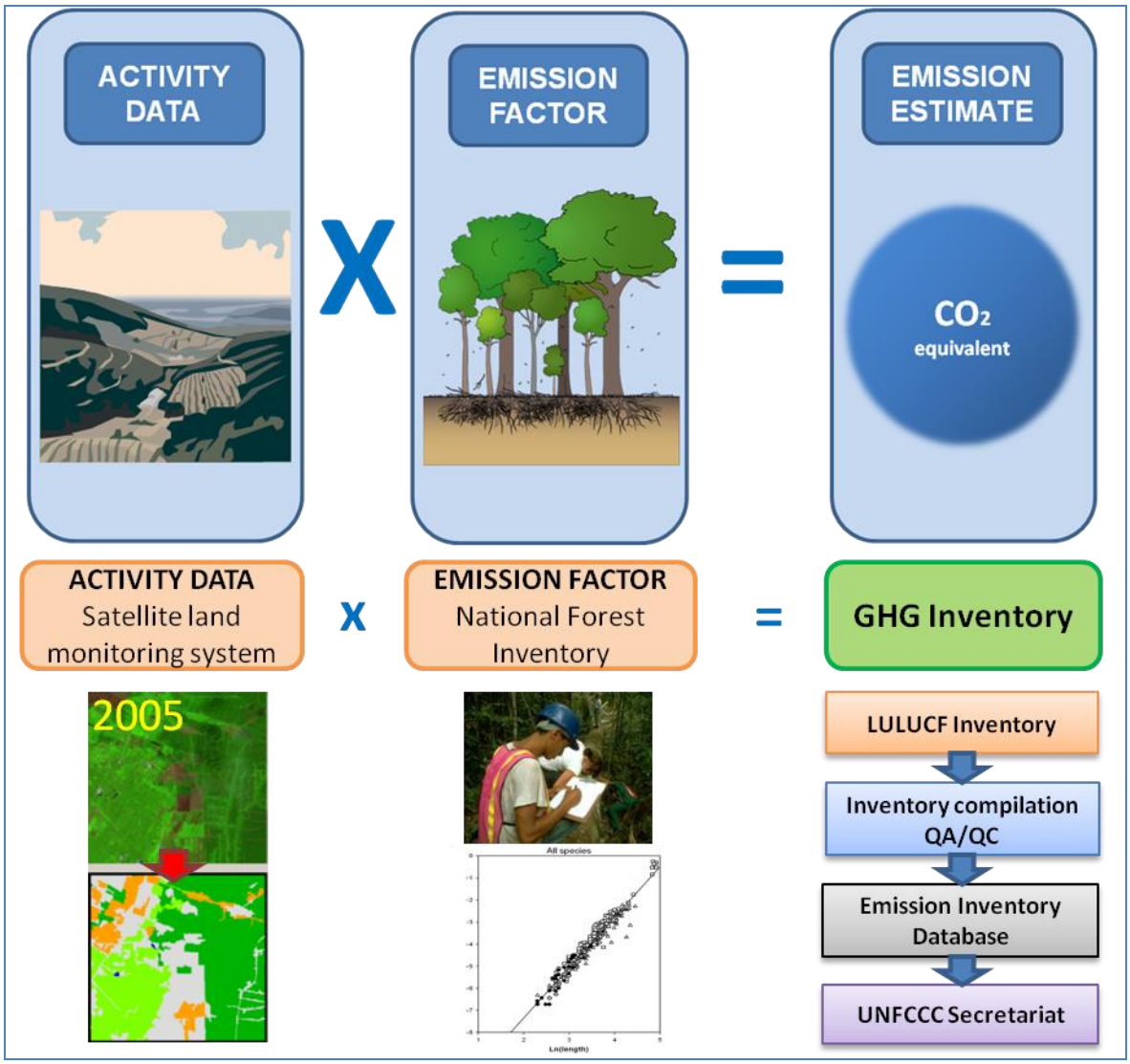

Figure 7: The IPCC's Methodological Approach to Calculate Anthropogenic GHG Emissions by Sources and Removals by Sinks Related to Forest Land

Decision 14/CP.19 covers the modalities for measurement, reporting and verifying for REDD+. The key elements are of this decision are as follows:

- The estimation of anthropogenic forest related emissions and removals, carbon stocks and forest area changes should be consistent with UNFCCC methodological guidance, data and information and be transparent and consistent with FRLs/FRELs (para. 3);
- Results should be provided via biannual update reports (BURs) on a voluntarily basis, with additional flexibility for Least Developed Countries (LDCs) and Small Island Developing States (SIDS) (para. 6). When developing countries want to obtain and receive payments for results-based actions, an additional technical annex should be provided on a voluntary basis through the BUR (para. 7 and 8). The information provided should be consistent with decisions 4/CP.15 and 12/CP.17 (para. 9).
- In the context of provision of results-based payments, these results should be expressed in tonnes of CO_2 equivalent per year (para. 4).

The implementation of the technical components of the national forest monitoring system will be implemented through a three-phased approach. This allows time to build the necessary capacity, to learn lessons and to improve the system, as necessary:

- ***Phase 1***: Capacity building on, and design of, technical elements (e.g. Satellite Land Monitoring System, remote sensing, forest inventory); establishment of institutional arrangements; activity planning; and design of demonstration (pilot) activities.
- ***Phase 2***: Implementation and monitoring of (and learning from) demonstration activities, and further capacity building on technical elements.
- ***Phase 3***: Satellite Land Monitoring System is upgraded to monitor national performance of REDD+ policies and measures; full MRV in place for assessing GHG emissions and removals in the forestry sector and to report mitigation performance to the UNFCCC Secretariat.

The Objective of this Component is for Mongolia to develop its national forest monitoring system for REDD+, in line with the above UNFCCC guidance and modalities.

This section describes the proposed institutional arrangements for national forest monitoring compatible with REDD+. It then proposes the approach to monitoring (and reporting), based on a rapid assessment of the current situation and known gaps and weaknesses. It then describes in detail the Outputs and Activities under this Component, before summarizing them in the form of a workplan.

National Forest Monitoring System Development – Institutional Arrangements

The first step towards the development of Mongolia's national forest monitoring system will be the determination of transparent and effective institutional arrangements for (i) the production and sharing of land use monitoring and forest carbon stocks data; (ii) compilation of the national GHG inventory for the LULUCF sector, and; (iii) compilation and reporting of the National Communication to the UNFCCC. Transparent and accountable institutional arrangements will be essential to ensure the effective functioning of the system; the Government of Mongolia will therefore aim to formalize these arrangements through a legal act to ensure long-term accountability and sustainability of the national forest monitoring system. Box 20 provides information on current institutions in Mongolia involved in forest monitoring.

Box 19: Institutions Currently Involved in Remote Sensing in Mongolia

At present, there are two national institutions in Mongolia undertaking MODIS-based remote sensing work and analysis: the Environmental Information Centre of the Ministry of Environment and Green Development, and a research laboratory at the National University of Mongolia.

Since 2002, GIZ and the Berlin Technical University have supported studies covering 60,000 hectares in Yeroo *soum* and 130,000 hectares in Tsagaannuur *soum*, Selenge *aimag*.

Comprehensive internationally-supported capacity building is required to build on these experiences and capacities to generate both remote sensing imagery for the REDD+ monitoring system (Phases 2 and 3) and Activity Data (Phase 3).

Previous work of the TWG on REL/RL and the national forest monitoring system led to the proposal for the institutional arrangements set out in Figure 9. These will be subjected to further stakeholder consultation and validation. The institutions indicated in the boxes are proposed to act as the lead government agencies/institutions for each of the respective components of the national forest monitoring system. That is:

- The Environmental Information Centre (EIC) and the FRDC share responsibility for the Satellite Land Monitoring System;
- FRDC is responsible for the National Forest Inventory;
- The CCCO is responsible for the GHG inventory for the Land Use, Land Use Change and Forestry (LULUCF) sector;
- The TWG oversees and guides the work and operation of the national forest monitoring system.

In and around these arrangements will be integrated specific Quality Control processes (as set out by the IPCC) and an overall Quality Assurance assessment. These are to be carried out by an independent third party. Under these arrangements activity data (AD), emission factors (EF) and GHG emissions data will be shared between the involved institutions to maximize transparency and openness.

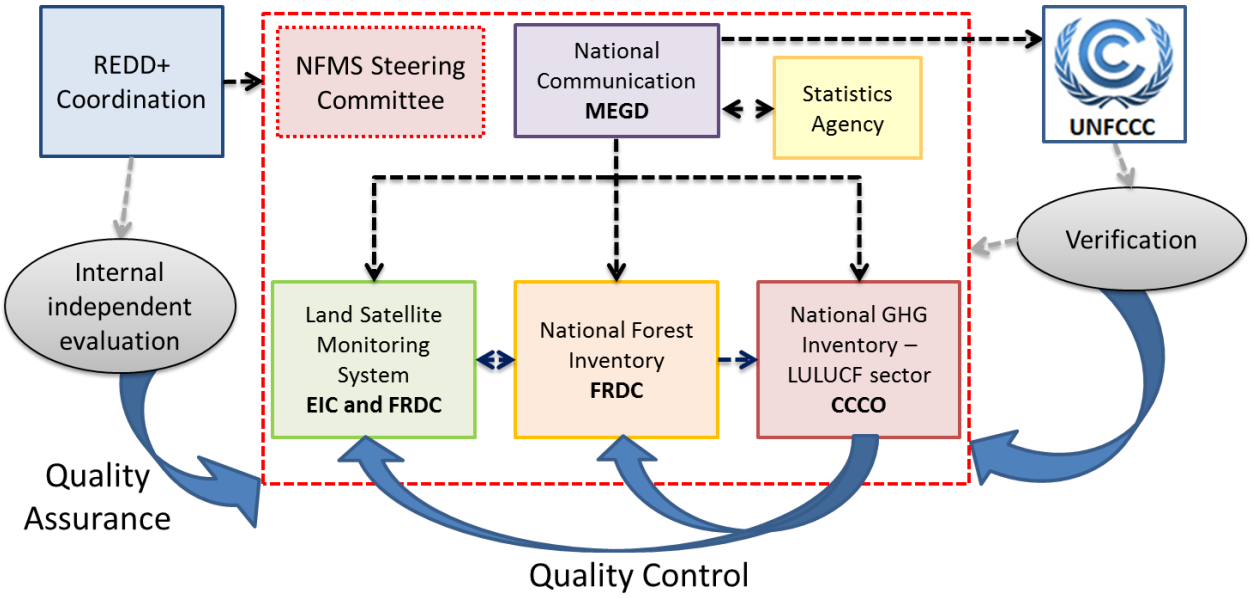

Figure 8: Proposed Institutional Arrangements for Mongolia's National Forest Monitoring System for REDD+

The institutions identified in Figure 9 will act as lead entities for their respective components, though this does not preclude the receipt of additional technical and capacity building support from other national and international agencies and institutions, for example for the collection and analysis of data.

A first step in the implementation of the REDD+ Readiness Roadmap will be to formalize these arrangements among relevant institutions and stakeholders, followed by the incorporation of the agreed institutional arrangements into the Mongolia National Forest Monitoring System Action Plan – see next section.

Proposed Approaches to Forest Monitoring, Reporting and Research

Preliminary ideas on methods to be employed and systems to be developed are outlined below - these will be subject to change based on the results of national and sub-national consultations.

A) Forest Monitoring

A satellite land monitoring system will be developed to support the monitoring function of the national forest monitoring system. This will be used to assess the outcomes of Mongolia's REDD+ activities using easily detectable proxies such as forest cover and forest cover change over time. This system will comprise an open-source database, a user interface and tools and algorithms, adapted to Mongolia's country needs.

Mongolia's satellite land monitoring system will be based on satellite remote sensing data that will be regularly updated to capture the progression of land use changes on the ground. Mongolia has received satellite images from MODIS since 2007. Landsat data dating back 20 years are also freely available online. Once downloaded, this imagery will be processed and subsequently entered into a specialized database. The imagery will then be made publicly available, at no charge, via an online web-GIS portal, where the imagery will be overlaid with relevant GIS shapefiles (e.g. administrative boundaries of aimags, soums and baghs; rivers, lakes and watershed; roads; settlements; protection and utilization forest zones (Law on Forest 2012, Art. 5.1), special protected areas, areas leased by Forest User Groups, logging licences, mining and exploration licences, etc.).

B) National Forest Inventory

Status:

Mongolia's national forest inventory efforts began with support from the Soviet Union in the 1950s and continued into the 1970s. No nationwide forest inventory was carried out between 1975 and 1989. Following the transition to a market economy in 1990, Mongolia adopted a strategy of performing forest inventory and management activities sequentially by administrative divisions (i.e. by aimag). This policy resulted in completion of forest inventory work in all aimags and soums from 1990-2005, and the cycle re-commenced in 2006, with a projected full national cycle to be completed every 10 years as required by the Law on Forest 2012 (Art. 7.2).

National Forest inventory (NFI) data is collected by private companies authorized by DFCRM (called 'Authorized Professional Forest Organizations'), selected by public tender, which conduct the work under the supervision of DFCRM, although there are some concerns regarding the accuracy of the data obtained (Law on Forest 2012). The metrics measured under the present inventory methodology are limited to tree height and diameter at breast height (DBH), as well as broader variables such as forest type, elevation and slope.

C) Forest Related National GHG Inventory for Mongolia

All country Parties to the UNFCCC are requested to estimate and report on forest-related GHGs by sources and removal by sinks (Decision 4/CP.15, paragraph 1(d) and (d) (i)). Information published in GHG inventories allows the COP to observe progress achieved by the Parties in fulfilling their commitments and achieving the ultimate objective of the Convention.

Information should be documented coherently following the reporting the guidance of the UNFCCC. Countries should follow the most recent IPCC guidance and guidelines, as adopted or encouraged by the COP, as a basis for estimating anthropogenic forest-related greenhouse gas emissions by sources and removals by sinks, forest carbon stocks and forest area changes in order to comply with the five GHG

inventory reporting principles: Transparency, Coherence, Comparability, Completeness and Accuracy. The quality of a GHG inventory depends not only on the robustness of the results from the measurements made and the credibility of estimates, but also on the manner and method in which the information is collated and presented.

National Communication

Parties to the Convention are required to submit national reports on their progress on implementing the Convention to the UNFCCC COP. Core elements of the national communications include information on emissions and removals of GHGs and details of the activities a Party has undertaken to implement the Convention. National Communications usually contain sections on national circumstances, vulnerability assessment, financial resources and transfer of technology, and education, training and public awareness.

Central National GHG Inventory Archiving System

An archive system is a critical tool to underpin the sustainability of the National GHG Inventory System by ensuring that GHG estimates can be easily (re-)produced, safeguarding against data and information loss, and allow replicability of estimates.

Current Status

The Government of Mongolia submitted its Second National Communication (SNC) to the UNFCCC in 2010, which was the result of a UNEP-funded project. The figures for GHG inventory of the SNC were based on 2006 levels. Default values from the IPCC's global Emissions Factor Database were used to compile the forestry sector inventory; and the 2006 IPCC Guidelines for National Greenhouse Gas Inventories were followed for the compilation of the inventory report. Capacity building is now required for technical officers in MEGD and MIA on IPCC guidance and guidelines for GHG inventory compilations, as well as software tools that can be used to support inventory compilation, such as the US Environmental Protection Agency's Agriculture and Land Use tool, and database development and management, including QA/QC procedures.

D) NFMS-Related Scientific Research

Current Status

The National University of Mongolia's (NUM) Forestry Department leads national research efforts in forest development (including management and silviculture, botany, tree improvement and forest protection) and utilization. NUM has a Memorandum of Understanding with the Finnish Forest Research Institute (METLA) which focuses on capacity building for research and education in Mongolia, particularly on forest plantations and inventory. The inventory work includes work on improving estimations of forest biomass and tree growth. Along with NUM's Department of Physics, the Forestry Department is also working on forest soil carbon measurement. The Forest Department also possesses a flux tower, with which they are beginning to investigate forest-atmosphere exchanges of water, carbon dioxide, energy and other trace gases.

Potential Research Areas

In addition to the work described above, Mongolia requires further support on forest/REDD+-related research, including forest inventory methodologies, development of country-specific allometric equations, using remote sensing to support ground inventory, and linking community forest monitoring into a national forest monitoring framework. These will be shared with the FRDC and the CCCO to allow the government to incorporate into the national GHG inventory and allow the country to report at higher Tier levels.

Following initial awareness raising and capacity building on REDD+, internal and external consultations and discussions will be undertaken by the Forest Department and MEGD into potential new research areas to support the implementation of REDD+ in Mongolia, and in particular the multipurpose NFI.

Description of Activities

Output 1 - Capacity Building and National Forest Monitoring System Action Plan Development

The first step towards the development and implementation of Mongolia's national forest monitoring system will involve general awareness raising on its components as well as in-depth training workshops on the specifics of each of the components, at national and subnational levels. The detailed steps that Mongolia will take to develop and implement its national forest monitoring system are to be defined in the National Forest Monitoring System Action Plan (NFMS-AP), to be formulated by MEGD, with the support of FAO/UN-REDD. This document will set out the actions that the country will undertake, in the context of the provision of adequate and predictable support, including financial resources and technical and technological support, to implement its national forest monitoring system for REDD+ activities.

The NFMS-AP is likely to include sections on the following:

- Detailed capacity assessment of RS/GIS, forest inventory and GHG inventory, both in government and non-government entities; and support received to date;
- Guidance on the phased implementation of the national forest monitoring system, from concretizing institutional arrangements and capacity building (Phase 1) to demonstration and monitoring (Phase 2) to full national monitoring and MRV for REDD+ activities;
- A timeline for the implementation of activities; and
- A budget.

Activity 1.1*: Organize NFMS work and regular Working Group meetings*

Under this activity, the following sub-activities will be implemented:

(1.) Develop a list of all the institutions and staff involved in forest monitoring and MRV (using the membership of the RELs-RLs/NFMS TWG as a starting point);
(2.) Develop a calendar of meetings to be held over the Roadmap implementation period;
(3.) Collaboratively formulate a TOR for the Working Group;
(4.) Identify the topics to be discussed in each of the meetings and relevant contributors;
(5.) Prepare the minutes of each of the meetings;
(6.) Store and archive all documents and other materials produced during the meetings; and
(7.) In collaboration with all relevant stakeholders, contribute to national consultations on the NFMS-AP, national forest definition, satellite land monitoring system and GHG inventory.

Expected outputs:

- List of the NFMS stakeholders with contact address and associated institution names;
- TOR, work plan and calendar for the Roadmap implementation period;
- Minutes of the meetings;
- Archive of all documents produced; and
- Reports of the national consultations.

Activity 1.2*: Formalize institutional arrangements for the implementation and management of the NFMS*

Under this activity, the following sub-activities will be implemented:

(1.) Propose institutional arrangements for effective and transparent implementation;
(2.) Identify the roles, coordination mechanisms and contact information for those providing relevant data for estimating GHG emissions and removals from the LULUCF sector;
(3.) Provide information on lead agencies, identify inventory management team members, contact information and status of institutional arrangements in a tabular format;
(4.) Identify policy support necessary for institutional arrangement and obtain government approval (e.g. notification on institutional structures, roles and mandate) for effective implementation; and
(5.) Identify the strengths, and recommend for potential improvements, in the management structure of National Inventory System.

Expected outputs:

- Essential information in a tabular format;
- Standardized tasks, to compare and contrast results provided;
- Roles and responsibilities clarified;
- Objective and efficient system for identifying priorities for future improvements provided; and
- Concrete institutional arrangements proposed in Mongolia's NFMS-AP.

Activity 1.3*: Develop Mongolia's NFMS Action Plan*

The NFMS-AP (as outlined above) will set out institutional arrangements and guidance for implementation in Mongolia. In addition to detailed capacity and needs assessment, it will set out the activities and work plan to establish the NFMS, including details of logistics, procurement, equipment and software needs, etc.

The NFMS-AP will be prepared in a consultative manner, involving relevant stakeholders, and re-drafted (as necessary). It will then be submitted for official government endorsement in order to formalize the institutional arrangements and work plan. In addition to guiding national activities, this document will be used to seek additional funding for components of the national forest monitoring system not funded through the Roadmap.

Under this activity, the following sub-activities will be implemented:

(1.) Develop a table of contents (led by NFMS Working Group);
(2.) Gather input through meetings and consultations with relevant ministries, NGOs and private sector stakeholders;
(3.) Develop a first draft of the document and consult widely with stakeholders through a workshop;

(4.) Gather input and re-draft the document; and
(5.) Produce final version and hold national a validation workshop.

Expected outputs:

- Mongolia's NFMS Action Plan document;
- Report of the proceedings of national consultation workshop; and
- Report of the proceedings of national validation workshop.

Output 2 - Satellite Land Monitoring System (SLMS) Established

A SLMS will be designed and implemented to monitor REDD+ activities and (eventually, in Phase 3 of REDD+ implementation) assess national activity data. Consultations will be undertaken to determine an efficient and cost-effective approach, including consideration of open-source software packages and through support from experienced international organizations and countries. Training will be delivered to technical officers who will then process national data and upload it to the purpose-built web-GIS portal. In addition, a systematic data archive will be built to store national remote sensing data securely and transparently.

Activity 2.1*: Capacity building on geospatial data processing and database management*

Stakeholders will receive training on geospatial data capture, processing, analysis and management. Part of the training will be delivered in collaboration with the Brazilian Institute for Space Research INPE, who holds a partnership with FAO/UN-REDD to deliver training to government counterparts from partner countries. This activity will also include the hiring of a team of people to coordinate the SLMS work and design, operationalise and manage Mongolia's SLMS.

Under this activity, the following sub-activities will be implemented:

(1.) Identification of RS/GIS and database management training needs;
(2.) Develop and deliver training programmes on satellite data geo-rectification, interpretation, classification, field data collection, accuracy assessment and change matrix generation;
(3.) Travel of national officers to Brazil for training at the Brazilian Institute for Space Research;
(4.) Develop and deliver a training program on RS/GIS database structure and data capture including metadata, editing and retrieval, visualization, analysis, mapping and modeling; and
(5.) Provide guidelines and training on RS/GIS data archiving and database management, with preference for open-source database software.

Expected outputs:

- Capacity enhanced on GIS, RS data handling and database management;
- Training materials and guidelines on GIS and remote sensing; and
- Training materials and guidelines on RS/GIS data archiving and management.

Activity 2.2*: Establish a harmonized classification system for land representation*

This activity involves setting the National Forest Definition and classification for land representation. It is important to have an appropriate national definition of forest and land representation system allowing for effective and sustainable monitoring tools for forest resources. Under the UNFCCC, forest definitions are provided based on biophysical thresholds. The forest thresholds will need to be within the thresholds identified by the UNFCCC. The forest classification systems will need to account for measuring and monitoring REDD+ activities.

Under this activity, the following sub-activities will be implemented:

(1.) Collect existing land cover and land use maps of Mongolia and identify the different forest and other land use definitions and criteria used to develop the maps;
(2.) Organize consultations on forest classification, including a forest monitoring training workshop;
(3.) Assess the impact of different forest definitions on the feasibility, sustainability and efficiency of methods for forest monitoring;
(4.) Provide recommendations on forest classification and forest stratification; and
(5.) Develop a harmonized classification system of land use.

Expected outputs:

- Harmonized land use classification for mapping;
- Manual of the classification system; and
- Minutes of the national consultations.

Activity 2.3*: Satellite image characterization for forest monitoring*

The selection of the types of satellite imagery will depend on their quality, cloud cover, spatial, temporal and spectral resolution, as well as their cost. It is therefore necessary to decide the parameters to be used for collecting remote sensing data to accurately monitor forest cover change and provide information on some of the REDD+ safeguards. It is also important to decide on the use of correct levels of resolution, to accurately monitor forest degradation or enhancement of forest carbon stocks by way of distinguishing forest landscape feature changes or forest area changes.

Under this activity, the following sub-activities will be implemented:

(1.) Identify and organize all available satellite and/or aerial imageries for the country, e.g. by resolution, date, geographical coverage, etc.;
(2.) Assess the quality of these data in terms of spatial and temporal coverage, cloud cover, spatial and spectral resolution and image registration;
(3.) Analyze the impact of different spatial resolutions in identifying deforestation and forest degradation; and
(4.) Provide recommendations for the use of imagery for past and future forest cover assessments, forest stratification and monitoring of REDD+ activities.

Expected outputs:

- All existing satellite imagery for Mongolia identified;
- Standardized procedure for integrating medium- and high-resolution satellite data;

- Freely available satellite imageries archived and transparently available for the national entities involved in the NFMS; and
- Recommendations provided on satellite imagery to be used to monitor REDD+ activities.

Activity 2.4*: Establishment an RS/GIS Forest Information System and web-GIS platform*

Information and monitoring systems for the forest sector have become important tools for forest planning, monitoring and reporting. An RS/GIS Forest Information Systems will be developed to support decision makers as well as ensure transparency of forest data, including for REDD+. Development of the system will involve documentation at all levels, including of meta-data, development of a data dictionary and user manuals, and instructions for data storage, manipulation, retrieval and update.

Under this activity, the following sub-activities will be implemented:

(1.) Review, harmonize and standardize existing statistical and spatial data information related to the forest sector and identify additional information requirements;
(2.) Develop a database structure for the Forest Information System;
(3.) Review capacity building needs for the Forest Information System;
(4.) Develop a design for hosting a web-based GIS platform for database management;
(5.) Standardize existing GIS and RS data and integrate them into the system;
(6.) Develop training manuals for managing and maintaining the system; and
(7.) Develop technical documentation and deliver training on the system.

Expected outputs:

- Operational Forest Information System;
- Documentation of the system design, data flow, storage and retrieval models;
- Web-based GIS platform operational; and
- User manual.

Activity 2.5*: Develop and operationalise Mongolia's satellite land monitoring system*

A satellite land monitoring system (SLMS) will be a crucial element of Mongolia's NFMS, for the monitoring of REDD+ activities and for the generation of activity data.

Under this activity, the following sub-activities will be implemented:

(1.) Organize national consultations on SLMS development and identify and validate parameters for forest monitoring;
(2.) Develop Mongolia's forest base map (forest mask), to use as the basis for forest/REDD+ monitoring;
(3.) Develop an operational methodology for the monitoring forests (including staffing and logistical issues and costs);
(4.) Carry out field tests of the monitoring system for selected demonstration activities; and
(5.) Integrate lessons from field demonstration activities into the national system.

Expected outputs:

- Report of the consultations to identify the forest monitoring parameters and recommendations for Mongolia's SLMS;
- Nationally appropriate satellite land monitoring system developed and operationalised; and
- Results from demonstration sites integrated into the national SLMS.

Activity 2.6*: Development of participatory tools for community forest monitoring*

Given the importance of community monitoring in generating and delivering local data and ground-truthing national monitoring activities, activities will also be designed to support the assessment of integrating community monitoring into the NFMS.

Under this activity, the following sub-activities will be implemented:

(1.) Research on: (i) current community forest monitoring practices in Mongolia and (ii) community monitoring integration in other countries in SE Asia;
(2.) Socio-economic assessment of the potential involvement of forest communities in the NFMS;
(3.) Micro piloting forms of community forest monitoring;
(4.) Provide recommendations on the involvement of forest communities in the NFMS;
(5.) Stakeholder consultation and validation workshops to select an approach to community forest monitoring for REDD+; and
(6.) Selection of demonstration sites based on transparent criteria.

Expected outputs:

- Diagnostic of the roles, methods and costs of the involvement of the forest communities in the NFMS; and
- List of potential demonstration sites.

Activity 2.7*: Forest boundary delineation in the field and GIS boundary generation for demonstration activities*

Some of the risks involved in REDD+ implementation include the displacement of deforestation or forest degradation from the demonstration activities to other forest areas, leading to lower actual net carbon savings by the project. The entire demonstration area should be delineated to assure effective and accurate management and monitoring.

Under this activity, the following sub-activities will be implemented:

(1.) Collect forest / field maps / cadastral maps of forest boundaries;
(2.) Provide orientation and training for forest land survey using maps and GPS;
(3.) Execute a forest land survey with the coordination with multiple ministries and local stakeholders;
(4.) Develop a boundary demarcation plan by state (along with a budget); and
(5.) Identify the potential organizations involved in GIS database building for forest boundary digitization and contract for GIS data generation; and
(6.) Provide guidelines for GIS boundary generation.

Expected outputs:

- Forest boundary defined and mapped; and
- Training materials developed and delivered for forest delineation.

Output 3 - Multipurpose National Forest Carbon Inventory Designed

Capacity building will be delivered to relevant stakeholders to raise awareness of the role and function of a multipurpose NFI, learning from best practice from projects and other countries' experience. Parameters to be measured will be determined and a new NFI methodology will be proposed that will include a national sampling strategy and data collection protocols, following IPCC guidance and guidelines. A NFI database will be designed, according to the parameters to be measured, to facilitate storage, analysis and archiving of the data to be collected using the new methodology. The findings from studies undertaken by FRI to support this work area will inform both the data collection methodology and analysis protocols.

***Activity 3.1**: Strengthen forest inventory capacities among stakeholders*

A detailed assessment will be carried out of the technical capacities of stakeholders (on issues including field data collection, inventory plot layout, data recording and analysis, emission factor calculation, allometric equation calculation, etc.), on the basis of which an NFI capacity building programme will be designed to provide and upgrade knowledge, including international guidance on QA/QC procedures and the production of emission factors.

Under this activity, the following sub-activities will be implemented:

(1.) Define training needs for the stake holders and deliver training program on forest inventory (data collection, compilation, analysis etc.);
(2.) Organize training on NFI to the relevant stakeholders;
(3.) Develop NFI training manuals;
(4.) Develop NFI curriculum for the Forestry Department of the National University of Mongolia; and
(5.) Provide training on data processing, data management and statistical analysis.

Expected outputs:

- Report detailing national capacities to implement NFIs and assessing emission factors;
- Training materials and details of trained staff;
- NFI training and field manuals; and
- Report on NFI data processing, data management and statistical analysis.

***Activity 3.2**: Harmonize all existing inventory data and develop robust tree species and NFI databases*

In order to ensure the comparability of data collected and to improve the estimates of forest biomass and carbon stocks, existing data should be stored in a central tree species and forestry database and used to support the design of the new multipurpose NFI. Once the new NFI is designed, an accompanying database will be developed to input, analyse and archive NFI data once it has been collected.

Under this activity, the following sub-activities will be implemented:

(1.) Consultations held with the relevant stakeholders involved in forest inventory and measurement and collate all existing forest inventory data;
(2.) Tree species and forestry database developed based on open-source software;
(3.) All available existing inventory data and land cover maps collected and reviewed;
(4.) Robust geo-referenced database developed, preferably based on open-source software;
(5.) Populate the database with existing inventory data (including allometric equations, wood density and conversion factors, soil and litter carbon stock assessment, etc.);
(6.) Variability of the biomass and carbon stocks in the various forest types assessed; and
(7.) NFI database for inputting, analyzing and archiving NFI data developed, preferably based on open-source software.

Expected outputs:

- List of the stakeholders involved in forest inventory and measurement activities;
- Central database containing the available and harmonized tree species and forestry data;
- Statistical method for data harmonization and accuracy assessment; and
- Database for new multipurpose NFI.

***Activity 3.3**: Review existing inventory designs and provide recommendations for design of a new multipurpose NFI*

NFIs can deliver information on carbon as well as multiple other aspects of forests, including volume, biodiversity, forest condition and socio-economic aspects of forest resources. A comprehensive review of existing inventory designs is required to develop a multipurpose NFI that will generate emission factors for different forest types and conditions, as well as provide necessary information for the development of forest management plans. Mongolia's NFI will aim to identify all forest carbon pools (above-ground biomass, below-ground biomass, litter, soil and dead wood). An appropriate sampling design is necessary for the development of a cost-efficient NFI that provides data at the targeted accuracy.

Under this activity, the following sub-activities will be implemented:

(1.) Establish a technical working group on NFI and organize regular meetings;
(2.) Assess existing NFI designs in the country and region, including cost estimates to implement in Mongolia;
(3.) Identify the objectives of the multipurpose NFI, the targeted parameters to be assessed and variables to be measured;
(4.) Identify the capacity needs to implement a multipurpose NFI; and
(5.) Provide recommendations for the design of Mongolia's multipurpose NFI.

Expected outputs:

- Report on existing NFI designs, capacity needs and recommendations;
- Minutes of NFI meetings;
- List of parameters to be measured by the new multipurpose NFI; and
- Recommendations for the design of the new multipurpose NFI.

***Activity 3.4**: Design and pilot Mongolia's multipurpose National Forest Inventory*

The NFI design will incorporate IPCC guidance and guidelines to ensure that the outputs from the NFI will be in line with the UNFCCC reporting requirements and follow all necessary quality assurance and quality control measures. The NFI will be designed to provide the necessary data for the calibration of satellite data interpretation. This implies that methods for NFI and the satellite monitoring system will be consistent. In addition, consultations will be held to decide which other forest parameters Mongolia would like to collect information on, based on national circumstances.

Under this activity, the following sub-activities will be implemented:

(1.) Design the multi-purpose NFI based on recommendations from Activity 3.3 and validate with stakeholders;
(2.) Design and publish field data collection manuals, NFI Master Plan and work programme for implementation of the multipurpose NFI;
(3.) Purchase equipment for data collection for piloting NFI;
(4.) Carry out field training of the NFI methodology at demonstration sites and gather feedback;
(5.) Carry out NFI piloting and collate data in NFI database;
(6.) Incorporate lessons from piloting into the methodology;
(7.) Develop emission factors for REDD+-related activities based on preliminary data; and
(8.) Implement the multipurpose NFI across the country.

Expected outputs:

- Formal NFI technical working group established;
- Report on NFI planning process, including objectives and parameters to be measured, variability of the target variables, and cost estimates of different designs;
- NFI methodology including sampling strategy;
- Data collection field manuals, NFI Master Plan and implementation work programme;
- Results of field piloting; and
- Preliminary national emissions factors.

***Activity 3.5**: Implement Mongolia's multipurpose National Forest Inventory at national scale*

The objective of this activity is to complete the national implementation of the NFI.

Under this activity, the following sub-activities will be implemented:

(1.) Develop national NFI sampling strategy;
(2.) Purchase of all necessary equipment;
(3.) Training of all field crews; and
(4.) Full national implementation.

Expected outputs:

- NFI sampling strategy;
- Equipment purchased;
- Field crews trained; and
- Data collected at national level.

Output 4 - Capacity Built for Producing Accurate and Transparent GHG Inventories for the LULUCF Sector

Activity data and emissions factors estimated through the SLMS and NFI will be compiled, following international guidance, to produce Mongolia's GHG inventory for the LULUCF sector. Figure 10 summarizes the sequence of generic activities to develop and implement Mongolia's national GHG inventory for the LULUCF sector.

***Activity 4.1**: Technical capacity building for the GHG inventory for the LULUCF sector*

Mongolia has limited experience in developing national GHG inventories for the LULUCF sector. The objective of this activity is to provide preliminary training and identify the future training needs in order to prepare the inventory plan for data compilation and reporting with the aim of promoting the establishment of the national system.

Under this activity, the following sub-activities will be implemented:

(1.) Establish working group on GHG inventory for the LULUCF sector;
(2.) Training delivered on GHG inventory implementation for the LULUCF sector;
(3.) Training needs identified for inventory planning, data collection, data compilation, Quality Assurance/Quality Control (QA/QC) procedures, reporting, uncertainty estimation;
(4.) Mongolia-specific training manuals developed and training programme delivered, as necessary;
(5.) Technical support provided for use of GHG inventory software tools for data compilation and reporting;
(6.) QA/QC plans developed for data collection and compilation; and
(7.) Reporting manual designed.

Expected outputs:

- Government working group on GHG inventory for the LULUCF sector and associated reports/documentation from meetings;
- Government personnel trained in GHG inventory for LULUCF and able to undertake inventory activities independently; and
- Manuals, plans, designs of data collection, compilation and QA/QC procedures developed.

***Activity 4.2**: Develop a central GHG database and archiving system*

An archiving system is essential for the preparation of the national inventory reports. No common archive system currently exists for GHG data management in Mongolia. A common archiving procedure will be developed in order to secure the REDD+ data related to monitoring and MRV as well as information on some of the REDD+ safeguards. The archiving system will be used by the relevant institutions and the documents and data will be shared in order to ensure that the activities are implemented in a timely manner. The archiving system will host a central database whose structure will allow effective, efficient and transparent QA/QC procedures.

Under this activity, the following sub-activities will be implemented:

(1.) Assess existing database management, archiving and sharing mechanisms in place;
(2.) Develop design of a specialized database structure;
(3.) Standardize existing data and integrate in a specialized data structure;
(4.) Design a web-based platform for sharing the data;
(5.) Procure necessary equipment to establish servers;
(6.) Establish servers;
(7.) Identify training needs and deliver training programmes for the operation and maintenance of the archiving system;
(8.) Develop necessary training manuals; and
(9.) Provide training to operationalize the system.

Expected outputs:

- Report on the assessment of the existing data and needs for GHG inventory server;
- List of the necessary equipment for the relevant entities;
- Web-based data sharing and archiving system for data sharing;
- Technical staff trained to operationalize the system; and
- Transparency of national system ensured.

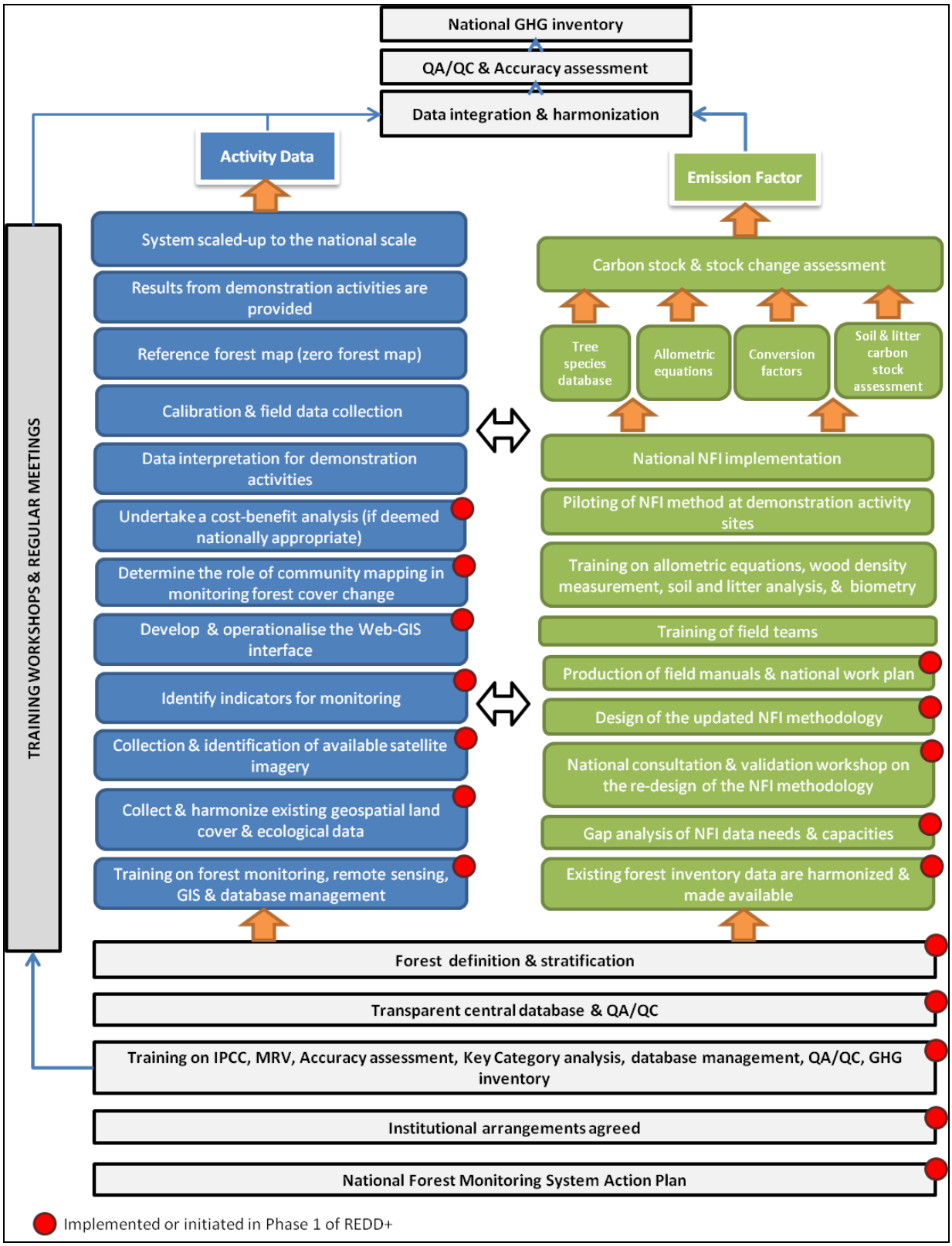

Figure 9: Indicative Activities Marking Progress Towards Generating Mongolia's National GHG Inventory for the LULUCF Sector

Output 5 – NFMS-related research supported

Following initial awareness raising and capacity building on REDD+, internal and external consultations and discussions will be undertaken by the Forest Department and FRI into potential new research areas to support the implementation of REDD+ in Mongolia, and in particular the multipurpose NFI.

***Activity 5.1**: Support NFMS-related research and dissemination of findings*

Research areas may include, for example, studies on allometric equations, wood density, biodiversity, and indigenous knowledge and use of forest land. In particular, specific allometric equations to assess the total volume of biomass would be particularly useful for the NFI (and assessment of emission factors). The assessment of forest resources needs to be carried out together with an assessment of the indigenous knowledge and use of the forest land as these two elements will be crucial to define policies for sustainable forest management.

Under this activity, the following sub-activities will be implemented:

(1.) Identification of specific studies related to the multipurpose NFI (e.g. allometric equations, wood density, biodiversity, indigenous knowledge);
(2.) Gathering of existing research activities and findings related to REDD+/NFMS;
(3.) Implementation of studies on forest and tree characterization;
(4.) Publishing of study reports and scientific papers based on findings;
(5.) Provision of internships for university students to support specific studies on forest and tree characterization; and
(6.) Organization of technical and scientific workshops/seminars in Mongolia involving national and international researchers and university students.

Expected outputs:

- Report on the scope of potential studies to support NFMS development in Mongolia;
- NFMS-related studies completed;
- Specific allometric equations and emission factors;
- Results disseminated through published reports and articles in peer-reviewed journals;
- Minutes of workshops/seminars on NFMS-related research; and
- Trained university interns.

Summary Workplan for Component 4a

OUTCOME 4a: National forest monitoring system and safeguards information system developed	
Output 4a.1: Capacity Building and National forest monitoring system Action Plan Development	Activity 4a.1.1. Organize NFMS work and regular Working Group meetings Activity 4a.1.2. Formalize institutional arrangements for the implementation and management of the NFMS Activity 4a.1.3. Develop Mongolia's NFMS Action Plan
Output 4a.2: Satellite land monitoring system (SLMS)	Activity 4a.2.1. Capacity building on geospatial data processing and database management Activity 4a.2.2. Establish a harmonized classification system for land

established	representation Activity 4a.2.3. Satellite image characterization for forest monitoring Activity 4a.2.4. Establishment an RS/GIS Forest Information System and web-GIS platform Activity 4a.2.5. Develop and operationalise Mongolia's satellite land monitoring system Activity 4a.2.6. Development of participatory tools for community forest monitoring Activity 4a.2.7. Forest boundary delineation in the field and GIS boundary generation for demonstration activities
Output 4a.3: Multipurpose national forest carbon inventory (NFI) designed	Activity 4a.3.1. Strengthen forest inventory capacities among stakeholders Activity 4a.3.2. Harmonize all existing inventory data and develop robust tree species and NFI databases Activity 4a.3.3. Review existing inventory designs and provide recommendations for design of a new multipurpose NFI Activity 4a.3.4. Design and pilot Mongolia's multipurpose National Forest Inventory Activity 4a.3.5. Implement Mongolia's multipurpose National Forest Inventory at national scale
Output 4a.4: Capacity built for producing accurate and transparent GHG inventories for the LULUCF sector	Activity 4a.4.1. Technical capacity building for the GHG inventory for the LULUCF sector Activity 4a.4.2. Develop a central GHG database and archiving system
Output 4a.5: NFMS-related research supported	Activity 4a.5.1. Support NFMS-related research and dissemination of findings

Component 4b: Designing an Information System for Safeguards, Multiple Benefits, Other Impacts and Governance

Box 4-3: The Cancun *COP Decision 1/CP.16*: Reporting on Safeguards

Par. 71 calls for: *"(d) A system for providing information on how the safeguards referred to in appendix I to this decision are being addressed and respected throughout the implementation of the activities referred to in paragraph 70…"*

Appendix I Guidance and safeguards…:

… "2. When undertaking the activities referred to in paragraph 70 of this decision, the following safeguards should be promoted and supported: …

(a) That actions complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements;

(b) Transparent and effective national forest governance structures, taking into account national legislation and sovereignty;

(c) Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples;

(d) The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities, in the actions referred to in paragraphs 70 and 72 of this decision;

(e) That actions are consistent with the conservation of natural forests and biological diversity, ensuring that the actions referred to in paragraph 70 of this decision are not used for the conversion of natural forests, but are instead used to incentivize the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits;

(f) Actions to address the risks of reversals;

(g) Actions to reduce displacement of emissions.

Source: http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf

Standard 4b the R-PP text needs to meet for this component: Designing an Information System for Multiple Benefits, Other Impacts, Governance, and Safeguards:

The R-PP provides a proposal for the initial design and a workplan, including early ideas on capability (either within an integrated system, or in coordinated activities) for an integrated monitoring system that includes addressing other multiple benefits, impacts, and governance. Such benefits may include, rural livelihoods enhancement, conservation of biodiversity, and/or key governance factors directly pertinent to REDD-plus implementation in the country.

(The FCPF and UN-REDD recognize that key international policy decisions may affect this component, so a staged approach may be useful. The R-PP states what early activities are proposed.)

This section introduces co-benefits and safeguards, and the importance of monitoring them. It then proposes a selection of co-benefits to be measured. It discusses these priority co-benefits and potential approaches to monitoring them. It then defines the Objective, outputs and activities under this Component.

Background

Forests provide a number of ecosystem services and functions. When REDD+ activities are implemented to prevent the loss or degradation of forest, in addition to protecting or enhancing carbon stocks, they can generate non-carbon benefits in addition to climate change mitigation effects. These can be:

- Ecosystem-based benefits: such as conservation of forest biodiversity, water regulation, watershed management, providing forest foods, soil conservation and providing non-timber forest products; and
- Socio-economic benefits: including the diversification of livelihoods, increased productivity, employment, increased income, food security and reduction of poverty.

REDD+ can also help secure benefits such as use rights/ownership of land resources and services, improved participation in decision-making (including by women), improvement of governance in the forest sector, and cross-sector coordination to address emissions resulting from land use changes[91].

The types, mixture and scale of non-carbon-benefits vary between approaches and locations. Various factors can also affect the extent to which these benefits are delivered: the type, location and condition of the forests involved; the type of REDD+ activity implemented, and the level of dependence of the local population on forest resources.

However, implementation of REDD+ activities can also lead to negative impacts on some members of the population or some aspects of the environment. Notably, in Mongolia, valid concerns have been raised regarding the potential harmful effects to ecosystems from the implementation of REDD+ activities. In response to these social and environmental risks, a series of safeguards have been developed to ensure that REDD+ activities do not produce negative impacts, as well as enhance benefits (see component 2c).

In order to be eligible for results-based payments under the Warsaw Framework, countries are required to provide information on the safeguard systems (SIS – Safeguard Information System). Although there are clear synergies and relationships between forest monitoring systems and SIS, gaps do exist, and it may be necessary to collect and process additional information regarding co-benefits and potential harm through the implementation of REDD+ activities. With careful planning and use of existing monitoring systems and data, cost-effective solutions can be devised (FAO/UNDP/UNEP, 2010).

Priority Non-Carbon Benefits (NCB) in Mongolia

Each country can select the co-benefits that it aims to bring about through the implementation of REDD+. National REDD+ strategies should consider non-carbon benefits (NCB). In many cases, NCB will reinforce the achievement of carbon benefits and multiply the contribution of REDD+ to national development goals. A system to track non-carbon changes can therefore be beneficial.

In the context of Mongolia, priority NCBs (which will be verified during the development of the National REDD+ Strategy) might include: improved watershed functions; conservation of forest biodiversity; and improved rural livelihoods and improved forest governance. These are discussed in turn below.

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[91] FAO/UNDP/UNEP, 2010. *Perspectives on REDD*

Improving Watershed Functions

Mongolia's freshwater resources are declining at an alarming rate. An audit in 2007 indicated that of its 5,000 rivers, 852 have dried up; of 9,300 springs, 2,277 have gone dry; and of nearly 2,800 salt marshes and lakes, 1,181 have gone dry (MEGD, 2010a). This loss is caused by climate change, deforestation and water extraction for industrial uses such as mining. Mongolia will seek to design its National REDD+ Strategy to deliver and monitor the additional benefit of protecting its watersheds. Indictors and monitoring mechanisms will be developed through the implementation of the REDD+ Readiness Roadmap.

Conservation of Forest Biodiversity

Mongolia's boreal forests form part of the transitional zone between the Siberian taiga forest (boreal forest) to the north and the grasslands to the south and are globally significant in terms of biodiversity. These forests contain more than 600 species of medicinal herbs, and about 400 species of food and other herbs. Floral diversity is significant both in the forest under-storey and adjacent grasslands, including threatened species such as lady's slipper orchids as well as wild peonies, anemones, globe flowers and carpets of iris. Mongolia has ratified the Convention on Biodiversity (1992) and is committed to biodiversity protection.

The main threats to forest biodiversity in Mongolia are: fires; pasture degradation and desertification; hunting and wildlife trade; industrial scale and artisanal mining; climate change and water shortages; animal disease and disease management; deforestation and crop agriculture (Jacob, 2011).

Box 20: Key Documents on Biodiversity and Protected Areas in Mongolia

- Chimed-Ochir, et al. (2010), *Filling the Gaps to Protect the Biodiversity of Mongolia*, WWF-Mongolia.
- Jacob, A., *et al.* (2011), *Mongolia's Biodiversity: Status, Threats, and Recommendations for Conservation*, USAID.
- MNET (2010b), *Mongolia's Fourth National Report on the Implementation of the Convention on Biodiversity*.
- National Biodiversity Action Plan for the Convention on Biological Diversity.
- Mongolian Red Lists (Mammals, Reptiles, Amphibians, and Fishes; Birds and Plants - pending).

In 2010, WWF-Mongolia carried out a comprehensive nationwide gap analysis of biodiversity. Threatened and endangered species of plants and animals are listed in the Mongolian Red Lists, developed by the Zoological Society of London. The IUCN Red List contains a regional assessment of the conservation status of each species that describes their degree of threat, with Conservation Action Plans for each. Rare and endangered species found in northern boreal forests in Mongolia include: the snow leopard; argali; ibex; reindeer; moose; wolverine; red deer; and wild boar[92].

The National REDD+ Taskforce will take into account the results of the extensive studies that have already been conducted on biodiversity and will seek to integrate biodiversity concerns into National REDD+ Strategy (e.g. by prioritising forest conservation and/or restoration activities in important habitat areas) so as to maximise the biodiversity co-benefits of REDD+.

[92]Batsaikhan *et al.*, 2010. *A Field Guide to the Mammals of Mongolia*, Zoological Society of London.

FAO, with funding from GEF, will start the implementation of the Project, *Mainstreaming biodiversity conservation, SFM and carbon sink enhancement into Mongolia's productive forest landscapes*, in 2014. Working with FUGs, this project will develop SFM in Mongolia that supports REDD+ objectives and conserves biodiversity. It will also help develop associated indictors and monitoring mechanisms.

Improved Rural Livelihoods

The NDS identifies poverty reduction and the need to develop livelihood capacities as a key development objective. REDD+ can contribute to this in several ways:

- The REDD+ Positive Incentive Distribution Plan will ensure that there is a focus on improving rural livelihoods;
- Improving access to, and supply of, fuel wood in rural areas – of critical importance during the harsh winter period;
- Improving access to, and supply of, non-timber forest products (such as pine nuts and mushrooms); and
- Through greater integration of gender considerations and women's perspectives in all relevant REDD+ policies and practices, it is hoped that some improvement in the status of women will be achieved.

One possibility will be to link REDD+ with ongoing livelihood improvement initiatives (see for example Box 21). Indictors and monitoring mechanisms will also be developed.

Box 21: Sustainable Livelihood Project - II (2008 - 2012)

Mongolia's Positive Incentive Distribution Plan will seek to incorporate the lessons learned from the second stage of the Sustainable Livelihoods Project – II that was implemented in Ulaanbaatar and in all *aimags* from 2008-2012. This was a joint project between the Government of Mongolia and the World Bank.

Its overall objective was to address community needs and participation based institutional mechanisms by improving health, education and infrastructure development, enhance quality and accessibility of social services, ability of herding communities to overcome natural risks and enhancing microloans in remote areas.

Source: Mongolian Statistical Yearbook 2010: 312.

Improved Forest Governance and other Impacts

Transparency and corruption

The NDS identifies a number of development weaknesses in Mongolia, one of which is: "Lengthy procedures of issuing special permits, widespread corruption and red tape, weak capacity of civil service". Moreover, a recent Country Survey by the World Bank found that stakeholders in Mongolia consider governance and government effectiveness to be the key development priority in the country (World Bank, 2011).

Corruption has been identified as a problem in the forestry sector in Mongolia, with all institutions relating to forestry, including forest sector authorities, police and inspectors (World Bank, 2006a). Examples of

corrupt behaviour include: bribery of officials to issue permits, collusion and sharing of profits with government officials, and buying licences on the black market.

Mongolia has taken significant steps in the past few years to address corruption. This includes adopting an Anti-Corruption Law, establishing an Independent Commission Against Corruption, and the adoption of a new law in 2012 on Preventing Conflict of Interest in Public Service. This latter creates a new standard for regulating the activities of public officials that have private interests that may conflict with their public duties. Mongolia is also actively engaged with the FLEGT process (see Box 22).

Box 22: Mongolia and FLEGT

Since 2008, Mongolia has participated in the European Union's Forest Law Enforcement, Governance and Trade (FLEGT) programme, with the assistance of GIZ.

The FLEGT process is being guided by a National Taskforce, the membership of which was reformulated by government resolution on 14 July 2010. The Taskforce now has nine members who include the Chairman of General Agency for Specialized Inspection, DFCRM, SPAA, the Independent Commission Against Corruption and MIA.

Early experience with the FLEGT Taskforce indicates that middle-level government representation on the National REDD+ Taskforce may be more appropriate than high-level representation (e.g. ministerial level) in order to secure the time and commitment of Taskforce members required for meetings.

Source: pers. comm. Director, Forestry Agency (2012)

The National REDD+ Strategy will be designed to help address the above governance challenges, building on initiatives such as FLEGT. Changes in forest governance will be monitored through the Safeguards Information System, using a system of indicators. The process will be subject to extensive consultations with stakeholders in Mongolia.

Coordination

The existing legal and regulatory framework relating to forests that provides one basis for governance in relation to REDD+ is described in Component 2a. Responsibility for implementing and monitoring these laws and regulations is spread across a large number of Ministries, Departments and other government agencies. The major governance issue that impacts REDD+ is the implementation of policy relating to land tenure and rights to the use of land and related resources (see component 2a). It will be crucial for successful REDD+ implementation to ensure clear institutional roles and responsibilities, especially between agencies responsible for forests and those responsible for land use planning, local development, agriculture, energy, infrastructure and land tenure/use rights. Effective coordination between the relevant institutions across sectors and institutional capacity to implement decisions will need to be investigated and strengthened where necessary and transparency of systems for the management of budgets and financial flows will need to be improved.

Participation

Another key aspect of governance is the effective participation of all stakeholders. Participation needs to be broad and genuine, in particular ensuring that space is provided for vulnerable and marginalized groups to actively participate and play key roles in REDD+ related decision-making processes. Transparency of and access to information, and the provision of information in a timely manner, are important to ensure effective participation. This is addressed under Components 1a and 1c – it will be monitored under this Component.

Monitoring Governance

Improved governance will contribute to the overall benefits resulting from the implementation of REDD+ activities, especially through addressing land-tenure/use rights, which will both help to resolve questions of land ownership, and provide the basis for a concerted effort to improve livelihoods of rural communities, which will contribute to the broad aims of REDD+. Pilot projects to undertake participatory delineation and demarcation of the external boundaries of selected protected and reserved forest will be required to produce both progress reports of implementation of the boundary work (see component 4a), and follow-up annual reports on the effectiveness of the new boundaries. Monitoring governance will require the cooperation of a broad range of government departments in sharing information on relevant achievements. Monitoring of compliance with land use plans and other development plans will be necessary to put in place measures and indicators to monitor governance.

This monitoring will be piloted at demonstration sites and in addition to the reporting by relevant government departments, local stakeholder beneficiaries will be identified and requested to submit independent compliance reports.

A NCB Monitoring System

Mongolia is considering voluntarily monitoring NCB related to its REDD+ activities. At the beginning of the Readiness phase a workshop with all relevant agencies and invited specialists concerned with NCB will be convened. This workshop will aim to record in detail the precise parameters being measured by each agency, together with important statistical characteristics including the frequency and intensity of sampling and locations for site-specific sampling such as river flow. The indicators to be used for monitoring the various benefits will be identified, as will any gaps that may exist in current monitoring arrangements using any guidelines produced by UNFCCC. Information on the format in which the data is recorded will be assembled together with the quantity of data generated annually for each of the indicators identified. In view of the number of agencies that will need to be involved and the extent and complexity of the current monitoring arrangements, more than one workshop is likely to be required, but the aim will be to complete the first step within 6 months. The results of the workshop(s) will be publicized for further stakeholder inputs.

Having assembled information on the parameters monitored and the quantity, quality and format of the data the TWG REL/RL and the national forest monitoring system will assess and recommend how the data will be integrated into a Safeguards Information System and the NFMS. It is expected that this step will be completed in year two of Roadmap implementation. This will be followed by consultations with relevant agencies that will be required to monitor aspects of implementation and discussions on procedures for sharing data. At the same time, arrangements for relevant stakeholders to contribute to the monitoring will be discussed, agreed and approved.

Monitoring of NCBs will be an integral part of the monitoring system piloted at the selected demonstration sites. Results of the monitoring will be fed back to decision-makers to inform the refining of methodologies, as appropriate. This will be in addition to meeting the key requirements clarified through the UNFCCC Warsaw Framework in order for Mongolia to receive results-based payments.

The role of Stakeholders in the NCB Monitoring System

The roles of local communities, NGOs, government agencies and the private sector will need to be determined in detail during the design stage of each of the demonstration activities. Voluntary participation will be critical, following the principles of FPIC outlined in 1c. The scope for community monitoring of forests may also be extended to include community monitoring of biodiversity and water quality. Successful low-cost community monitoring of stream flow and water quality has been developed in other countries and similar methods based in international experience will be piloted in Mongolia.

The cooperation and participation of the government agencies that have a mandate to monitor relevant social and environmental parameters will be sought and their roles and responsibilities agreed. The roles and responsibilities of private sector actors will also be clarified and discussions will be held with them regarding their current arrangements and experiences with monitoring the performance of their initiatives.

Monitoring Systems and Indicators

The overall aim is to have a unified monitoring and information system that covers changes in forest cover as well as NCBs and compliance with safeguards. The forest monitoring system and GIS interface that will be developed as part of the NFMS described under Component 4a will therefore provide information on NCBs and safeguards.

The information submitted by communities will be checked by the operators of the national system to ensure consistency, and re-assessment will be requested where data appears anomalous. Checked data and information will then be posted on the NFMS's web-GIS portal to facilitate accessibility and sharing of data both nationally and internationally.

Preliminary potential indicators to monitor REDD+ multiple co-benefits are listed in Table 13.

Table 13: Potential Indicators to Monitor REDD+ Multiple Co-benefits

Parameters to be monitored	Potential Indicators
Policy and governance	• Development of relevant policies, regulations and procedures for REDD+ implementation; • Information in the public domain; • Number of conflicts over the use of resources; • A number and types of actors involved; • Change in capacity and subjectivity of actors; and • Law enforcement
Alignment of development plans	• Area of forest under sustainable management; • Area and number of people engaged in sustainable grazing practices; • Forest area planted and species; • Enforcement of EIA and land use plans; and • REDD+ in district development plans;
Biodiversity	• Endemic species – losses and gains;

	• Degraded forest areas rehabilitated; • Identification of key species that characterize ecosystem health; • Protected areas: establishment of new ones and levels of encroachment of existing ones;
Poverty	• Food security; • Employment: gains or losses related to REDD+ activities; • Natural resources use rights; • Income: gains or losses; • Technologies made available and accessible; • Access to education and health; and • Gender equity;
Environmental	• Burnt forest area: number, extent and location; and • Water regulation and provision linked to forests
Social	• Conflict; • Gender and changes in decision making as a result of REDD+ activities; and • Local level institutions and decision making;
Private sector	• Forest certification; and • CSR linked to promoting/implementing REDD+ activities.

Monitoring Capacity and Future Capacities Required

Discussions will take place with the various government agencies to evaluate the existing facilities and capacity for monitoring co-benefits during the implementation of demonstration activities. The roles and responsibilities of participating departments and national institutions, for the selection of indicators and the design and implementation of both the indicators and the compliance with social and environmental safeguards will need to be negotiated during the first year of Roadmap implementation. The need for capacity building, training and additional hardware and software will be assessed and a plan drawn up for implementation of the identified actions.

Sub-National Level Monitoring

Monitoring of co-benefits will be conducted at the sub-national level as required (e.g., a province or a region) as part of the NFMS and integrating monitoring of co-benefits will be considered as part of the NFMS-related research proposed in Component 4a.

Safeguards Information System

In order to ensure that the implementation of REDD+ activities in Mongolia is consistent with the UNFCCC requirements for receiving results-based payments, a Safeguards Information System will be designed. The design will be based on a participatory approach.

Objectives of this Component

The UNFCCC COP Decision in Durban (Dec. 12/CP.17, para. 2) requires REDD+ countries to provide information on how all of the safeguards referred to in Appendix 1 to the Cancun Agreements will and are being addressed and respected in relation to a country's REDD+ activities. The objective of this Component is to ensure Mongolia meets REDD+ information and reporting requirements on safeguards. In doing so, this Component will help ensure that Mongolia complies with addressing and respecting the REDD+ safeguards, and ensuring that Mongolia monitors NCB benefits from REDD+ in an optimal manner.

Component 2c sets out the process for developing a REDD+ Social and Environmental Safeguard Policy Framework in Mongolia. This Component relates to the SIS information, and also the NCB monitoring system benefits.

The Safeguard Information System will complement and be consistent withinto the national forest monitoring system developed under component 4a.

Outputs and Activities

Mongolia will use the following process to design and set up its information system for safeguards, multiple-benefits and governance:

(1.) Develop a full list of the potential social, environmental and other co-benefits. Study the potential benefits. Prioritise amongst this list for co-benefits to be monitored;
(2.) Develop a full list of potential social, ecological or governance impacts that should be covered by the Safeguards. Most of this work will be done through the preparation of Mongolia's National REDD+ Social and Environmental Safeguard Policy Framework (see Component 2c above) that is based on (but may go beyond) the minimum standards for safeguards established under the Cancun Agreements (Dec. 1/CP. 16);
(3.) Identify and assess related in-country national and international initiatives related to governance, and other REDD+ safeguards, such as FLEGT;
(4.) Establish baselines and indicators for each (i) all co-benefits to be monitored and (ii) all safeguards. Baselines and indicators on the National REDD+ Safeguards may have been established in Component 2c. This might include conducting a Social and Environmental Risk Assessment and/or undertaking a participatory forest governance assessment based on UNDP's Participatory Governance Assessment framework (see Box 23)[93].
(5.) Develop a system to monitor changes in the selected elements, including a Safeguard Information System that ensures that all results are made publicly available. Building on its national forest monitoring system (Component 4a), Mongolia's Safeguard Information System will be developed to provide publically available information on the status and progress on the REDD+ Safeguards, and on how they are being addressed and respected.
(6.) Consult stakeholders and validate the resulting proposals and policy implications.

Box 23: Participatory Governance Assessments and REDD+

Mongolia will consider undertaking a Participatory Governance Assessment to assist it to develop a clear and mutually acceptable basis for how the Safeguards will be monitored and reported.

Participatory Governance Assessments under the UN-REDD Programme involve a four-step process:

1. Bringing together relevant stakeholders (such as government officials, civil society representatives, indigenous peoples/local forest community, and academics);
2. Reaching agreement on the recommendations for improvements, targets and indicators that will be measured (e.g. human rights, anti-corruption, forest law enforcement, transparency on REDD+ funding, land tenure issues, etc.), how they will be measured and by whom (e.g. State Specialized Inspection Agency, National Human Rights Commission, Independent Commission Against Corruption, Auditor's Office, National Statistics Office, etc); and
3. On-going analysis of the results and recommendations for policy reform to the national REDD+

[93] If selected, this process will be undertaken in accordance with the UN-REDD Programme's, Participatory Governance Assessments for REDD+: Planning document 2011-2015, dated 25 August 2011.

programme and communication of results to stakeholders; and

4. The use of governance data and regular updates of the governance data building on the already agreed governance issues, indicators and methods.

In addition to the above steps, the policy brief by the UN-REDD Programme, *Putting REDD+ Safeguards and Safeguard Information Systems into Practice*, may provide useful guidance on how to approach the development of nationally-appropriate safeguards and what tools may be available to assist with each step along the way.

The TWG on REDD+ Governance, Policies and Measures will have primary responsibility for this work. Open and transparent participation by all stakeholders in the development and implementation of the SIS will be of key importance in this process.

Indicative work plan for Component 4b

OUTCOME4: Systems for national forest monitoring and Information on safeguards provided		
Output 4b: **Information systems for measuring multiple-benefits, other impacts, governance and safeguards established**	Activity4b.1.	Develop a full list of the potential social, environmental and other co-benefits. Study the potential benefits. Prioritise amongst this list for co-benefits to be monitored;
	Activity4b.2.	Finalize the list of social, ecological or governance impacts that should be covered by the Safeguards
	Activity4b.3.	Identify and assess related in-country national and international initiatives related to governance, and other REDD+ safeguards, such as FLEGT;
	Activity4b.4.	Establish baselines and indicators for each (i) all co-benefits to be monitored and (ii) all safeguards
	Activity4b.5.	Develop a system to monitor changes in the selected elements and to share information – the Safeguard Information System (SIS).
	Activity4b.6.	Consult stakeholders and validate the resulting proposals and policy implications.

Component 5: Results Framework

This Work Programme identifies the activities required to complete Phase 1 of REDD+. This will bring Mongolia to a point where it can commence Phase 2. Further stakeholder consultation on the contents of this Roadmap may lead to changes in the proposed outcomes, outputs and activities.

Overall Objective: By the end of this Work Programme, Mongolia will have established its REDD+ management processes, completed its National REDD+ Strategy, and developed the capacities required to begin implementation of REDD+ (Phase 2). It is proposed that this work be linked to the delivery of Mongolia's Nationally Appropriate Mitigation Actions (NAMAs) in order to facilitate coordination and reporting through the UNFCCC framework.

Summary Budgets

Table 14 summarizes the budget and the sources of finance. Table 15 provides additional information on the sources of finance. Table 16 provides more detailed information on the costs of activities, outputs, outcomes and components.

Table 14: Summary of Estimated Budget over Three Years

Budget ($US)						
Component	Totalcost	Internally Secured Funding	External Funding			Funding Gap
			UN-REDD	GIZ	UN-REDD TS & GEF	
1. National REDD+ management arrangements established; improved stakeholder consultation and engagement	1,790,000	400,000	1,160,000	5,500	100,000	124,500
2. National REDD+ Strategy prepared, with implementation framework and demonstration activities	2,800,000	330,000	1,100,000	20,650	900,000	449,350
3. Reference emission levels and reference levels developed	1,100,000	200,000	600,000	0	20,000	300,000
4. National forest monitoring system and safeguards information system developed	4,050,000	1,070,000	875,000	1018800	80,000	986,200
TOTALS	**9,740,000**	**2,000,000**	**(3,735,000)** 3,996,450[94]	**1,044,950**	**1,100,000**	**1,860,050**

[94] This figure includes the 7% indirect support cost of the UN-REDD Programme.

Table 15: Co-financing to the Implementation of the Mongolia National REDD+ Roadmap

Organization/Activity	Activity	Amount (USD)
Government of Mongolia	All around support to all components and activities. This includes both in-kind support and cash support.	2 million
UN-REDD National Programme	Support to the implementation of the REDD+ Readiness Roadmap	3,74[95] million (TBC)
GIZ	Support to the preparation of a REDD+ Compatible Forest Inventory. This support is to Component 4, and mostly to Output 4.a.3	1.04 million
UNDP (UN-REDD TS)	Targeted support to key activities under Components 1 and 2, as determined jointly with government.	0.1 million
FAO (UN-REDD TS)	Targeted support to key activities under Components 3 and 4, as determined jointly with government.	0.1 million
UNEP (UN-REDD TS)	Targeted support to key activities under Components 3 and 4, as determined jointly with government.	0.1 million
FAO/GEF "*Mainstreaming biodiversity conservation, SFM and carbon sink enhancement into Mongolia's productive forest landscapes*"	This project will pilot REDD+ at the local level. This will most notably contribute to: awareness raising; developing positive incentive distribution mechanisms; and developing participatory forest monitoring.	0.9 million
Total		7.98 million

[95] This figure does not include the 7% indirect support cost of the UN-REDD Programme.

Results Framework and Three-year Budget

The activities and Sub-Activities required to achieve the objective of REDD+ readiness are set out in Table 15. These activities take place over a period of three years.

In designing this budget, the following special circumstances for Mongolia were taken into consideration:

- Due to the vast distances involved, and the remote location of Mongolia itself, the cost of travel to and within Mongolia is likely to be higher than other countries.
- Engaging international experts to support the REDD+ readiness process is likely to be more expensive than for other parts of Asia as there are relatively few international experts already living and working in the country.

Table 16: Summary Activity Framework and Budget

OUTPUTS	ACTIVITY No.	ACTIVITIES	YR 1 Budget (USD)	YR 2 Budget (USD)	YR 3 Budget (USD)	TOTAL BUDGET (USD)
OUTCOME 1a: NATIONAL REDD+ MANAGEMENT ARRANGEMENTS ESTABLISHED						
Output 1a.1 **Establish a broad-based, multi-stakeholder National REDD+ Taskforce** Note: The budget estimates for the Taskforce reflect both activity costs and capacity building costs for members of the Taskforce to enable them to lead the REDD+ process.	1a.1.1	Conduct detailed institutional mapping for REDD+, including sub-national level (Forest Units, etc)	40000	40000	40000	**120000**
	1a.1.2	Review operation of current Taskforce and identify any changes required (e.g. to functions, mandate and membership)				
	1a.1.3	Prepare draft terms of reference for the Taskforce and Technical Working Groups, including membership list				
	1a.1.4	Undertake capacity assessment for members of taskforce and TWGs				
	1a.1.5	Hold national level workshop to consult and validate proposal				
	1a.1.6	Establish permanent National REDD+ Taskforce (and National REDD+ Programme Unit) by ministerial decree				
Output 1a.2 Establish National REDD+ Programme Unit Note: These budget estimates reflect costs for specified	1a.2.1	Review options for establishing and locating National REDD+ Programme Unit (e.g. where can it be best placed to ensure broad-based, cross-sectoral engagement?)	150,000	200,000	200,000	**550000**
	1a.2.2	Prepare ToR for the National REDD+ Programme Unit				
	1a.2.3	Recruit Unit Staff				

OUTPUTS	ACTIVITY No.	ACTIVITIES	YR 1 Budget (USD)	YR 2 Budget (USD)	YR 3 Budget (USD)	TOTAL BUDGET (USD)
activities and annual operating costs for the National REDD+ Programme Unit.	1a.2.4	Establish links between Unit and Prime Minister's Office, Cabinet, MEGD, CCCO, etc.				
	1a.2.5	Identify capacity development needs of National REDD+ Programme Unit and develop and implement a capacity development plan				
Output 1a.3 **Establish CSO/LC Forum** Note: These budget estimates reflect costs for specified activities and capacity-building activities for CSO/LC Forum.	1a.3.1	Conduct detailed stakeholder mapping of non-government sector	50000	100000	100000	**250000**
	1a.3.2	Prepare proposal for structure, membership and ToR of CSO/LC Forum, and any sub-fora (e.g. FUGs, IPs, private sector, women's groups, etc.), and undertake initial capacity assessment)				
	1a.3.3	Consult and validate proposal at national level workshop				
	1a.3.4	Support self-organization and independent management of the Forum				
	1a.3.5	Provide facilitation support to organize regular meetings and carry out capacity building				
Sub-total Outcome 1a			260000	360000	360000	**920000**
OUTCOME 1c: IMPROVED STAKEHOLDER AWARENESS AND EFFECTIVE STAKEHOLDER ENGAGEMENT						
Output 1c.1 **Public Awareness Raised**	1c.1.1	Develop and implement national public awareness-raising strategy on REDD+	100000	100000	100000	**300000**
	1c.1.2	Identify the role of television, internet, radio programmes and printed materials and the use of appropriate languages				
	1c.1.3	Develop an awareness raising plan, with details of target audience, indicators of success, communication media, costs and responsible parties.				
Output 1c.2 **Consultation and Participation Plan**	1c.2.1	Identify target stakeholder groups and appropriate communication methods, materials, targets and media for each group	40000	40000	40000	**120000**
	1c.2.2	Review communication processes for CSO/LC Forum				
	1c.2.3	Establish guideline for creating sub-national stakeholder forums				
	1c.2.4	Prepare draft Consultation and Participation Plan, including full details of audience, communication tools, responsible parties, targets, etc)				
	1c.2.5	Organize regular meetings and workshops with stakeholders for communication and capacity-building				

OUTPUTS	ACTIVITY No.	ACTIVITIES	YR 1 Budget (USD)	YR 2 Budget (USD)	YR 3 Budget (USD)	TOTAL BUDGET (USD)
Output 1c.3 National FPIC Guidelines	1c.3.1	Conduct study of international and national law obligations, traditional and statutory decision-making and consent processes for forest communities for natural resource management	100,000	100,000	100000	**300,000**
	1c.3.2	Prepare draft National FPIC Guidelines				
	1c.3.3	Conduct field-testing of draft Guidelines at a pilot site				
	1c.3.4	Independently evaluate the field test				
	1c.3.5	Amend the draft FPIC Guidelines, if necessary				
	1c.3.6	Undertake stakeholder consultation and validation of final Guidelines				
	1c.3.7	Consider how to institutionalize the Guidelines (e.g. in law)				
Output 1c.4 **REDD+ Grievance Mechanism**	1c.4.1	Conduct assessment of existing formal and informal grievance mechanisms relevant to REDD+	50,000	50,000	50,000	**150,000**
	1c.4.2	Prepare draft REDD+ Grievance Mechanism				
	1c.4.3	Validate REDD+ Grievance Mechanism with stakeholders				
	1c.4.4	Raise awareness of REDD+ Grievance Mechanism				
Sub-total Outcome 1c			**300,000**	**320,000**	**290,000**	**910,000**
Total cost OUTCOME 1			**560,000**	**680,000**	**650,000**	**1,890,000**
OUTCOME 2: NATIONAL REDD+ STRATEGY PREPARED						
OUTPUT 2a: **1) Drivers of deforesting and forest degradation identified** **2) Legal and policy alignment needs identified**	2a.1	Identify and analyse the drivers of deforestation and forest degradation. This will include a review and further in-depth analysis of the provisional list of drivers listed in the above sections. This will also include a thorough assessment of biophysical, socio-cultural, economic and political factors related to forests.	100,000	150,000	100,000	**350,000**
	2a.2	Conduct a study on land use change in Mongolia (integrated spatial analysis of sectoral development plans and potential areas of conflict).				
	2a.3	Assess existing laws and policies. This will include a study to clarify whether securing land tenure/use rights are required for REDD+ and if necessary, on rights to land tenure and land use related to REDD+. Validate findings with stakeholders.				

OUTPUTS	ACTIVITY No.	ACTIVITIES	YR 1 Budget (USD)	YR 2 Budget (USD)	YR 3 Budget (USD)	TOTAL BUDGET (USD)
	2a.4	Assess institutional framework for forest management and governance (e.g. supply of forest resource, corruption risk-mapping of forest and public finance sectors, etc). This will include an assessment of current forest management and current law enforcement.				
	2a.5	Provide policy recommendations and sectoral action plans for REDD+ (linking to energy, agriculture and transformational policies toward green economy)				
	2a.6	Validate recommendations with stakeholders.				
Outputs 2b: **1) Identification of strategies to reduce D&D**	2b.1	Conduct studies and consultations to identify the major drivers of deforestation and forest degradation and strategies to address them;	200,000	500,000	600,000	**1,500,000**
	2b.2	Carry out studies and consultations to identify the main strategy, or strategies, which will address each of the prioritized drivers, including an assessment of the potential impacts of each of these strategies on poverty alleviation, and men and women;				
	2b.3	Undertake a gender impact analysis;				
	2b.4	Prepare proposed list of strategies to address deforestation and forest degradation and validate with stakeholders				
	2b.5	Conduct cost-benefit analysis of including southern Saxaul forests in REDD+;				
2) Undertake demonstration activities to test identified drivers and strategies	2b.6	Conduct research in at least one demonstration aimag to more clearly identify and quantify each of the drivers;				
	2b.7	Carry out detailed pilot activities that will generate field data on the drivers;				
	2b.8	Conduct analysis and consultations to identify strategy/ies to address each driver;				
	2b.9	Establish a stakeholder engagement and consultation mechanism at aimag level, in each concerned aimag;				
	2b.10	Carry out demonstration activities within an aimag to test the effectiveness of selected strategies.				
Sub-total Outputs 2a and b			**300,000**	**650,000**	**700,000**	**1,850,000**
OUTPUT 2c Implementation framework developed for REDD+						

OUTPUTS	ACTIVITY No.	ACTIVITIES	YR 1 Budget (USD)	YR 2 Budget (USD)	YR 3 Budget (USD)	TOTAL BUDGET (USD)
Output 2c.1 National Fund Management and Mechanism for Distribution of Positive Incentives	2c.1	Assess existing systems for financial management and distribution (e.g., fee for using natural resources, micro-finance, national pension and healthcare schemes, etc.)	100,000	150,000	100,000	**350,000**
	2c.2	Prepare options paper and recommendations for transparent and accountable management of national REDD+ revenues;				
	2c.3	If appropriate, propose establishment of National REDD+ Fund				
	2c.4	Prepare options paper and recommendations on positive incentive sharing mechanism;				
	2c.5	Propose a Positive Incentives Distribution Plan (PIDP)				
	2c.6	Validate proposals and policy recommendations with stakeholders;				
Output 2c.2 Capacity-Building Action Plan Note: These costs are only for developing Actions Plans. Actual costs of carrying out capacity-building activities are included under each relevant component.	2c.7	Mobilize stakeholders and design the capacity assessment;	50,000	50,000	50,000	**150,000**
	2c.8	Conduct the Capacity Needs Assessment;				
	2c.9	Develop a Capacity-Building Action Plan;				
	2c.10	Validate proposed Action Plan with stakeholders;				
Output 2c.3 Gender analysis	2c.11	Conduct a gender analysis of proposed national and local institutional structures for REDD+;	50,000	50,000	0	**100,000**
	2c.12	Conduct a gender analysis of proposed demonstration activities, where relevant;				
	2c.13	Prepare a proposal and guidelines for mainstreaming gender considerations under the proposed national REDD+ strategy, including monitoring indicators;				
	2c.14	Validate policy recommendations with stakeholders;				
Output 2c.4 REDD+ Social and Environmental Safeguard Policy Framework	2c.15	Determine the objectives of the safeguards through a multi-sectoral consultation process;	50,000	125,000	125,000	**300,000**
	2c.16	Review existing national laws and policies on safeguards with respect to UNFCCC Cancun Agreement and identify whether new laws and policies are required;				

OUTPUTS	ACTIVITY No.	ACTIVITIES	YR 1 Budget (USD)	YR 2 Budget (USD)	YR 3 Budget (USD)	TOTAL BUDGET (USD)
	2c.17	Prepare draft REDD+ Social and Environmental Safeguard Policy Framework, while also reviewing existing international standards and initiatives on safeguards;				
	2c.18	Determine actions required to establish the Framework;				
	2c.19	Identify indicators and verifiers for compliance;				
	2c.20	Seek stakeholder feedback and validation on draft Policy Framework;				
	2c.21	Link Safeguards with Safeguard Information System and National Forest Monitoring System (Components 4a and b) and Grievance Mechanism				
OUTPUT 2d (Components 1 and 2 combined)	2d.1	Prepare draft National REDD+ Strategy based on all assessments and consultation (including under the Outcomes described under Components 1, 3 and 4)	0	0	50000	**50,000**
	2d.2	Validate draft National REDD+ Strategy with stakeholders				
Sub-total Outputs 2c and d			**300,000**	**400,000**	**350,000**	**950,000**
Total cost OUTCOME 2			**600,000**	**1,050,000**	**1,050,000**	**2,800,000**
OUTCOME 3: FOREST REFERENCE EMISSIONS LEVELS AND FOREST REFERENCE LEVELS DEVELOPED						
Output 3.1 **Capacity-building and activity planning**	3.1.1	FRELs/FRLs capacity building workshops and seminars held with stakeholders;	70,000	50,000	30,000	**150,000**
	3.1.2	Development of an Action Plan for the development of FRELs/FRLs in Mongolia;				
	3.1.3	Study carried out into the context of FREL/FRL implementation in Mongolia and methodological options available;				
	3.1.4	Stakeholder consultation workshop to present findings of the FREL/FRL methodological study;				
Output 3.2 **Historical data assessed**	3.2.1	Activities under Component 4 on land use change analysis activities;	100,000	100,000	300,000	**500,000**
	3.2.2	Annual emissions calculated using emission factors from national forest monitoring system based on country's historical data (Component 4).				
Output 3.3	3.3.1	Assessment of the drivers of deforestation (see Component 2a), including policy and land use governance context;	0	100,000	50,000	**150,000**

OUTPUTS	ACTIVITY No.	ACTIVITIES	YR 1 Budget (USD)	YR 2 Budget (USD)	YR 3 Budget (USD)	TOTAL BUDGET (USD)
Assessment of national circumstances completed	3.3.2	Stakeholder consultation workshop to present findings of the study on national circumstances;				
	3.3.3	Development of potential FRELs/FRLs adjustment factors.				
Output 3.4 **Testing of different FRELs/FRLs methodologies completed**	3.4.1	with stakeholder and technical experts to collate proposals for, and select, pilot sites;	0	100,000	200,000	**300,000**
	3.4.2	Develop a national REL/RL and submit to the UNFCCC Secretariat for review.				
Total Outcome 3			**170000**	**350000**	**580000**	**1100000**
OUTCOME 4: NATIONAL FOREST MONITORING SYSTEM AND SAFEGUARDS INFORMATION SYSTEM DEVELOPED						
OUTPUT 4a.1 Capacity Building and National forest monitoring system Action Plan Development	4a.1.1	Organize NFMS work and regular Working Group meetings	50000	50000	50000	**150000**
	4a.1.2	Formalize institutional arrangements for the implementation and management of the				
	4a.1.3	Develop Mongolia's NFMS Action Plan				
OUTPUT 4a.2 Satellite land monitoring system established	4a.2.1	Capacity building on geospatial data processing and database management	50000	50000	100000	**200000**
	4a.2.2	Establish a harmonized classification system for land representation				
	4a.2.3	Satellite image characterization for forest monitoring				
	4a.2.4	Establishment an RS/GIS Forest Information System and web-GIS platform				
	4a.2.5	Develop and operationalise Mongolia's satellite land monitoring system				
	4a.2.6	Activity 4a.2.6. Development of participatory tools for community forest monitoring				
	4a.2.7	Forest boundary delineation in the field and GIS boundary generation for demonstration activities				
OUTPUT 4a.3 **Multi-purpose national forest carbon inventory (NFI) designed**	4a.3.1	Strengthen forest inventory capacities among stakeholders	1000000	1100000	1100000	**3200000**
	4a.3.2	Harmonize all existing inventory data and develop robust tree species and NFI databases				
	4a.3.3	Review existing inventory designs and provide recommendations for design of a new multipurpose NFI				

OUTPUTS	ACTIVITY No.	ACTIVITIES	YR 1 Budget (USD)	YR 2 Budget (USD)	YR 3 Budget (USD)	TOTAL BUDGET (USD)
Note: As at August 2012, FAO has secured $150,000 for Outputs 4a.1, 4a.2 and 4a.3 as targeted support under the UN-REDD Programme	4a.3.4	Design and pilot Mongolia's multipurpose National Forest Inventory				
	4a.3.5	Implement Mongolia's multipurpose National Forest Inventory at national scale				
Output 4a.4 **Capacity built for producing accurate and transparent GHG inventories for the LULUCF sector**	4a.4.1	Technical capacity building for the GHG inventory for the LULUCF sector	50000	50000	50000	**150000**
	4a.4.2	Develop a central GHG database and archiving system				
Output 4a.5 **NFMS-related research supported**	4a.5.1.	Support NFMS-related research and dissemination of findings	50000	50000	50000	**150000**
OUTPUT 4b **Information systems for measuring multiple-benefits, other impacts, governance and safeguards established**	4b.1	Develop a full list of the potential social, environmental and other co-benefits. Study the potential benefits. Prioritise amongst this list for co-benefits to be monitored;	50000	100000	50000	**200000**
	4b.2	Finalize the list of social, ecological or governance impacts that should be covered by the Safeguards				
	4b.3	Identify and assess related in-country national and international initiatives related to governance, and other REDD+ safeguards, such as FLEGT;				
	4b.4	Establish baselines and indicators for each (i) all co-benefits to be monitored and (ii) all safeguards				
	4b.5	Develop a system to monitor changes in the selected elements and to share information – the Safeguard Information System (SIS).				
	4b.6	Consult stakeholders and validate the resulting proposals and policy implications.				
Total Outcome 4			**1,250,000**	**1,400,000**	**1,400,000**	**4,050,000**
TOTAL COST of 3-year National REDD+ Programme			**2,600,000**	**3,505,000**	**3,635,000**	**9,740,000**

Component 6: Monitoring and Evaluation Framework

Standard 6 the R-PP text needs to meet for this component:

Design a Program Monitoring and Evaluation Framework

The R-PP adequately describes the indicators that will be used to monitor program performance of the Readiness process and R-PP activities, and to identify in a timely manner any shortfalls in performance timing or quality. The R-PP demonstrates that the framework will assist in transparent management of financial and other resources, to meet the activity schedule.

Objective of this Component: to set out a monitoring and evaluation framework for this Roadmap.

The Results Framework in Component 5 above does not include indicators, baseline values, targets and risks that will be used for monitoring, reporting and evaluating the programme. Table 17 below sets out these parameters.

Implementation of the Roadmap will be monitored and evaluated every six months through internal reviews. This will provide opportunities to validate the implementation of the Roadmap and to make adjustments as required. Information from this monitoring will also be used to make improvements or to reinforce the process of developing the national REDD+ strategy, as well as to provide useful data for evaluation.

The details of this monitoring and evaluation framework will be subject to further consultation and are therefore subject to change.

Final evaluation

There will be a final evaluation carried out by an independent reviewer at the end of the implementation process to assess achievements and lessons, and to make recommendations related to future phases and to REDD+ Roadmap implementation in other countries.

Table 17: Draft Monitoring and Evaluation Framework

Outcomes/Outputs	Indicators (with baselines, targets and proposed timeframe)	Means of Verification	Collection Methods (with indicative timeframe and frequency	Responsibili-ties	Risks and Assumption
Overall Roadmap objective: ***To prepare a National REDD+ Strategy and to develop the necessary capacity to complete Phase 1 of REDD+ readiness***					
OUTCOME 1a: National REDD+ management arrangements established					

Outcomes/Outputs	Indicators (with baselines, targets and proposed timeframe)	Means of Verification	Collection Methods (with indicative timeframe and frequency	Responsibili-ties	Risks and Assumption
Output 1a.1: Establish a broad-based, multi-stakeholder National REDD+ Taskforce	Baseline: existing National REDD+ Roadmap Taskforce established, draft ToR available, but membership not fully comprehensive Target(s): • by 6 months, national REDD+ Taskforce is established and meeting regularly, with full representation of all stakeholders.	Decree establishing Taskforce Reports and minutes of regular Taskforce meetings	Collection of reports and minutes on a quarterly basis	MEDG with relevant partners	Political support for national REDD+ programme maintained
Output 1a.2: Establish a National REDD+ Programme Unit	Baseline: draft ToR in Roadmap and preliminary consultations have been held Target(s): • by 2 weeks, proposal to establish REDD+ Unit agreed • by 5 weeks, REDD+ Unit established and operational.	Decree Reports from Taskforce.	Collection of reports, minutes and guidelines	MEDG with relevant partners	Constructive cooperation between government agencies leads to an agreement on how to structure REDD+ Unit
Output 1a.3: Establish CSO/LC Forum	Baseline: no existing mechanism Target(s): • By 6 months, draft stakeholder mapping completed • 8 months, a draft proposal agreed to establish Forum, with ToR • by 9 months, Forum established and operational, and civil society is happy with the framework.	Minutes of Taskforce Minutes of Forum	Collection of reports, minutes and plans	MEDG with relevant partners	Diverse stakeholders are able to work effectively to establish the Forum and sub-Forums
Outcome 1c: Improved stakeholder awareness and effective engagement					
Output 1c.1: Raised Public Awareness	Baseline: not known Target(s): by 12 months,website developed by 12 months, REDD+ related material (leaflet, booklet, poster etc.) in circulation	Results of surveys Feedback and Reports from	Surveys undertaken by REDD+ partners Collection of	MEDG with relevant partners	Public retains an interest overall in environment and global issues.

Outcomes/Outputs	Indicators (with baselines, targets and proposed timeframe)	Means of Verification	Collection Methods (with indicative timeframe and frequency	Responsibili-ties	Risks and Assumption
	by 36 months, stakeholder awareness raised (confirmed through survey)	the extension worker REDD+ related Materials and Website	Reports , Minutes and stakeholder feedback		Support from media, NGOs and CBOs Information access in remote areas
Output 1c.2: Consultation and Participation Plan	Baseline: • Roadmap includes process for preparing Consultation and Participation Plan • No existing materials on REDD+ Target(s): • By 10 months, Consultation and Participation Plan prepared. • by 12 months, implementation of Plan has commenced and some REDD+ materials availablw	Plan available Reports of consultation and participation activities (e.g. workshop reports)	Collection of reports and minutes and work plans	MEDG with relevant partners	CSO/non-government stakeholders support development of CPP Strong stakeholder interests and enabling conditions are maintained
Output 1c.3: National FPIC Guidelines	Baseline: no FPIC Guidelines Target(s): • Study on decision-making completed by 18 months • by 24 months, draft National FPIC Guidelines prepared • by 2.5 years, national FPIC Guidelines field tested and finalized.	Study available Draft FPIC Guidelines available Field report available from pilot	Collection of studies and reports	MEDG with relevant partners	Political support is obtained for FPIC process Sufficient technical capacity exists to conduct FPIC work
Output 1c.4: REDD+ Grievance Mechanism	Baseline: some existing grievance mechanisms in Mongolia Target(s): • by 26 months, draft Grievance Mechanism prepared • by 3 years: a national grievance mechanism	Documents available	Project reports	MEDG with relevant partners	Political support for REDD+ Grievance Mechanism

Outcomes/Outputs	Indicators (with baselines, targets and proposed timeframe)	Means of Verification	Collection Methods (with indicative timeframe and frequency	Responsibili-ties	Risks and Assumption
	agreed and ready to function				
OUTCOME 2: National REDD+ strategy prepared					
Outputs 2a: • Drivers of deforestation and forest degradation identified; and • legal and policy alignment needs identified	Baseline: preliminary work on drivers by National REDD+ Roadmap Taskforce Target(s): • by 12 months, national study to identify and assess drivers completed • by 18 months, study completed on legal alignment of laws and policies	Studies available	Project reports	MEDG with relevant partners	
Output 2b: Outputs 2b: 1) Identification of strategies to reduce deforestation and forest degradation identified	Baseline: preliminary assessment by National REDD+ Roadmap Taskforce on strategies Target(s): • draft list of strategies prepared by 18 months • by 2 years, national study completed to identify and assess strategies • by 21 months, cost-benefit analysis of Saxaul forest completed	Studies available	Project reports	MEDG with relevant partners	
2) Demonstration activities to test selected drivers and strategies	Baseline: Mongolia has no experience with REDD+ activities or projects Target(s): • 24 months, key drivers and strategies for demonstration selected • by 2.5 years, pilot aimag selected • Selection of aimag and pilot project in accordance with FPIC principles • by 3 years, demonstration activity commenced and lesson learnt reports provide clarity on how to develop REDD+ in Mongolia	Studies of drivers and strategies available Minutes of Taskforce meeting confirming demonstration activities	Documents collected every 6 months	MEDG with relevant partners	Sufficient political support (national and sub-national) is obtained to carry out demonstration activities
Output 2c: Implementation framework for REDD+ developed					

Outcomes/Outputs	Indicators (with baselines, targets and proposed timeframe)	Means of Verification	Collection Methods (with indicative timeframe and frequency	Responsibili-ties	Risks and Assumption
Output 2c.1 National Fund Management and Mechanism for Distribution of Positive Incentives	Baseline: • UNDP has existing review of environmental law framework • Information available from other projects on benefit-sharing Target(s): • By 15 months, options papers prepared for amendments to land tenure, options for managing revenues and benefit-sharing • 18 months, assessment of institutional structure for forest management completed, including corruption risk assessment • 22 months, proposals for national fund and distribution system are being reviewed by national authorities and international community	Reports available	Project reports	MEDG with relevant partners	Cross-agency support is available to undertake cross-sectoral review Political support is sufficient to undertake corruption risk assessment
Output 2c.2 Capacity Building Action Plan developed	Baseline: no capacity assessment available Target(s): • by 15 months, a Competency Framework is designed and adopted. • by 18 months, a Capacity Needs Assessment completed • by 22 months, a Capacity Building Plan is under implementation.	Project reports available Confirmed in Taskforce minutes	Collection of reports and work plans	MEDG with relevant partners	
Output 2c.3 Gender analysis	Baseline: some gender information available Target(s): • Gender analysis conducted by 18 months • Proposals to mainstream gender approved and implemented by 2 years	Reports available		MEDG with relevant partners	

Outcomes/Outputs	Indicators (with baselines, targets and proposed timeframe)	Means of Verification	Collection Methods (with indicative timeframe and frequency	Responsibili-ties	Risks and Assumption
Output 2c.4 REDD+ social and environmental safeguard Framework	Baseline: no material available. Target(s): Preparation and approval of draft safeguard Framework by 20 months			MEDG with relevant partners	
Output 2d: National REDD+ Strategy prepared	Baseline: no current strategy, there is the Roadmap Target(s): • by 3 years, National REDD+ Strategy prepared and in final stages of approval	National REDD+ strategy available and adopted by stakeholders and Government	Project reports	MEDG with relevant partners	All elements of work are completed to support comprehensive REDD+ strategy
Outcome 3: Reference emission levels and reference levels developed					
Output 3.1 Capacity-building and activity planning	Baseline: almost no capacity in Mongolia specific to preparing REL /RL Target(s): • by 15 months, data on existing forest cover collated • by 3 years, REL / RL field tested at pilot site	Documents available Minutes of TWG	Project reports	MEDG with relevant partners	
Output 3.2 Historical data assessed	Baseline: some initial work has been done, but it is not verified and not complete Target(s): Complete set of data regarding historical forest trends and drivers over an appropriately lengthy period.	Documents available Minutes of TWG	Project reports	MEDG with relevant partners	
Output 3.3 Assessment of national circumstances	Baseline: some existing material on climate change impacts Target(s): • by 18 months, assessment of Mongolia's national circumstances completed • Proposals developed as to why circumstances	Documents available Minutes of	Project reports	MEDG with relevant partners	

Outcomes/Outputs	Indicators (with baselines, targets and proposed timeframe)	Means of Verification	Collection Methods (with indicative timeframe and frequency	Responsibili-ties	Risks and Assumption
	should be considered in setting FRELs/FRLs	TWG			
Output 3.4 Testing of different FRELs/FRLs methodologies completed	Baseline: No existing REL / RL data Target(s): • by 15 months, data on existing forest cover collated • by 3 years, FREL /FRL field tested at pilot site	Reports from pilots sites	Project reports	MEDG with relevant partners	
Outcome 4: National forest monitoring system and safeguard information systems developed					
Output 4a.1: Capacity Building and National forest monitoring system Action Plan Development	Baseline: no MRV process in Mongolia Target(s): • by 12 months, Assessment of monitoring and MRV capacity gaps and needs completed • by 6 months, a national forest monitoring system Action Plan completed • by 12 months, a national forest definition is adopted. • by 3 years, QA/ QC procedures are operational.	Reports, minutes, training materials and mechanism	Collection of reports and minutes on a quarterly basis	MEDG with relevant partners	Government and non-government institutions work cooperatively
Output 4a.2: Satellite land monitoring system established	Baseline: • no REDD+ Monitoring System in Mongolia Target(s): • by 18 months, existing satellite imagery for Mongolia are analysed • by 18 months, training on remote sensing and GIS is provided • by 18 months, the REDD+ monitoring system (beta-version) is operational • by 2 years, a reference forest map is completed.	Reports, minutes, training materials and web-GIS platform	Collection of minutes, reports, data, and materials	MEDG with relevant partners	National consensus is reached to identify the forest land and to monitor forest land

Outcomes/Outputs	Indicators (with baselines, targets and proposed timeframe)	Means of Verification	Collection Methods (with indicative timeframe and frequency	Responsibili-ties	Risks and Assumption
Output 4a.3: Multi-purpose national forest carbon inventory designed	Baseline: some existing national forest inventory data, but not on emission factors Target(s): • by 12 months, new NFI is designed, including field manual • by 18 months, tree species and forestry database is established • by 18 months, the central database is populated with existing data on forest inventories • by 12 months, the National forest inventory is designed.	Reports, minutes, training materials	Collection of minutes, reports, and materials	MEDG with relevant partners	Adequate technical capacities exist to design the NFI.
Output 4a.4: Capacity built for producing accurate and transparent GHG inventories for the LULUCF sector	Baseline: not determined Target(s): Within 24 months, Mongolian reports to UNFCCC (GHG inventory, LULUCF, are recognised as being of higher quality	UNFCCC reports	Project reports	MEDG with relevant partners	
Output 4a.5: NFMS-related research supported	To be determined	Tbd	Tbd	MEDG with relevant partners	Tbd
Output 4b: Information systems for measuring multiple-benefits, other impacts, governance and safeguards established	Baseline: no safeguard information system in place Target(s): • by 18 months, nationally appropriate safeguards and indicators are identified • by 2 years, National REDD+ safeguards and indicators are tested and submitted for official endorsement • by 2.5 years, the safeguards information is made available in the central database.	National REDD+ Safeguards and indicators, monitoring and information provisioning systems	Collection of minutes, reports and policy statements	MEDG with relevant partners	Safeguards can be agreed between all stakeholders. Sufficient political support to adopt safeguards.

Risk Log

Risk Log relating to Roadmap implementation:

The matrix below assesses each risk and provides indicative mitigation measures to be taken during the Roadmap implemented. These risks will be closely monitored and updated throughout the programme implementation.

Table 18: Risks Related to the Implementation of Mongolia's National REDD+ Roadmap

Risk Category	Description of Risk	Assessment of Risk (high, medium, or low)	Mitigation Measure
Political	Lack of political will in support of the Roadmap, supporting policies and institutional reforms	Medium	Advocacy programme targeting policy makers and key decision makers would have a positive impact creating and maintaining the political will necessary for a successful programme implementation. REDD+ will be aligned with and discussed in the context of green development. Awareness programmes for national, Aimag and soum level politicians.
Organizational	Lack of coordination among the government institutions to work jointly and support joint actions (MRV, forest definition, law enforcement, etc)	Medium	Weak coordination will be strengthened through the Green Development Concept and Mid-Term Programme. It has been designed to establish an interactive process involving all key ministries to provide adequate collaboration on critical social and environmental issues for sustainable development as embodied in the strategies and proposed actions. The REDD+ involvement in it is expected to create a common platform for different stakeholders to act together across land use sectors.
	Lack of willingness to share and harmonize data across the government institutions.	Medium	Representatives of all relevant institutions will be members of the National Taskforce. In addition, the Government is currently working on a National data sharing mechanisms, which will be implemented in the future.
Operational	Ineffective national REDD+ coordination mechanism	Low	The National Taskforce will be established immediately following the inception workshop to mitigate this risk. The Taskforce's coordination and decision-making process will ensures adequate coordination and consensus between all the stakeholder institutions. In addition, it should be noted that over-reliance on the Taskforce for implementation progress can also be a risk. Therefore, the National REDD+ Programme Unit with the guidance of the Taskforce will closely monitor and address issues and risks as they arise and play a strong facilitation role to ensure progress.
	Limited information dissemination	Medium	Consultation and Participation Plan would focus on stakeholders in remote areas.

	and access by remote areas		
	Legal barriers to benefit sharing options	Medium	Options for equitable and transparent benefit sharing will be identified. The TWG on financial flows and benefit sharing under REDD+ will provide a comprehensive understanding of the financial flows and develop options for financial management and benefit distribution.
	Weak mechanism to allow effective participation of all relevant stakeholders.	Low	With targeted awareness among stakeholders, effective platforms to ensure stakeholder participation will be developed. The proposed 'REDD readiness' phase is used to analyse existing barriers and develop effective mechanisms.
Regulatory	Lack of stakeholder interests and support on key guidance materials (safeguards, etc)	Medium	Detailed analysis to develop a clear understanding of potential impacts and different stakeholder interests together with awareness-raising and consultation will ensure effective participation and support of stakeholders.
Strategic	Lack of coordination among different stakeholder groups	Medium	Consultation and Participation Plan will improve information access and dissemination plus extensive coordination extending from national to community level.

Potential Risks related to the Cancun Safeguards and Mitigation Strategies

REDD+ has the potential to deliver substantial benefits beyond carbon. However, there is also a possibility that risks will be incurred in the implementation of REDD+. Accordingly, the UN-REDD Programme has worked with partners and REDD+ countries to develop guidance to enhance the multiple benefits of, and reduce risks from REDD+. On this basis, the UN-REDD Programme Social and Environmental Principles and Criteria (SEPC) have been developed, and are coherent with and draw from the broad guidance provided by the Cancun agreement.

The following table illustrates the potential risks (C) expected during the design and implementation of a National REDD+ Programme, referenced to the Cancun safeguards (A) and associated SEPC (B). It also lists the policies and measures that will be taken (D) during the implementation of the R-PP/UN-REDD National Programme. Note that individual safeguards cannot be seen in isolation and that there is some overlap especially among the environmental safeguards.

A safeguard risk matrix will be prepared for Mongolia at the outset of the Roadmap.

Table 19: Safeguard Risk Matrix

A. Relevant section of Cancun Agreements, Annex I (REDD+ Safeguards, UNFCCC)	B. UN-REDD Social & Environmental Principle	C. Potential risk in Mongolia	D. Existing policies and measures and relevant activities during the Roadmap implementation
2(b) Transparent and effective national forest governance structures, taking into account national legislation and sovereignty 2(d) The full and effective participation of relevant stakeholders, in particular, indigenous peoples and local communities (…)	Principle 1 – Apply norms of democratic governance, including those reflected in national commitments and Multilateral Agreements	The REDD+ actions might provide room for the misappropriation of funds, misuse of information, influencing decisions of Forest Users Groups, and other stakeholders.	**Existing policies and measures** • Law on Environmental Conservation 1995 • A State Policy on Ecology 1997 • Law on Forest 2012 • Anti-Corruption Law 2006 • State forest management plan, 2011 • Law on Payment for Using Natural Resources 2012 • Law on Public Service 2002 • Law on Gender equality, 2011 • Regulation on Income, Expenditure and Reporting on Payment used for Environmental Conservation and Restoration Measures 2014 • Law on prevention of conflict of interest in public services, 2012 National programme on forest cleaning, 2014 **Relevant outputs and activities to be taken during the Roadmap implementation in addition to Output 2c.4 and Output 4b** • Output 1a.1 will ensure broad-based participation of all stakeholders through the establishment of a multi-stakeholder and multi-sectoral taskforce to guide the national REDD+ readiness process, while Output 1c.2 will identify context specific strategies to reach out to a wider range of stakeholders to promote their effective participation. • Output 1c.3 will especially ensure CSOs and local communities are organized through special forums to reflect their voices in REDD+ related decision-making and to play key roles in REDD+ readiness. • Output 2c.3 will especially ensure effective participation by both men and women and integration of gender considerations in REDD+ related decision making. • Output 2a will assess drivers and causes of deforestation and forest degradation and existing capacities and gaps in the national institutional and policy frameworks, and this will include the assessment of governance and corruption risks. • Activities 2b.8 and 2b.9 will demonstrate strategies to ensure effective and equitable participation at the local level.

			• Output 2c.2 on fund management will also ensure effective stakeholder participation through linking up with Outputs 1c. 2, 1c. 3 and 2c.3.
2(c) Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples	Principle 2 – Respect and protect stakeholder rights, including human rights, statutory and customary rights, and collective rights	REDD+ actions may affect the livelihood of forest dependent communities and indigenous people and their use rights.	**Existing policies and measures** • The Constitution of Mongolia 1992 • Law on Labor 1999 • Law on Cooperatives 1998 • Law on Information Transparency and Right to Access Information 2011 • Law on Land 2002 • National programme on forest cleaning, 2014 • Law on Gender equality, 2011 • Updated guideline for land use planning, 2014 **Relevant outputs and activities to be taken during the Roadmap implementation in addition to Output 2c.4 and Output 4b** • Output 1a.3 will establish CSO/LC forums to ensure their effective and equitable participation in REDD+ policy and other relevant decision-making processes. • Output 1c.2 will ensure effective, equitable and meaningful consultation and participation by all stakeholders including local communities and indigenous peoples. • Output 1c.3 will ensure FPIC principles are fully reflected into the process of consultation and negotiation with indigenous peoples and forest dependent communities. • Output 1c.4 will ensure there is an appropriate mechanism to address grievances and to monitor compliance with REDD+ legislation, guidelines, safeguards and policies • Activity 2a.3 will assess existing laws and policies. This will include a study to clarify whether securing land tenure/use rights are required for REDD+ and if necessary, on rights to land tenure and land use related to REDD+. The study findings will be validated with stakeholders. • Output2c.3 will ensure gender considerations are fully mainstreamed into the REDD+ readiness process.
2 (e) Actions are (...) used to (...) enhance other social and environmental benefits (...)[1]	Principle 3 – Promote and enhance forests' contribution to sustainable livelihoods	REDD+ actions may not consider perspectives of the forest dependent communities therefore may	**Existing policies and measures** • Law on Forest 2012 • Law on Environmental Conservation 1995 • Draft State Policy on Forest 2014 • Law on Buffer Zones of Special Protection Areas 1997

		result in limited access by local people to NTFPs, collection of fuel wood etc.	• Regulation on Use of Natural Plants and NTFP 2009
			• National programme on forest cleaning, 2014
			• Government decrees on:
			  o Specific measures to resolve citizen's grievances, 2005
			  o Transparency indicators of public entities
			
			Relevant outputs and activities to be taken during the Roadmap implementation
			• Output 2c.4 and Output 4b will ensure to respect biodiversity conservation objectives, existing best practices and sustainable local livelihoods strategies while pursuing carbon benefits. Actions that would yield combined multiple benefits will be prioritized.

2(a) Actions complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements 2(f) Actions to address the risk of reversals 2(g) Actions to reduce displacement of emissions	Principle 4 – Contribute to low-carbon, climate-resilient sustainable development policy, consistent with national development strategies, national forest programmes and commitments under international conventions and agreements	While forest policies and legal frameworks are in place to minimize further forest loss and to maintain the area under forests, accelerating economic development may override existing legislation. This is exacerbated by the poor understanding of social and environmental values of forests and insufficient understanding of future risks to REDD+ achievements.	**Existing policies and measures** • MDG based National Comprehensive Development Strategy, 2008 • Agenda 21, 1998 • Draft of updated State Policy on Forest 2014 • National Action Programme on Climate Change, 2011 • National Action Programme for Combating Desertification, 2010 • National Programme on Water, 2010 • Draft of updated Programme on Biodiversity 2014 • Law to prohibit mining and mining exploration in forested areas and river headwaters, 2009 • National programme on forest cleaning, 2014 **Relevant outputs and activities to be taken during the Roadmap implementation in addition to Output 2c.4 and Output 4b** • Outputs 2a and 2b will help understand drivers and causes of deforestation and forest degradation in natural forests and existing capacities and capacity gaps in addressing those drivers and causes. This will develop an understanding of underlying causes and their complex relations from the socio-political and -economic, biophysical and technological perspectives in order to develop effective strategies to address them. • Outputs 4a.1, 4a.2 and 4a.3 will support the spatiotemporal analysis to identify and minor risks of reversal and displacement.
2(e) Actions are consistent with the conservation of natural forests and biological diversity, ensuring	Principle 5 – Protect naturally regenerating forests from degradation or conversion to other	As interest in generating carbon credits increases, there is the	**Existing policies and measures** • Law on Environmental Conservation 1995 • Law on Forest 2012 • Draft State Policy on Forest 2014

that actions (…) are not used for the conversion of natural forests but are instead used to incentivize the protection and conservation of natural forests and their ecosystem services (…) 2(f) Actions to address the risk of reversals 2(g) Actions to reduce displacement of emissions	land uses, including plantation forest	potential that natural forests of high biological diversity will be replaced with carbon producing forests e.g. mono culture.	• Law on Natural Plants 1995 • Law on Land 2002 • Draft Program on Biodiversity 2014 • National Action Programme on Climate Change, 2011 • Updated guideline for land use planning, 2014 **Relevant outputs and activities to be taken during the Roadmap implementation in addition to Output 2c.4 and Output 4b** • Outputs 2a and 2b will help understand drivers and causes of deforestation and forest degradation in natural forests and existing capacities and capacity gaps in addressing those drivers and causes. • Outputs 4a.1, 4a.2 and 4a.3 will support the spatiotemporal analysis to identify and minor risks of reversal and displacement.
2(e) Actions (…) incentivize the protection and conservation of natural forests and their ecosystem services (…) 2(e) Actions are (…) used to (…) enhance other social and environmental benefits	Principle 6 – Maintain and enhance multiple functions of forest to deliver management objectives including biodiversity conservation and ecosystem services	Without knowledge on the social and environmental benefits of natural forests and weak incentives to protect or manage them it is likely that carbon value generation will be overemphasized to the detriment of other benefits. Monetary incentives to protect conserve and store carbon in forests combine with non-perpetuality of REDD+ might undermine the existing alternative values and motivations for	**Existing policies and measures** • Law on Environmental Conservation 1995 • Law on Forest 2012 • Draft of updated State Policy on Forest 2014 Law on Natural Plants 1995 • Law on Land 2002 • Draft of amended Programme on Biodiversity 2014 **Relevant outputs and activities to be taken during the Roadmap implementation** • Outputs 1c.1, 1c.2 and 1c.3 will assist in understanding and reflecting social, environmental and economic values of forests and existing best practices in REDD+ related decision-making to identify and incentivise actions that seek multiple benefits. • Output 2c.4 and Output 4b will ensure to respect biodiversity conservation objectives, existing best practices and sustainable local livelihoods strategies while pursuing carbon benefits. Actions that would yield combined multiple benefits will be prioritized. • Outputs 4a.1 and 4a.2 will support the spatiotemporal analysis to identify where such multiple benefits might be derived and monitor change over time.

		nature conservation therefore potentially undermining long-term conservation efforts.	
2(e) Actions that are consistent with the conservation of… biological diversity…	Principle 7 – Minimise adverse impacts (direct and indirect) on non-forest ecosystem services and biodiversity	As interest in generating higher carbon values, there is the potential that non-forest ecosystems with high biodiversity values will be replaced with carbon producing forests or mono-culture plantation.	**Existing policies and measures** • Law on Forest 2012 • Draft of updated State Policy on Forest 2014 • Law on Natural Plants 1995 • Law on Land 2002 • Draft of amended Programme on Biodiversity 2014 **Relevant outputs and activities to be taken during the Roadmap implementation** • Output 2c.4 and Output 4b will ensure to respect biodiversity conservation objectives while pursuing carbon benefits, particularly in non-forest ecosystems that might be directly or indirectly affected by REDD+. • Outputs 4a.1 and 4a.2 will support the spatiotemporal analysis to identify where such risks might exist and monitor change over time.

Annexes

Annex 1: Forest Cover in Mongolia and Forest Definition

There is a significant difference between the *FAO Forest Resource Assessment 2010 for Mongolia* and the statistics on forest cover held by the Forestry Agency (now DFCRM) as set out in the Forestry Agency's *State of Forest Land of Mongolia 2011*.

Due to the limitations of the national data, this Roadmap has used the data for forest cover from the 2010 FAO Global Forest Resources Assessment for Mongolia until such time as the national data can be supplemented. For example, while the annual forestry statistics produced by the Forestry Authority provide statistics on the total amount of forest resources, by area, species and by volume, they do not contain any estimates of the rate of forest loss.

The key differences between the FAO FRA 2010 data and the Forestry Agency (now DFCRM) data are summarized in the Table below:

	COLUMN 1 FAO FRA 2010 (hectares) (Table 1.4, p. 8)			**COLUMN 2 Forestry Agency (now DFCRM) (hectares)** State of Forest Land of Mongolia 2011		
		% of forest area	**% of total land area**		**% of forest area**	**% of total land area**
Forest reserve				18,565,500		11.87
Forest (Coniferous/ boreal)	10,898,000	85	6.7	12,996,700	75.1	8.26
Saxaul forest (Other Wooded Land)	1,947,000	15		4,633,000	24.9	
Total forested area	**12,845,000**		**8.14**	**17,629,700**	**100**	

Annex 2a-1 contains a detailed breakdown of the figures provided by the Forestry Agency (now DFCRM) in Column 2, by *aimag*.

■ Definition of 'Forest Reserve': Law on Forest 2012

'Forest reserves' are very broadly defined under the Law on Forest 2012 as 'all species of trees, bushes, Saxaul, shrubs and planted forests' (Art 3.1.2). The *Law on Forest 2012* also provides that: 'Forest reserve sites shall comprise forested areas, glades, logging areas, forest damaged by fire, harmful insects and diseases, and the area extending to 100 metres beyond the outer rim of the forest, as well as seedling and nursery areas' (Art. 5.2).

■ Discrepancy in forest cover data

Based on the above figures in the Table, there is clearly a large discrepancy between the forest cover statistics held by the Forestry Agency (now DFCRM) and those reported in the FAO FRA 2010 Mongolia, with the FAO FRA reporting significantly lower figures for both coniferous/boreal forest, as well as for Saxaul forest (which is categorized by FAO as 'Other wooded land' because it is less than 5 metres in

height). One explanation may be that FAO is applying a narrower definition of 'forest' compared to the Forestry Agency.

Reconciling national definition with IPCC guidance

The UNFCCC COP Dec. 4/CP.15 on Methodological guidance for activities relating to [REDD+] requests developing countries who wish to undertake REDD+ activities to use the most recent Intergovernmental Panel on Climate Change guidance and guidelines as a basis for estimating their greenhouse gas emissions (and removals) from their forest sector (para. 1(c)).

It is important that countries adopt a forest definition that enables emissions or removals from REDD+ activities to be integrated into the country's broader reporting obligations under the UNFCCC framework. To this end, Mongolia has had initial discussions regarding the need to redefine its definition of 'forests'.

Annex 1a-1: REDD+ Roadmap Taskforce - Structure and Membership

On 20 June 2011, the UN-REDD Programme invited Mongolia to be a partner country. Following this, the Government of Mongolia, led by the Forestry Agency, has taken steps to engage with REDD+ by establishing a national REDD+ Roadmap Taskforce and by conducting awareness-raising on REDD+.

National REDD+ Roadmap Taskforce

In early September 2011, the Forestry Agency (now DFCRM) proposed that a REDD+ Taskforce be established with a membership of 15 people. On 13 September 2011, the Forestry Agency presented this proposal to a national REDD+ workshop. As a result of discussions in the plenary of the workshop it was agreed that a further two members should be added to the Taskforce, namely, one from the Human Rights Commission and a representative from the private forestry sector (Association of Forest Entrepreneurs).

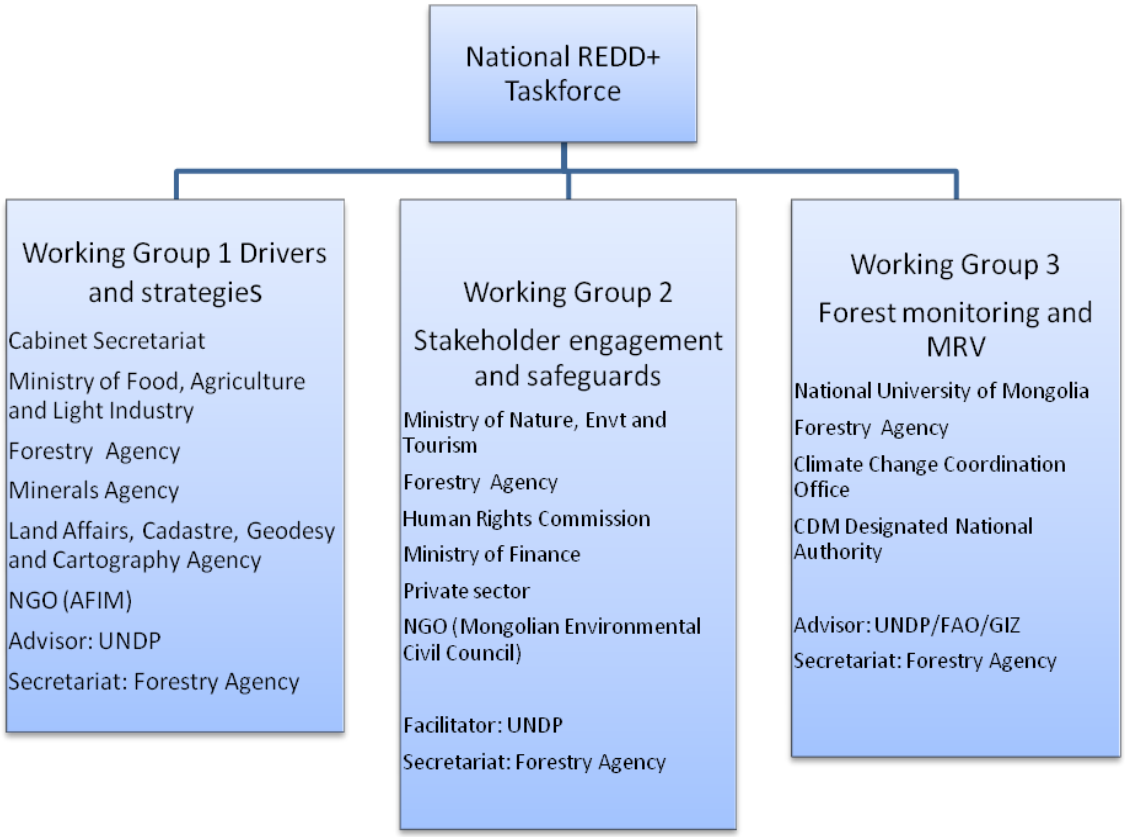
Accordingly, on 4 October 2011, the Minister for Nature, Environment and Tourism issued a Decree (No. A-336) formally establishing a national REDD+ Taskforce of 16 members, with the Director of the Forestry Agency as its Chair and the Forestry Agency as the Secretariat. Shortly thereafter, a further three members were added informally to the Taskforce: two from the Forestry Agency and an expert on greenhouse gas emission inventories, bringing the total membership to twenty. The 19 member Taskforce reflects a broad cross-sectoral representation. **Annex 1a, Table A** contains a list of all Taskforce members and the sectors they represent.

Table A: National REDD+ Taskforce members

Name		Position	Sector represented
Chair			
1.	Ms Tungalag	Director, Forestry Agency	Forestry – Government
Secretary			
2.	Mr S. Dashdavaa	Director of the Forestation Policy Division, Forestry Agency	Forestry – Government
Members			
3.	Mr N. Altantsetseg	Cabinet Secretariat	Cabinet
4.	Mr A. Enkhtur	Director of the Division of Complaints, Monitoring and Evaluation, National Human Rights Commission	Human Rights
5.	Mr D. Dagvadorj	Mongolia's Special Envoy for Climate Change	Climate Change/UNFCCC
6.	Mr B. Binye	Deputy Director, Department of Livestock Policy Implementation, Ministry of Food, Agriculture and Light Industry	Government - Agriculture and livestock, and rangeland management
7.	Mr P. Oyuntuya	Specialist, Division of Budget Expenditure, Ministry of Finance	Finance – Government
8.	Mr Ch. Boldbaatar	Specialist, Department of Environment and Natural Resource Management, Ministry of Environment, Nature and Tourism	Forestry – Government
9.	Mr. L Nyam	Director, Forest Exploitation Division, Forestry Agency	Forestry – Government
10.	Mr B. Otgonsuren	Chair, Forest Organization Service, Forest Reserve and Forest Protection Division, Forestry Agency	Forestry – Government
11.	Mr R. Gankhuyag	Chair, Urban Planning and Land Affairs Division, Agency of Land Affairs, Geodesy and Cartography	Planning and land use
12.	Mr Ts.	Specialist, Mining Research Division, Agency of	Mining – Government

Name		Position	Sector represented
	Jargalnemekh	Mineral Resources	
13.	Mr D. Ganbold	Head, Mongolian Environmental Civil Council	Civil society
14.	Mr N. Baatarbileg	Head, Department of Forest Studies, Mongolian National University	Academia
15.	Mr B. Tsendsuren	Chair, Division of Clean Development Mechanism	CDM – Government
16.	Mr D. Sainbayar	Director, 'Future of Forest' LLC	Private sector
17.	Mr B. Baasanbyamba	Head, Association of Forest Entrepreneurs	Private sector - Forestry
18.	Mr Sh. Erdenedavaa	Senior Specialist, Forestation Policy Division, Forestry Agency	Forestry – Government
19.	Mr Tsogtbaatar	Specialist, Forest Exploitation Division, Forestry Agency	Forestry – Government

In October 2011, a working group structure was established to assist the Taskforce to coordinate the development of this Roadmap, with the following allocation of members:



Annex 1a-2: Permanent Management Arrangements - Roles and Responsibilities

National REDD+ Taskforce

This will be an advisory and coordination body whose role is to provide overall guidance and direction to the development of the National REDD+ Strategy in Mongolia. The Chair of the Taskforce will be MEGD, with the Minister for NET reporting directly to Cabinet. It will be cross-sectoral in nature to ensure coordination between sectors and agencies, and will represent a broad number of stakeholders. The Taskforce will therefore create a mechanism to ensure the overall coordination and collaboration between all REDD+ relevant initiatives, supported by various development partners and national institutions, in order for Mongolia to attain REDD+ Readiness in the most cost-effective and coherent manner.

The Taskforce will initially meet monthly, and later at least quarterly. The REDD+ National Programme Unit will provide secretarial functions to the Taskforce and ensure that all documents including minutes relevant to meetings and reports are circulated in time to ensure informed advice and decisions from the Taskforce. A large number of government agencies, high-level policy makers, civil society, private sector, communities and other stakeholders will be part of the Taskforce. The process of establishing this body will consider equal representation of women as one of the criteria, and its work will pay close attention to gender equality.

Provisional TOR for Taskforce

- Advise on, and provide strategic direction and overall coordination for, the development of the National REDD+ Strategy and the establishment of Mongolia's National REDD+ Strategy.
- Enhance inter-agency and inter-sectoral coordination and collaborative approach of REDD+ activities.
- Prepare draft TORs for Working Groups in close collaboration with the National REDD+ Programme Unit and monitor progress of their work.
- Approve setting up of Working Groups and their respective ToR.
- Advise on resource mobilization for implementing activities under the National REDD+ Strategy.
- Provide guidance on the implementation of REDD+ activities by various development partners.
- Provide guidance on overall capacity building and adherence to safeguards under REDD+.
- Advise on issues brought to the attention of the Taskforce by key stakeholders. Ensure that community-level concerns are heard and acted upon and that community partners are given due recognition in benefit sharing.

Three REDD+ Technical Working Groups

The National REDD+ Taskforce will be supported by three Technical Working Groups. The TWGs will comprise both Taskforce and non-Taskforce members, such as development partners and civil society representatives. The process of establishing these bodies will consider equal representation of women as one of the criteria, and the work of these bodies will pay close attention to gender equality.

The following three Technical Working Groups are initially envisaged for Mongolia's National REDD+ Strategy:

1. TWG on REDD+ Governance, Strategy Design and Benefit-sharing

Responsible for harmonising REDD+ with national policies, laws and plans, ensuring multiple benefits and formulating and establishing the safeguard Policy Framework, and developing guidelines for REDD+ pilot projects. It may include staff of FA, NGOs, members of civil society and lawyers. This TWG will liaise closely with the TWG on Communication and Stakeholder Engagement for stakeholder engagement, and will assist with monitoring and evaluation of the National REDD+ Strategy by providing periodic reports to the Taskforce on how environmental and social safeguards are applied during the Roadmap implementation.

Responsible for formulating the REDD+ strategy to help move towards reducing deforestation and forest degradation and enhancement of carbon stocks, for providing technical expertise for its implementation with the required safeguards, and for establishing mechanisms for implementing the REL/MRV. The TWG will also identify capacity building needs to implement the REDD+ strategy for all stakeholders, including implementing agencies, community groups, private sector and NGOs (Component 2b).

Responsible for providing a comprehensive understanding of the financial flows that will take place between public and private, central, regional and local actors in the implementation of the Roadmap to aid in designing financial mechanisms for the National REDD+ Strategy. This will include preparing or supervising the preparation of a REDD+ Benefit-Sharing Plan.

2. TWG on FRELs/FRLs and the national forest monitoring system

Responsible for design and field testing national and/or sub-national FRELs/FRLs at pilot demonstration sites; design and testing of the national forest monitoring system; advice on institutional mechanisms for these processes and identification of capacity building to implement FRELs/FRLs and the national forest monitoring system. This TWG will need involvement of the FA and other institutions working on carbon stock assessments, forest inventory, forest research and remote sensing, development partners and civil society as appropriate. It will be responsible for technical aspects of Components 3 and 4a of the Roadmap. The TWG will also identify capacity building needs for FRELs/FRLs and the national forest monitoring system and lead the development of, and consultations on, the national forest monitoring system Action Plan. In Phase 2 of REDD+, this TWG will advise on the locations of demonstration activities and the methodologies to be used for the testing of FRELs/FRLs and elements of the national forest monitoring system, such as piloting of the updated forest inventory methodology.

3. TWG on Communication and Stakeholder Engagement

Responsible for preparation and implementation of the Consultation and Participation Plan (see Component 1c) to:

- ensure that activities under Mongolia's National REDD+ Strategy are implemented with full stakeholder engagement and Free, Prior and Informed Consent (FPIC), as necessary;
- develop communication products to support the design and implementation of the REDD+ strategies; and
- support REDD+ demonstration activities at the local level.

This TWG will be responsible for the preparation of communication materials on National REDD+ initiatives and will oversee stakeholder engagement activities for all REDD+ activities undertaken by the National REDD+ Programme Unit. It will also be responsible for needs assessment and capacity building to support the Consultation and Participation Plan, and help ensure it addresses any barriers and constraints faced by both women and men. This TWG will be comprised of experts in communication and stakeholder engagement and will need the services of part time national and international consultants.

National REDD+ Programme Unit: roles and responsibilities

The National REDD+ Programme Unit will be responsible for the operational work and day-to-day management of the National REDD+ Strategy and will include the coordination, communication, financial management and attendance to administrative matters as needed. It will also support the work of the Task Forces.

The National REDD+ Programme Unit will:

- Provide secretarial and management assistance to the National REDD+ Task Force and Working Groups.
- Ensure coordination with donors and development partners, such as FAO, UNDP and UNEP concerning Mongolia's National REDD+ Strategy.
- Support the preparation of the Consultation and Participation Plan and implement all components of the plan.
- With the assistance of the Taskforce and Working Groups, prepare comprehensive annual and quarterly work plans and operational budgets.
- Prepare Terms of Reference (ToR) for required inputs (individual and institutional consultancy services, the procurement of goods, organization of training, seminars, etc.).
- Ensure that all agreements with implementing agencies are prepared, negotiated, agreed upon and executed to the expected standards in a timely manner.
- Liaise and coordinate with relevant government departments and key external organizations on technical issues related to the implementation of the Mongolia's National REDD+ Strategy.
- Lead the planning, organisation and convening of relevant stakeholders' participation in the Taskforce and Working Groups.
- Develop and implement monitoring and evaluation mechanism for the Programme's financial, administrative, and operational activities and ensure timely submission of progress and financial reports.
- Report regularly on project progress and challenges to the Taskforce.

Staff members of the National REDD+ Programme Unit should include a Programme Manager, Senior Technical Advisor, a national forest monitoring system specialist, a Communications Officer, an Administration Officer and at least one Secretary.

CSO/LC Forum

Civil Society Organizations (CSOs) and Local Communities (LCs), such as herders, Forest User Groups, and indigenous peoples, will play an important role in designing and implementing a National REDD+ Strategy and Programme.

Roles and responsibilities

The key role of the CSO/LC Forum will be to enhance multi-stakeholder ownership of Mongolia's National REDD+ Strategy and to act as the main guarantor of compliance with social safeguards. Its key responsibilities will be to:

- Organize and confirm the representation of NGOs and other non-government stakeholders on REDD+ management structure institutions (REDD+ Taskforce and Working Groups)
- Act as the first point of reference for institutions/agencies and the Taskforce/TWGs concerning all REDD+ consultation processes and to validate consultation methodologies, where appropriate
- Commission, develop and approve REDD+ communication materials
- Provide continuous feedback to the REDD+ management structure
- Monitor compliance with Social and Environmental Safeguards
- Receive and communicate submissions or complaints concerning the National REDD+ Strategy under the REDD+ grievance mechanism, if requested to do so
- Additional roles as determined by the Forum members themselves and as agreed by the Taskforce.

The CSO/IP Forum will develop its own TOR.

Annex 1b-1: Summary of Workshops and Consultations

National and regional workshops

The following consultation and awareness raising activities have taken place in relation to REDD+ and Mongolia's proposal to develop this national REDD+ Roadmap:

- an initial scoping mission by UNDP/UN-REDD Programme in March 2011
- a national-level workshop held in Ulaanbaatar on 13 September 2011, attended by 49 participants.[96]
- representatives from UNDP/UN-REDD held face-to-face meetings with government agencies and other stakeholders during two UN-REDD missions in September and November 2011. **Annex 1b-1** contains a list of people consulted during these missions.
- A presentation on "How can REDD+ assist with adaptation in Mongolia?" to the Second Conference on Climate Change Adaptation – Reducing Vulnerabilities in Agriculture and Forestry Sectors, GIZ, held on 17 – 18 November 2011, Ulaanbaatar, Mongolia.
- a regional workshop on 20 November 2011 in Selenge *aimag*, 200 kilometres north of Ulaanbaatar, attended by 52 participants from Forest Bureaus, Forest Units, Forest User Groups, environmental rangers, and other regional stakeholders (see Regional Consultation Report on the UNPD Mongolia website).
- a consultation with members from three Forest User Groups in Mandal *soum*, Selenge *aimag* (21 November 2011).
- a two-day workshop conducted by FAO held on 28-29 November 2011 in Ulaanbaatar on REDD+ Monitoring and MRV, which was attended by over 50 stakeholders.
- a national level workshop held in Ulaanbaatar on 13 March 2012 to review and invite additional inputs from key stakeholders to the draft framework of this Roadmap.
- a regional workshop on 14-18 March in Khuvsgul aimag, (the workshop report is available on the UNDP Mongolia website.

Television and newspaper reports

The following newspaper articles and television reports have also appeared in Mongolia:

- The Forestry Agency, Make Investments in Forests, the "Political View" newsletter, #170 /391, September 03, 2011.
- The Forestry Agency, Make Investments in Forests, the "Political View" newsletter, #172 /393, September 13, 2011.

[96] Workshop report http://www.undp.mn/publications/Workshop%20Report%20on%20establishment%20of%20REDD%20Taskforce%2013%20Sept%202011.pdf)

- "We could get money from the world if we can grow trees", article in the "National News newsletter" (# 53 /053, 29 November, 2011) by Mr. Purevtseren, participant in the regional Selenge Workshop on 20 November 2011.
- A televised report on the first National REDD+ Workshop held on 13 September 2011 was made on Mongolian National Broadcast (MNB) and Eagle TV and is available here: http://www.undp.mn/news-snrm130911.html.

Website material

At present, there is no dedicated website for REDD+ in Mongolia at present (see the proposal in Component 1c). As an interim measure, information relating to the development of REDD+ in Mongolia is being made available on the UNDP Mongolia Country Office website on which all reports and presentations from workshops and other stakeholder consultations have been made available.[97] The website also contains a copy of the Decree establishing the Taskforce, a list of Taskforce members. Mongolia will determine how to establish a permanent REDD+ website as part of the National REDD+ Strategy.

List of people consulted during missions in March, Sept and Nov 2011

The following people and organizations were consulted regarding the development of this REDD+ Roadmap for Mongolia during the UNDP / UN-REDD missions in March 2011, September 2011, and November 2011 (in alphabetical order):

Mr. Khajidsuren Altantsatsralt, Head, Evergreen Life Association (NGO Mongolia); Renchin Bayanbileg, Mongolian Arborculturalist; Mr. Batbold, B., (Head, Mongolian Environmental Civil Council); Mr. Batbold, Dorjgurkhem (Director, Department of International Cooperation, MEGD); Mr. Demberel, B.M. (Vice Director, Forestry Agency); Dr. Amanda Fine (Wildlife Conservation Society); Mr. Wolfgang Hesse (GIZ); Ms. Otgontsetseg Manaljav, Head of Administration, MECC; Ms. Erdenechimeg Manjaa, Forest Relation Officer, MECC; Mr. Munkjargal (ADB Strengthening Carbon Financing for Regional Grassland Management project); Mr. Dominique Reeb (FAO); Mr. Klaus Schmidt-Corsitto (GIZ, Leader of Climate Change and Biodiversity Conservation and Sustainable Management of Natural Resources project); Dr Saurabh Sinha (Senior Economist, UNDP Mongolia); Ms. M. Tungalag (Director, Forestry Agency); representative from the Federation of Mongolia's Forest Users and Gardeners Union.

[97] http://www.undp.mn/ [UPDATE THIS WEB LINK]

Annex 1c-1: Indigenous Peoples and Ethnic Minorities in Mongolia

[Note: Those *aimags* located in northern forested areas are highlighted in **bold.**]

No.	Nationalities and ethnic groups	Number of population	In %.	*Aimag* in which most nationalities / ethnic groups live
1.	Khalkh	2,168,141	82.4	Ulaanbaatar (47.8)
2.	Kazakh	101 526	3.9	Bayan-Ulgii (75.6)
3.	Durvud	72 403	2.8	Uvs (42.9)
4.	Bayad	56 573	2.2	Uvs (45.4)
5.	Buriad	45087	1.7	Dornod (35.4)
6.	Zakhchin	32845	1.2	Khovd (60.3)
7.	Dariganga	27412	1.0	Sukhbaatar (78.4)
8.	Uriankhai	26654	1.0	Khovd (23.4)
9.	**Darkhad**	**21558**	**0.8**	**Khuvsgul (82.2)**
10.	Uuld	15520	0.6	UB (38.9); Khovd (32.1)
11.	**Khotogoid**	**15460**	**0.6**	**Khuvsgul (84.6)**
12.	Khoton	11304	0.4	Uvs (47.6)
13.	Myangad	6592	0.3	Khovd (57.0)
14.	Tuva	5169	0.2	Bayan-Ulgii (30.3)
15.	Barga	2989	0.1	Dornod (66.5)
16.	Uzemchin	2577	0.1	Dornod (72.0)
17.	Eljigen	1340	0.1	Uvs (93.3)
18.	Sartuul	1286	0.0	UB (45.7)
19.	**Khamnigan**	**537**	**0.0**	**Khentii (49.9)**
20.	**Tsaatan (nomadic reindeer herders)**	**282**	**0.0**	**Khuvsgul (86.5)**

Source: (2011), National Statistical Office of Mongolia, Main Report of the Population and Housing (Census of Mongolia-2010: Tables 3.3. and 3.5., Ulaanbaatar.)

Annex 2a-1: Forest areas and Forest User Groups, by Aimag

No.	Aimag	Forest resources[98]		No of rangers	Forest User Groups[99]	Total forest area held by FUGS (ha)	No. of private forestry entities	Area held by private forestry entities (ha)
		Boreal (ha)	Saxaul (hectares)					
1.	Khuvsgul	4,209,000	---	50	27	84,142	-	-
2.	Selenge	1,931,200	---	36	102	313,218	31	89,741
3.	Bulgan	1,917,700	---	30	55	146,100	2	19,379
4.	Khentii	1,783,900	---	40	77	480,046	3	11,879
5.	Tuv	1,445,300	---	33	80	144,878	12	47,464
6.	Arkhangai	1,008,600	---	35	38	97,920	-	-
7.	Zavkhan	777,900	---	23	47	133,696	-	-
8.	Dornod	188,800	---	22	15	127,147	3	139,619
9.	Uvs	185,600	---	39	25	69,966	-	-
10.	Ovorkhangai	171,100	75,800	18	49	67,251	1	250
11.	Ulaanbaatar	116,000	---	38	7	11,306	-	-
12.	Darkhan-Uul	79,000	---	11	46	107,494	5	2,011
13.	Bayan-Olgii	68,100	---	21	18	13,205	-	-
14.	Bayankhongor	23,700	560,700	-	21	49,303	-	-
15.	Orkhon	17,800	---	7	8	4,771	2	1,389
16.	Gobi-Altai	8,800	1,925,700	-	-	-	-	-
17.	Dornogobi	---	194,700		9	4,470		
18.	Dundgobi	---	58,000					
19.	Khovd	---	644,400					
20.	Omnogobi	---	1,173,900					
21.	Sukhbaatar	---	---		5	45		
22.	Gobisumber[100]	---	---		2	70		
	Total	**13,932,500**	**4,633,000**	**403**	**631**	**1,843,723**	**59**	**311,732**

[98] Source: Forestry Agency (2011), State [of] Forest Land of Mongolia, Tables pages 3 and 4.
[99] Figures for FUGs and private forestry entities are as at 23 February 2011. Figures obtained from Dr E. Bat-Ochir, provided by Forestry Agency.
[100] Gobisumber is a newly created *aimag*. Forest cover statistics are not yet available.

Annex 2a-2: Exploration and Mining Licences Overlapping with (Northern) Forest Areas, 2009[101]

No	Name of aimag	Total forest area (ha)	Exploration licences in forest area		Mining licences in forest area		Total forest area covered by exploration and mining licences (ha)	% of forest area overlapped by mining licence
			No. of licences	Area (ha)covered	No. of licences	Area (ha)covered		
1.	Khuvsgul	4,209,000	82	236,904	1	5	236,909	2.0
2.	Selenge	1,931,200	171	252,267	99	16,289	268,556	14.0
3.	Bulgan	1,917,600	57	413,665	7	2,709	416,374	3.3
4.	Khentii	1,783,900	78	285,094	12	1,440	286,534	5.0
5.	Tuv	1,445,300	39	19,817	10	1,211	21,028	3.4
6.	Arkhangai	1,008,700	51	112,371	12	1,916	114,287	6.2
7.	Zavkhan	778,000	20	35,630	-	-	35,630	2.6
8.	Dornod	188,800	16	5,310	2	43	5,353	9.5
9.	Uvs	185,600	25	19,142	1	63	19,205	14.0
10.	Uvurkhangai	171,200 (247,000 incl'g Saxaul)	13	28,019	13	3,310	31,329	10.5
11.	Ulaanbaatar	116,000	-	-	-	-	-	-
12.	Darkhan-Uul	79,000	33	13,916	19	1,648	15,564	65.8
13.	Bayan-Ulgii	68,000	10	4,717	-	-	4,717	14.7
14.	Bayankhongor	23,600 (584,300 incl'g Saxaul)	20	32,407	-	-	32,407	3.4
15.	Orkhon	17,800	-	-	-	-	-	-
	Totals	**13,923,700**	**783**	**1,459,259**	**176**	**28,634**	**1,487,893**	

[101] Source: Forestry Agency, Mongolia, 2011.

Annex 2a-3: Legislation Relevant to REDD+

NAME OF LEGISLATION	ADMINISTERED BY	RELEVANCE TO REDD+
Constitution of Mongolia 1992		Establishes state ownership of land. Contains guarantees regarding human rights and gender equality.
National Security Concept (Resolution of State Great Khural No 48, 15 July 2010)	State Great Khural (Parliament)	Recognises the need to conserve biodiversity (Art 3.5.3); sets an objective to increase forest resource by 2% by prohibiting harvesting (Art. 3.5.3.3); notes the need to address the use of fuel wood by increasing fuel wood production and supporting new technology for alternative fuels (Art. 3.5.3.4).
LAND AND NATURAL RESOURCE OWNERSHIP, AND CIVIL REGULATION		
Civil Code 2002		Recognizes the right to limited possession and use of another's property (usufruct rights) which may be of relevance to any future regime to determine carbon rights (Art. 152).
Criminal Code 2002 (revised 2008)	Ministry of Justice/ National Police	Recognizes crimes against nature and environment and imposes penalties (Charter 23).
Law on Land 2002	ALAGC	Regulates possession and use of land by citizens and economic entities; includes provisions to resolve disputes over land ownership, use and contractual rights.
Law on Land Privatization 2002	ALAGC	
FOREST		
Law on Forest 2007 (revised2012)	MEGD	Shift from management of forest by state towards privatization and community-based natural resource management
Law on Environmental Protection 1995 (revised 2012)	MEGD	Allows citizens to form partnerships and economic entities to protect and use forests under contract; establishes state ownership of natural resources; requires environmental monitoring; establishes state inspectors and rangers; delegation of environmental protection to NGOs
Law on Soil Protection and Prevention from Desertification 2012	MEGD	Protect soil form soil degradation, rehabilitation and copying desertification.
Law on Against Fire 1999 (revised 2012)	NEMA and MEGD	Law on Forest and Steppe Fire Prevention 1996 is annihilated. Articles on fighting against forest and steppe fire added in the Law: processes throughout all levels of government for preventing fires in forests and grasslands, for extinguishing fires, and recovering damages. Police are responsible for determining the causes of fires and for prosecuting offences.
Law on Against Disaster 2003 (revised 2012)	NEMA	Article added due to enforce the Law on Forest.
Law on Water 2012 (amended)	MEGD	This law is fully amended and regulates relations on protection of water resource and its basin, sustainable use and rehabilitation of water resource.
Law on Payment for Natural Resource Use 2012	MEGD	The law regulates relation on imposition fee for natural resources use, collecting in fiscal budget, reporting and fix percent and amount of cost, which spend for environment protection and rehabilitation and restoration of natural resources

NAME OF LEGISLATION	ADMINISTERED BY	RELEVANCE TO REDD+
Law to Prohibit Mineral Exploitation in Forest Areas and River Headwaters 2009 (called 'The Law with the Long Name')	MEGD/MM and Mineral Resources Authority	This law prohibits mineral exploration and extraction in forested areas and in river headwaters. It allows exploration and mining licences in forest areas and river headwaters to be revoked, on payment of compensation. To date it has been used to suspend 246 mineral licences. However it is not yet fully implemented due to inadequate funds being available to pay compensation.
Regulations for implementation of Law on Forest	MEGD	New 19 regulations developed
PROTECTED AREAS		
Law on Special Protected Areas 1994 (revised 2006)	Special Protected Area Administration (MEGD)	Defines the property rights of households located in strictly protected areas.
Law on Buffer Zones 1997	Special Protected Area Administration (MEGD)	Establishes buffer zones around protected areas.
ENVIRONMENTAL ASSESSMENT		
Law on Environment Impact Assessment 2012 (amended)	MEGD	Ensures environmental impact assessment occurs at the start of a project (for industrial, construction and natural resource projects). Ensure stakeholders engagement to the EIA.
MINING		
Minerals Law of Mongolia 2006 (revised 2012)	MEGD	Regulates the exploration and mining of minerals and to protect exploration areas and areas surrounding mining tenements. Ensure to review new EIA and environmental management plan and restore mining area after mining closing.
FISCAL MANAGEMENT AND ANTI-CORRUPTION		
Fiscal Stability Law (2010)	MF	
Law on Fiscal Budget 2011 (revised 2012)	MF	
Law on Special Funds of the Government 2006 (revised 2011)		
Law on Anti-Corruption 2006	IAACM	
Law on Human Development Fund 2009 (revised 2012)	MF and MPDWP	Is likely to provide lessons for the management of REDD+ revenues from the initiative to establish a transparent and effective sovereign wealth fund,
Law on the Regulation of Public and Private Interests and Prevention of Conflict of Interests in Public Service 2012 (passed January 2012)		

Annex 2a-4: International treaties Relevant to REDD+ and Ratified by Mongolia

Treaty / Convention	Date of ratification (Acceptance, approval)	Focal point	Legislation enacting treaty obligations, reports and policy documents
Climate change			
United Nations Convention on Climate Change 1992	1994	MEGD	Second National Communication on Climate Change (2010); Mongolia's Assessment Report on Climate Change (2009); National Action Programme on Climate Change
Kyoto Protocol 1997		MEGD	
Environment			
Convention on Biological Diversity 1992	1993		Fourth National Report on Implementation of Convention on Biodiversity Diversity (2009); Biodiversity Conservation Action Plan (1996)
Convention on Combating Desertification	1996		National Plan of Action to Combat Desertification
Convention on Wetlands of International Importance (Ramsar Convention)	1998		
Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES)	1996		
Convention on Migratory Species	1999		
Heritage			
World Heritage Convention			UNESCO World Heritage sites; Man and Biosphere Reserves
Human rights			
International Covenant on Civil and Political Rights 1966	1974		
First Optional Protocol of the International Covenant on Civil and Political Rights	YES		
International Covenant on Economic, Social and Cultural Rights 1966	1974		
International Convention on the Elimination of All Forms of Racial Discrimination 1966	1969		
Convention on the Elimination of All Forms of Discrimination Against Women 1979	1981		
Optional Protocol of the Convention on the Elimination of All Forms of Discrimination Against Women (1999)	2001		
Convention Concerning Indigenous and Tribal Peoples in Independent Countries 1989 (ILO 169)	No		
Governance			
United Nations Convention Against Corruption 2005	2006		Law on Anti-corruption

Annex 2a-5: Description of Governance in Mongolia

Forest policy and forest management issues

Private forestry companies

Forestry operations in Mongolia, such as thinning and cleaning, forest inventory activities, and commercial logging, are carried out by private economic entities. In order to operate, each entity must be authorised by MEGD as an 'Authorised Professional Forest Organisation'. Private entities must then obtain a further licence which authorizes their specific activities (Regulation on the Activities of Forest Professional Organization, Appendix to Decree No 307, Minister for NET, 23 October 2009).

Undersupply of forest resource

During the 1990s, the management of Mongolia's forests focussed on utilization and exploitation (1988 National Forest Programme, revised in 2001). The emphasis shifted to conservation and protection in the mid-2000s. However, the current policy of restricting supply, achieved by expanding conservation areas and setting unrealistically low limits for the annual allowable cut (AAC), has not been matched with effective measures to reduce demand for timber and fuel wood and to improve law enforcement, thus creating an undersupply of legally accessible forest resources and an environment which is conducive to corruption. This also denies revenue to the State and means that data on harvest, trade and wood consumption is generally unreliable.

Forest zoning

Under the Law on Forest 2012, forest areas in Mongolia are classified into two zones:

- *Protected Forest*– this includes:
    - areas within 1 km of riverbanks, lakes and springs, areas within 'green belts' surrounding towns (30 km radius) and cities, forests on slopes greater 30^0, and
    - forests located in Strictly Protected Areas that are regulated under the *Law on Special Protected Areas 1994* (Art 8); and
- *Utilization Forest* – this is a default category which covers all other forest areas (Art 9).

Based on this zoning, only about 7% of the forest resource available for utilization (see **Table 10**). Potential activities to improve forest zoning include:

- Scientific review of the forest resource areas covered by the two forest zones, including recommendations as to whether sufficient area is available as Utilization Forest;
- Creation of detailed mapping of areas in northern forests zoned as 'Protected Forests'. These maps (to be developed as part of the national forest monitoring system under Component 4) can be used for REDD+ planning and will also assist with forest law enforcement.

Low annual allowable cut and demand for wood

The national Annual Allowable Cut (AAC) (also called the 'maximum harvesting quota') is set by MEGD (Law on Forest, 2007, Arts. 12.1.4; 29.1). Allowable cut quotas are then designated to *aimags*, which in turn allocate logging quotas in *soums* and districts of Ulaanbaatar. Local parliaments establish the quotas for each FUG and logging company (Art. 29.3). The AAC usually covers four categories: industrial timber, private use timber (not processed by a commercial industry), fuel wood, and wood collected from thinning and cleaning (World Bank, 2006a: 11). To date, unrealistically low AACs have inadvertently encouraged illegal logging by preventing legitimate logging companies from operating within the legal framework, creating conditions that encourage unlawful behaviour.

The table below shows recent total annual allowable cut figures set by the Forestry Agency:

2006 (m^3)	2010 (m^3)	2011 (m^3)	2012 (m^3)
617,200[102]	671,000[103]	766,000	972,000

In contrast to the AAC, the rate of consumption of wood is much higher. Although it is difficult to estimate consumption accurately due to a lack of reliable data, there are estimates of total annual wood consumption of between 1.4 m^3 - 5.51m^3, with the large variation being due to the uncertainty over fuel wood consumption (World Bank, 2006a:15). The growing economy is increasing demand for timber for houses and construction. A two-pronged approach is clearly required to increase legal wood supply while reducing demand.

Potential activities to address the AAC issue include:

- Support research to identify current and future demand for all categories of wood use in Mongolia, and to identify opportunities to reduce demand;
- Support scientific research to quantify the AAC that can be harvested on a sustainable basis.

National forest policy and management

The Government of Mongolia has taken many steps recently to address the problems in forest management and the new challenges posed by global warming, desertification, forest degradation and intensive economic growth. This reform process began with the *Law on Forest 2007*, which embraces the principle of sustainable forest management, establishes a structure for decentralizing forest management, and creates a framework for community forest management. Building on this Law, Mongolia is currently preparing a new Forest Policy, with technical and financial support from FAO. The draft Forest Policy 2011 adopts as two of its strategic objectives the need to develop a comprehensive forest inventory, and the introduction of sustainable forest management according to a long term plan of forest management (Art. III.1). The Policy also recognises the need to balance conservation with sustainable use (Art IV), and supports the principle of community-based forest management.

Thinning and cleaning activities

Coniferous/boreal forests benefit from active management such as silvicultural thinning, removal of burnt or infected timber ('forest cleaning'), and replanting. Thinning and cleaning support the resilience of forest stands to fire, and can encourage re-growth in these slow-growing forests. However the need for cleaning can sometimes contribute to forest degradation as those holding permits for thinning and cleaning can use the opportunity to illegally cut additional timber, or people may intentionally start forest fires in order to justify a forest cleaning permit the 'cleaning' of the forest.Mongolia's forests could therefore benefit from more active management. A national Forest Management Plan which should address this issue was developed 2011 and has been submitted to the Minister of NET and is currently awaiting government approval.

Proposed activity: Review of draft national Forest Management Plan to ensure consistency with REDD+.

[102] 2006 figure extracted from World Bank 2006a: 1.
[103] Figures for 2010, 2011 and 2012, provided by Forestry Agency.

Forest governance and law enforcement

Corruption

Corruption has been identified as a problem in the forestry sector in Mongolia within all institutions relating to forestry, including forest sector authorities, police and inspectors (World Bank 2006a: 50). The undersupply of timber has created a situation where corruption is bound to occur because of the scarcity of the resource. Corrupt behaviour includes bribery of officials to issue permits, collusion and sharing of profits with government officials, and buying licences on the black market (World Bank 2006a:42 - 46). Mongolia has taken significant steps in the past few years to address corruption, has passed an Anti-Corruption Law and established an Independent Authority Against Corruption.

Proposed action: The National REDD+ Strategy will seek to build on these recent reforms by mapping corruption risks in the forest sector and by developing a plan to integrate the forest sector into the existing anti-corruption framework.

Forest law enforcement and FLEGT

Forest law enforcement can be difficult in Mongolia due to the vast areas involved, low population density, and relatively small number of forest rangers. There is also a need to simplify and streamline the process of enforcing forest laws in Mongolia, which is fragmented between a number of agencies and levels of government, due in part to decentralization and the state policy of separating regulatory and enforcement responsibilities.[104] *Aimag* and *soum* level governments are responsible for appointing forest rangers. However, the State Specialized Inspection Agency is responsible for assigning State chief inspectors to the *aimags* (and Ulaanbaatar), and state inspectors to *soums*, who report directly to GASI. State inspectors have power to order the suspension of environmentally damaging activities and can impose administrative penalties (fines).

For more serious matters which may justify a criminal prosecution, breaches of forestry laws identified by forest rangers must be reported to the *soum* or *aimag* governor, who must then request the State Specialized Inspection Agency to investigate the matter. This information is then passed to the Environmental Crimes Unit of the Mongolian National Police, which has the authority to prosecute environmental crimes, such as breaches of forestry and mining laws.[105] Where breaches are reported which concern SPAs in areas near national borders, the General Authority for Border Protection becomes responsible for law enforcement (Law on Special Protected Areas, Art. 5).

Since 2008, Mongolia has participated in the World Bank's Forest Law Enforcement and Governance (FLEG) program, with the assistance of GIZ.[106] The FLEG process is being guided by a National Committee, the membership of which was reformulated by government resolution on 14 July 2010.[107] The Committee now has nine members which include the Chairman of GASI, DFCRM, SPAA, the Independent Commission Against Corruption and MIA.

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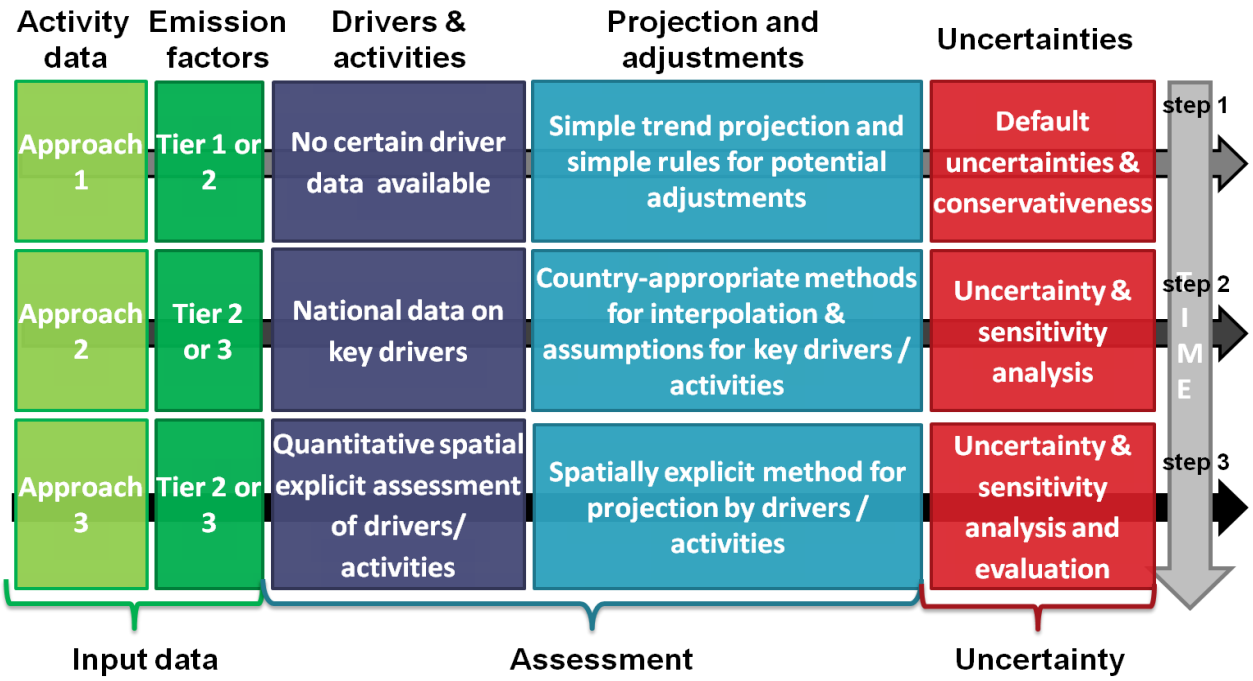
[104] The law in Mongolia requires inspection units to be kept separate from the ministry that established the regulations. Hence, an attempt in 2005 to establish an Office for the Coordination of Wood and Wood Materials Inspection under the Ministry of Nature and Environment was abandoned in 2006 (World Bank, 2006a: 10).

[105] In order to address concerns that police investigators and GASI staff lack training to enforce environmental and forestry laws, GIZ recently organized a training session on 8-9 September 2011 on 'Legal Use of Forest Resources and Capacity Development' for police investigators.

[106] See http://www.fleg.mn/index.php?pid=127

[107] National Steering Committee on FLEG process, joint resolution #42/128/A-209/469 by Deputy Prime Minister, Minister of Justice and Home Affairs, Minister for Nature, Environment and Tourism, and the Governor of Ulaanbaatar City.

Annex 3: Develop a National Forest Reference Emission Level and/or Forest Reference Level



Listed below are the results from the break out groups during the National REDD+ Monitoring and MRV workshop conducted by UNDP Mongolia/FAO/UN-REDD in Ulaanbaatar on 28-29 November 2011 as part of the national REDD+ readiness process.

National circumstances

Q: What special characteristics affect the forest in Mongolia that should be considered for REDD+?

A: **Climate:** Four seasons, extreme and continental climate, High gradient of temperature, Low and uneven precipitation, wind, anti-cyclone regime; **the effect of climate change** (desertification, loss of forest areas, increase in forest fires, etc), desertification; deforestation; forest fires; insect attacks; melting of permafrost; decreasing water resources; disasters (earthquake, and flooding): **Geography**: Boreal forest; concentration of population in forest areas; location - far from oceans; **History** (recent transition from socialist to market economy, abandonment of agricultural areas, etc): large areas of abandoned agriculture; forest is state property, Forest user groups are established, a lot of historical and natural heritages.

Q: What characteristics should Mongolia monitor as part of its REDD+ monitoring system?

A: Forest types: Boreal forest; Saxaul forest.

Q: Which aimags have forested areas?

A: Uvurkhangai; Bayankhongor; Khuvsgul; Bulgan; Selenge; Khentii; Zavkhan; Uvs; Dornod; Bayan-Ulgii; Khovd; Darkhan-Uul; Orkhon; Tuv; Gobi-Sumber; Dornogovi.

Q: Which aimags have no forest?

A: Gobi-Altai; Umnugobi; Sukhbaatar; Dundgobi.

Q: What other characteristics should Mongolia monitor?

A: **Land uses** (extent of agriculture, number of protected areas, etc): pasture areas, mining exploitation areas; agriculture areas; settlements, protected areas (65), protected area management; **Biodiversity**: fauna and flora, specific characteristics of ecosystems; **GDP / income / wealth**: GDP – 1,312,433.5 Tugrik from forest sector, minimum Income in Ulaanbaatar – 118,100 Tugrik.

■ Drivers of deforestation and forest degradation

CAUSES OF DEFORESTATION AND FOREST DEGRADATION	POTENTIAL SOLUTIONS (Strategies)
A. Forest fire	Establish strip of fire; Organize regularly awareness activities and trainings for fire prevention; Organize regularly patrolling and monitoring for fire and make air-monitoring; Increase responsibilities of local authorities; Increase number of forest units and improve capacity building; Allocation budget to state and local budget for forest fire fighting;
B. Insect attack	Improve capacities of the Authorized Forest Organizations; Conduct multi-disciplined survey on Insects distribution and damages; Include members of FUGs to the survey teams; Right selection of insect fighting methods, reduce chemical substances, support and use biological and mechanical methods; Organize timely fighting and increase participation of FUGs members and Awareness raisings.
C. People- based activities	Regularly monitoring and patrolling and decrease illegal logging; cleaning and thinning of falling and old trees and increase effectiveness of forest; Increase responsibilities; decrease number of income of local budget, which consist of income from Forest; sustainable use NTFP.
D. Mining activities	Enforcement of 'Law with the Long Name' which prohibits mining licences in forested and river areas; increase responsibilities of the mining companies.
E. Climate change (melting of permafrost; loss of soil moisture)	Improve effectiveness of afforestation and re-forestation activities; create forest strips in Gobi ("Green Wall" programme); improve forest structure and composition.
F. Poverty	Increase job-places; produce alternative fuels.
G. Pasture use	Develop farmer husbandry.

■ Increasing forest carbon stocks

Q: How could Mongolia improve the management of its protected areas?

A: Improve legislation for Protected Areas; Improve local structures for Protected Areas; Increase number of rangers.

Q: Sustainable forest management: What can Mongolia do to improve the sustainable management of its forests and to improve forest productivity?

A: Amend the Forest Policy and Law to align it with current market demand and economic conditions.

Q: What reforestation programmes have worked well in Mongolia?

A: National Programme on Forestry; Green Wall programme; National Programme on Combating of Desertification; Mongolian Government Programme.

Q: Where has reforestation been successful?

A: In Selenge and Zavkhan *aimags.* In forest areas where they could meet the cost of protection from grazing, fences, watering and cultivation; 'green belts' around cities and towns; crop areas.

Q: Where has replanting been unsuccessful?

A: Causes of failure include: Wrong afforestation technology, there are insufficient funds for protection, fences, watering and cultivation, wrong selection of afforestation areas, incorrect planting season.

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