MINISTRY OF ENVIRONMENT
AND TOURISM

REDD+
MONGOLIA
Building resilience, livelihoods and economy

Sub–Action Plan under Objective Two of State Policy on Forest:
Action 2.7.5.

NATIONAL STRATEGY AND ACTION PLAN FOR REDUCING EMISSIONS FROM DEFORESTATION AND FOREST DEGRADATION (REDD+)

UN-REDD
PROGRAMME

Food and Agriculture
Organization of the
United Nations

UNDP

UNEP

ACRONYMS

AAC	Annual Allowable Cut
AFOLU	Agriculture Forests and Land Use
ALAGAC	Administration of Land Affairs, Geodesy, and Cartography
BUR	Biennial Update Report
CCPIU	Climate Change Program Implementation Unit
CSO	Civil Society Organization
CTID	Clean Technology and Investment Department
DFPC	Department of Forest Policy and Coordination
DMH	Department of Meteorology and Hydrology
EIC	Environmental Information Centre
FAO	Food and Agriculture Organization of the United Nations
FRDC	Forest Research and Development Centre
FRL	Forests Reference Level
FREL	Forests Reference Emission Level
FSDC	Forest-Sustainable Development Council
FUG	Forest User Group
GASI	General Agency for Specialized Inspection
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GHGi	Greenhouse Gas inventory
GIZ	Technical Cooperation Agency of the German Government
GPD	General Police Department
LPGE	Law on Promotion of Gender Equality
MECS	Ministry of Education, Culture, and Science
MET	Ministry of Environment and Tourism
MJIA	Ministry of Justice and Internal Affairs
MLSW	Ministry of Labor and Social Welfare
MOF	Ministry of Finance
MOFALI	Ministry of Food, Agriculture and Light Industry
MNT	Mongolian Tugrik
MRV	Measurement, Reporting, and Verification

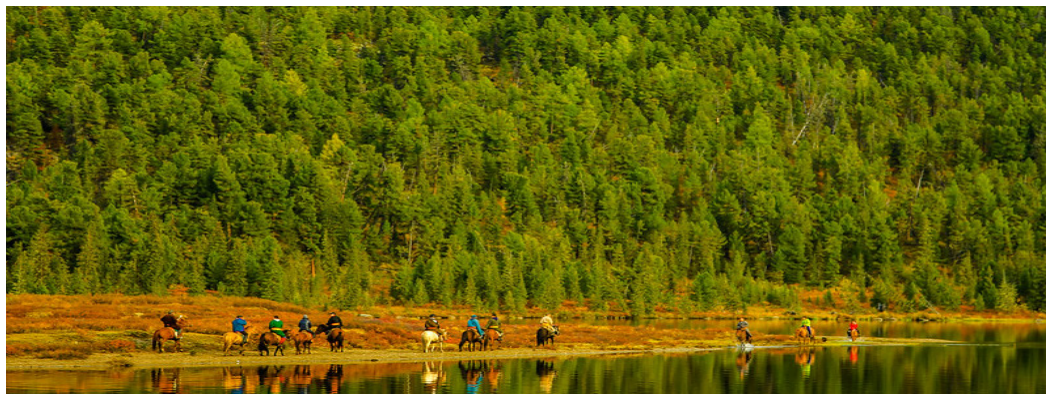|	
NAP	National Adaptation Plan
NAPA	National Adaptation Programme of Action
NEMA	National Emergency Management Agency
NFI	National Forest Inventory
NFMS	National Forest Monitoring System
NDA	National Development Agency
NDC	Nationally Determined Contribution
NGO	Non-Government Organization
NSF	National Safeguards Framework
NSAP-REDD+	National Strategy and Action Plan for REDD+
NSO	National Statistical Office of Mongolia
PIU	Program Implementation Unit
REDD+	Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
SIS	Safeguard Information System
SLMS	Satellite Land-use Monitoring System
SoI	Summary of Information
SPIA	State Professional Inspection Agency
tCO2e	Tonnes of Carbon Dioxide Equivalent
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UN-REDD	United Nations Collaborative Programme on REDD+
WFR	Warsaw Framework for REDD+

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1 BACKGROUND

Mongolia is a landlocked country located in the center of the Eurasian continent, sandwiched between Siberian boreal forests in the north and desert regions in the south. The climate is characterized by high fluctuations and extremes in temperature and precipitation. The annual mean temperature ranges from -6 to 8 degrees Celsius across regions and the annual precipitation varies from 50 to 150 millimeters in the Gobi Desert to 300 to 400 millimeters in the northern mountainous areas (MET, 2017). The country's territory covers an immense area of 1.56 million square kilometers with a total population of little over 3 million people, which make Mongolia one of the most sparsely populated countries.

The landmass mostly consists of grasslands that have supported traditional nomadic herding lifestyles for thousands of years. Nevertheless, the country supports a significant area of forest consisting of two major forest biomes, boreal forests in the north, accounting for approximately 14.2 million hectares, and 2.0 million hectares of

saxaul forest in the south (CCPIU, 2017). Boreal forests are predominantly comprised of larch, pine, and birch and a significant source of ecosystem services that support rural livelihoods and local economic development. Saxual forests are a dry woodland ecosystem, located in the desert regions, and essential for protecting vital water sources in the harsh arid environment, preventing desertification and supporting desert livelihoods.

The two most significant causes of forest degradation in Mongolia are anthropogenic forest fires and pest insect infestations. As a result, approximately 140,000 hectares of forests become degraded annually while deforestation due to permanent land use change mainly through continued degradation is relatively modest with a loss of 5,300 hectares annually (UN-REDD Mongolia, 2018c). These figures translate to Mongolia's forest-related net emissions of 3,477,384.20 tCO_2e per year. These changes in forest cover and quality have a significant bearing on the livelihoods of

forest-dependent communities that are self-organized into over 1,200 forest user groups (FUGs) for sustainable forest management (SFM) mainly for subsistence purposes and small-scale economic activities (UN-REDD Mongolia, 2018b). Although the forest sector accounts for only 0.5 percent of Mongolia's Gross Domestic Product (GDP), both the public and private sector activities through afforestation, reforestation, forest cleaning, and wood processing are essential sources of rural employment and income for local communities (ibid.).

With an increase in annual mean temperature of more than 2.24 degrees Celsius over the past 75 years, which is more than three times the global average, the effects of climate change on forests are significant (MET, 2017). Such effects have brought an increased risk of forest fire from warmer and drier summers, increased vulnerability to pest insect infestations, decreased soil water levels and changes in the phenology and seeding patterns of the tree species. Future climate scenarios predict a reduction in the country's forest cover by up to 6% during this century (ibid.).

Under the overarching development framework set by the Green Development Policy (2014) and Sustainable Development Vision 2030 (2016), Mongolia's State Policy on Forest (2015) aims to address these challenges by increasing its forest cover from the current 7.8 percent to 9.0 percent and decreasing greenhouse gas (GHG) emissions from deforestation and forest degradation by 5.0 percent from current emissions levels by 2030. These commitments to SFM and forest protection for green and sustainable development have also permeated through Mongolia's first Nationally Determined Contribution (NDC) (2015) to the Paris Agreement of the United Nations Framework Convention on Climate Change (UNFCCC).

Guided by the Action Plan of State Policy on Forest (2017) under Action 2.7 – *'Implementing projects and programmes on systematically reducing GHG emissions caused by deforestation and forest degradation'*, Mongolia is committed to implementing strategic activities through REDD+, which stands for reducing emissions from deforestation and forest degradation in developing countries, with the "+" denoting the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.

REDD+ is an international voluntary process for climate change mitigation under the UNFCCC to incentivize developing countries to keep their forests standing by offering results-based payments for actions to reduce and remove forest carbon emissions. Through support from the United Nations Collaborative Programme on REDD+ (UN-REDD), a series of baseline and feasibility studies were conducted between 2015 and 2018. Based on key findings and recommendations from these studies (see Annex Two), Mongolia has developed the necessary technical design elements of REDD+ and transparency processes, including this National Strategy and Action Plan for REDD+ (NSAP-REDD+). These elements and processes have been established as per the UNFCCC guidance, in order to operationalize REDD+ in the country and obtain and receive results-based finance (UNFCCC, 2016). In developing these elements and processes, described in the next sections, Mongolia's unique national and local circumstances were carefully considered, particularly as the country is the only developing country with significant boreal forest cover to implement REDD+.

1.1. NATIONAL STRATEGY AND ACTION PLAN FOR REDD+ (NSAP–REDD+)

The NSAP-REDD+ will guide the implementation of REDD+ in Mongolia over six years between 2020 and 2025. The NSAP-REDD+ sets out a clear vision for REDD+ in Mongolia, which is linked to Mongolia's broader goals of sustainable development. This places emphasis on the contribution of forests to the provision of ecosystem services in support of sustainable livelihoods and rural economic development. The NSAP-REDD+ describes specific policies, measures and actions to deliver REDD+ results with a financing plan and a monitoring and evaluation framework to track and report on progress. The NSAP-REDD+ also describes its implementation arrangements and specific roles and responsibilities of relevant groups of actors that are involved in its implementation.

The scale of implementation is national with various interlinking actions at the sub-national level, covering both boreal and saxaul forest biomes. However, a noticeably greater emphasis is placed on the contiguous boreal forest belt, encompassing twelve aimags (provinces) — Arkhangai, Bayan-Ulgii, Bulgan, Darkhan-Uul, Dornod, Khentii, Khuvsgul, Selenge, Tov, Uvurkhangai, Uvs, Zavkhan, as the magnitude of deforestation and forest degradation is much more pronounced in the boreal region.

2 INTERNATIONAL AND NATIONAL CONTEXTS

As a signatory to the Paris Agreement under the UNFCCC, Mongolia is fully committed to addressing potential impacts of climate change. Mongolia is striving to reduce its GHG emissions and vulnerability to climate change in a manner that is congruent with the country's sustainable development framework. As part of the country's efforts towards addressing climate change and achieving sustainable development, Mongolia aims to implement REDD+.

2.1. INTERNATIONAL REQUIREMENTS FOR OPERATIONALIZING REDD+

REDD+ aims to support developing countries to reduce forest-related GHG emissions, reverse forest loss and maintain and enhance existing forests stocks. Developing countries implementing REDD+ are expected to undertake any of the following five activities, as deemed appropriate based on their national circumstances and respective capacities.

1. Reducing emissions from deforestation
2. Reducing emissions from forest degradation
3. Conservation of forest carbon stocks
4. Sustainable management of forests
5. Enhancement of forest carbon stocks

It is essential to note here that the implementation of these activities often requires problems to be addressed outside of the forest sector, thus calling for highly coordinated multi-sector actions at national and sub-national levels. To implement REDD+ and obtain and receive results-based finance, developing countries are requested to develop and implement the following technical design elements (UNFCCC, 2016).

- A national strategy or action plan
- A national forest reference emission level (FREL) and/or forest reference level (FRL)
- A robust and transparent national forest monitoring system (NFMS)
- A system for providing information on how the so-called Cancun safeguards are being addressed and respected (i.e., a safeguard information system (SIS))
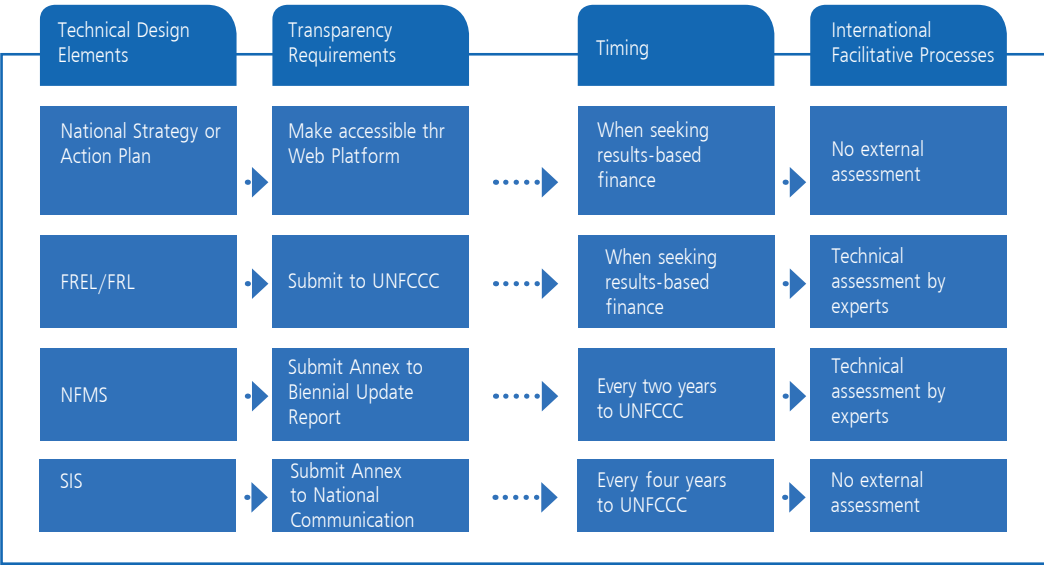
Technical Design Elements	Transparency Requirements	Timing	International Facilitative Processes
National Strategy or Action Plan	Make accessible thr Web Platform	When seeking results-based finance	No external assessment
FREL/FRL	Submit to UNFCCC	When seeking results-based finance	Technical assessment by experts
NFMS	Submit Annex to Biennial Update Report	Every two years to UNFCCC	Technical assessment by experts
SIS	Submit Annex to National Communication	Every four years to UNFCCC	No external assessment

Figure 1: *International Requirements for Operationalizing REDD+*

In accordance with these international requirements, Mongolia with the support of the UN-REDD Programme has developed these technical design elements and clear plans of action for meeting international transparency requirements (see Figure 1) as per the Warsaw Framework for REDD+ (WFR) (ibid.).

2.2. REDD+ IN MONGOLIA

The Ministry of Environment and Tourism (MET) is Mongolia's focal institution for the UNFCCC. The MET has identified REDD+ as a critical opportunity to demonstrate the country's commitment under the UNFCCC and fortify its policy linkages between SFM and the country's sustainable development vision. Building on this logic, Mongolia embarked on the full National Readiness Program in 2015 with support from the UN-REDD. Mongolia has since completed a series of baseline and feasibility studies (see Annex Two) through consultative and inclusive processes and conducted capacity development actions. Through these readiness efforts, Mongolia has set up all four technical design elements, including this NSAP-REDD+, to embark on the next phase with an aim to generate REDD+ results by implementing Mongolia's REDD+ policies, measures and actions, described in this document.

As set out in Mongolia's first FRL submitted to the UNFCCC in 2018, Mongolia will initially focus on three REDD+ activities - reducing emissions from deforestation and forest degradation and enhancement of forest carbon stocks (UN-REDD Mongolia, 2018c). These three REDD+ activities define the scope of the NSAP-REDD+.

3 SITUATION ANALYSIS

Mongolia is divided into twenty-one divisions known as "aimags", including the capital city of Ulaanbaatar with a secondary level of administrative subdivisions called "soums". The population is primarily based in Ulaanbaatar which accounts for approximately 1.5 million, or about half of Mongolia's population. Outside of major urban areas, more than 200,000 households, nearly 75 percent of the rural population, live off-grid and depend on the use of wood and coal for heating and trucked water services, wells, springs, streams and rivers for water. Given Mongolia's extreme continental climate with long dry and frigid winters and warm summers, the role of forests in rural livelihoods is critical as they provide fuelwood, water, Non-Wood Forest Products (NWFPs) and many other life-supporting ecosystem services.

3.1. FOREST STATUS IN MONGOLIA

The country supports two major forest biomes, boreal forests in the north accounting for 14.2 million hectares (87%), dominated by larch and birch; and 2.0 million hectares of saxaul forests (13%), a dry woodland ecosystem in the southern arid regions (CCPIU, 2017). Table 1 shows forest areas by type and definitions of the two broad forest types.

TABLE 1: **Forest Types and Definitions**

Forest Type		Total Area (ha)*	Definition*
Boreal	Plantation Boreal	7,088	Boreal: Land where canopy cover is greater than 10%, tree height is greater than 2 meters or has the potential to be, and the minimum area considered to be a forest is 1.0 hectares.
	Mixed	691,595	
	Shrub	766,740	
	Broadleaved	1,298,644	
	Coniferous	11,414,266	
Saxaul		2,048,003	Saxual: Land where canopy cover is greater than 4%, tree height is not defined, and the minimum area considered to be a forest is 1.0 ha.
Total		**16,226,335**	

*Source: * CCPIU (2017), ** UN-REDD Mongolia (2018c)*

The majority of Mongolia's boreal forests are concentrated in six northern amaigs— Bulgan (15% of boreal forest), Zavkhan (0.6%), Khentii (14%), Khuvsgul (33%), Selenge (15%) and Tov (5%). Figure 2 shows the general location of the boreal forests.
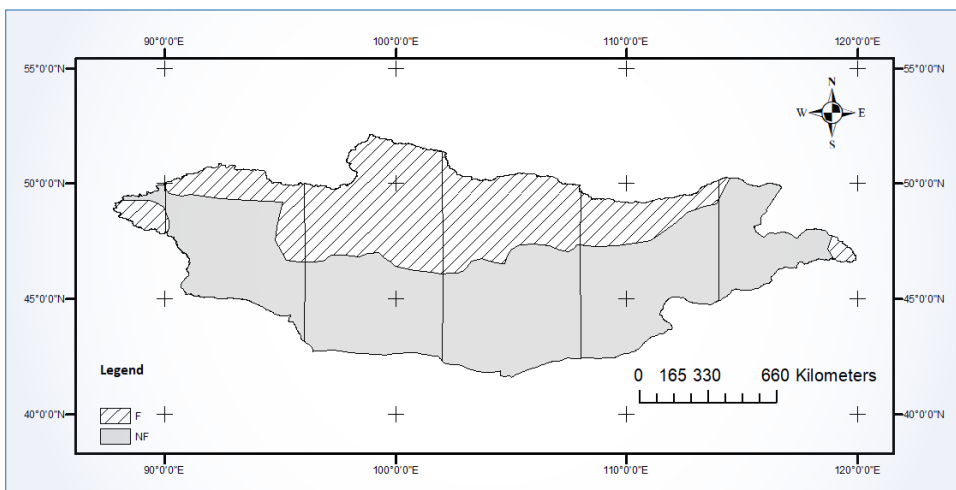

Figure 2: *Map of Boreal Forest (F) and Non-Boreal Forests (NF)*

Boreal Forests

Mongolia's boreal forests comprise deciduous and coniferous forests growing in the forest-steppe, boreal forest and mountain zones. These forests are dominated by four main conifer species: Siberian larch *(Larix sibirica)*, Siberian pine *(Pinus sibirica)*, Scotch pine *(Pinus sylvestris)* and Siberian spruce *(Picea obovata)*, with the majority being larch (CCPIU, 2017). The broad-leafed trees found are mainly Asian white birch *(Betula platyphylla)*, aspen *(Populum tremula)* or poplar *(Populus diversifolia)*. These forests are part of the transitional zone between the Siberian taiga forest to the north and the grasslands to the south. They typically grow on mountain slopes between 800-2500 meters above sea level. According to the forest taxation inventories, conducted by the Forest Resources and Development Centre (FRDC), larch, birch and saxaul trees account for about 60, 10 and 15 percent of forest area respectively. In terms of growing stock, larch contributes close to 80 percent, while all other trees are below 10 percent. The average annual growing stock amounts to 113.9 cubic meters per hectare. These forests have low productivity and growth rates, and they are vulnerable to disturbance from drought, fire, and pests and have relatively low ability for expansion to currently non-forested areas, as they are at the southern boundary of the Siberian taiga forest.

Saxaul Forests

The southern saxaul forests grow in the southern desert and desert-steppe regions, and their trees rarely attain 4 meters in height and have less than 10 percent forest canopy cover (ibid.). They consist mainly of saxaul *(Haloxylon ammodendron)* and secondary species such as poplar *(Populus sp.)*, tamarix *(Tamarix spp.)* and Caragana

species. Saxaul forests are essential in stabilizing active sand dunes and reducing the effects of sand storms and provide an essential source of fuelwood to nomadic pastoralists. However, with these forests adapted for long periods of low moisture, they have extremely low growth rates. Over-exploitation of these forests for commercial charcoal and fuelwood in the past have severely impacted the extent and health of these forests. The saxual forests have low above-ground biomass, estimated at 1 cubic meter per hectare, and thus limited potential for climate change mitigation. Nonetheless, the socioecological value of the saxual forests is significant as they provide habitats for dryland plant and animal species and support fragile semi-desert livelihoods.

3.2. FOREST CHANGE

As seen in Table 2, Mongolia's FRL reports that 139,481 hectares of forests became degraded annually between 2005 and 2015, and during the same period, 5,266 hectares of forests were lost, and 304 hectares of forests were gained annually (UN-REDD Mongolia, 2018c). These changes translate to Mongolia's annual forest CO_2 emissions and removals of 3,551,438.6 tCO_2e and 74,054.5 tCO_2e respectively, thus having the net emissions of 3,477,384.20 tCO_2e per year from the forest sector during the reference period (ibid.).

TABLE 2: **Forest change and forest carbon emissions and removals during 2005–2015**

Reference period: 2005-2015 (Change)	Area (ha)	Carbon emissions/ removals (tC)	CO_2 Equivalent (tCO_2e)	Annual CO_2 Equivalent (tCO_2e/yr.)
Intact forest > Non-forest	52,659.7	3,539,859.6	12,979,485.3	1,297,948.5
Intact forest > Degraded forest	1,394,810.0	6,145,882.1	22,534,901.1	2,253,490.1
Non-forest > Intact forest	2,531.2	-170,150.8	-623,886.4	-62,388.6
Non-forest > Degraded forest	506.5	-31,815.9	-116,658.2	-11,665.8

Source: UN-REDD(2018c) Note: (-) indicates removals and no sign indicates emissions.

Drivers of Forest Change

Deforestation is defined as the permanent conversion of forest cover to another type of land cover, while forest degradation is the reduction of biomass and ecosystem function in an area of forest that is still remaining as forests. As illustrated in Table 3, complex interactions between drivers of deforestation and forest degradation and their underlying causes impact Mongolia's forests, and these interactions make attribution nearly impossible. Thus, the following drivers and their underlying causes, identified through the *Preliminary Assessment of the Drivers of Forest Change in Mongolia* (2017a), remain indicative rather than confirmatory.

TABLE 3: **Direct and indirect drivers of deforestation and forest degradation in Mongolia**

Deforestation Drivers	Forest Degradation Drivers			
Permanent land use change from forests to other land use	Persistent reduction in forest ecosystem function, or in the case of REDD+, in carbon stock and canopy cover, but the predominant land use remains as forests.			
Drivers of Deforestation	Drivers of Forest Degradation			
Deforestation through continued degradation	• Forest Fire • Unsustainable logging and subsequent degradation • Minor damage from pest outbreaks • Grazing			
Underlying Causes of Deforestation and Forest Degradation				
• Demographic Factors	• Socio-Economic Factors	• Institutional & Governance Factors	• Environmental Factors	• Policy and Legal Issues

Source: UN-REDD Mongolia (2017a)

Direct drivers of Forest Degradation and Deforestation

Mongolia's forests are slow in growth and are vulnerable to disturbances from overgrazing, fires and insect pests. Once disturbed, these forests could thus easily lose their ecological balance partly due to the biophysical environment in the northern hemisphere's harsh continental climate, which significantly limits vegetative growth and soil moisture content.

The long-term compounding effects of degradation from several drivers could lead to permanent loss of forest cover and turn forest areas into steppe with few trees and shrubs. For instance, forest fires many of which are caused by human activities such as unsustainable logging practices are often followed by a succession of insect pest infestations, grazing and loss of soil moisture to convert intact forests into degraded forests (Nyamjav et al., 2007). These effects illustrate the complex interaction of drivers of deforestation and forest degradation and the difficulty of identifying a single factor as the primary driver. These drivers should, therefore, be treated as a group of factors to seek integrated approaches and solutions that can address multiple drivers and their causes.

The following descriptions of drivers nonetheless provide an entry point to a process of deforestation and forest degradation as it is essential to distinguish between the drivers that first trigger these complex processes of deforestation and forest degradation.

Forest Fires

Forest fires affect large areas of forest. Human activities cause about 95 percent of forest fires, while only 5 percent are due to natural factors, mainly lightning (MET, 2017). Most forest fires occur during the spring and autumn period due to activities such as timber harvesting, NWFPs collection and hunting (Nyamjav et al., 2007). Forest fires burn large amounts of herbaceous plants, and parts of the soil, that can contain humus layer, moss, peat, shrubs and deadwood on the ground. There can be surface, ground and crown fires depending on the environmental conditions and the amount of fuel available in the area. Crown fires often cause widespread mortality of existing trees and other vegetation

to change a forest structure that makes affected areas highly susceptible to damage caused by insect pests and becomes more accessible for logging, deadwood collection, and grazing by livestock. The observed drier summers and increased annual mean temperature have increased the risk of forest fire.

Forest Insect Pests

Insect damage is caused by a complex interaction of factors that are only partly human induced. Beneficial and detrimental insects usually live in harmony within a healthy forest ecosystem, with outbreaks often being part of the natural ecological cycles. However, due to weakened forest health, often caused by disturbances such as forest fires, logging, and grazing, conditions sometimes become conducive to large-scale pest outbreaks. After a fire event, there is a higher risk of pest infestation, and logged-over forests also tend to attract pests. Damage can be severe, and affected forests often become degraded. Prolonged dry conditions caused by the effects of climate change have also been reported to favor infestations of harmful insect pests. Pest damage is one of the contributing factors of forest degradation, and with combined effects of other drivers, such degraded forests can become deforested over time.

Unsustainable logging

Most logging practices in Mongolia are unsustainable and consequently lead to long-term forest degradation. Logging companies do not follow best logging practices such as reduced impact logging. Though Codes of Practice are available in Mongolia, logging safeguards are rarely implemented. Unsustainable logging compromises the capacity of forests to regenerate, thus increasing the risks of soil compaction, forest fire, and grazing to increase the possibility of further degradation and eventual deforestation. At present, sustainable logging and thinning occur over small areas on a pilot basis. Scaling up such practices would result in increased forest ecosystem health and local economic benefits while reducing forest fire and pest outbreak risks.

Grazing

Mongolia has a long tradition of raising livestock, with the majority of its rural population practicing semi-nomadic pastoralism. Currently, there are about 52 million heads of livestock, with about 23.3 million sheep and 22.0 million goats next to several other kinds of livestock (UN-REDD Mongolia, 2017a). Although grazing is not typically an entry point to forest degradation, grazing is problematic because of its abundance and suppresses regeneration after disturbance. Grazing is widespread in edge forests where forests are often degraded due to unsustainable logging and forest fires. Grazing is a critical factor that inhibits regeneration as grazing animals eat young trees. This is one of the reasons why afforestation and reforestation activities have such low success rates. When combined with the drivers mentioned above, it can lead to deforestation.

Underlying Causes of Forest Change

Underlying causes of forest change include demographic, economic, techno-logical, policy and institutional, cultural and sociopolitical, and environmental factors (UN-REDD Mongolia, 2017a). Similar to the drivers, these underlying causes interact with one another in a complex manner to facilitate the above-described practices, leading to forest degradation and deforestation.

Demographic Factors

Mongolia's growing population has increased the general activity levels in forest areas, and small-scale rural activities result in forest fires and the pervasive pressure placed upon forest resources. The effects of population growth on forests is also compounded by urbanization and urban expansion that creates a need for wood products.

Socio–economic Factors

Fast economic growth resulted in increased government funding available for tree planting and pest control, although this funding has been reduced since 2016 because of Mongolia's economic stagnation caused by a downturn in the mining industry. The general expansion of Mongolia's economy has nonetheless created more demand for wood products and thus led to increased unsustainable logging and subsequent degradation. Lingering rural poverty continues to drive unsustainable forest management, overgrazing, and illegal logging.

Techno–managerial Factors

Limited capacity for forest management exacerbates forest fires and unsustainable logging and subsequent degradation and deforestation. Forestry skills and capacity would benefit from updating and experience from other countries facing similar boreal forest management issues in North America and Scandinavia. The lack of firefighting equipment is widespread, but more importantly, forest fire management techniques are outdated. The lack of transparency in public procurement for services such as tree planting also result in the selection of ineffective service providers and lack of tree care and maintenance, which significantly compromises success rates.

Environmental Factors

The effects of climate change have led to increased occurrence of pests and forest fires to reduce the regenerative capacity of forests. The heightened intensity and frequency of extreme weather events due to climate change have further increased the vulnerability of Mongolia's forests due to damage from snow and ice, forest fires, pest infestations and water scarcity caused by the loss of permafrost and melting of glaciers.

Policy and Legal Factors

Mongolia's policy, legal and institutional framework and capacities are insufficient for preventing anthropogenic forest fires, illegal logging, overgrazing, and other unsustainable practices. This is compounded by limited enforcement capacity on the ground to curtail unsustainable practices and to promote sustainable utilization of forest resources. The country's forest policy that overemphasizes the need for forest protection has inadvertently increased illegal timber harvesting and other unsustainable practices. Expanding the current policy and legal framework to allow increased sustainable harvesting and use of forest resources would improve the effectiveness of SFM and capacity of the forest sector to ensure strategic protection and utilization practices to reduce forest degradation and deforestation.

Future Trends

According to Mongolia's Third National Communication to the UNFCCC (2017), the effects of climate change are expected to reduce the country's forest area by 4-6 percent during this century in the low elevations while upper limits of sub-alpine forest will move to higher elevations due to the melting of glaciers and permafrost

and increased temperatures. Forest fires and insect pest outbreaks are predicted to increase in frequency, intensity and scale by as much as 2 to 9 times the baseline during this century.

One of the strategies for increasing resilience of the boreal forests is to implement more effective SFM, mainly through improved thinning, harvesting, restoration and enhancement regimes.

These can ensure forests are healthier, through reduction of competition for light and water, and reduce the risk of pest infestation and deadwood matter which can fuel fires. Afforestation and reforestation with ecologically sound species to protect critical ecosystems such as water catchments can also ensure increased resilience of forest ecosystems and livelihoods that depend on the ecosystems.

3.3. ECONOMIC VALUES OF FORESTS AND FOREST SECTOR FINANCING

Official statistics suggest that the forest sector makes only a small contribution to Mongolia's GDP and associated macroeconomic indicators (NSO, 2013; NSO, 2018). In 2009, the recorded share of the forest sector in GDP was estimated at 0.25 percent (Ykhanbai, 2009). Approximately 1,200 people were recorded as being employed in wood and wood products manufacturing, comprising only 4.5 percent of all employment in manufacturing. Recorded forest-sector, timber, fuelwood, and hunting revenues contributed just 0.2 percent of central government tax revenues and 0.8 percent of local government tax revenues in 2010. These figures were based on economic and development statistics that included only formal, commercial activities (i.e., those associated with licensed wood production and registered forest industries). However, the *Assessment of Forest Sector Financing Flows and Economic Values,* conducted by the UN-REDD (2013) reveals that much of the value added by the forest sector took place outside formal markets.

The study (ibid.) suggests that the values generated by forest goods and services during the studied period were substantially more than the funds invested. The government earned fiscal revenues of almost MNT 3 for every MNT 1 of the public

budget allocated to forest management. The figure would have even been more significant if the private sector investment and revenues were considered (such data was not available for this assessment). These findings suggest that official statistics significantly underestimated the actual value of the forest sector to the national and local economy. The forest sector had an economic impact and potential, which extended far beyond the management and budgetary focus on a limited range of "traditional" forest production and protection activities. This meant that prospective investment sources and revenue streams remained untapped. Opportunities to further enhance the economic value-added of forest goods and services were mostly missed.

A more recent study, *Assessment of Financing Mechanisms and Options for Mongolia's REDD+ Action Plan* (UN-REDD Mongolia, 2018b) confirms that although the total economic output of the forest sector has increased compared to the official figures mentioned above, the country's forest sector financing remains relatively small. The study (ibid.) suggests that the total government spending on SFM was around MNT 12,808 million (USD 4.9 million) in 2017, compared to the government forest-related revenues of MNT 51,289 million (USD

19.5 million). Currently, nearly 43 percent of the public spending goes to pest control, while about 5 percent goes to forest fire prevention and management despite being the primary driver of deforestation and degradation in Mongolia. Forest utilization activities account for only 9.1 percent of the budget (ibid.). These figures suggest that increased government funding for SFM is possible through better earmarking of forest generated revenues and increased prioritization of public investment into priority areas. It is also important for public spending on SFM to strategically target untapped opportunities to widen the revenue base for investment in the sector from both public and private sources. Doing so would help increase the funding available to address those underlying causes of deforestation and forest degradation such as increased demand for timber and wood products, rural poverty, outdated forest management techniques and technologies and limited enforcement capacity.

Specific investment areas should include:

- Enhanced application of user pays and cost recovery principles,
- Increased Annual Allowable Cut (AAC),
- Removal of tax exemptions on imported wood,
- Certification of wood products,
- Market-based pricing and costing of forest-related goods and services,

- More significant financial and economic incentives (e.g., subsidies, low-interest loans, tax exemptions) for stakeholder engagement and investment in SFM,
- Support for skills development,
- Encouraging Foreign Direct Investment (FDI) in SFM, wood processing and forest-related opportunities,
- Promoting Public Social Private Partnerships (PSPPs), and
- Public sector budgeting based on actual operational management needs.

It is also important to note that these interventions are contingent on a change in government policies to support increased sustainable utilization and require relevant institutional and technical capacity and market development.

This presents a tremendous opportunity for results-based actions and finance of REDD+ to provide a rationale that frames these interventions, and to support the necessary policy transformation by leveraging additional technical and financial resources. Mongolia's SFM efforts through REDD+ will also leverage co-benefits in terms of climate change adaptation as the effects of climate change are expected to alter significantly Mongolia's forest ecosystems and their functions on which rural livelihoods heavily depend.

4 REDD+ POLICIES AND MEASURES

To address the above-described drivers and causes of deforestation and forest degradation with consideration of the projected climate impacts on its forests and SFM financing opportunities, Mongolia has prepared this strategy document (i.e. NSAP-REDD+) with its vision and goal, policy objectives, measures and actions, as described below. The implementation timeframe of the NSAP-REDD+ is six years between 2020 and 2025.

4.1. VISION AND GOAL OF NATIONAL STRATEGY

Mongolia aims to increase its ambition for climate action under the Paris Agreement through REDD+ and to strengthen the role of its forest sector in achieving a green and sustainable future. Mongolia's approach to REDD+ should also help galvanize support from its citizens, the private sector and international development partners.

Guided by Mongolia's overall development visions enshrined in its Green Development Policy and Sustainable Development Vision 2030, the NSAP-REDD+ as a sub-action plan of State Policy on Forest aims to make a direct and valuable contribution to delivering sustainable development results, not limited to the forest sector but also across other related areas such as poverty reduction, agriculture and food security and manufacturing.

REDD+ Vision

"Building climate resilient forest ecosystems, livelihoods and a sustainable economy for a greener future" is Mongolia's REDD+ vision. This will guide Mongolia's efforts towards meeting its climate change mitigation commitments under the Paris Agreement and achieving climate-resilient and sustainable development.

National Strategy Goal

Under the overarching vision that situates REDD+ within the broader context of Mongolia's national development process, the goal of the NSAP-REDD+ is to strengthen Mongolia's forest sector to promote the sustainable management, utilization and protection of forests in a strategic manner in order to reduce deforestation and forest degradation and to contribute to Mongolia's green and climate-adapted development. This will be achieved through investment in, and implementation of the following policy objectives, measures, and actions.

Program-level Outcome

Through the implementation of the NSAP-REDD+, Mongolia aims to increase its ambition for forest-related emissions reductions from the current 5 percent by 2030 compared to the baseline level, as stated in the State Policy on Forest, to 25 percent by 2025. Mongolia will undertake action in the three REDD+ activity areas - reducing emissions from deforestation and forest degradation and enhancement of forest carbon stocks to meet this emissions reduction/removal target (UN-REDD Mongolia, 2018c).

Together with the prospect of earning REDD+ results-based payments, specific measures and actions under this NSAP-REDD+ will leverage additional public, private and donor finance for SFM and good forest governance. The NSAP-REDD+ also aims to deliver a range of co-benefits in terms of climate change adaptation, rural poverty reduction, and biodiversity conservation. Delivering co-benefits that increase the climate resilience of rural livelihoods that heavily depend on forest resources and ecosystem services is one of the critical considerations of this strategy document. Table 4 shows several program-level outcomes that the NSAP-REDD+ expects to deliver. Based on the most conservative scenario of USD 5 per tCO_2eq, these figures would translate into USD 11-15 million in results-based payments over the life of the NSAP-REDD+.

TABLE 4: **Expected Program–level Impacts**

Indicator	Baseline level	Final Target (end-2025)	% Change against baseline
Forest-related Carbon Emissions	3,551,439 tCO$_2$e/yr.[1]	2,649,844 tCO$_2$e/yr.	-25%
Forest-related Carbon Removals	74,055 tCO$_2$e/yr.[2]	99,973 tCO$_2$e/yr.	+35%
Total available finance for SFM (public, private and donor)	327.1 billion ₮/yr.[3] (USD 124.37 million) (USD 1= 2,630 ₮)	490 billion ₮/yr. (USD 186.31 million)	+77%
Reduced vulnerability to Climate change	All 1,281 FUGs and 4.1 million ha of forest ecosystems are considered vulnerable[4]. No existing adaptation actions.	320 FUGs (8,000 rural women, men, youth and elderly) are assisted in climate adaptation, with vulnerability assessment and FUG-level adaptation action development as part of their forest management plans	+25%
		2.97 million ha of vulnerable ecosystems are assisted in climate adaptation	+72%

4.2. STRATEGIC POLICY AREA OBJECTIVES AND MEASURES

To realize Mongolia's REDD+ vision and goal, the NSAP-REDD+ aims to implement the following four strategic policy area objectives and measures: 1) Emissions reductions from reducing deforestation and forest degradation; 2) Enhancement of forest carbon stocks; 3) REDD+ co-benefits in climate change adaptation, biodiversity conservation, and rural economic development; and 4)

Operationalization of specific REDD+ design elements. These areas are by no means mutually independent, and thus, effective coordination between the areas is essential to ensuring and maximizing their outcomes collectively.

These strategic policy areas, measures, and actions described below and in Section 10: Results Framework, have been identified through the implementation of Mongolia's REDD+ Readiness Roadmap during the period between 2015 and 2018. During the readiness phase, a series of baseline and feasibility studies were conducted through consultative and inclusive processes. Such studies and stakeholder consultation input have informed the strategic policy areas, measures and actions and provided the necessary contexts for establishing the key REDD+ design elements including this national strategy and action plan, FRL, NFMS, National Safeguards Framework (NSF) and SIS.

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[1] *Mongolia's Forest Reference Level (adjustments made after Technical Assessment). 2019*

[2] *Ibid.*

[3] *Assessment of financing mechanisms and options for implementing REDD+ in Mongolia. 2018.*

[4] *Multi-purpose national forest inventory of Mongolia 2014-2016*

Strategic Policy Area One: Forest-related Emissions Reductions

The objective of this strategic policy area is to mitigate greenhouse gas emissions from forests by reducing deforestation and forest degradation to raise Mongolia's climate ambition under the Paris Agreement of the UNFCCC.

This strategic area focusses on reducing emissions from forest fires, insect pests, and illegal logging as these are identified to be the three most critical drivers of deforestation and forest degradation in Mongolia. The approach is to directly tackle these drivers through increased prevention, monitoring and response capacity in both technical and technological terms. Actions in this strategic policy area also address the issues concerning perverse incentives that limit the sustainable supply of timber and wood products, hence leading to unsustainable practices.

Specific Measures

Measure 1.1. Reduce human-induced forest fire incidences through increased awareness and information sharing, advanced patrolling and early detection systems and improved control measures;

Measure 1.2 Reduce forest degradation through improved effectiveness, capacity, and organization of control measures of forest insect pests; and

Measure 1.3 Strengthen management and measures for combatting illegal logging through increased community participation and enhanced monitoring and information systems.

The MET will lead the implementation of these measures in partnership with the National Emergency Management Agency (NEMA), General Police Department (GPD), Ministry of Justice and Internal Affairs (MJIA) and Ministry of Foreign Affairs (MOFA). The MET will also coordinate closely with local governments at the aimag and soum levels and other central agencies, including the Ministry of Education, Culture, and Science (MECS) and Ministry of Labor and Social Welfare (MLSW).

Expected Outcome and Cost of Implementation

Expected results of these measures will amount to as much as a 31 percent reduction in the rate of deforestation and a 22 percent reduction in the rate of forest degradation, compared to the average rates between 2005 and 2015, by the end of the NSAP-REDD+ (see Table 5). The cost of implementing these measures is estimated at MNT 47.08 billion (USD 17.9 million[5]).

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[5] Exchange rate used: MNT 2630 =USD 1.

TABLE 5: **Expected Outcome of Strategic Area One**

Indicator	Baseline[6]	Target	% Change against baseline
Rate of deforestation due to land use change (continued degradation)	5,300 ha/yr.	3,600 ha/yr.	-31%
Rate of forest degradation due to forest fires	130,000 ha/yr.	103,000 ha/yr.	-22%
Rate of forest degradation to insect pests	10,000 ha/yr.	5,900 ha/yr.	

Strategic Policy Area Two: Enhancement of forest carbon stocks

The objective of this strategic policy area is to improve forest growth and forest status to increase forest carbon stocks by adopting SFM practices, including forest restoration and utilization techniques and technologies.

This strategic policy area focuses on carbon stock enhancement that considers changes in climate and ecological conditions and strategies to maintain genetic diversity and reduce the impact of grazing on newly afforested and restored areas. Due to outdated technical and technological interventions together with weak incentive mechanisms, Mongolia has not fully reached its potential for forest enhancement. Actions under this policy objective thus aim at achieving improved thinning and harvesting regimes, improved restoration techniques and technologies and increased utilization of sustainably harvested timber and wood products. This also reduces forest fire and insect pest risks and increase local access and availability of sustainably harvested timber and wood products, thus contributing to socioeconomic development and poverty alleviation at the local level.

Specific Measures

Measure 2.1. Enhance forest restoration and af/reforestation by applying scientific and technological advancements, enhancing tree seed germination and seedling quality, and selecting suitable methods and technologies for af/reforestation and assisted natural regeneration;

Measure 2.2 Enhance forest ecosystems and forest biodiversity conservation through promotion of public—private-social partnerships to incentivize rational and sustainable use of forests; and

Measure 2.3 Improve techniques and technologies of forest utilization, harvesting, and processing that match the specific regional forest types to preserve the ecological balance and determine the appropriate harvest volume for each region based on the principles of SFM and use.

The implementation of these measures will be led by the Ministry of Food, Agriculture and

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[6] *Mongolia's Forest Reference Level (adjustments made after Technical Assessment). 2019*

Light Industry (MOFALI) and MET. These agencies will also coordinate closely with local governments at the aimag and soum levels and other central agencies, including the Ministry of Finance (MOF) and MJIA.

Expected Outcome and Cost of Implementation

The outcome of these measures is expected to result in a significant increase in the enhancement of forest carbon stocks and improved SFM practices. These efforts will also translate into rural economic benefits through job creation and income generation. Table 6 shows a list of notable results expected in this strategic policy area. The cost of implementing these measures is estimated at MNT 48.40 billion (USD 18.40 million[7]).

TABLE 6: **Expected Outcome of Strategic Area Two**

	Indicator	Baseline	Target at end-2025	% Change against baseline
Forest enhancement	Area af/reforested and assisted natural regeneration (ANR)	10,000 ha/yr.[8]	95,000 ha/yr.	+850%
Forests under sustainable management regime	Area under thinning and deadwood removal practices	30,000 ha[9]	40,000 ha	+33%
	Forest area managed by FUGs	3.3 million ha[10]	4.5 million ha	+36%
	Number of FUGs with forest management plans	100[11]	300	+200%
	Forest area under special protection	4.1 million ha[12]	5.3 million ha	+29%
Rural income diversification	Number of jobs in the forestry and wood-processing sectors	5,000[13]	8,000	+60%

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[7] Exchange rate used: MNT 2630 =USD 1.

[8] Department of Forest Policy and Coordination, MET. 2018

[9] Ibid.

[10] Ibid.

[11] FAO project "Mainstreaming Biodiversity Conservation, SFM and Carbon Sink Enhancement into Mongolia's Productive Forest Landscapes" report.

[12] Multi-purpose national forest inventory of Mongolia 2014-2016.

[13] National Statistics Office, 2018

Strategic Policy Area Three: REDD+ co-benefits in climate change adaptation, biodiversity conservation, and rural economic development

The objective of this strategic policy area is to increase non-carbon benefits through enhanced climate-resilience of forest ecosystems and improved social and economic benefits of forests.

This strategic policy area aims to enhance the resilience of critical forest ecosystems and rural livelihoods that depend on the ecosystem services, while at the same time protecting forest biodiversity. Due to a high degree of vulnerability to the effects of climate change across Mongolia, having local forest managers/users and critical ecosystem areas adapted to such effects is an essential condition for achieving SFM that contribute to Mongolia's green and sustainable development. The success of REDD+ is, therefore, contingent on its ability to deliver co-benefits concerning livelihoods and rural development challenges.

Specific Measures

Mesure 3.1. Restore and enhance forests in critical ecosystems (e.g., headwater and permafrost areas and peatlands), where the effects of climate change are most visible, to reduce climate vulnerability of such ecosystems and local people whose livelihoods depend on them;

Mesure 3.2. Improve existing incentive mechanisms that promote forest protection and reward sustainable practices; and

Mesure 3.3. Preserve and enhance saxaul forests in the dry woodland ecosystem to mitigate desertification and reduce the effects of climate change through development of agroforestry.

MET and MOFALI will lead the implementation of these measures in close coordination with local governments at the aimag and soum levels.

Expected Outcome and Cost of Implementation

As shown in Table 7, these measures will result in a significant increase in the adaptive capacity of vulnerable ecosystems and local livelihoods. Critical ecosystem areas such as forest catchments and peatlands will be put under protection and restoration regimes, and the capacity of local women and men who depend on forest resources to cope with and adapt to the effects of climate change will be increased through SFM, forest-related climate change adaptation planning, and agroforestry practices. The cost of implementing these measures is estimated at MNT 10.49 billion (USD 3.99 million[14]).

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[14] Exchange rate used: MNT 2630 =USD 1.

TABLE 7 **Expected Outcome of Strategic Area Three**

Indicator		Baseline	Target at end-2025	% Change against baseline
Restored, enhanced and protected vulnerable forest ecosystems	Af/reforestation, ANR and special protection of critical catchment, permafrost and peatland areas.	4.1 million ha[15] of vulnerable forest ecosystems	2.97 million ha. of forest ecosystems under restoration	+72%
	Expansion of saxaul forests	2.0 million ha	2.005 million ha	0.25%
Reduced vulnerability of FUGs	Rate of expansion of agroforestry converge (increased forest resources and food security)	100 ha/yr.[16]	500 ha/yr.	+400%
	Climate vulnerability of local communities/ FUGs	Total of 1,281 FUGs protecting 3.3 million ha of forest[17]	23% of FUGs in climate vulnerable forest ecosystems supported with vulnerability assessment and FUG-level adaptation action development, as per national adaptation efforts (i.e. NAP/NAPA)	+25%

Strategic Policy Area Four: Operationalization of specific REDD+ design elements

The objective of this strategic policy area is to establish a structure and systems to effectively coordinate the implementation of the NSAP-REDD+ and monitor and report on Mongolia's progress towards meeting its emissions reduction/removal targets and how the safeguards are being addressed and respected.

As per the WFR, Mongolia has developed the NSAP-REDD+, FRL, NFMS, NSF and SIS through the implementation of its REDD+ readiness roadmap. In this strategic policy area, these REDD+ elements will be operationalized to support relevant institutions and groups of actors in carrying out their respective coordination, implementation, monitoring and reporting responsibilities. Specific measures described below will also establish the necessary institutional arrangements and identify and mobilize the required financial and technical resources for the implementation of the NSAP-REDD+.

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[15] *Multi-purpose national forest inventory of Mongolia 2014-2016.*

[16] *Department of Forest Policy and Coordination, MET. 2018.*

[17] *Assessment of financing mechanisms and options for implementing REDD+ in Mongolia. 2018*

Specific Measures

Mesure 4.1. Establish a government agency for implementing SFM and administering good forest governance (e.g., sustainable harvesting, restoration, and forest utilization, gender-responsive social forestry policies, and active stakeholder engagement);

Mesure 4.2. Develop a sustainable financing mechanism and sources of funding and investment for the forest sector by increasing government investment, income from forest utilization, and international loans and aids, and through inclusion of forest value in the forest resource-use payment system; and

Mesure 4.3. Operationalize REDD+ elements including the NSAP-REDD+, FRL, NFMS, NSF and SIS for coordinating, monitoring and reporting on Mongolia's progress towards meeting its emissions reduction/removal targets and how the safeguards are being addressed and respected.

The MET and MOFALI will lead the implementation of these measures in close coordination with other partners including MOF, MJIA, local governments at the aimag and soum levels, civil society groups, international development partners, research institutions and private-sector partners.

Expected Outcome and Cost of Implementation

These measures will result in having the necessary institutional arrangements and capacity for enhancing SFM and good forest governance and meeting the international transparency requirements, as per the WFR, for obtaining and receiving payments for verified results of Mongolia's REDD+ action.

The economic outcome of the NSAP-REDD+, including REDD+ results-based finance, will leverage additional public, private and donor finance for SFM and good forest governance (see Table 8). The cost of implementing these measures is estimated at MNT 24.03 billion (USD 9.14 million[18]).

TABLE 8 **Expected Outcome of Strategic Area Four**

Indicator	Baseline	Target at end-2025
NSAP-REDD+ coordination and enabling mechanisms REDD+ elements	Forest Agency proposed, FRL, NFMS, SF/SIS, GRM, M&E mechanisms and processes identified	Forest Agency, FRL, NFMS, SF/SIS, GRM, M&E and sustainable financing mechanism established and functioning
Total available SFM finance (public, private and donor)	327.1 billion ₮ (USD 124.37 million)	490 billion ₮ (USD 186.31 million)

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[18] *Exchange rate used: MNT 2630 =USD 1.*

4.3. THEORY OF CHANGE

Figure 4 shows how the above-described measures will work to address the drivers and underlying causes of forest change to achieve Mongolia's REDD+ vision and goal. The implementation of the NSAP-REDD+ will build on existing best practices and baseline investment activities in relevant areas by public, private and international development partners (see Annex Four).

Figure 3: *Theory of Change*
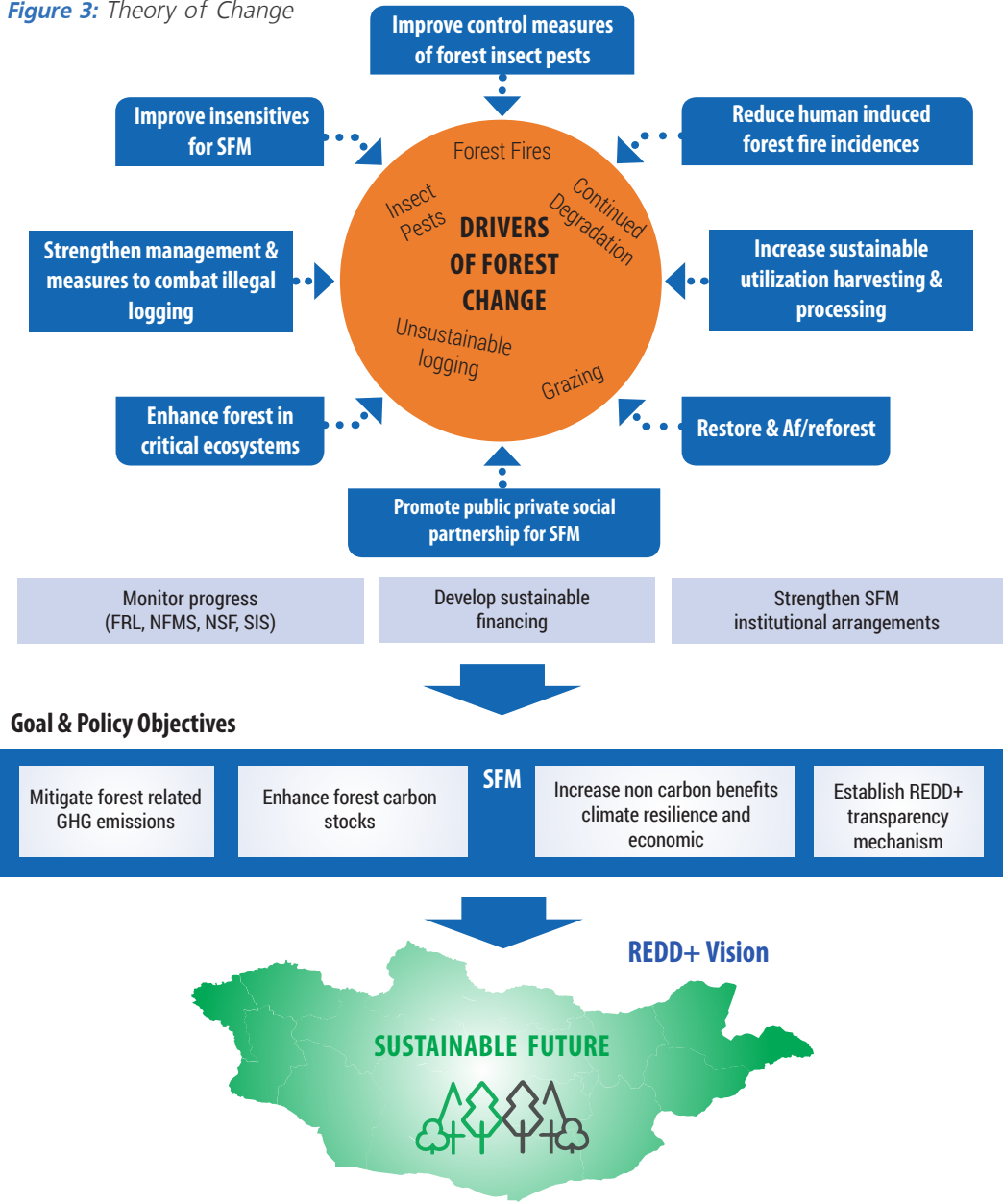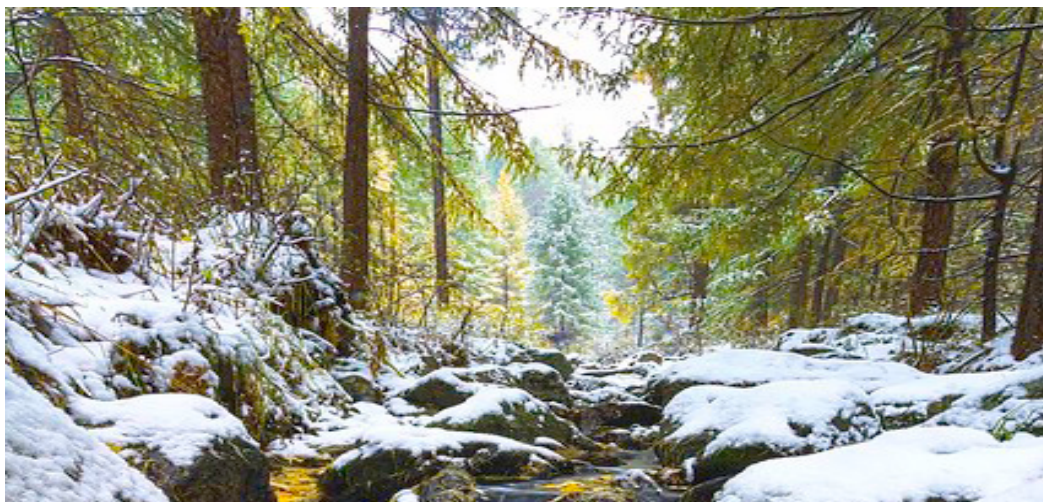
5 OVERALL CONTRIBUTION OF NSAP-REDD+

By achieving its vision and goal, the NSAP-REDD+ will contribute to the implementation of State Policy on Forest under the overall development framework set by Mongolia's Green Development Policy and Sustainable Development Vision 2030. More specifically, the NSAP-REDD+ aims at delivering the following sustainable development outcomes.

5.1. CONTRIBUTION TO MONGOLIA'S CLIMATE COMMITMENTS

Due to a lack of data on the Land use, Land-use Change and Forestry (LULUCF) sector at the time of Mongolia's initial NDC preparation, the country's current climate change mitigation commitment under the NDC does not include the forest sector. Mongolia's NDC nonetheless describes the country's intention to include forest-related emissions reduction/removal targets in its future commitment under the Paris Agreement, by highlighting the existing effort under the State Forest Policy to achieve a 5 percent reduction in forest-related GHG emissions and increase the total forest cover to 9 percent by 2030 (GoM, 2015).

With this NSAP-REDD+, Mongolia takes an additional step to increase its ambition for climate action beyond its current commitment under the NDC and targets set by the State Policy on Forest significantly. The NSAP-REDD+ will restore up to 20 percent of forest fire and insect pest damage forests across the country, protect up to 2.97 million hectares of vulnerable forest ecosystems and 8,000 rural men, women and youth and elderly people whose livelihoods depend on services of these ecosystems.

5.2. CONTRIBUTION TO MONGOLIA'S TRANSFORMATIONAL CHANGE

The NSAP-REDD+ underpins the principles of forest governance — principles which promote processes of decision-making and implementation that are accountable, transparent, responsive, efficient, effective, equitable, inclusive and based on consensus while adhering to the rule of law. By demonstrating these principles in action, the NSAP-REDD+ will instigate transformational change in policy and practice of the forest and related production sectors.

Good Forest Governance

To put such principles to practice, the NSAP-REDD+ has incorporated into its measures and actions the following key recommendations from one of the baseline studies from the REDD+ readiness phase, *Analysis of Corruption Risks and Development of Policies and Measures for Mongolia's National REDD+ Strategy* (2018a). The NSAP-REDD+ will:

- Ensure compliance with the Law on Transparency of Information to make information on fees and public revenues at both national and sub-national levels available and accessible by the public in a timely and complete manner to promote transparency and accountability of forest administration;

- Develop a detailed understanding of the nature and scale of illegal timber trade and the effectiveness of law enforcement through an inclusive and participatory process based on which to address specific challenges associated with corruption (e.g., fraud and conflicts of interests), policy relevance (e.g., AAC) and enforcement;

- Explore ways in which revenues and fee earnings from NWFP collection can be shared more equitably to support local development and SFM practices;

- Support the strengthening and coordination of existing grievance redress mechanisms (see Section 6.2 below) based on a participatory assessment of forest-related disputes and grievances, particularly concerning FUGs and other local stakeholders while also ensuring enabling conditions for local democratic accountability, accessibility, and transparency; and

- Support institutional reforms to establish a semi-autonomous agency for forest administration that is free of political interference in its conduct and human resources and with an increased level of financial independence (i.e., through forestry charges and fees).

Inclusive Planning and Decision-making

To demonstrate good forest governance, active stakeholder engagement is an essential enabling condition. A broad range of stakeholders at national and subnational levels will participate in the implementation of the NSAP-REDD+. Different stakeholders have different stakes and/or interests in REDD+. Some may be positively impacted, others negatively. Therefore, the NSAP-REDD+ will pay special attention to the voices of FUGs and other local stakeholders as local concerns are often overlooked in most national-level initiatives. In partnership with representatives of FUGs, professional

associations, non-governmental organizations, the NSAP-REDD+ will implement the following principles.

1. **Inform:** To provide impartial, balanced, objective and accurate information to assist stakeholders to understand the issue, problems, alternatives, and solutions.

2. **Consult:** To obtain feedback from stakeholders that, depending on the subject of consultation, could consider the feasibility of proposed activities and the anticipated impacts.

3. **Collaborate:** To work directly with stakeholders throughout the process to ensure that their concerns and suggestions are taken into consideration.

4. **Make joint decisions:** To partner with the stakeholders in the development of decisions and solutions.

5. **Empower:** To place final decision making in the hands of the stakeholder.

Gender Responsive Processes

In respecting the above principles, the NSAP-REDD+ will also ensure that inclusive stakeholder engagement and decision-making processes are gender-responsive. Equal rights of men and women are enshrined in the Constitution of Mongolia (1992) and reflected in the country's key national policies including the Sustainable Development Vision 2030, Green Development Policy, Law on Forest (2012) and Law on Promotion of Gender Equality (LPGE) (2011). Mongolia is also a signatory to international human rights treaties notably the Convention on the Elimination of All Forms of Discrimination against Women. The LPGE particularly requires policies and legal documents at all level across all sectors to have gender equality concepts mainstreamed and to build the necessary capacity to incorporate gender considerations into their policies and practices.

However, the implementation of this provision remains weak, and concerns regarding gender equality are often superficially addressed in numbers. The forest sector notably lacks clear definitions, tools, and indicators for social inclusion and gender equality. The NSAP-REDD+ will, therefore, promote socially inclusive, gender-responsive actions in the forestry and related economic sectors. Detailed analysis and recommendations are found in *Building on Recommendations of the Social Inclusion and Gender Dynamics for REDD+ Synthesis* (2017b). A link to this document is provided in Annex Two.
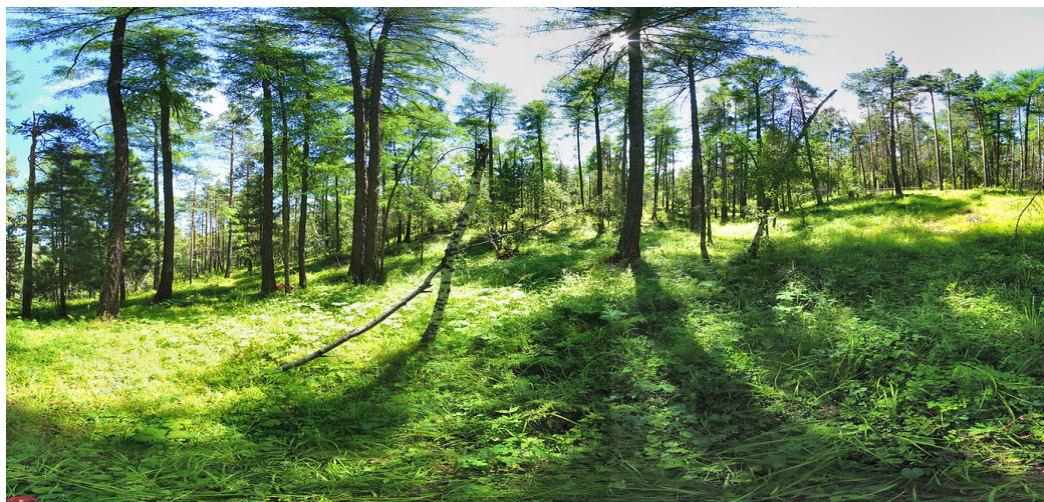
6 RISKS AND BENEFITS

As part of the development of Mongolia's National REDD+ Safeguards Framework (NSF) (2018d), potential risks and benefits of the above described strategic policy areas and measures and related actions, described in Section 10, have been identified under five risk/benefit categories − environmental, socio-economic, governance, operational and policy-level impact. A full list of the risks and benefits are provided in Annex Three.

Most notable potential benefits identified include: increased employment and income generation opportunities for local people; increased contributions to state revenues, particularly to local budgets, from the forest sector; the promotion of natural and other types of forest regeneration; improved forest sector governance, such as improved planning, regulatory framework and monitoring; and maintenance and enhancement of ecosystem services from forests, primarily related to soil and water conservation.

At the same time, most notable risks include: risks related to corruption, favoritism and mismanagement; lack of participation by local people in REDD+ planning and implementation; displacement of pressures on forests to other forest areas and/or other ecosystems; unsustainable and/or illegal harvesting of forest products; and frequent changes in policies and public officers/staff, as an operational risk which may also affect the sustainability of the NSAP-REDD+ and heighten risks of reversals.

During the inception phase of the NSAP-REDD+, these risks and benefits will be reviewed and updated, and a risk and benefit management framework will be developed to identify clear risk mitigation and benefit management strategies concerning the policy-objectives, measures, and actions.

6.1. SAFEGUARDS FRAMEWORK

Mongolia's national safeguards framework (2018d) is structured according to the seven Cancun safeguards, shown in Box 1. The framework contains a set of 36 safeguards elements that clarify these seven safeguards in the Mongolian context. This safeguards framework will be implemented based on existing policies, laws and regulations of Mongolia to address the above-described risks and promote benefits associated with the NSAP-REDD+ implementation.

This framework remains a living document to allow for regular updating and revisions as circumstances evolve (i.e., changes in policies, laws, regulations and financing conditions). The NSAP-REDD+ will develop specific guidelines for implementation and monitoring of the safeguards framework during the inception phase, together with capacity development programs to ensure its effective implementation.

BOX 1:

THE CANCUN SAFEGUARDS

When undertaking [REDD+] activities, 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;

e) That actions are consistent with the conservation of natural forests and biological diversity, ensuring that the [REDD+] 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, and to enhance other social and environmental benefits;

f) Actions to address the risks of reversals; and

g) Actions to reduce displacement of emissions.

Source: UNFCCC (2016a)

6.2. GRIEVANCE REDRESS MECHANISM

Mongolia's national safeguards framework (2018d) also identifies a need for having an effective grievance redress mechanism. Most disputes and grievances would involve FUGs, community members, herders, and workers, with grievances occurring internally or between stakeholders and government entities or other external parties.

The basis to address possible REDD+ grievances should be the existing national provisions for addressing disputes and grievances, contained in the Law on Resolution of Petitions and Complaints of Citizens by Government Institutions and Officials (1995); the Law on the National Human Rights Commission of Mongolia (2000); and the General Administrative Law (2015). However, to ensure that these national grievance redress mechanisms (GRMs) operate effectively, some adjustments as per international best practices are necessary to improve their accessibility, predictability, fairness, compatibility with national and international laws, transparency and capability of the existing GRMs. Such adjustments will be made during the NSAP-REDD+ implementation.

7 MONITORING, EVALUATION AND REPORTING

Monitoring and evaluation of the NSAP-REDD+ will be conducted on a regular and periodic basis at two levels. At the technical level, monitoring and reporting of REDD+ results to the UNFCCC in terms of emissions reductions and removals, updating Mongolia's FRL and information on how Mongolia's REDD+ safeguards are being addressed and respected will be done through the NFMS and SIS. Both systems will have built-in national and sub-national stakeholder consultation and validation processes during the preparation of reports to the UNFCCC. At the operational level, the NSAP-REDD+ will be regularly monitored for progress to ensure adaptive management. An independent evaluation of the NSAP-REDD+ will be carried out at the mid-term and completion.

7.1. NATIONAL FOREST MONITORING SYSTEM

Mongolia's National Forest Monitoring System (NFMS) comprises three pillars, a Satellite Land-use Monitoring System (SLMS), a National Forest Inventory (NFI) and a Greenhouse Gas inventory (GHGi) with additional monitoring capacities to provide details on the nature and causes of forest change, and to measure the efficacy of policies, measures and actions under the NSAP-REDD+. The primary function of the NFMS is to assess the mitigation performance of Mongolia's three REDD+ activities, according to proxy indicators such as forest cover change, following international standards. The NFMS will report on progress on an annual basis for program-level monitoring and evaluation and produce a technical annex to Mongolia's Biennial Update Reports (BURs) to the UNFCCC. Based on the proposed structure, functions and institutional arrangement of the NFMS (2014), the NSAP-REDD+ will

strengthen the existing three pillars of the NFMS with activities including setting up the necessary software and hardware and an NFMS Geoportal (web platform) and regular plans to update data and methodological approaches and techniques.

Under the coordination of the Department of Forest Policy and Coordination (DFPC), the NFMS will be administered by the FRDC. The FRDC will work with other institutions including the Land and Geodesy (ALAGAC), National Statistics Office (NSO), Environmental Information Centre (EIC) and sub-national Environmental Units that collect and report on relevant land-use, environmental and socioeconomic data. The FRDC will also work closely with the Climate Change Project Implementation Unit (CCPIU) to prepare the technical annex to Mongolia's BURs.

7.2. UPDATING MONGOLIA'S NATIONAL REFERENCE LEVEL (FRL)

Mongolia's first FRL underwent a Technical Assessment (TA) facilitated by the UNFCCC and based on the assessment outcome, revisions were made, and a revised FRL was submitted to the UNFCCC in June 2018. Mongolia through the NSAP-REDD+ intends to update the FRL in 2025 based on the historical reference period 2011-2021. The updated FRL will include data on saxaul forests and peatlands and diversified carbon pools to include soil organic matter through improved NFI methodology under the NFMS.

7.3. SAFEGUARDS INFORMATION SYSTEM (SIS)

Mongolia's proposed SIS (2018e) is a combination of existing (and new if deemed necessary to fill gaps) systems and sources of information on how the Cancun safeguards are being addressed and respected throughout the implementation of the NSAP-REDD+. As per the WFR, Mongolia will provide a summary of information (SoI) on how all of the Cancun safeguards are being addressed and respected throughout the implementation of REDD+ activities, to seek REDD+ results-based payments. Mongolia will provide SoIs periodically through its National Communications or on a voluntary basis, via the UNFCCC REDD+ web platform. The SIS will collect and report on how Mongolia's 36 safeguards elements are being addressed and respected based on whether relevant policies, laws, and regulations are in place and implemented in practice. The SIS will also be used to assess gaps and weaknesses with the existing safeguards framework and identify gap-filling actions to reinforce its effectiveness.

Mongolia's SIS builds on existing institutions and information mechanisms, as Mongolia already has robust mechanisms for environmental and social data collection and management. The coordination of these existing information mechanisms will be one of the most crucial aspects in operationalizing the SIS. The key institutions involved in the implementation of the SIS include the NSO, which collects national data sets and publishes in yearly reports; National Development Agency (NDA), which is mandated to gather data and report on Mongolia's progress towards Sustainable Development Goals; FRDC, which collects forest data for the country through its work on the forest taxation inventories and NFI; the EIC, which collates data on environment, forests, climate and social issues; and the CCPIU,

which is responsible for reporting to the UNFCCC. Among these institutions, the EIC in coordination with DFPC will act as a coordinating agency for the SIS.

7.4. ADAPTIVE MANAGEMENT

Under the joint leadership of the MET and MOFALI, a Program Implementation Unit (PIU) will be established to carry out the day-to-day coordination and management of the NSAP-REDD+. The PIU will ensure that the NSAP-REDD+ is managed adaptively to keep the action plan relevant, current and effective by undertaking the following planning, monitoring, evaluation and reporting responsibilities.

• Inception (update the action plan, budget, monitoring and evaluation framework, and risks and mitigation strategies)

• Development and execution of standard operating procedures

• Quarterly budget and operational planning, tracking and reporting

• Annual monitoring, evaluation and progress reporting

• Initiation of independent mid-term and final evaluations

8 MANAGEMENT ARRANGEMENTS

Under the joint coordination and oversight of the MET and MOFALI, the NSAP-REDD+ will involve an array of national and sub-national public institutions and other stakeholders representing the civil society, private sector, and academia.

8.1. COORDINATION, OVERSIGHT AND IMPLEMENTATION

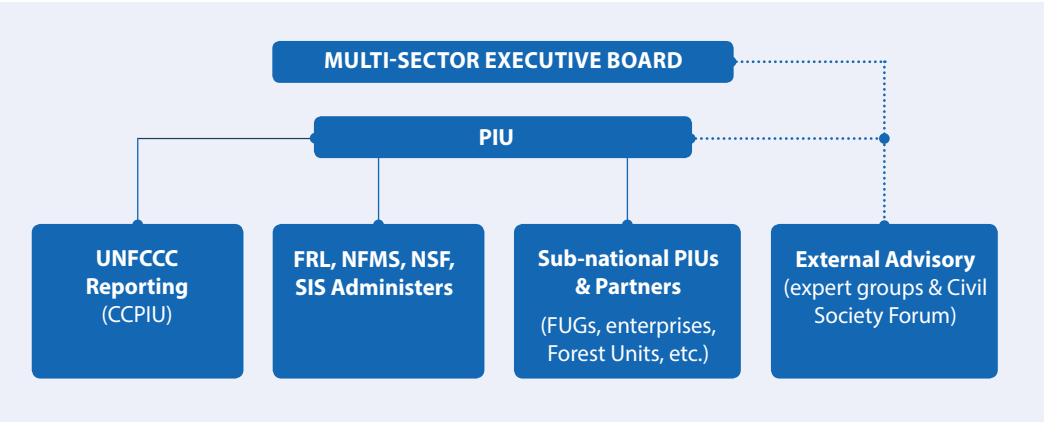Figure 4 shows the overall management arrangements for the NSAP-REDD+.

Figure 4: *NSAP-REDD+ Management Arrangements*

Multi-sector Executive Board

Executive Board is a multi-disciplinary committee, which consists of senior members from the MET, MOFALI, other relevant ministries, and sub-national governments and external advisory bodies such as the Civil Society Forum (known as the Forest-Sustainable Development Council (FSDC)). The board provides oversight and directions to the PIU in implementing the NSAP-REDD+.

Program Implementation Unit (PIU)

The primary responsibility of the PIU is to ensure the day-to-day management of the NSAP-REDD+. The PIU will develop and implement work plans and budgets and raise critical issues to the Executive Board to seek guidance and directions when necessary. The PIU will also ensure transparency of the NSAP-REDD+-related activities by maintaining all administrative, financial and technical documents and records in good order and carry out regular monitoring and reporting of progress (see Section 7.4: Adaptive Management).

International Reporting

Under the MET, the CCPIU carries an official mandate as a focal entity for REDD+ reporting to the UNFCCC. The PIU will work closely with the CCIPU to coordinate relevant climate change-related international support and ensure that the NSAP-REDD+ is up-to-date on relevant international decisions under the UNFCCC and other relevant processes.

Sub-national PIUs and Partners

The measures and actions of the NSAP-REDD+ will be implemented mainly at the sub-national level with a particular focus on the twelve aimags in the boreal forest belt − Arkhangai, Bayan-Ulgii, Bulgan, Darkhan-Uul, Dornod, Khentii, Khuvsgul, Selenge, Tov, Uvurkhangai, Uvs, Zavkhan. In coordination with Governors and the Environmental Units of these aimags/soums, sub-national PIUs will be established as necessary. The PIU at the national level will coordinate sub-national PIUs, which will be responsible for implementing specific actions in coordination and consultation with local stakeholders, including FUGs and forest enterprises.

Expert Groups and Civil Society Forum

During the implementation of the REDD+ readiness roadmap, three Technical Working Groups were formed to support the development of the REDD+ design elements and identification of the policies, measures, and actions. These groups consisted of specific area experts from public-sector and academic research institutions. These experts will be asked to continue providing technical advisory services on an as-needed basis to support the implementation of the NSAP-REDD+. The FSDC established during the readiness phase as a Civil Society Forum will similarly continue to provide support to ensure that the NSAP-REDD+ considers specific public interests and needs. The FSDC will meet on a biannual basis to review plans and progress of the NSAP-REDD+.

9 FINANCING

The total cost of the NSAP-REDD+ is estimated at MNT 130 billion (USD 49.42 million) over six years between 2020 and 2025, the majority of which is expected to come from the State and local government budgets with some international support through new and existing activities and a variety of sources. It is, therefore, essential for both the MET and MOFALI to coordinate closely with relevant national and sub-national institutions and international development partners to ensure that all relevant existing and future initiatives and resources are fully aligned to support the implementation of the NSAP-REDD+. For additional information, see Annex Four for baseline investments and potential co-financing initiatives.

The NSAP-REDD+ will work towards creating enabling conditions and providing incentives for increased private-sector activity and investment in SFM to increase public-sector revenues through taxation and forestry fees. The increased public-sector revenues from the forest and wood-processing sectors are expected to become a sustainable financing source for the NSAP-REDD+. It is anticipated that the NSAP-REDD+ will contribute to increasing the total available finance for SFM to MNT 490 billion a year (US\$ 186.31 million) by 2025 through public and private investment including international support, compared to the average of MNT 327 billion a year (USD 124 million) invested between 2013 and 2017. The projected emissions reduction and removal potential of the NSAP-REDD+ would also translate to USD 11-15 million in REDD+ results-based payments during its implementation period, based on a conservative estimate.

Annex One provides a detailed budget for the NSAP-REDD+ implementation.

10 RESULTS FRAMEWORK

Annex 1, Minister's decree #A/533,
(dated 25 September 2019)
Minister of Environment and Tourism

NATIONAL STRATEGY AND ACTION PLAN FOR REDUCING EMISSIONS FROM DEFORESTATION AND FOREST DEGRADATION (REDD+)

NATIONAL STRATEGY GOAL	To strengthen Mongolia's forest sector to promote the sustainable management, utilization and protection of forests in a strategic manner in order to reduce deforestation and forest degradation and to contribute to Mongolia's green and climate-adapted development.		
EXPECTED OUTCOME	Indicator	Baseline	Target by end-2021	Target by end-2025
	Forest-related Carbon Emissions	3,551,439 tCO_2e/yr. (FRL 2018[19])	3,326,040 tCO_2e/yr.	2,649,844 tCO_2e/yr.
	Forest-related Carbon Removals	74,055 tCO_2e/yr. (FRL 2018[20])	92,568 tCO_2e/yr.	99,973 tCO_2e/yr.
	Total Available SFM Finance (public, private and donor)	327.1 billion ₮/yr. (US$ 124.37 million)[21]	401 billion ₮/yr. (US$ 152.47 million)	490 billion ₮/yr. (US$ 186.31 million)
	Reduced vulnerability to Climate change	All 1,281 FUGs and 4.1 million ha of forest ecosystems are considered vulnerable[22]. No existing adaptation action	5,000 rural women, men, youth and elderly, 1.32 million ha of vulnerable ecosystems	8,000 rural women, men, youth and elderly, 2.97 million ha of vulnerable ecosystems

[19] Mongolia's FRL: https://redd.unfccc.int/files/2018_frel_submission_mongolia.pdf
[20] Ibid
[21] Exchange rate used: US$ 1 = 2,630
[22] Multi-purpose national forest inventory of Mongolia 2014-2016

STRATEGIC POLICY AREA OBJECTIVE 1	Mitigate greenhouse gas emissions from forests by reducing deforestation and forest degradation to raise Mongolia's climate ambition under the Paris Agreement of the UNFCCC			
EXPECTED OUTCOME	Indicator	Target at end-2021		Target at end-2025
	Rate of deforestation	8 % reduction		31 % reduction
	Rate of forest degradation	5 % reduction		22 % reduction
MEASURE 1.1	Reduce human–induced forest fire incidences through increased awareness and information sharing, advanced patrolling and early detection systems and improved control measures			
EXPECTED OUTCOME	Indicator	Baseline	Target at end-2021	Target at end-2025
	Rate of forest degradation due to forest fires	130,000 ha/yr. (data source: 2005 − 2015 average)	Reduced to 123,000 ha/yr.	Reduced to 103,000 ha/yr.
	Rate of deforestation due to land use change (continued degradation initiated by fires)	5,300 ha/yr. (data source: 2005-2015 average[23])	4,900 ha/yr.	3,600 ha/yr.

ACTION 1.1.1	Action	Output	Indicator	Lead Institution	Implementing Partner	Timeframe
	Introduce ecologically-sound methods and techniques to control forest fires, and reduce fire risks	Mineralized firebreaks	2,000 km of additional mineralized firebreaks are established.	Ministry of Environment and Tourism (MET)	General Authority for Border Protection	2020-2025
		Advertising and warnings	Minimum 1600 boards with fire control information are placed in aimags with high forest fire risks.	MET	12 aimags with significant forest cover	2020-2025
			Awareness programs to warn about forest fire are implemented via tv and radio in 12 high-risk aimags.	MET	12 aimags with forests and Ulaanbaatar	2020-2025

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[23] Multi-purpose national forest inventory of Mongolia 2014-2016

ACTION 1.1.1		Tools and equipment to meet the requirement set by the Government Order 106 (2016) (i.e., firefighting protective and control equipment)	31 Forest Units, 10 SPA administrations, 12 aimags with forest and 210 soums are supplied with fire control tools and equipment.	MET	12 aimags with forests and Ulaanbaatar	2020-2025
ACTION 1.1.2	Implement forest fire management and suppression training programs for forest user groups (FUGs) and local men and women.	Supply FUGs with tools and equipment to control forest fires	Minimum 1000 FUGs are supplied with fire control tools and equipment.	MET	12 aimags with forests and Ulaanbaatar	2022
		Gender-responsive training and practice modules for fires management and suppression	Twice a year during February and March, the training is delivered across 12 aimags and 210 soums.	MET, MET, National Emergency Management Agency (NEMA)	12 aimags with forests and Ulaanbaatar	2020-2025
ACTION 1.1.3	Introduce an early warning system with methods and technologies for surveillance, automatic detection and monitoring of fires (linked to Measure 1.3 and Action 4.3.2)	New mechanisms to conduct volunteer-based patrolling at soum level	Volunteer patrol groups with an incentive system are formed in 12 aimags and 210 soums.	MET	Soum and districts, NEMA	2020-2020
		Remote sensing system to regularly and systematically survey, detect and monitor forest fires.	System is introduced to the Departments of Meteorology and Hydrology across 12 aimags.	MET	Department of Meteorology and Hydrology (DMH)	2020-2025
ACTION 1.1.4	Collaborate closely with the neighboring countries to enable detection and monitoring of forest fires on a transboundary scale	Letters of collaboration (LOCs) on transboundary forest and steppe fire detection and monitoring and information sharing	LOCs with Russian Federation and People's republic of China are signed and implemented.	MET	NEMA, Ministry of Foreign Affairs (MOFA)	2020-2025
			Mongolia becomes a member of the network of the Global Fire Monitoring Centre.	MET	NEMA	2021

MEASURE 1.2	Reduce forest degradation through improved effectiveness, capacity and organization of control measures of forest insect pests					
EXPECTED OUTCOME	Indicator	Baseline	Target at end-2021	Target at end-2025		
	Rate of forest degradation to insect pests	10,000 ha/yr. (data source: 2005 - 2015 average)	Reduced to 8,800 ha/yr.	Reduced to 5,900 ha/yr.		
ACTION 1.2.1	Action	Output	Indicator	Lead Institution	Implementing Partner	Timeframe
	Develop capacity to provide mid to long-term forecasting for insect-pest outbreaks and damage through collaborative research (establish a network of research institutions)	Permanent monitoring plots to conduct observations and research on the dynamics of forest insect-pest outbreaks and their extent and impact	Monitoring stations for insect pest are established in 10 aimags	MET	Ministry of Education, Culture, Science and Sports (MECSS)	2020-2025
		Models to predict insect-pest outbreaks, impact on forest and intervention timing	Models are calibrated and used by Departments of Environment and tourism in 10 aimags with forests.	MET	MECSS	2025
ACTION 1.2.2	Develop and disseminate biological and biotechnological methods to combat forest insect pests	Supply of ecologically-sound bio-substances for controlling forest insect pests	600 tons of bio-substances are used to control forest insect pests through domestic production.	MET	12 aimags with forests and Ulaanbaatar	2020-2025
		Ecologically-sound biological methods to deploy virus, bacteria and parasites to control forest insect pests	Laboratory for entomophagy and parasites of forest insect pests is established.	MET	Forest Research and Development Centre (FRDC)	2023
ACTION 1.2.3	Develop and implement training programs to increase awareness and capacity to implement insect-pest control strategies, measures and actions (including the application of biological and biotechnological methods)	Awareness programs for decision-makers and the public about forest insect-pest damage and control strategy	Three types of training programs are developed and implemented regularly.	MET	12 aimags with forests and Ulaanbaatar	2020-2025
		Training programs for forestry professionals.		MET	MECSS	2020-2025
		Training programs for vocational training centers and FUGs		MET	Ministry of Labor and Social Welfare (MLSW)	2020-2025

MEASURE 1.3	Strengthen management and measures for combatting illegal logging through increased community participation and enhanced monitoring and information systems (linked to Action 1.1.3)					
EXPECTED OUTCOME	Indicator	Baseline	Target at end-2021	Target at end-2025		
	Volume of illegally harvested timber	550.0 m^3 (data source: 2005 − 2015 average)	Reduced to 400.0 m^3	Reduced to 300.0 m^3		
ACTION 1.3.1	Action	Output	Indicator	Lead Institution	Implementing Partner	Timeframe
	Improve existing methods and measures to combat illegal logging	Training programs to improve the existing environmental crime investigation, law enforcement, prosecution and sentencing	Number of cases prosecuted, and sentences ordered are increased by 50%	General Police Department (GPD), and Ministry of Justice and Internal Affairs (MJIA)	State Professional Inspection Agency (SPIA)	2020-2025
ACTION 1.3.2	Increase sustainable supply of timber and wood products (linked to Measure 2.3 - regionally specific sustainable harvest volumes and product types)	New regulation on Forest Unit to increase sustainable harvest and supply of wood and wood products	Supply is increased by at least 15%	MET	Governor	2020-2025
		Increase of forest area under concession for sustainable utilization and protection by Forest enterprises and FUGs	Concession area is increased to 4.5 million ha.	MET	Governor	2020-2025
ACTION 1.3.3	Increase incentives for local men and women to combat and monitor illegal logging activities	Renewed regulation on reward offer to combat illegal logging	Number of cases reported and settle locally are increased by 10%	MET	Governor	2020-2020
ACTION 1.3.4	Develop and introduce simplified smart-system for local men and women to report illegal logging activities	Smartphone/mobile application and website for real-time reporting	Number of cases reported are increased by 25%	MET	FRDC	2021

STRATEGIC POLICY AREA OBJECTIVE 2	Improve forest growth and forest status to increase forest carbon stocks by adopting SFM practices, including forest restoration techniques and technologies (linked to Measure 3.3)			
EXPECTED OUTCOME	Indicator		Target at end-2021	Target at end-2025
	Rate of forest enhancement through af/reforestation and assisted natural regeneration (ANR)		Three-fold increase	Nine-fold increase
	Forest area under sustainable management		3% increase	16% increase
	Rural income diversification		20% increase in forestry and wood processing jobs	60% increase in forestry and wood processing jobs
MEASURE 2.1	Enhance forest restoration and af/reforestation by applying scientific and technological advancements, enhancing tree seed germination and seedling quality, and selecting suitable methods and technologies for af/reforestation and assisted natural regeneration (linked to Measure 3.1 addressing climate vulnerability of forest ecosystems and FUGs)			
EXPECTED OUTCOME	Indicator	Baseline	Target at end-2021	Target at end-2025
	Area af/reforested	8,000 ha/yr. (data source: 2005 − 2015 average)	12,000 ha/yr.	15,000 ha/yr.
	Area under ANR	2,000 ha/yr. (data source: 2005 − 2015 average)	20,000 ha/yr.	80,000 ha/yr.

ACTION 2.1.1	Action	Output	Indicator	Lead Institution	Implementing Partner	Timeframe
	Strengthen existing legal framework to curtail livestock grazing in restored forests.	Decision to prohibit grazing in restored forests	Law on Forest is updated to include a provision to prohibit livestock grazing in restored forests	MET	FRDC	2020-2025
ACTION 2.1.2	Develop and implement technical guidelines to restore and enhance forest	Official standards and guidelines for af/reforestation and forest restoration, with due consideration of varying local circumstances and requirements	Official standards and guidelines are implemented and adapted to local conditions and requirements	MET	FRDC	2021
		Facilitative systems to consult with FUGs and herders to identify appropriate areas for af/reforestation and restoration.	Area selection methodology including a stakeholder engagement and decision-making strategies are developed and implemented.	MET	FRDC	2021

ACTION 2.1.3	Strengthen capacity for af/reforestation and forest restoration.	Training programs for FUGs, forest enterprises to learn sustainable techniques and technologies (e.g. assisted natural regeneration (ANR))	At least 800 FUGs and 50 forest enterprises are trained and carrying out af/reforestation and restoration.	DFPC	Clean Technology and Investment Department (CTID)	2020 -2025
		Assistance programs to support FUGs and forest enterprises in acquiring necessary tools and equipment	FUGs are supplied with necessary tools and equipment, and forest enterprises are assisted (financial or/and technical) in acquiring necessary tools and equipment	DFPC	Green Development Policy and Strategic Planning Department	2021
ACTION 2.1.4	Support private entities and tree nurseries to produce closed root system seedlings (raised in containers)	Public-private partnerships to produce and provide closed root system seedlings.	20 million seedlings under this specification are produced annually.	DFPC	CTID	2021
		Specifications and guidelines for producing closed root system seedlings (i.e., type of container, soil mixture).	Specifications and guidelines are approved and implemented through public-private partnerships.	DFPC	CITD	2021
ACTION 2.1.5	Research and develop new techniques and technologies for re/afforestation and forest restoration (linked to Measures 3.1 and 3.3)	Advanced techniques and technologies to assist natural regeneration of fire and insect pest damaged forests (e.g., assisted migration).	Advanced ANR techniques and technologies are tested in Khangai, Khentii and Mongol Altai and approved for broader application	DFPC	CITD	2020-2023
		Techniques and technologies to assist natural regeneration of saxaul forest and combat desertification (e.g. windbreaks) (linked to Measure 3.3)	Techniques and technologies for natural regeneration of saxaul forest are developed and approved for dissemination.	DFPC	CITD	2020-2025

MEASURE 2.2	Enhance forest ecosystems and forest biodiversity conservation through promotion of public–private–social partnerships to incentivize rational and sustainable use of forests (linked to Measures 2.1 (restoration) 2.3 (sustainable harvest volume) and 3.1 (climate vulnerability))			
EXPECTED OUTCOME	Indicator	Baseline	Target at end-2021	Target at end-2025
	Area under thinning and deadwood removal practices	30,000 ha (as of 2017)	32,000 ha	40,000 ha
	Forest area managed by FUGs	3.3 million ha (as of 2017)	4.0 million ha	4.5 million ha
	Number of FUGs with forest management plans	100 (as of 2017)	200	300
	Forest area under special protection	4.1 million ha (as of 2017)	4.7 million ha	5.3 million ha

ACTION 2.2.1	Action	Output	Indicator	Lead Institution	Implementing Partner	Timeframe
	Establish a long-term policy to support sustainable utilization of forest resources and conservation of forest ecosystems (linked to Measure 2.3)	Decision to support forest resource utilization by FUGs and forest enterprises based on their forest management plans with an emphasis on sustainable utilization and conservation	Amendment is made to Law on Forest to allow an enhanced role of forest management plans.	MET	Ministry of Food, Agriculture and Light Industry (MOFALI), MJIA	2020-2022
		Decision to extend FUGs' use rights for Non-Wood Forest Products (NWFPs)	Amendment concerning FUGs' use rights is made to Law on Forest.	MET	MOFALI, MJIA	2020-2022
		Decision to update the provision in Law on Forests concerning the annual allowable cuts (AAC) based on forest management plans, as per the sustainable harvest volumes determined under Measure 2.3	Amendment concerning AACs is made to Law on Forest	MET	MOFALI, MJIA	2020-2022

ACTION 2.2.2	Create an environment for sustainable forest utilization by forest enterprises (as per the forest restoration and enhancement standards and guidelines under Measure 2.1)	Fiscal incentives to support removal and sustainable utilization of deadwood by forest enterprises	Regulation to provide subsidies for removal of deadwood is approved and implemented.	MOFALI	Ministry of Finance (MOF)	2020-2025
			Law on Taxes is amended to remove customs duties and value-added taxes on imported equipment for deadwood processing and secondary raw materials for sustainable utilization	MOFALI	MOF	2020-2025
ACTION 2.2.3	Support FUGs and forest enterprises in preparing and updating forest management plans with an emphasis on sustainable utilization of forest resources and conservation of forest ecosystems (linked to Measure 3.1. on adaptation to climate change)	Forest management plans developed and updated by FUGs and forest enterprises as per Actions 2.2.1, 2.2.2, 2.2.4, and 3.1.3	Up to 300 FUGs and forest enterprises are implementing their new and updated forest management plans.	MET	MJIA	2020-2025
		Suitable standards and guidelines for FUGs and forest enterprises on forest management plan preparation and new techniques and technologies on wood utilization and processing.	Suitable standards and guidelines are implemented to support FUGs and forest enterprises	MET	Governors of aimags, and Ulaanbaatar	2020-2025
ACTION 2.2.4	Improve forest biodiversity conservation (as per forest restoration and enhancement standards and guidelines under Measure 2.1 and new and updated forest management plans)	Expansion of forest area under special protection	Area under Special protection is increased by 1.2 million ha.	MET	Citizens' Representative Meeting	2020-2025
		Agreements on collaborative management of special protection forests with FUGs and forest enterprises	Concession contracts with FUGs and forest enterprises are signed and in effect.	MET, MOFALI	Governors of soums with forests	2020-2025

MEASURE 2.3	Improve techniques and technologies of forest utilization, harvesting and processing that match the specific regional forest types to preserve the ecological balance and determine the appropriate harvest volume for each region based on the principles of sustainable forest management (SFM) and use					
EXPECTED OUTCOME	Indicator		Baseline[24]		Target at end-2021	Target at end-2025
	Forest sector GDP contribution		142 billion ₮ (as of 2017)		250 billion ₮	400 billion ₮
	Number of certified forest enterprises		7 (as of 2017)		15	50
	Number of jobs in the forestry and wood-processing sectors		5,000 (as of 2017)		6,000	8,000
ACTION 2.3.1	Action	Output	Indicator	Lead Institution	Implementing Partner	Timeframe
	Introduce advanced techniques and technologies for thinning, deadwood removal and sustainable harvest, and increase human resource capacity of forest units, FUG and forest enterprises	Training programs to introduce advanced techniques and technologies for forest units, FUG and forest enterprises	Training programs produce over 100 forestry professionals annually through vocational training centers and forestry field schools.	MET, MOFALI, MECSS	12 aimags with significant forest and Ulaanbaatar, Vocational training centers	2020-2025
		Accreditation of forest enterprises	Amendment is made to Law on Forest to accelerate accreditation process	MET	MOFALI	2022
		State-facilitated trade fairs at aimag centers and Ulaanbaatar to link suppliers with forest units, FUG and forest enterprises	MET and MOFALI facilitate the transfer of new techniques and technologies	MET, MOFALI	Aimags, Ulaanbaatar	2020-2025
		Financial assistance programs for upgrading techniques and technologies	Financing plans, long-term soft and hard loans of at least 120.0 billion ₮ are made available through the State budget.	MOFALI, MET	MOF, MDBs, and other banks, private sector suppliers	2020-2025

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[24] *Assessment of financing mechanisms and options for implementing REDD+ in Mongolia. 2018*

ACTION 2.3.2	Determine the maximum sustainable AACs and harvest capacity for NWFPs (nuts, berries etc.) per region based on the principles of SFM	Assessment and methodology for determining AACs and harvest capacity, including for NWFPs, based on best available science, full and effective stakeholder engagement.	Assessment recommendations and methodology are adopted and implemented in 150 soums with forest.	MET	Governors of soums with forests	2020-2025
ACTION 2.3.3	Determine areas and volumes of thinning and deadwood removal	Assessment and methodology for determining degraded forests due to disturbances that require thinning and deadwood removal	Annually up to 40, 000 ha of forests are assessed.	MET	Aimags, Ulaanbaatar	2020-2025
		Thinning and deadwood removal	Up to 40,000 ha serviced annually by forest units, FUG and forest enterprises	MET	Aimags, Ulaanbaatar, FUGs and forest enterprises	2020-2025
ACTION 2.3.4	Increase capacity for sustainable wood processing and value-added processing of NWFP	Value-added wood products using sustainably removed deadwood and harvested timber (chips, boards and pellets, etc.).	At least 35 factories are established in at least 7 aimags with forests.	MOFALI	MET	2020-2025
		Project "Clean Forest" with an aim to link FUGs, forest enterprises, processing facilities and local and national markets to support a sustainable cycle of forest cleaning, enhancement, harvest, processing and sales	Clusters of industries are established in Khusvgul,Bulgan and Khentii aimags, and at least 10 integrated service and sales centers are established at soum level.	MOFALI, MET	Aimag governments, Forest enterprises, processing factories, business associations, NGOs	2020-2023
		Networks of collectors of NWFPs and small and medium scale factories to increase rural income and diversification opportunities	Networks are established in 100 soums with forests and micro-credits are available on sustainable terms.	MET, MOFALI	Governors of soums with forests	2020-2025
ACTION 2.3.5	Re-establish and expand the central forest road network to support sustainable use, protection and restoration management actions	Study of forest road density and routes of roads to be built	Study report is available	MOFALI	MET, aimags	2021
		Feasibility study and expansion proposal to expand forest road network (i.e., costs, road density, route options, social and environmental impact assessment)	Feasibility study and proposal for 500 km expansion are approved.	MOFALI, MET	MOF, NGOs	2021
		Central forest road network (4-MT grade, which means the road will have a transport capacity of 140 000 m³)	100 km of central forest road is completed (5% of the total road network).	MOFALI, MET	Road repair enterprises, forest enterprises	2025

STRATEGIC POLICY AREA OBJECTIVE 3	Increase non–carbon benefits through enhanced climate–resilience of forest ecosystems and improved social and economic benefits of forests		
EXPECTED OUTCOME	Indicator	Target at end-2021	Target at end-2025
	Restored, enhanced and protected vulnerable forest ecosystems	1.37 million ha of vulnerable forest ecosystems restored, enhanced and protected	3.17 million ha of vulnerable forest ecosystems restored, enhanced and protected
	Reduced vulnerability of FUGs to climate change	15% of FUGs supported with vulnerability assessment and FUG-level adaptation action development as part of their forest management plans, as per NAP/NAPA	23% of FUGs supported with vulnerability assessment and FUG-level adaptation action development as part of their forest management plans, as per NAP/NAPA
	Resilience/Livelihood diversification (through agroforestry expansion)	100% increase in agroforestry extension capacity	400% increase in agroforestry extension capacity

MEASURE 3.1	Restore and enhance forests in critical ecosystems (e.g., headwater and permafrost areas and peatlands) where the effects of climate change are most visible to reduce the vulnerability of such ecosystems and local people whose livelihoods depend on them (Linked to Measures 2.1 and 2.2 for af/reforestation, ANR and protection and FUG capacity support)			
EXPECTED OUTCOME	Indicator	Baseline	Target at End 2021	Target at End 2025
	Af/reforestation, ANR and special protection in critical catchment, permafrost and peatland areas.	4.1 million ha of vulnerable forest ecosystems, with average permafrost loss of 30,581 ha/yr.[25] — as a primary water source (2017[26])	1.32 million ha. of vulnerable forest ecosystems under af/reforestation, ANR and special protection	2.97 million ha. of vulnerable forest ecosystems af/reforestation, ANR and special protection
	Vulnerability of local communities/FUGs to climate change	Total of 1,281 FUGs protecting 3.3 million ha of forest (2017)[27]	15% of FUGs in climate vulnerable forest ecosystems supported with vulnerability assessment and FUG-level adaptation plan development, as per NAP/NAPA	23% of FUGs in climate vulnerable forest ecosystems supported with vulnerability assessment and FUG-level adaptation plan development, as per NAP/NAPA

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[25] *Short Report on New Permafrost Map, 2016*

[26] *Multi-purpose national forest inventory of Mongolia 2014-2016.*

[27] *Assessment of financing mechanisms and options for implementing REDD+ in Mongolia. 2018*

ACTION 3.1.1	Action	Output	Indicator	Lead Institution	Implementing Partner	Timeframe
	Determine specific sections of watersheds, permafrost areas and peatlands where forest restoration, enhancement and protection can restore their ecological functions, threaten by climate change.	Ecological vulnerability assessment determining specific sections needing restoration, enhancement and protection (linked to Action 3.1.3)	Report is available and updated annually. Enhanced data on permafrost is available to informs forest inventory (linked to Action 4.3.2)	MET	MECSS	2020-2025
		Site-specific intervention plans developed with forest units, FUG and forest enterprises as part of their forest management plans	Site-specific intervention plans are implemented in 12 aimags with forests	MET	12 aimags with forests and governors	2020-2022
ACTION 3.1.2	Develop and use ecologically suitable and climate-stress tolerant tree seeds	Forest seed bank and zonation of Mongolia	Tree seeds are suited for restoration and enhancement in climate vulnerable ecosystems.	Department of Forest Policy and Coordination (DFPC)	MECSS	2021
		Law on seed and propagation materials of woody plants	Genetics, selection and planting principles of forest tree seeds are legally protected.	DFPC	Legal standing committee	2022
ACTION 3.1.3	Identify and reduce climate change vulnerability of FUGs (local men, women, youth and elderly people) whose livelihoods depend on forest resources and ecosystem services (linked to Action 2.2.3)	Climate change vulnerability assessment of FUGs using local risk and vulnerability assessment tools as per NAPA and NAP (linked to Action 3.1.1)	Vulnerability assessments are informing climate actions of more than 300 FUGs	MET, DFPC	MECSS, aimags, FUGs	2020-2023
		Local adaptation plans by FUGs as part of their forest management plan with a focus on restoration, enhancement and protection of ecological functions critical to their livelihoods	More than 300 FUGs have forest management plans that include climate adaptation plans	MET, DFPC	MECSS, aimags, FUGs	2020-2025

MEASURE 3.2	Improve existing incentive mechanisms that promote forest protection and reward sustainable practices			
EXPECTED OUTCOME	Indicator	Baseline	Target at end-2021	Target at end-2025
	Improved existing and new incentive mechanism for SFM	For example, regulation to purchase planted forests, Regulation A-140/63, Regulation on inclusion of non-monetary reward system (2017)	Regulation for purchasing planted forests expanded to include restored forest, at least one existing incentive mechanism improved.	Amended regulation implemented, at least one existing incentive mechanisms improved.

ACTION 3.2.1	Action	Output	Indicator	Lead Institution	Implementing Partner	Timeframe
	Develop and introduce new forms of budget financing for re/afforestation and forest restoration	New regulation to purchase restored forests through ANR (aimag, soum and ministerial funding sources)	Fiscal incentive increases re/afforestation and restoration efforts by 50%	MET	MOF	2020-2025
ACTION 3.2.2	Update and improve the existing reward system for forest protection and restoration.	Upgraded regulations supporting reward systems with greater incentives, including Regulation A-140/63 (MET, MOF 2015), providing incentives for forest protection efforts and seedling production (nursery)	A mix of monetary and non-monetary rewards increase protection and restoration efforts.	MET	MOFALI	2020-2025

MEASURE 3.3	Preserve and enhance saxaul forests in the dry woodland ecosystem to mitigate desertification and reduce the effects of climate change through development of agroforestry (linked to Measures 2.1)			
EXPECTED OUTCOME	Indicator	Baseline	Target at end-2021	Target at end-2025
	Expansion of saxaul forests	2.0 million ha (data source: 2005 − 2015 average)	2.002 million ha	2.005 million ha
	Rate of expansion of agroforestry converge	100 ha/yr. (data source: 2005 − 2015 average)	200 ha/yr.	500 ha/yr.

ACTION 3.3.1	Action	Output	Indicator	Lead Institution	Implementing Partner	Timeframe
	Improve saxaul forest management practices and natural regeneration (linked to Action 2.1.5)	Expansion and improvement of saxaul forests	Saxaul forest area is increased by 0.2 million ha.	MET	Aimag governors	2020-2025
ACTION 3.3.2	Intensify implementation and increase financial support of "Green belt" program in a dry region (linked to Action 2.1.5)	Windbreaks to protect pasture, roads, railroads, and for soil stabilization	6,000 ha windbreaks are established under "Green belt" program.	MET	Aimag governors	2020-2025
ACTION 3.3.3	Protect oases and springs by planting trees and shrubs	Restored oasis in Gobi region	At least 10 oases are restored[28].	MET	Aimag governors	2020-2025
ACTION 3.3.4	Develop agro-forestry in agricultural areas severely affected by the effects of desertification	Enhanced food production and ecosystem services in vulnerable areas	At least 2,000 ha of agricultural land is converted to agro-forestry land	MOFALI	MET, enterprises	2020-2025

[28] Study of Gobi Oases (2015)

STRATEGIC POLICY AREA OBJECTIVE 4	Establish a structure and systems to effectively coordinate the implementation of the NSAP–REDD+ and monitor and report on Mongolia's progress towards meeting its emissions reduction/removal targets and how the safeguards are being addressed and respected			
EXPECTED OUTCOME	Indicator	Target at end-2021		Target at end-2025
	Leadership, finance and enabling mechanisms	Forest Agency, FRL, NFMS, SF/SIS, GRM, M&E and sustainable financing mechanisms established and functioning		Forest Agency, FRL, NFMS, SF/SIS, GRM, M&E and sustainable financing mechanism functioning
	Total available SFM finance (public, private and donor)	327.1 billion ₮/yr. (US$ 124.37 million)[29]		490 billion ₮/yr. (US$ 186.31 million)
MEASURE 4.1	Establish a government agency for implementing SFM and administering good forest governance (e.g., sustainable harvesting, restoration and forest utilization, gender–responsive social forestry policies and effective stakeholder engagement);			
EXPECTED OUTCOME	Indicator	Baseline	Target at end-2021	Target at end-2025
	Establish a government agency with responsibilities to coordinate SFM and implement, monitor and report achievements of NSAP	DFPC and FRDC are operating under the Ministry of Environment and Tourism (MET) (2018)	DFPC becomes a Forest Agency (subsuming FRDC) under MET	Fully operational, coordinating SFM, implementing NSAP and carrying out monitoring and reporting responsibilities

ACTION 4.1.1	Action	Output	Indicator	Lead Institution	Implementing Partner	Timeframe
	Increase coordination and collaboration between the government, non-government and private sector actors to ensure good governance in the forest sector.	Government agency to coordinate policy and administration of the forest sector, including engagement with non-government organizations and other key stakeholders	Forest agency is established with clear guidance on how to engage with key government and non-government stakeholders in the sector and other related sectors.	MET	MOFALI	2020-2025
		National Institute of forest management, innovation and industrial research for seamless science-policy management	Forest Research and Training Institutes of Mongolian University of Science and technology, and Department of Forest Resource and Forest Protection of Institute of Geography and Geo-ecology are merged to form an integrated institution to collaborate with Forest Agency.	MET	MOFALI	2020-2021

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[29] *Exchange rate used: US$ 1 = 2,630*

ACTION 4.1.2	Increase transparency and accountability in forest governance	Permission system to increase transparency and accountability of forest resource use.	Forest sources are managed strictly based on approved management plans, no longer relying on the system of Citizens Representative Committee. Any grievances and complaints are dealt through GRM under Action 4.3.5	MET	MOFALI	2020-2025
		Staffing of forest governance institutions without political interference	Staff of government organizations in the forest sector are subject-area professionals free of political association.	MET	Civil Service Council	2020-2022
		Transparent system of forest concession allocation and distribution	Concession allocation, licensing and tender processes are transparent, and information is available and accessible by the public to eliminate conflicts of interests and to respect public interests.	MET	Civil Service Council	
ACTION 4.1.3	Promote socially inclusive and gender-responsive actions in the forestry and related economic sectors	Standards and guidelines based on available international best practice (e.g. UN-REDD handbook on gender) to institutionalize gender-responsive actions in the forest sector	Standards and guidelines are adopted and implemented by MET and at the aimag and soum levels.	MET	FRDC	2020-2025
		Training programs on socially inclusive and gender-responsive actions for MET staff, forest units, FUG and forest enterprises	Training programs are rolled out nationally, and all relevant aimags with training events are held at least once a year at different locations.	MET, MOFALI	MLSW, aimags and soum governors, FUGs, forest enterprises, NGOs	2020-2025
		FSDC (Civil Society Forum) ensuring reflection of public interests and needs in NSAP implementation and SFM policy processes	FSDC with participation and representation of minorities, men and women, and young and elderly people, with at least 30% of women representation convenes at least 2 times a year.	MET, MOFALI	aimags and soum governors, FUGs, forest enterprises, NGOs	2020-2025

MEASURE 4.2	Develop a sustainable financing mechanism and sources of funding and investment for the forest sector by increasing government investment, income from forest utilization, and international loans and aids, and through inclusion of forest value in the forest resource use payment system				
EXPECTED OUTCOME	Indicator	Baseline[30][31]	Target at end-2021	Target at end-2025	
	Public-sector budget allocations for conservation and utilization	15.8 billion ₮/US$ 6 million/yr. (2013-2017)	17 billion ₮/US$ 6.5 million/yr.	20 billion ₮/US$ 7.6 million/yr.	
	Private sector investment in forestry and wood processing	252 billion ₮/US$ 95.5 million/yr. (2013-2017)	300 billion ₮/US$ 114.0 million/yr.	360 billion ₮/US$ 136.8 million/yr.	
	Public-sector revenues in forestry fees, charges and taxes	51.3 billion ₮/US$ 19.5 million/yr. (2017)	70 billion ₮/US$ 26.6 million/yr.	90 billion ₮/US$ 34.2 million/yr.	
	International support on SFM (grants, loans, REDD+ RBPs)	8 billion ₮/US$ 3 million/yr. (2013-2017)	14 billion ₮/US$ 5.3 million/yr.	20 billion ₮/US$ 7.6 million/yr.	
ACTION 4.2.1	Action	Output	Indicator	Lead Institution	Implementing Partner	Timeframe
	Increase state budget and investment in the NSAP-REDD+	Increased public-sector spending on the above measures and actions	Financing from state budget reaches 20.0 billion ₮/yr.	MET	MOF	2020-2025
ACTION 4.2.2	Increase private-sector investment from sustainable forest utilization, wood processing and sales	Increased private-sector investment	Private-sector forestry investment is increased to 360 billion ₮/yr.	MOFALI	MOF	2020-2025
ACTION 4.2.3	Incorporate the value of forest ecosystem services into fiscal policies and practices	Ecological and economic valuation methods as part of charges, fees and taxes under Law on Forest and Law on Environment Protection	Valuation methods are incorporated into the laws to increase public-sector revenues to 90 billion ₮/yr.	MET	MOF	2022
ACTION 4.2.4	Increase support from international organizations and foreign countries	Increased foreign loans and grant financing for SFM	International support to SMF reaches 20 billion ₮/yr.	MET	MOFA	2020-2025

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[30] *Assessment of financing mechanisms and options for implementing REDD+ in Mongolia. 2018.*

[31] *Exchange rate used: US$ 1= 2,630 MNT*

MEASURE 4.3	Operationalize REDD+ elements including the NSAP–REDD+, FRL, NFMS, NSF and SIS for coordination, monitoring and reporting on Mongolia's progress towards meeting its emissions reduction/removal targets and how the safeguards are being addressed and respected.			
EXPECTED OUTCOME	Indicator	Baseline	Target at end-2021	Target at end-2025
	REDD+ safeguards and grievance redress mechanism (GRM)	Safeguards and options for GRM identified (2018)	Clear institutional arrangements established for both safeguards and GRM. Safeguards are monitored and GRM is processing cases.	Safeguards are monitored and updated and GRM is processing cases and improved.
	Safeguard Information System (SIS)	SIS model and components were developed, reflecting national circumstances (2018)	Clear institutional arrangements established. Information is gathered and processed and updated regularly.	A summary of information (SoI) prepared for submission to UNFCCC
	National Forest Monitoring System (NFMS)	Separate and non-integrated systems by FRDC, Agency for Land Administration and Management, Geodesy and Cartography (ALAMGC), and Environmental Information Centre (EIC), each having some weaknesses (2017)	Step-by-step improvements of existing systems	Integrated NFMS transparent and accessible
	Updated and improved Forest Reference Level (FRL)	First FRL submitted in 2018, updated based on international technical assessment in 2019	Forest growth data and models developed	FRL improved through updated models and inclusion of all 5 carbon pools.
	System of external evaluation and monitoring	None (as of 2018)	Mid-term evaluation and monitoring conducted	Final evaluation and monitoring conducted

ACTION 4.3.1	Action	Output	Indicator	Lead Institution	Implementing Partner	Timeframe
	Operationalize REDD+ safeguards and Safeguard Information System (SIS) with necessary hardware and software	User guidelines on implementation and monitoring of safeguards and establishing and maintaining SIS (i.e., a standard operating procedure)	Guidelines are implemented and updated regularly. Safeguards are monitored and information is collected at national and sub-national levels.	EIC	DFPC	2020-2025
		Training programs for safeguards implementation, monitoring, data collection and management (linked to Actions 4.1.2, 4.1.3 and 4.3.4)	Training programs are provided twice a year to relevant staff at national and sub-national levels.	EIC	DFPC	2020-2025
		REDD+ Safeguard Information available and accessible online in coordination and collaboration with relevant data sources	SIS is included in EIC online platform. Indicators specified in the Excel version are linked to the REDD+ monitoring system. Necessary hardware and software are in place. Relevant agencies are coordinating and collaborating.	DFPC	Environmental Information Centre (EIC)	2020-2025
		Report on the safeguards framework	Report provides recommendations for improvement on safeguards, and recommendations are used to upgrade the framework.	DFPC	EIC	2022
		Summary of Information (SoI) on safeguards prepared and validated	SoI is submitted to UNFCCC	DFPC	Climate Change Project Unit	2021

ACTION 4.3.2	Action	Output	Indicator	Lead Institution	Implementing Partner	Timeframe
	Strengthen the existing three pillars of the National Forest Monitoring System (NFMS) (linked to Measure 1.3 and Action 1.1.3)	Forest monitoring laboratory at FRDC	REDD+ National Forest Monitoring System is established and provided with necessary software and equipment.	FRDC	DFPC	2020
			Biennial report on land use and land use change is prepared according to the guideline set by Intergovernmental Committee of Experts.	FRDC	Agency of Land Administration, Geodesy, and Cartography	2021 2023
			Study of forest cover change is conducted every 5 years.	FRDC	FRDC	Every 5 year
		NFMS web platform	NFMS information is available online and updated regularly.	FRDC	DFPC	2020-2025
		Updated forest inventory information	Forest inventory is updated as scheduled per the Law on Forest.	FRDC	Private sector	2020-2025
			Updated inventory results are displayed in Forest-atlas.			
		General and detailed report on forest actions	Annual report on the measures of the previous year is produced at the beginning of each year based on the information database.	DFPC	FRDC	2020-2025
			Meeting and discussions are organized to determine the outline and contents of the report	DFPC	FRDC	2020-2025
		Improvement of forest carbon pool information	Carbon pool information is expanded to include Saxaul forest inventory, soil organic matter, litter and deadwood, permafrost	MET	DFPC, FRDC, Research institutes	2025
		Updated models to process information on forest stock	Tables and models used for the estimation of forest stock are developed in detail for specific regions.	MECSS, MET	Mongolian Academy of Sciences, FRDC, universities	2020-2025

ACTION 4.3.3	Action	Output	Indicator	Lead Institution	Implementing Partner	Timeframe
	Periodically update Mongolia's Forest Reference Level (FRL)	Updated forest reference level report, available in 2025 (with historical reference period 2011-2021)	Mongolia's second FRL is available by end of 2025	DFPC, FRDC	Research institutes and universities	2025
		Updated methodology of FRL	Suitable methods are developed and adopted for the next report.	FRDC	FRDC, Research institutes and universities	2020-2025
ACTION 4.3.4	Operationalize Grievance Redress Mechanism (GRM) for REDD+	Improved legal environment for GRM adapted for REDD+ implementation	Amendments are made to 1) Resolution of Petitions and Complaints of Citizens by Government Institutions and Officials (1995); 2) National Human Rights Commission (2000); and 3) General Administration Law (2015) and others.	MET	MJIA	2020-2021
		Regulation on Grievance redress mechanism	Operational guidance is developed to support enforcement of GRM regulation	MET	MJIA	2021
		Improvement of public knowledge about GRM	Information materials for GRM that includes information of the scope, processes, actors involved are widely available and accessible	MET	MJIA	2020-2025
ACTION 4.3.5	Conduct regular evaluation and monitoring of the NSAP-REDD+	Internal Biannual monitoring of progress	Biannual monitoring report on the progress made and issues is available, and recommendations are used to update and amend the NSAP-REDD+ as necessary.	MET, MOFALI	MOF, other relevant ministries, aimags and soums, FUGs, forest enterprises, NGOs	2020-2025
		Independent Mid-term and final evaluations	Independent review reports suggest principal directions, achievements and challenges of the NSAP-REDD+.	MET, MOFALI	MOF, other relevant ministries, aimags and soums, FUGs, forest enterprises, NGOs	2021, 2025

ANNEX ONE: NSAP-REDD+ BUDGET

T=Total (billion MNT), O=Overhead/Operating Cost, I=Investment/Activity Cost

STRATEGIC POLICY AREA OBJECTIVE 1: Mitigate greenhouse gas emissions from forests by reducing deforestation and forest degradation to raise Mongolia's climate ambition under the Paris Agreement of the UNFCCC

MEASURE 1.1: Reduce human-induced forest fire incidences through increased awareness and information sharing, advanced patrolling and early detection systems and improved control measures

ACTION	Start Date	Total	2020			2021			2022			2023			2024			2025		
			O	I	T	O	I	T	O	I	T	O	I	T	O	I	T	O	I	T
1.1.1: Introduce ecologically-sound methods and techniques to control forest fires, and reduce fire risks	2020	4.92	0.24	0.11	0.34	0.42	0.53	0.95	0.42	0.79	1.21	0.42	0.58	1.00	0.26	0.50	0.76	0.26	0.39	0.66
1.1.2: Implement forest fire management and suppression training programs for forest user groups (FUGs) and local men and women.	2020	6.08	0.05	0.18	0.24	0.34	0.53	0.87	0.53	0.89	1.42	0.53	0.79	1.32	0.53	0.66	1.18	0.53	0.53	1.05
1.1.3: Introduce an early warning system with methods and technologies for surveillance, automatic detection and monitoring of fires (linked to Measure 1.3 and Action 4.3.2)	2020	4.47	0.03	0.05	0.08	0.26	0.82	1.08	0.26	0.82	1.08	0.26	0.92	1.18	0.13	0.39	0.53	0.13	0.39	0.53
1.1.4: Collaborate closely with the neighboring countries to enable detection and monitoring of forest fires on a transboundary scale	2020	3.39	0.13	0.18	0.32	0.18	0.42	0.60	0.13	0.42	0.55	0.16	0.42	0.58	0.13	0.66	0.79	0.13	0.42	0.55

MEASURE 1.2: Reduce forest degradation through improved effectiveness, capacity and organization of control measures of forest insect pests

ACTION	Start Date	Total	2020			2021			2022			2023			2024			2025		
			O	I	T	O	I	T	O	I	T	O	I	T	O	I	T	O	I	T
1.2.1: Develop capacity to provide mid to long-term forecasting for insect-pest outbreaks and damage through collaborative research (establish a network of research institutions)	2020	3.66	0.03	0.05	0.08	0.26	0.32	0.58	0.26	0.39	0.66	0.26	0.53	0.79	0.26	0.53	0.79	0.24	0.53	0.76
1.2.2: Develop and disseminate biological and biotechnological methods to combat forest insect pests	2020	2.68	0.05	0.08	0.13	0.34	0.39	0.74	0.21	0.26	0.47	0.24	0.26	0.50	0.18	0.26	0.45	0.16	0.24	0.39
1.2.3: Develop and implement training programs to increase awareness and capacity to implement insect-pest control strategies, measures and actions (including the application of biological and biotechnological methods)	2020	3.32	0.24	0.24	0.47	0.03	0.49	0.52	0.03	0.49	0.52	0.26	0.53	0.79	0.03	0.49	0.52	0.03	0.49	0.52
MEASURE 1.3: Strengthen management and measures for combatting illegal logging through increased community participation and enhanced monitoring and information systems (linked to Action 1.1.3)																				
1.3.1: Improve existing methods and measures to combat illegal logging	2020	3.55	0.16	0.05	0.21	0.24	0.53	0.76	0.21	0.53	0.74	0.24	0.53	0.76	0.21	0.39	0.60	0.21	0.26	0.47
1.3.2: Increase sustainable supply of timber and wood products (linked to Measure 2.3 - regionally specific sustainable harvest volumes and product types)	2020	5.20	0.13	0.08	0.21	0.53	0.56	1.09	0.53	0.56	1.09	0.53	0.84	1.37	0.26	0.46	0.72	0.26	0.46	0.72
1.3.3: Increase incentives for local men and women to combat and monitor illegal logging activities	2020	6.39	0.18	0.26	0.45	0.79	0.79	1.58	0.79	0.79	1.58	0.79	0.79	1.58	0.26	0.34	0.60	0.26	0.34	0.60
1.3.4: Develop and introduce simplified smart-system for local men and women to report illegal logging activities	2020	3.42	0.05	0.05	0.11	0.26	0.60	0.87	0.26	0.60	0.87	0.26	0.26	0.53	0.26	0.26	0.53	0.26	0.26	0.53
SUBTOTAL		**47.08**	**1.29**	**1.34**	**2.63**	**3.66**	**5.97**	**9.63**	**3.63**	**6.55**	**10.18**	**3.95**	**6.44**	**10.39**	**2.53**	**4.94**	**7.47**	**2.47**	**4.31**	**6.79**

STRATEGIC POLICY AREA OBJECTIVE 2: Improve forest growth and forest status to increase forest carbon stocks by adopting SFM practices, including forest restoration techniques and technologies (linked to Measure 3.3)

MEASURE 2.1: Enhance forest restoration and af/reforestation by applying scientific and technological advancements, enhancing tree seed germination and seedling quality, and selecting suitable methods and technologies for af/reforestation and assisted natural regeneration (linked to Measure 3.1 addressing climate vulnerability of forest ecosystems and FUGs)

ACTION	Start Date	Total	2020			2021			2022			2023			2024			2025		
			O	I	T	O	I	T	O	I	T	O	I	T	O	I	T	O	I	T
2.1.1: Strengthen existing legal framework to curtail livestock grazing in restored forests.	2020	1.29	0.08	0.03	0.11	0.11	0.13	0.24	0.11	0.13	0.24	0.11	0.13	0.24	0.11	0.13	0.24	0.11	0.13	0.24
2.1.2: Develop and implement technical guidelines to restore and enhance forest.	2020	2.92	0.05	0.11	0.16	0.24	0.32	0.55	0.24	0.32	0.55	0.24	0.32	0.55	0.24	0.32	0.55	0.24	0.32	0.55
2.1.3: Strengthen capacity for af/reforestation and forest restoration.	2020	4.39	0.11	0.13	0.24	0.39	0.55	0.95	0.39	0.55	0.95	0.39	0.55	0.95	0.26	0.39	0.66	0.26	0.39	0.66
2.1.4: Support private entities and tree nurseries to produce closed root system seedlings (raised in containers)	2020	3.21	0.08	0.11	0.18	0.26	0.29	0.55	0.29	0.39	0.68	0.26	0.34	0.60	0.29	0.39	0.68	0.24	0.26	0.50
2.1.5: Research and develop new techniques and technologies for re/afforestation and forest restoration (linked to Measures 3.1 and 3.3)	2020	1.66	0.11	0.13	0.24	0.13	0.13	0.26	0.13	0.13	0.26	0.13	0.13	0.26	0.13	0.13	0.26	0.13	0.24	0.37

MEASURE 2.2: Enhance forest ecosystems and forest biodiversity conservation through promotion of public-private-social partnerships to incentivize rational and sustainable use of forests (linked to Measures 2.1 (restoration) 2.3 (sustainable harvest volume) and 3.1 (climate vulnerability))																					

ACTION	Start Date	Total	2020			2021			2022			2023			2024			2025		
			O	I	T	O	I	T	O	I	T	O	I	T	O	I	T	O	I	T
2.2.1: Establish a long-term policy to support sustainable utilization of forest resources and conservation of forest ecosystems (linked to Measure 2.3)	2020	1.68	0.03	0.05	0.08	0.13	0.18	0.32	0.13	0.18	0.32	0.13	0.18	0.32	0.13	0.20	0.33	0.13	0.20	0.33
2.2.2: Create an environment for sustainable forest utilization by forest enterprises (as per the forest restoration and enhancement standards and guidelines under Measure 2.1)	2020	5.22	0.03	0.03	0.05	0.32	0.47	0.79	0.32	0.47	0.79	0.32	0.47	0.79	0.26	0.32	0.58	1.84	0.38	2.22
2.2.3: Support FUGs and forest enterprises in preparing and updating forest management plans with an emphasis on sustainable utilization of forest resources and conservation of forest ecosystems (linked to Measure 3.1. on adaptation to climate change)	2020	4.52	0.05	0.13	0.18	0.32	0.53	0.84	0.32	0.58	0.89	0.32	0.58	0.89	0.32	0.58	0.89	0.32	0.50	0.82
2.2.4: Improve forest biodiversity conservation (as per forest restoration and enhancement standards and guidelines under Measure 2.1 and new and updated forest management plans)	2020	2.34	0.16	0.18	0.34	0.13	0.24	0.37	0.13	0.24	0.37	0.13	0.24	0.37	0.13	0.32	0.45	0.13	0.32	0.45

MEASURE 2.3: Improve techniques and technologies of forest utilization, harvesting and processing that match the specific regional forest types to preserve the ecological balance and determine the appropriate harvest volume for each region based on the principles of sustainable forest management (SFM) and use																				

ACTION	Start Date	Total	2020			2021			2022			2023			2024			2025		
			O	I	T	O	I	T	O	I	T	O	I	T	O	I	T	O	I	T
2.3.1: Introduce advanced techniques and technologies for thinning, deadwood removal and sustainable harvest, and increase human resource capacity of forest units, FUG and forest enterprises	2020	3.52	0.05	0.16	0.21	0.26	0.37	0.63	0.26	0.39	0.66	0.26	0.42	0.68	0.26	0.45	0.71	0.26	0.37	0.63
2.3.2: Determine the maximum sustainable AACs and harvest capacity for NWFPs (nuts, berries etc.) per region based on the principles of SFM	2020	2.16	0.11	0.18	0.29	0.13	0.24	0.37	0.13	0.24	0.37	0.13	0.24	0.37	0.13	0.24	0.37	0.13	0.26	0.39
2.3.3: Determine areas and volumes of thinning and deadwood removal	2020	1.89	0.05	0.05	0.11	0.13	0.24	0.37	0.13	0.24	0.37	0.13	0.24	0.37	0.03	0.32	0.34	0.03	0.32	0.34
2.3.4: Increase capacity for sustainable wood processing and value-added processing of NWFP	2020	4.05	0.08	0.03	0.11	0.26	0.53	0.79	0.26	0.53	0.79	0.26	0.53	0.79	0.26	0.53	0.79	0.26	0.53	0.79
2.3.5: Re-establish and expand the central forest road network to support sustainable use, protection and restoration management actions	2020	9.55	0.03	0.26	0.29	0.26	1.05	1.32	0.26	1.05	1.32	0.26	1.84	2.10	0.26	1.84	2.10	0.32	2.10	2.42
SUBTOTAL		48.40	1.00	1.58	2.58	3.08	5.26	8.34	3.10	5.44	8.55	3.08	6.21	9.28	2.81	6.14	8.95	4.39	6.30	10.70

STRATEGIC POLICY AREA OBJECTIVE 3: Increase non-carbon benefits through enhanced climate-resilience of forest ecosystems and improved social and economic benefits of forests																				

MEASURE 3.1: Restore and enhance forests in critical ecosystems (e.g., headwater and permafrost areas and peatlands) where the effects of climate change are most visible to reduce the vulnerability of such ecosystems and local people whose livelihoods depend on them (Linked to Measures 2.1 and 2.2 for af/reforestation, ANR and protection and FUG capacity support)

ACTION	Start Date	Total	2020			2021			2022			2023			2024			2025		
			O	I	T	O	I	T	O	I	T	O	I	T	O	I	T	O	I	T
3.1.1: Determine specific sections of watersheds, permafrost areas and peatlands where forest restoration, enhancement and protection can restore their ecological functions, threaten by climate change.	2020	0.88	0.05	0.11	0.16	0.05	0.11	0.16	0.03	0.06	0.09	0.05	0.11	0.16	0.05	0.11	0.16	0.05	0.11	0.16
3.1.2: Develop and use ecologically suitable and climate-stress tolerant tree seeds	2020	3.21	0.11	0.08	0.18	0.05	0.53	0.58	0.11	0.53	0.63	0.11	0.53	0.63	0.11	0.50	0.60	0.11	0.47	0.58
3.1.3: Identify and reduce climate change vulnerability of FUGs (local men, women, youth and elderly people) whose livelihoods depend on forest resources and ecosystem services (linked to Action 2.2.3)	2020	1.07	0.05	0.11	0.16	0.05	0.11	0.16	0.05	0.26	0.32	0.05	0.11	0.16	0.05	0.09	0.14	0.05	0.08	0.13
MEASURE 3.2: Improve existing incentive mechanisms that promote forest protection and reward sustainable practices																				
3.2.1: Develop and introduce new forms of budget financing for re/afforestation and forest restoration	2020	0.65	0.03	0.08	0.11	0.01	0.13	0.14	0.03	0.08	0.11	0.03	0.08	0.11	0.03	0.08	0.11	0.03	0.07	0.09
3.2.2: Update and improve the existing reward system for forest protection and restoration.	2020	1.03	0.03	0.05	0.08	0.03	0.16	0.18	0.03	0.18	0.21	0.03	0.16	0.18	0.03	0.16	0.18	0.03	0.16	0.18

MEASURE 3.3: Preserve and enhance saxaul forests in the dry woodland ecosystem to mitigate desertification and reduce the effects of climate change through development of agroforestry (linked to Measures 2.1)																				

ACTION	Start Date	Total	2020			2021			2022			2023			2024			2025		
			O	I	T	O	I	T	O	I	T	O	I	T	O	I	T	O	I	T
3.3.1: Improve saxaul forest management practices and natural regeneration (linked to Action 2.1.5)	2020	0.77	0.05	0.08	0.13	0.03	0.08	0.11	0.05	0.08	0.13	0.05	0.08	0.13	0.05	0.08	0.13	0.05	0.08	0.13
3.3.2: Intensify implementation and increase financial support of "Green belt" program in a dry region (linked to Action 2.1.5)	2020	1.03	0.03	0.11	0.13	0.03	0.13	0.16	0.03	0.13	0.16	0.03	0.18	0.21	0.03	0.21	0.24	0.03	0.11	0.13
3.3.4: Protect oases and springs by planting trees and shrubs	2020	0.53	0.03	0.05	0.08	0.03	0.05	0.08	0.03	0.05	0.08	0.03	0.11	0.13	0.03	0.05	0.08	0.03	0.05	0.08
3.3.5: Develop agro-forestry in agricultural areas severely affected by the effects of desertification	2020	1.34	0.05	0.08	0.13	0.08	0.21	0.29	0.05	0.24	0.29	0.05	0.18	0.24	0.05	0.16	0.21	0.05	0.13	0.18
SUBTOTAL		10.49	0.42	0.74	1.16	0.36	1.50	1.86	0.39	1.61	2.01	0.42	1.53	1.95	0.42	1.43	1.85	0.42	1.25	1.67

STRATEGIC POLICY AREA OBJECTIVE 4: Establish a structure and systems to effectively coordinate the implementation of the NSAP-REDD+ and monitor and report on Mongolia's progress towards meeting its emissions reduction/removal targets and how the safeguards are being addressed and respected

MEASURE 4.1: Establish a government agency for implementing SFM and administering good forest governance (e.g., sustainable harvesting, restoration and forest utilization, gender-responsive social forestry policies and effective stakeholder engagement);

ACTION	Start Date	Total	2020 O	2020 I	2020 T	2021 O	2021 I	2021 T	2022 O	2022 I	2022 T	2023 O	2023 I	2023 T	2024 O	2024 I	2024 T	2025 O	2025 I	2025 T
4.1.1: Increase coordination and collaboration between the government, non-government and private sector actors to ensure good governance in the forest sector.	2020	3.63	0.24	0.18	0.42	0.39	0.53	0.92	0.32	0.53	0.84	0.24	0.26	0.50	0.24	0.24	0.47	0.24	0.24	0.47
4.1.2: Increase transparency and accountability in forest governance	2020	2.52	0.21	0.21	0.42	0.21	0.21	0.42	0.21	0.21	0.42	0.21	0.21	0.42	0.21	0.21	0.42	0.21	0.21	0.42
4.1.3: Promote socially inclusive and gender-responsive actions in the forestry and related economic sectors	2020	2.21	0.16	0.21	0.37	0.16	0.21	0.37	0.16	0.21	0.37	0.16	0.21	0.37	0.16	0.21	0.37	0.16	0.21	0.37
MEASURE 4.2: Develop a sustainable financing mechanism and sources of funding and investment for the forest sector by increasing government investment, income from forest utilization, and international loans and aids, and through inclusion of forest value in the forest resource use payment system																				
4.2.1: Increase state budget and investment in the NSAP-REDD+	2020	1.74	0.11	0.18	0.29	0.11	0.18	0.29	0.11	0.18	0.29	0.11	0.18	0.29	0.11	0.18	0.29	0.11	0.18	0.29
4.2.2: Increase private-sector investment from sustainable forest utilization, wood processing and sales	2020	1.89	0.08	0.24	0.32	0.08	0.24	0.32	0.08	0.24	0.32	0.08	0.24	0.32	0.08	0.24	0.32	0.08	0.24	0.32
4.2.3: Incorporate the value of forest ecosystem services into fiscal policies and practices	2020	1.58	0.11	0.16	0.26	0.11	0.16	0.26	0.11	0.16	0.26	0.11	0.16	0.26	0.11	0.16	0.26	0.11	0.16	0.26
4.2.4: Increase support from international organizations and foreign countries	2020	1.58	0.08	0.18	0.26	0.08	0.18	0.26	0.08	0.18	0.26	0.08	0.18	0.26	0.08	0.18	0.26	0.08	0.18	0.26

MEASURE 4.3: Operationalize REDD+ elements including the NSAP-REDD+, FRL, NFMS, NSF and SIS for coordination, monitoring and reporting on Mongolia's progress towards meeting its emissions reduction/removal targets and how the safeguards are being addressed and respected.

ACTION	Start Date	Total	2020			2021			2022			2023			2024			2025		
			O	I	T	O	I	T	O	I	T	O	I	T	O	I	T	O	I	T
4.3.1: Operationalize REDD+ safeguards and Safeguard Information System (SIS) with necessary hardware and software	2020	1.70	0.05	0.16	0.21	0.15	0.24	0.38	0.13	0.26	0.39	0.11	0.16	0.26	0.08	0.16	0.24	0.05	0.16	0.21
4.3.2: Strengthen the existing three pillars of the National Forest Monitoring System (NFMS) (linked to Measure 1.3 and Action 1.1.3)	2020	2.50	0.05	0.11	0.16	0.13	0.26	0.39	0.24	0.26	0.50	0.26	0.32	0.58	0.26	0.26	0.53	0.13	0.21	0.34
4.3.3: Periodically update Mongolia's Forest Reference Level (FRL)	2020	1.89	0.03	0.08	0.11	0.03	0.08	0.11	0.03	0.08	0.11	0.26	0.26	0.53	0.26	0.32	0.58	0.21	0.26	0.47
4.3.4: Operationalize Grievance Redress Mechanism (GRM) for REDD+	2020	0.47	0.03	0.05	0.08	0.03	0.05	0.08	0.03	0.05	0.08	0.03	0.05	0.08	0.03	0.05	0.08	0.03	0.05	0.08
4.3.5: Conduct regular evaluation and monitoring of the NSAP-REDD+.	2020	2.31	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.60	1.13	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.66	1.18
SUBTOTAL		24.03	1.13	1.76	2.89	1.46	2.34	3.80	2.00	2.97	4.97	1.63	2.24	3.87	1.60	2.21	3.81	1.92	2.76	4.68
TOTAL		130.00	3.84	5.42	9.26	8.56	15.07	23.62	9.13	16.58	25.71	9.07	16.41	25.48	7.37	14.73	22.09	9.21	14.63	23.84
SOURCES OF FINANCING																				
NATIONAL AND LOCAL BUDGETS		111.85	3.42	4.82	8.24	7.44	13.11	20.55	7.85	14.26	22.11	7.80	14.11	21.92	6.26	12.52	18.78	7.83	12.43	20.26
INTERNATIONAL SUPPORT (TBD)		18.15	0.42	0.60	1.02	1.11	1.96	3.07	1.28	2.32	3.60	1.27	2.30	3.57	1.10	2.21	3.31	1.38	2.19	3.58
TOTAL		130.00	3.84	5.42	9.26	8.56	15.07	23.62	9.13	16.58	25.71	9.07	16.41	25.48	7.37	14.73	22.09	9.21	14.63	23.84

ANNEX TWO: LIST OF STUDIES CONDUCTED BY UN-REDD MONGOLIA

№	NAME		Year published	List of publications currently available on the website		Available language in print	
				Link			
	ENGLISH	MONGOLIAN		Eng	Mon	Eng	Mon
0	1	2	3	4	5	6	7
1	Forest Sector Financing Flows and Economic Values in Mongolia	Ойн салбарын санхүүжилтийн урсгал, эдийн засгийн үнэ цэнэ	2013	Link	Link	Yes	Yes
2	Entry Mainstreaming Financing for Sustainable Forest Management into Sectoral Budgets	Салбарын төсөвт ойн тогтвортой менежментийн санхүүжилтийг суулгах боломж	2016	Link	-	Yes	No
3	Action Plan for Mongolia's National Forest Monitoring System for REDD+ under the UNFCCC	НҮБУАӨСК-ийн хүрээн дэх Үндэсний Ойн Мониторинг Системийн үйл ажиллагааны төлөвлөгөө	2014	LInk	-	Yes	No
4	Forest Reference Level Action Plan (DRAFT)	Үндэсний ойн мониторинг системийн үйл ажиллагааны төлөвлөгөө (төсөл)	2017	Link	-	Yes	Yes
5	National REDD+ Readiness Roadmap	Үндэсний REDD + -д бэлтгэх төлөвлөгөө	2014	Link	Link	Yes	Yes
6	National REDD+ Programme Document	Монгол орны UN-REDD Үндэсний хөтөлбөрийн баримт бичиг	2015	Link	Link	Yes	Yes
7	Preliminary Assessment of the Drivers of Forest Change in Mongolia	Монгол дахь ойн доройтол, хомсдолын хүчин зүйлсийн урьдчилсан үнэлгээ	2017	Link	Link	Yes	Yes
8	UN-REDD Country level support to REDD+ Readiness in Mongolia	REDD+-д бэлтгэх үндэсний түвшний дэмжлэг	2011	Link	_	Yes	No

0	1	2	3	4	5	6	7
9	Institutional Capacity and Arrangement Assessment for REDD+	REDD+ байгууллагын чадавх, зохион байгуулалтын үнэлгээ	2016	Link	Link	Yes	Yes
10	Report on Consultations on Benefits from Forests in Mongolia	Монгол орны ойгоос хүртэх ашиг шимийн талаарх зөвлөгөөний тайлан	2016	Link	Link	Yes	Yes
11	COP 21 — Decisions of UNFCCC	НҮБУАӨCK-ийн шийдвэрүүд	2017	Link	Link	Yes	Yes
12	Using Spatial Analysis to Explore Potential for Multiple Benefits from REDD+ in Mongolia	Монгол орны REDD+ үйл ажиллагаанаас олон талт үр ашиг хүртэх боломжийг тодорхойлох орон зайн дүн шинжилгээ	2017	Link	Link	Yes	Yes
13	UN-REDD Program Annual Implementation Reports 2015-2016	UN REDD хөтөлбөрийн 2015-2016 оны тайлан	2016	Link	Link	Yes	No
14	Stakeholder Engagement Plan	МОНГОЛ ОРНЫ REDD+ ХӨТӨЛБӨРТ ТАЛУУДЫН ОРОЛЦООГ ХАНГАХ ТӨЛӨВЛӨГӨӨ	2017	Link	Link	Yes	Yes
15	Mongolia REDD+ Competence-based Needs Assessment & Capacity Plan	REDD + Чадамжид суурилсан чадавхын хэрэгцээний үнэлгээ ба чадавхыг бэхжүүлэх төлөвлөгөө	2017	Link	Link	Yes	Yes
16	FOREST LAND USE, LAND USE CHANGE ASSESSMENT REPORT- 2016-2017	Монгол улсын ХүХ-н тооллогын ажилд зориулж хийсэн ХАА, ой ба бусад газар ашиглалтын үнэлгээний тайлан	2017	Link	_	Yes	No
17	Collect Earth User Guide	Коллект Ерт програмын гарын авлага	2015	Link	Link	Yes	Yes
18	Forest Reference Level Decisions	Ойн суурь түвшний шийдвэрүүд	2016	Link	_	Yes	No
19	Communication, Knowledge, Management and Media Strategy	Харилцаа холбоо, Мэдлэгийн менежмент ба Хэвлэл мэдээллийн стратеги	2016	Link	Link	Yes	Yes
20	Assessment of Policies and АРГА ХЭМЖЭЭs for the REDD+ National Strategy (DRAFT.mon)	REDD + үндэсний хөтөлбөрийн бодлого, арга хэмжээ (төсөл)	2017	Link	_	Yes	Yes
21	Assessment of Social Inclusion АРГА ХЭМЖЭЭs for the REDD+ National Strategy (DRAFT.mon)	REDD + Үндэсний хөтөлбөрт нийгмийн бүлгүүдийн тэгш оролцоог хангах арга хэмжээний үнэлгээ	2017	Link	_	Yes	Yes

0	1	2	3	4	5	6	7
22	REDD+ Academy Journal 1 - Forests & Climate Change	REDD+ Академи Сургалтын гарын авлага 1 - Ой, уур амьсгалын өөрчлөлт	2017	Link	Link	Yes	Yes
23	REDD+ Academy Journal 2 - UNFCCC	REDD+ Академи Сургалтын гарын авлага 2 — НҮБУАӨСК	2017	Link	Link	Yes	Yes
24	REDD+ Academy Journal 3 - Drivers of Deforestation and Degradation	REDD+ Академи Сургалтын гарын авлага 3 — Ойн доройтол, хомсдолын хүчин зүйлс	2017	Link	Link	Yes	Yes
25	REDD+ Academy Journal 4 - National Strategies	REDD+ Академи Сургалтын гарын авлага 4 - Үндэсний стратеги	2017	Link	Link	Yes	Yes
26	REDD+ Academy Journal 5 - National Forest Monitoring Systems	REDD+ Академи Сургалтын гарын авлага 5 - Үндэсний ойн мониторингийн систем	2017	Link	Link	Yes	Yes
27	REDD+ Academy Journal 6 - Forest Reference Level	REDD+ Академи Сургалтын гарын авлага 6 - Ойн суурь түвшин	2017	Link	Link	Yes	Yes
28	REDD+ Academy Journal 7 - Policies and АРГА ХЭМЖЭЭs	REDD+ Академи Сургалтын гарын авлага 7 - Бодлого, арга хэмжээ	2017	Link	Link	Yes	Yes
29	REDD+ Academy Journal 8 - REDD Safeguards	REDD+ Академи Сургалтын гарын авлага 8 - СНУСЗ	2017	Link	Link	Yes	Yes
30	REDD glossary	REDD толь бичиг	2017	Link	Link	Yes	No
31	FAQ of REDD	REDD-ийн талаарх Түгээмэл асуултууд	2017	Link	Link	Yes	Yes
32	Misconceptions of REDD	REDD-ийн талаарх Ташаа ойлголтууд	2017	Link	Link	Yes	Yes
33	BACKGROUND REPORT: ASSESSMENT OF POTENTIAL BENEFITS AND RISKS OF REDD+ IMPLEMENTATION IN MONGOLIA	МОНГОЛ ОРНЫ REDD+-ИЙН ҮР АШИГ, ЭРСДЭЛИЙГ ҮНЭЛЭХ АЖЛЫН СУУРЬ ТАЙЛАН	2017	Link	Link	Yes	Yes
34	Information note REDD+ Finance	Мэдээллийн хураангуй - REDD+ Санхүүжилт	2016	Link	Link	Yes	Yes
35	Information note REDD+ Safeguards	Мэдээллийн хураангуй - REDD+ Сөрөг нөлөөллөөс сэргийлэх зарчим	2016	Link	Link	Yes	Yes
36	Information note REDD+ Civil Society	Мэдээллийн хураангуй - REDD+ Иргэний нийгмийн байгууллага	2016	Link	Link	Yes	Yes

0	1	2	3	4	5	6	7
37	Information note REDD+ Strategy	Мэдээллийн хураангуй – REDD+ Стратеги	2016	Link	Link	Yes	Yes
38	Fact sheet – Sustainable Development Goals and REDD+	Товч мэдээлэл – Тогтвортой хөгжлийн үзэл баримтлал ба REDD+	2017	Link	Link	Yes	Yes
39	Fact sheet - Adaptation	Мэдээллийн хуудас – Уур амьсгалын өөрчлөлтөд дасан зохицох нь	2017	Link	_	Yes	No
40	Fact sheet - Climate change	Мэдээллийн хуудас – Уур амьсгалын өөрчлөлт	2017	Link	Link	Yes	Yes
41	Country brief - Sustainable Development Goals	Мэдээллийн хуудас – Монгол орны Тогтвортой хөгжлийн зорилтод оруулах хувь нэмэр	2017	Link	_	Yes	No
42	Briefing paper on Strategy	Стратегийн боломжит хувилбар ба зөвлөмж	2016	Link	Link	Yes	Yes
43	Briefing Document on Institutional Mechanism and Legal Framework fo'REDD+' in Mongolia	REDD+-ийн институцийн чадавх, зохион байгуулалтын үнэлгээ: Монгол орны UN-REDD Үндэсний Хөтөлбөр	2016	Link	Link	Yes	Yes
44	Rapid Assessment of Forest Protection Activities Mongolia, USFS (draft)	АНУ-ын Ойн албаны гаргасан Ойн хамгааллын үйл ажиллагааны үнэлгээ	_	_	Yes	No
45	Rapid Assessment of Forest Fires in Mongolia, USFS	АНУ-ын Ойн албаны гаргасан Ойн түймрийн судалгаа	2018	Link	_	Yes	No
46	Social inclusion and gender dynamics for REDD+ synthesis	REDD+-ийн хүрээн дэх Нийгмийн бүлгүүдийн оролцоо ба жендерийн динамик	2017	Link	_	Yes	No
47	Assessment on Finance mechanisms of Mongolian forestry sector	Монгол орны ойн салбарын санхүүжилтийн механизмын үнэлгээ	2018	Link	Link	Yes	Yes
48	Assessment on Risk/Corruption of Mongolian forestry sector	Монгол орны ойн салбарын авлига/эрсдэлийн үнэлгээ	2018	Link	Link	Yes	Yes
49	REDD+ Sustainable management plan of Khentii aimag (draft)	Хэнтий аймгийн REDD+ ойн тогтвортой менежментийн төлөвлөгөө	2018			Yes	Yes
50	REDD+ Sustainable management plan of Khuvsgul aimag (draft)	Хөвсгөл аймгийн REDD+ ойн тогтвортой менежментийн төлөвлөгөө	2018			Yes	Yes

0	1	2	3	4	5	6	7
51	REDD+ Sustainable management plan of Selenge aimag (draft)	Сэлэнгэ аймгийн REDD+ ойн тогтвортой менежментийн төлөвлөгөө	2018			Yes	Yes
52	Safeguard approach in the Mongolian context	Сөрөг нөлөөллөөс сэргийлэх зарчмыг Монгол улсад нийцүүлэх нь				Yes	Yes
53	Saxaul forest economic value assessment	Заган ойн эдийн засгийн үр ашгийн үнэлгээ	2018	Link	Link	Yes	Yes
54	Draft regulation on incentives on Illegal logging reporting	Хууль бус мод бэлтгэлийг мэдээлсэн иргэнд урамшуулал олгох журмын төсөл	2018		Link	No	Yes
55	Background report on Policies, laws and regulations relevant to the Cancun Safeguards in Mongolia	Сөрөг нөлөөллөөс сэргийлэх зарчмуудтай холбоотой бодлого, хууль, журмын үнэлгээ	2018	Link	Link	Yes	Yes
56	Situation analysis report of National Strategy (draft)	REDD+ ҮСҮАТ-ний Нөхцөл байдлын шинжилгээ	2018		Link	Yes	Yes
57	Assessment of Wood Product Value Chains and Recommendations for the Mongolian Wood-Processing Industry	Модон Бүтээгдэхүүний Нэмүү Өртгийн Сүлжээний Үнэлгээ ба Монгол Орны Мод Боловсруулах Үйлдвэрлэлийн Салбарт Хүргэх Зөвлөмж	2018	Link	Link	Yes	Yes
58	Capacity building program: Gender sensitive and socially inclusive stakeholder engagement for REDD+ Mongolia	МУ-ын REDD+-ийн бодлого, үйл ажиллагаанд жендэрийн мэдрэмжтэй, нийгмийн бүлгүүдийг тэгш хамран оролцуулах чадавхыг бэхжүүлэх хөтөлбөр				Yes	Yes
59	INFO BRIEF: FINANCING MECHANISMS AND OPTIONS FOR IMPLEMENTING REDD+ IN MONGOLIA	Ойн санхүүгийн урсгалын талаарх товч баримт бичиг	2017	Link	Link	Yes	Yes
60	INFO BRIEF: DEALING WITH INSECT INFESTATIONS IN MONGOLIA'S БОРЕАЛ FOREST	Ойн хортны талаарх товч баримт бичиг	2017	Link		Yes	Yes
61	INFO BRIEF: REDD+ AND THE WOOD-PROCESSING INDUSTRIES	Монгол Орны Мод Боловсруулах	2018	Link		Yes	No

0	1	2	3	4	5	6	7
62	INFO BRIEF: REDUCING CORRUPTION RISKS IN MONGOLIA'S FOREST SECTOR	Авлигын эрсдэл	2018	Link		Yes	No
63	INFO BRIEF: FIRE MANAGEMENT IN MONGOLIA: A CHANGING CLIMATE	Гал түймрийн менежмент	2018	Link		Yes	No
64	INFO BRIEF: OPERATIONALISING SOCIALLY INCLUSIVE AND GENDERRESPONSIVE STAKEHOLDER ENGAGEMENT IN REDD+	Оролцогч талууд	2018	Link		Yes	No
65	SIS design elements	Монгол оронд REDD+-ийн СНСМС байгуулах загварын бүрэлдэхүүн				Yes	Yes
66	Technical document of REDD National Strategy (Draft)	REDD Үндэсний хөтөлбөрийн Техникийн баримт бичиг				Yes	Yes
67	Mongolia's Forest Reference Level modified submission to the UNFCCC		2018	Link	_	Yes	No
68	National Programme Annual Report - January to December 2015	Жилийн эцсийн тайлан - 2015	2015	Link		Yes	No
69	UN-REDD МОНГОЛ УЛС NATIONAL PROGRAMME INCEPTION REPORT	Хөтөлбөрийн нээлтийн ажиллагааны тайлан	2016	Link		Yes	No
70	NATIONAL PROGRAMME ANNUAL REPORT - January to December 2017	Жилийн эцсийн тайлан - 2017	2017	Link		Yes	No
71	National Programme Annual Report - January to December 2016	Жилийн эцсийн тайлан - 2016	2016	Link	Link	No	Yes
72	Linking social inclusion and safeguards in the REDD+ context in Mongolia	Монгол орны REDD+ийн СНСЗарчим ба нийгмийн бүлгүүдийн оролцоо	2017	Link		Yes	Yes
73	Benefits and risks assessment workshop	Эрсдэл ба үр ашгийн үнэлгээний уулзалтын тайлан, 2017 оны 5 сар	2017	Link	Link	Yes	Yes
74	Mongolia REDD+ benefits and risks assessment	Монгол орны REDD+ийн эрсдэл ба үр ашгийн үнэлгээ, 2017 оны 8 сар: үнэлгээний хүснэгтүүд	2017	Link	Link	Yes	Yes

0	1	2	3	4	5	6	7
75	3rd meeting of the Mongolia REDD+ Safeguards and Safeguards Information System Technical Working Group: introduction to clarification and assessing policy-level actions	Сөрөг нөлөөллөөс сэргийлэх зарчим ба сөрөг нөлөөллөөс сэргийлэх мэдээллийн систем бий болгох техникийн ажлын хэсгийн 3 дугаар уулзалт, 2017 оны 9 сар	2017	Link	Link	Yes	Yes
76	Consultation on Mongolia's national safeguards approach: outcomes of benefits & risks assessment, review of policies, laws and regulations, and clarification of the safeguards	Сөрөг нөлөөллөөс сэргийлэх зарчмуудыг Монгол орны үндэсний нөхцөлд нийцүүлэн тодорхойлох тухай зөвлөлдөх уулзалтын тайлан, 2018 оны 1 сар	2018	Link	Link	Yes	Yes
77	Safeguard Information System (SIS) Workshop and Technical Working Group Meeting, March 2018	Сөрөг нөлөөллөөс сэргийлэх мэдээллийн системийн ТАХ-ийн уулзалт, 2018 оны 3 сар	2018	Link	Link	Yes	Yes
78	Review of safeguards relevant policies, laws and regulations	СӨРӨГ НӨЛӨӨЛЛӨӨС СЭРГИЙЛЭХ ЗАРЧМУУДТАЙ ХОЛБООТОЙ БОДЛОГО, ХУУЛЬ, ЖУРМЫН ҮНЭЛГЭЭНИЙ ТАЙЛАН	2018	Link	Link	Yes	Yes

ANNEX THREE:
Summary of Results of Mongolia REDD+ Benefits and Risks Assessment

ENVIRONMENTAL BENEFITS:

- Through improved restoration activities, improved seed quality and monitoring, forest growth and productivity, forest quality and natural regeneration could increase.

- Forest restoration and conservation and water source protection PAMs may lead to improved provision of ecosystem services and biodiversity conservation.

- Fire and pest risks could be reduced, due to deadwood removal/thinning; forest roads can support fire management and pest control activities.

- Through working with Forest User Groups, Forest Units and other stakeholders, capacity for sustainable forest management could be improved.

- Desertification and land degradation may decline due to reduction in forest degradation.

- Through improvements to natural resource fees allocation and management and payments for ecosystem services (PES), financing for environmental conservation and management at local level may be increased.

- Improved pasture land management could allow grassland to regenerate, reducing land degradation. Intensified livestock farming could develop.

- Conservation and regeneration of traditional attitude to nature among local communities could be encouraged through incentives for forest protection and management.

- Increased environmental protection in dryland forest ecosystem areas could lead to saxaul regeneration; this could also stimulate the growth of other plants (e.g. medicinal herbs).

- The promotion of sustainable fuelwood harvesting may help to improve fuelwood practices, including alternative fuel sources, energy saving, reduced pollution.

- Introduction of improved timber processing technologies could lead to better raw materials utilization/decreased waste; waste management may improve, with better logistics and cooperation in industrial centers.

ENVIRONMENTAL RISKS:

- Increased deadwood removal and/or thinning in production forests could lead to over-harvesting of natural resources, and illegal harvesting, with negative impacts on forest health, biodiversity and ecosystem service provision, e.g. carbon storage, wildlife habitat.

- Controlled fires for reducing fire risk/impacts may get out of control, or fire-setting be displaced to other areas, e.g. where there is lack of awareness or less patrolling.

- Improved pest control may affect ecological balance; unclear risk to wildlife from mechanical collection and biocontrol methods.

- Risks of displacement of emissions, such as: improved protection/management in some forest areas shifting drivers/pressures to other forest or non-forest areas; non-forest ecosystems may suffer negative impacts if lower priority for protection; fuelwood harvesting may increase in areas without alternatives or harvesting restrictions.

- If increased effectiveness of tree planting encouraged more planting, natural forest types could be lost or plantations established in inappropriate areas (e.g. grasslands).

- Improving the adaptive capacity of communities may promote measures that conflict with nature conservation (e.g. infrastructure development).

- Risk that microfinance or livelihood support could be used for unsustainable practices, e.g. increasing livestock numbers.

- If livestock production becomes more valuable, numbers may still increase, leading to pasture land degradation, especially wherever water resources are poor.

- In areas where water resources improve, agriculture and small businesses may expand, leading to land degradation. Consumption of chemical fertilizers may increase, including from agroforestry.

- Fences/measures for protecting regenerated areas may restrict wildlife movement.

- Saxaul growth through environmental protection in dryland forest ecosystem areas could lead to growth in gerbils and damaging insects that feed on saxaul.

SOCIAL BENEFITS:

- Income and livelihoods of local communities, forest user group members and economic entities could improve, e.g. through more opportunities to utilize forest resources.

- Sustainable management of forests and measures to reduce fire risks/impacts could support local infrastructure development (e.g. forest roads); improved economic incentives for sustainable forest management may result in increased investment in forest-dependent areas.

- Production and supply of value-added products may increase, with possible price premium for high quality/sustainable products.

- Wood supply may increase, and prices of products may be stabilized due to more reliable/sustainable supply of raw materials.

- Knowledge and skills of forest user-groups and other stakeholders could be improved through support for developing forest management plans, capacity-building opportunities, etc.

- Increased availability of water resources may provide opportunities for other economic sectors to develop (e.g. agriculture) and improve food security.

- Economic activity and resources of cooperatives may increase, contributing to local development funds. SMEs bolster income flows to the local budget through taxes, permits and loan repayments.

- Promotion of 'green' and higher quality

wood products could have a positive effect on human health (e.g. low smoke fuel products).

- Interventions in the livestock sector may help to improve livestock product quality, contributing to increased exports.

- Diversification of livelihoods and improved ecosystem service provision from agroforestry may increase climate change resilience of local communities.

- Sustainable forest management and certification could lead to improved techniques and technologies and greater efficiency; standards of labor protection, health and safety could also be improved.

SOCIAL RISKS:

- Livelihoods of local communities could be negatively impacted e.g. due to higher protection levels restricting access to natural resources, less land available for public use and grazing, or restrictions on hunting/deadwood collection

- Conflicts and disputes could arise between different groups, e.g. over land and forest resource utilization or distribution of incentives/benefits.

- Workload and responsibilities of local citizens may be increased through participation in REDD+ or restrictions on livelihoods.

- Promoting pest control activities may lead to increased costs to state budget; government and private sector may have interest in increasing budget allocation for pest control for their own economic interests.

- Risks of placing a large future burden on state budget, e.g. infrastructure and equipment (e.g. forest roads) that needs to be maintained, increased budget

for planting and maintaining forest regeneration especially in saxaul areas, cost of developing eco-tourism in remote areas, etc.

- Supply of wood and fuelwood could decrease with new restrictions; increased prices for such products could impact poorer people in particular.

- REDD+ may cause pressure on traditional way of life, such as nomadic herding; expanding protected areas may also conflict with regulations aimed at preserving traditions.

- Migration within and between local areas may increase due to decrease in access to grazing areas and restricted livelihood opportunities.

- Dependency on use of fuelwood or other natural resources could increase (e.g. rather than alternative energy sources or alternative livelihoods).

- There may be insufficient or inequitable capital for, access to, or uptake among target groups of advanced techniques

and technologies, e.g. alternative energy types, new wood processing techniques.

- REDD+ PAMs may mainly benefit larger forestry/processing companies while smaller ones cannot compete; risk of insolvency for smaller economic entities

and cooperatives from increased access to credit and pressure to adopt new technologies.

- Risks to gender equality, e.g. job opportunities for men may increase and gender ratio will be lost.

GOVERNANCE BENEFITS:

- Local governance and public engagement in protected area and forest management can be improved; forest user group involvement can improve forest protection, reduce fire risk.

- Improvement of legal/planning framework for sustainable forest management, and better implementation of sustainable forest management plans by forest user groups; can also strengthen capacity and understanding of officers and local people on sustainable forest management.

- Forest monitoring processes may improve, e.g. if more revenue available for monitoring; database on certification could be established.

- Increased stakeholder participation may improve governance of forest restoration and pest control activities, such as monitoring, transparency, and fund allocation.

- Increased stakeholder participation may reduce funding burden for National Emergency Management Authority and Protected Area administrations.

- With better monitoring and law enforcement, reporting on illegal logging and other violations of laws could be quicker and more efficient; associated crime may also be reduced (e.g. tax

fraud, wildlife trade).

- REDD+ PAMs (e.g. improved enforcement to reduce illegal logging) may foster cooperation between different Mongolian government agencies, as well as with neighboring countries on forest and environmental issues.

- Better management and allocation of conservation funds could improve confidence and payments by payers of natural resources tax.

- Transparency of income and expenditure may be improved, especially at local level; improper spending of revenues could be more quickly identified and stopped. Corruption related to tenders may decrease through increased participation of stakeholders in forest sector activities.

- REDD+ PAMs related to non-timber forest products provide opportunity to improve legal framework, sustainability of harvesting, and law enforcement related to NWFPs.

- Collaboration and linkages between different stakeholders could improve, e.g. reducing conflict between forest user groups and economic entities.

- Promotion of agroforestry may improve cooperation between forest, agriculture and land management units.

GOVERNANCE RISKS:

- Corruption may increase at a range of levels.

- Information/awareness campaigns may not reach target groups (e.g. in remote areas).

- Frequent changes in policy and planning due to political affairs creates risk of reversals.

- Penalties for non-survival of seedlings or poor results could make people lose trust/ become less active in forest restoration activities.

- Creation of new protected areas may place pressure on local government and protected area administrations and may weaken cooperation between them (as Protected Areas are under national level).

- Potential conflicts need to be managed between expanding the protected areas network and watershed management plans with other development policies

(e.g. on mining, roads, pasture, energy).

- Strengthened law enforcement and emphasis on law enforcement agencies may weaken community members` participation and initiative to manage/ protect forests.

- If spending on conservation is increased without adequate technical support, poorly planned conservation measures may be implemented, e.g. use of monocultures in restoration, water resources infrastructure.

- Less pasture land could be available for grazing, affecting wider land management; legal environment is not adequate to regulate designation/ restriction of areas for pasture.

- Improvement of the relationship between private sector harvesters, processers and government could exclude/limit the rights of herders, farmers and users of non-timber forest products.

OPERATIONAL RISKS:

- Climate change impacts can retard forests' natural regeneration process, affecting the feasibility of restoration PAMs.

- Agroforestry models may not suit all areas or forest types, resulting in uneven implementation and/or lack of sustainability.

- Frequent changes in policy and planning due to political affairs creates risk for sustainability of PAMs.

- If monitoring system not improved, ineffective pest control measures may be implemented, and results may not be properly evaluated.

- Biological methods of pest control may be insufficient in the context of climate change.

ANNEX FOUR:
List of Co-financing and Baseline Investmentsт

Initiative	Type of Invest-ment (Baseline/ Co-finance)	Description	Relevance to SAP Component(S)	Funding Size (USD or Euro)/ Source/Duration
1	Feasibility Study and Project development for Forest Sector Development Program			
	Co-finance	Under development: Country Operations Business Plan 2020 -2021	Component 1: Alignment of ADB loan project on SFM and policy reform with the National	$800,000 (grant), ADB, 2019
2	Forest Sector Development Program			
	Co-finance	Under development: Country Operations Business Plan 2020 -2021	Component 1: Sustainable utilization, restoration, processing, job creating, technological upgrades, micro-credits, SME development	$40,400,000 (loan), ADB, planned for 2021 onwards
3	Green Financing Project			
	Co-finance	Under development: Country Operations Business Plan 2020 -2021 Access to finance for small and medium-sized enterprises by supporting financial infrastructure (credit guarantee system)	Component 1: Support to SMEs in forestry and wood processing	$50,500,000 (loan), ADB, planned for 2021 onwards
4	Strengthening Capacity in the Agricultural and Land-use Sectors for Enhanced Transparency in Imple-mentation and Monitoring of Mongolia's Nationally Determined Contribution (NDC)			
	Co-finance	To support Mongolia in preparing reports to the UNFCCC under the Paris Agreement Enhanced Transparency Framework (ETF) with strengthened agriculture and land use sector components including inventories of emissions sources and sinks and information necessary to track progress against priority actions identified in Mongolia's NDC for these sectors.	Component 2: Improvement of GHG inventory concerning forest and land use sectors to support the strengthening of NFMS and updating of FRL.	$863,242 (GEF Grant), $1,160,000 (co-finance), FAO/ GEF, 2019 - present

5	Sustainable Tourisms Development Project		
	Baseline/ Co-finance	To transform two national parks in Khuvsgul and Khentii aimags (provinces) as models for economically inclusive tourism and conservation in the protected area network, by improving park infrastructure, sanitation, and capacity to manage tourism growth sustainably. The designs emphasize tourism benefits for communities, protection of natural capital, and climate-resilient facilities; and scale up from previous grant projects in each park.	Component 1: Rural income generation among FUGs through forest protection and SFM	$38,000,090 (Loan), ADB, 2019- present Phase two is planned for 2021 onwards with $30,300,000 (loan)
6	Biodiversity and Adaptation to Climate Change Project (First and Second Phase)		
	Baseline/ Co-finance	To strengthen the management of Protected Area Network (including the buffer zones and future ecological corridors) of Mongolia, the conservation of biodiversity and at the same time to improve the livelihood of local population.	Component 1: Conservation and protection of forest ecosystems and local livelihood options (co-benefits)	2nd Phase €11,500,000 (Loan), KfW, 2015- 2020
7	Ensuring Sustainability and Resilience of Green Landscapes in Mongolia (ENSURE)		
	Baseline/ Co-finance	To enhance ecosystem services in multiple landscapes of the Sayan and Khangai mountains and southern Gobi by reducing rangeland and forest degradation and conserving biodiversity through sustainable livelihoods.	Component 1: Sustainable livelihoods through SFM and livelihood diversification.	$7,964,253 (GEF Grant), $34,000,000 (Co-finance), UNDP/GEF, 2019 - present
8	UN-REDD Mongolia National Programme		
	Baseline	To support Mongolia's efforts towards developing the capacities and operational systems needed to implement REDD+ in accordance with the provisions of the Warsaw Framework for REDD+ - develop and strengthen the four design elements of REDD+.	Components 1& 2: Development and capacity strengthening of four design elements — NS/AP, NFMS, FRL and SIS	$3,996,450, UN-REDD Global Programme, 2015- 2019
9	Mainstreaming Biodiversity Conservation, SFM and carbon sink enhancement into Mongolia's productive forest landscapes		
	Baseline	To support 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	Component 1: Improvement of local SFM practices by FUGs through awareness-raising, vocational training, management planning, participatory monitoring	$3,586,364 (GEF Grant), $19,785,000 (Co-finance), FAO/GEF, 2014 - 2019

10	Biodiversity and Adaptation on Key Forest Ecosystems to Climate Change /second phase/ (BAKFECC-2)		
	Baseline	To support the strengthening of political and institutional frameworks and capacity building for biodiversity conservation through protection and sustainable management of selected ecologically significant areas considering climate change, at the same time improving the living conditions of the rural population (women and men).	Component 1: Improved conservation and SFM practices with local adaptation and livelihood benefits.	€, 5,750,000, GIZ/German Ministry of Economic Cooperation Development, 2012- 2019
11	REDD+ National Forest Inventory Mongolia		
	Baseline	To support multi-purpose national forest inventory.	Component 2: Design and implementation of REDD+ compatible multi-purpose national forest inventory	€, 2,550,000, GIZ/German Ministry of Economic Cooperation Development, 2014- 2017
12	Sustainable Forest Management to Improve Livelihoods of Local Communities		
	Baseline	To support sustainable livelihood for local communities through sustainable forest management (SFM).	Component 1: Biomass fuel production and supply, sustainable harvesting and value addition, FUG income generation.	$2,000,000, ADB/ Japan Government, 2015 - 2018
13	Development of Forests and the Gene Pool of Local Forest Tree Ecotypes in Mongolia		
	Baseline	To halt the depletion of overall forest areas and ensure reforestation of damaged areas by fires, pests etc., while using reproductive material of indigenous species and ecotypes corresponding to local conditions	Component 1: Demonstration of restoration techniques and protection of local genetic diversity.	$983,199, Czech Development Agency, 2015- 2017

NATIONAL STRATEGY AND ACTION PLAN FOR REDUCING EMISSIONS FROM DEFORESTATION AND FOREST DEGRADATION (REDD+)
2019–2024

Mongolia's National Program on Reducing Deforestation and Forest Degradation (REDD+) has been prepared by the Government of Mongolia with support from the UN-REDD Programme. This is part of Mongolia's contribution to international efforts to address climate change under the United Nations Framework Convention on Climate Change (UNFCCC) REDD stands for Reducing Emission from Deforestation and Forest Degradation in developing countries while the"+" stands for the role of conservation, sustainable management of forests and enhancement of forest carbon stocks. REDD+ is an international voluntary process for climate change mitigation under the UNFCCC to incentivize developing countries to keep their forests standing by offering results-based payments for actions to reduce and remove forest carbon emissions.

Mongolia's REDD+ vision MBuilding climate resilient forest ecosystems, livelihoods and a sustainable economy for a greener future", builds directly on the country's Green Development Policy and Sustainable Development Vision 2030 to promote development that is low-emission, climate-resilient and sustainable.

FORESTS AS A SOURCE OF LIVELIHOOD

Mongolia's forests that support rural livelihoods through provision of various ecosystem services (i.e., timber, fuelwood, non-wood forest products and water) are under increasing threat from a combination of anthropogenic and natural impacts, compounded by poor forest management and the effects of climate change. For instance, growing incidences of forest fires many of which are caused by human activities such as unsustainable logging make affected forests highly susceptible to insect pest outbreaks and accessible for further human activities and grazing by livestock.. This process causes severe degradation and, in some cases, leads to total loss of forest cover. The observed drier summers and increased annual mean temperature have also increased the risk of forest fire. Mongolian forests are slow in growth due to its harsh climatic conditions and thus vulnerable to disturbances from fires, insect pest outbreaks and grazing. The causes of harmful human activities include a lack of enforcement capacity, outdated management techniques and technologies and limited and even perverse incentives for Sustainable Forest Management (SFM) practices. As a result, approximately 140,000 hectares of forests are degraded annually, and roughly 5,300 hectares of forests are lost every year. As most rural livelihoods depend on forests and related ecosystem services for fuelwood, food, water and income generation, addressing these drivers and causes of deforestation and forest degradation by promoting SFM is a priority for Mongolia.

The National Program proposes to accelerate Mongolia's current efforts guided by the country's State Policy on Forest, which aims to increase Mongolia's forest cover from the current 7.8 % to 9 % and reduce forest-related emissions by 5% from baseline emissions levels by 2030 through increased restoration and sustainable utilization efforts. The National Program proposes a set of highly targeted actions to deliver accelerated results of as much as a 25% reduction in forest-related carbon emissions by 2024.

ACTIONS UNDER MONGOLIA'S NATIONAL PROGRAM ON REDD+

The goal of the National Program is to develop Mongolia's forestry sector to promote the sustainable management and protection of forests and reduced deforestation and forest degradation. This will be achieved by:

- Mitigating greenhouse gas emissions from forests by reducing deforestation and forest degradation;
- Improving forest growth and forest status to increase forest carbon stocks by adopting SFM practices, including forest restoration techniques and technologies;
- Increasing non-carbon benefits through enhanced climate-resilience of forest ecosystems and improved social and economic benefits of forests; and
- Establishing a structure and systems to coordinate the implementation of the National Program effectively.

The National Program implementation will be jointly led by the Ministry of Environment and Tourism and Ministry of Food, Agriculture and Light Industry in coordination with other line ministries, aimag and soum level governments, forest user groups (FUGs), forest and other related enterprises, civil society groups, research institutions and international development partners.

FINANCING THE NATIONAL PROGRAM

The total cost of the National Program is estimated at MNT 130 billion (USO 49 million) over six years between 2019 and 2024, the majority of which is expected to come from the State and local government budgets with some international support through new and existing activities.
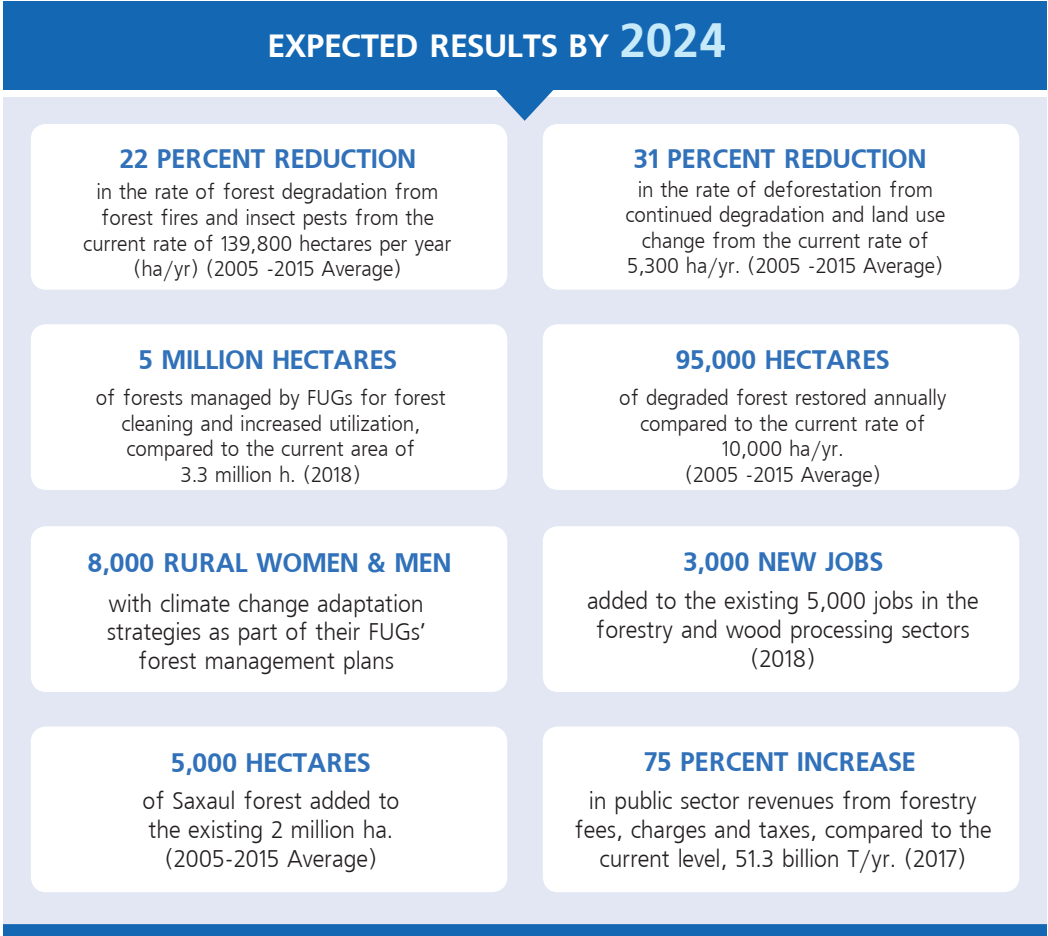
The National Program will work towards creating enabling conditions and providing incentives for increased private-sector activity and investment in SFM to increase public-sector revenues through taxation and forestry fees. The increased public-sector revenues from the forestry and wood-processing sectors are expected to become a sustainable financing source for the National Program. It is anticipated that the National Program will contribute to increasing the total available finance for SFM to MNT 490 billion a year (USS 186.31 million) by 2024 through public and private investment including international support, compared to an average of MNT 327 billion a year (USO 124 million) invested between 2013 and 2017.
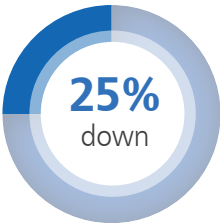
The projected emissions reduction and removal potential of the National Program would also translate to additional USO 11-15 million in REDD+ results-based payments, based on a conservative estimate.

MONGOLIA'S NATIONAL PROGRAM ON REDD+
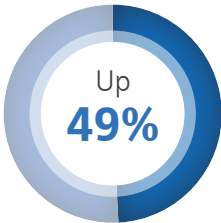
EXPECTED RESULTS BY 2024

22 PERCENT REDUCTION
in the rate of forest degradation from forest fires and insect pests from the current rate of 139,800 hectares per year (ha/yr) (2005 -2015 Average)

31 PERCENT REDUCTION
in the rate of deforestation from continued degradation and land use change from the current rate of 5,300 ha/yr. (2005 -2015 Average)

5 MILLION HECTARES
of forests managed by FUGs for forest cleaning and increased utilization, compared to the current area of 3.3 million h. (2018)

95,000 HECTARES
of degraded forest restored annually compared to the current rate of 10,000 ha/yr. (2005 -2015 Average)

8,000 RURAL WOMEN & MEN
with climate change adaptation strategies as part of their FUGs' forest management plans

3,000 NEW JOBS
added to the existing 5,000 jobs in the forestry and wood processing sectors (2018)

5,000 HECTARES
of Saxaul forest added to the existing 2 million ha. (2005-2015 Average)

75 PERCENT INCREASE
in public sector revenues from forestry fees, charges and taxes, compared to the current level, 51.3 billion T/yr. (2017)

FOREST EMISSIONS

25% down

FOREST CARBON STOCKS

Up **35%**

TOTAL SFM FINANCE

Up **49%**

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