



**AFoCO** REDD+ Fact Sheet Series

# Mongolia

*Compiled in 2023*

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Asian Forest Cooperation Organization

## ABBREVIATIONS

BUR	Biennial Update Report
CCS	Carbon Capture and Storage
CO <sub>2</sub>	Carbon Dioxide
ERISC	Environmental Research Information and Study Center
ETF	Enhanced Transparency Framework
FREL	Forest Reference Emission Level
FRL	Forest Reference Level
GHG	Greenhouse Gas
INDC	Intendned Nationally Determined Contribution
KBA	Key Biodiversity Area
LULUCF	Land Use, Land-Use Change and Forestry
MET	Ministry of Environment and Tourism
MSRM	Mongolian Society for Ranger Management
NAP	National Adaptation Plan
NDC	Nationally Determined Contribution
NDP	National Development Plan
NFI	National Forest Inventory
NFMS	National Forest Monitoring System
NRS	National REDD+ Strategy
NSAP-REDD	National Strategy and Action Plan for REDD+
PEB	Programme Executive Board
SFM	Sustainable Forest Management
SIS	Safeguard Information System
SLM	Sustainable Land Management
WRF	Warsaw REDD+ Framework

# MONGOLIA

## SUMMARY

Mongolia's forest cover has a constant trend at 9.2% from 2000 to 2020. Mongolia does not mention considering Land Use, Land-Use Change and Forestry (LULUCF) as one of the mitigation targets in Nationally Determined Contribution (NDC) (2020). The country does not have any sectoral targets including forestry for the mitigation, but the country has an adaptation plan regarding forestry. Mongolia set the unconditional mitigation target to be 22.7% if LULUCF is excluded. If LULUCF is included, the conditional mitigation target is set to be 44.9% by 2030. Mongolia also does not mention REDD+ and the Cooperative Approaches under Article 6 of the Paris Agreement in NDC (2020). Regarding Warsaw REDD+ Framework (WRF), only National REDD+ Strategy and Forest Reference Emission Level/ Forest Reference Level were submitted. There are a few REDD+ projects and REDD+ readiness initiatives.

## 1. COUNTRY OVERVIEW

Mongolia is a landlocked country of East Asia characterized by unique ecosystems and cultures. Mongolia's vast steppe plains and deserts experience about 250 sunny days every year, leading to the country commonly being termed 'the land of the blue sky'. Mongolia has a very low population density, with many of its communities traditionally nomadic pastoralists.

*Table 1. General status of Mongolia*

Official name (ISO code)	Mongolia (MN)
Capital	Ulaanbaatar
Population	3,329,282 (World Bank, 2021)
GDP per capita	USD 4,534.9 (World Bank, 2021)
GDP growth (annual)	1.4% (World Bank, 2021)
Climate	Sharp continental, four seasons
Land Area	1,557,255km <sup>2</sup>
Forest Area	141,727.8km <sup>2</sup> (9.1% of land area) (World Bank, 2020)
Important sites for terrestrial biodiversity protected	45% (UN, 2020)

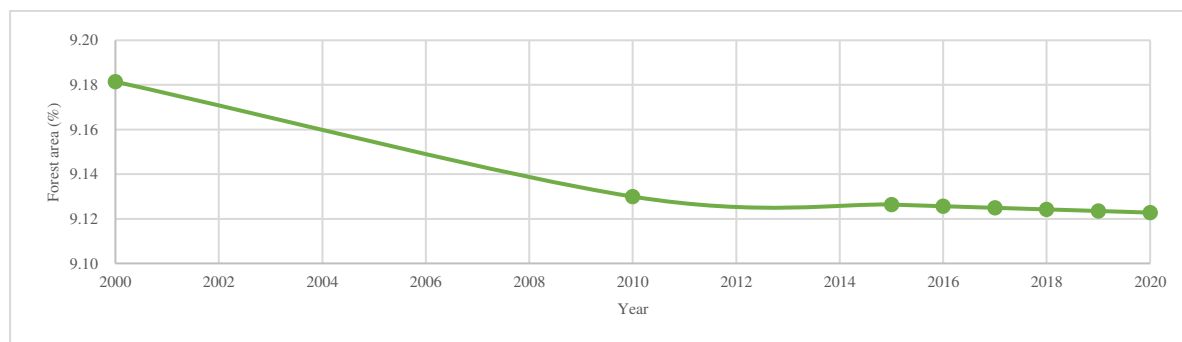


*Figure 1. General Map of Mongolia*

Source: <https://www.un.org/geospatial/content/mongolia>

## 2. SUSTAINABLE DEVELOPMENT GOALS

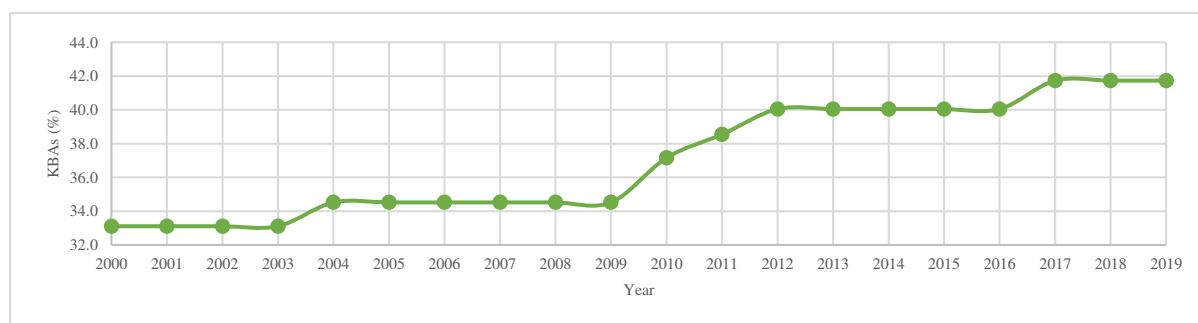
Figure 1. 15.1.1. Forest area as a proportion of total land area (%)



Year	2000	2010	2015	2016	2017	2018	2019	2020
Forest area (%)	9.18	9.13	9.13	9.13	9.12	9.12	9.12	9.12

Raw data: UNSTATS SDG Indicators

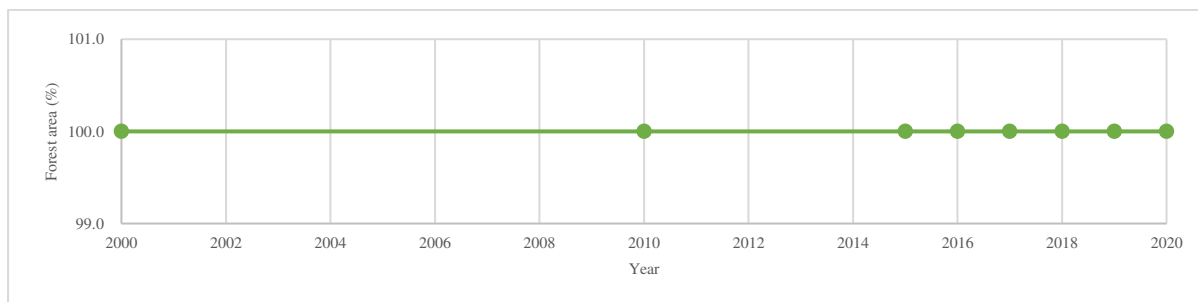
Figure 2. 15.1.2. Average proportion of Terrestrial Key Biodiversity Areas (KBAs) covered by protected areas (%)



Year	2000	2004	2005	2010	2011	2012	2015	2016	2017	2018	2019
KBAs (%)	33.1	34.5	34.5	37.2	38.5	40.0	40.0	40.0	41.7	41.7	41.7

Raw data: UNSTATS SDG Indicators

Figure 3. 15.2.1. Proportion of forest area under a long-term management plan (%)



Year	2000	2010	2015	2016	2017	2018	2019	2020
Forest area (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Raw data: UNSTATS SDG Indicators

### 3. NATIONALLY DETERMINED CONTRIBUTION (2020)<sup>1</sup>

Forestry plays an important role in the NDCs as part of country’s commitment to the Paris Agreement on Climate Change. Mongolia has developed and updated its NDC in 2020. In the NDC, Mongolia has enhanced its mitigation efforts with policies and measures to be implemented in key economic and natural resource management sectors by 2030.

*Table 2. Role of forests reported in NDCs*

Mitigation		Adaptation
Unconditional	Conditional	
Y	Y	Y

\* Y: reported/ N: unreported

#### 3.1. Mitigation Targets

The mitigation target of Mongolia’s NDC will be a 22.7% reduction in total national greenhouse gas (GHG) emissions by 2030 excluding LULUCF, compared to the projected emissions under a business-as-usual scenario for 2010. In addition, if conditional mitigation measures such as the carbon capture and storage (CCS) and waste-to-energy technology are implemented, then Mongolia could achieve a 27.2% reduction in total national GHG emissions. Along with that, actions and measures to remove GHG emissions by forest are determined, which set the total mitigation target of Mongolia as 44.9% of GHG emission reduction by 2030.

<sup>1</sup>Mongolia’s First Nationally Determined Contribution, (2020). pp. 1-8.

### 3.2. Adaptation Plan

Adaptation needs and priorities are determined broadly in the NDC, considering the country specific vulnerabilities and climate risks for key socio-economic and natural resource management sectors. Moreover, there is an ongoing project (2018-2021) aimed to develop the National Adaptation Plan (NAP), and through this effort, the specific adaptation action will be identified. For the development of NAP, Mongolia is taking special consideration of the co-benefits between mitigation and adaptation actions, as well as on nature-based solutions in order to increase the efficiency and effectiveness of response measures to climate change.

*Table 3. Forest-based adaptation commitments in NDCs*

Afforestation	Reforestation	Conservation	REDD+	SFM	SLM
N	N	N	N	Y	Y

\*SFM: Sustainable Forest Management/ SLM: Sustainable Land Management

Source: <https://www.climatewatchdata.org/>

*Table 4. Adaptation Plan<sup>2</sup>*

Sector	Goals	Targets
Forest resources	Create forest ecosystems well adapted to climate change and enhance carbon sink by implementing sustainable forest management.	Implementing forestry measures such as thinning and deadwood removal to improve forest structure and conditions and to create a highly productive and - climate change-resilient forest; Increasing non-carbon and socio-economic benefits of forests by implementing sustainable forest management.
Animal husbandry and pastureland	Increase the productivity of the animal husbandry sector while ensuring the sustainable development of the sector and reducing the impacts and risks associated with climate change.	Maintain the ecosystem balance by strengthening the legal environment and pastureland management; Sustainable use of pastureland by increasing the forage cultivation and water supply for livestock; Enhance the disaster prevention system against drought and dzud.
Arable farming	Enable the sustainable supply of healthy food for the population, fodder for livestock, raw materials for the light and food	Save water for irrigation by using plastic-films/mulches on potato and vegetable fields; Reduce water use and irrigation costs by

<sup>2</sup>Mongolia's First Nationally Determined Contribution, (2020). pp. 1-8.

	industries through the agricultural products, by properly utilizing the positive impacts and reducing the adverse impacts of climate change in the agriculture sector.	<p>applying drip and infusion systems in irrigated potato, vegetable, fruit, and berry productions;</p> <p>Protect the soil from wind, water erosion and damages, and sustain a high yield by applying straw mulches for non-irrigated crop and forage fields;</p> <p>Reduce soil moisture loss and damage of mechanical structure soil and reduce direct tillage costs by eliminating mechanical tillage and implementing zero-tillage technologies.</p>
Water resources	Increase efficient water use methods, enhance the adaptive capacity of the water sector.	<p>Strengthen the legal and institutional frameworks for integrating sectoral coordination to ensure water security;</p> <p>Enhance the resilience of the water sector through the utilization of appropriate technologies for conservation, restoration, sustainable use and increase water resources.</p>
Biodiversity	Enable adaptation opportunities and adaptive capacities for vulnerable biodiversity to climate change	<p>Maintain the long-term adaptive opportunities for vulnerable biodiversity to climate change by increasing special protected areas through the better management of protected areas' border and connectivity;</p> <p>Determine vulnerable dry-land ecosystems and soil organisms to climate change, and identify and evaluate vulnerable functional groups, indicator species, and develop and implement a relevant plan for action;</p> <p>Implement protection and sustainable management measures for enhancing the recovery capacity of vulnerable and unique ecosystems; implement a pilot research project on climate change in different landscapes covering high mountain, forest, meadow, fresh water, wetland, peatland, steppe, Gobi Desert, etc.</p>
Natural disaster	Build resilience to natural disasters by reducing the risks and adapting to impacts of climate and weather-related hazards and disasters.	<p>Conduct and regularly update risk assessments for natural disasters, and reduce the disaster risks based on the partnership of various stakeholders;</p> <p>Reduce disaster-related losses and</p>



		damages by strengthening the capacity of early warning systems for climate, weather-related hazards and disasters, and by enhancing the system for effective and timely dissemination of climate and disaster-related information; Integrate disaster risk reduction measures into development policy planning, introduce techniques and technologies in disaster risk reduction, and increase investment and financing
Public health	Strengthen healthcare services and capacities for early warning of potential health risks, and provision of proactive and response measures through the comprehensive study of climate change impacts on public health.	Assess the risks and impacts of climate change on public health, and conduct research specifically focusing on the risk of spreading tropical diseases and infections from other regions with endemic diseases due to a possible shift of climate zones, while considering the common immune system of Mongolian people; develop plans to reduce potential risks; Build knowledge and awareness regarding climate change impacts and adverse effects on human health, and empower the general public for adopting protective behaviours; Strengthen the readiness and capacities of health institutions and organizations to respond to public health risks induced by climate change.
Livelihood and social safeguard	Establish a system providing social safeguard, insurance and prevention measures to reduce the vulnerability of social groups and build their resilience to climate change impacts by identifying groups vulnerable to climate change.	Identify social groups vulnerable to climate change and build their resilience to overcome the risks; Reduce vulnerability by diversifying economic activities, increasing income, expanding income sources and supporting sustainable livelihoods; Ensure equality for the vulnerable groups and increase employment by providing knowledge and education.

### ***3.3. International market-based cooperation***

Mongolia facilitates continued international support to complement domestic efforts, but no mention of market mechanisms and Cooperative Approaches is specified.

### 3.4. Relevance to the Forestry Sector

Under the 2015 baseline and Intended Nationally Determined Contribution (INDC), the mitigation target was a 14% reduction in total national GHG emissions excluding LULUCF by 2030. However, actions and measures to remove GHG emissions by forest are determined, which set the total mitigation target of Mongolia as 44.9% of GHG emission reduction by 2030.

Regarding Adaptation Targets, Mongolia considers creating forest ecosystems well adapted to climate change and enhance carbon sink by implementing sustainable forest management.

## 4. UNFCCC WARSAW FRAMEWORK FOR REDD+ PROGRESS

To achieve the mitigation targets of forest conservation and management, Mongolia has been working to build an implementation framework: National REDD+ Strategy (NRS), National Forest Monitoring System (NFMS), Forest Reference (Emission) Level. However, safeguards information system is not yet reported.

Table 5. Submission of UNFCCC Warsaw Framework for REDD+ elements

National Strategy / Action Plan	National Forest Monitoring System	Forest Reference Level / Forest Reference Emission Level	Safeguards Information System
Y	Y	Y	N

Source: UN REDD+ web platform (<https://redd.unfccc.int>)

### 4.1. National REDD+ Strategy / Action Plan (2018)<sup>3</sup>

National Strategy and Action Plan for REDD+ (NSAP-REDD+) was submitted to UNFCCC in 2018. 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 sustainable development goals. This emphasizes 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. Through the implementation of the

<sup>3</sup>Mongolia’s National REDD+ Strategy, (2018). pp.1-3.

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 deforestation and forest degradation emissions and enhancing forest carbon stocks to meet this emissions reduction/removal target (UN-REDD Mongolia, 2018c).

#### **4.2. Forest Reference (Emission) Levels (2018)<sup>4</sup>**

The national Forest Reference Emission Level (FREL)/Forest Reference Level (FRL) was submitted to UNFCCC assessed in 2018. The FRL proposed by Mongolia for the historical reference period 2005–2015 is based on the net emissions from the annual average carbon dioxide (CO<sub>2</sub>) emissions associated with “gross deforestation” (defined as the conversion of natural forest to other land-use categories) and “forest degradation” (defined as the loss of canopy cover from disturbance events such as fire, pests, logging and mining) and annual average removals associated with reforestation/afforestation.

The FRL proposed by Mongolia covers the activities “reducing emissions from deforestation.” For its submission, Mongolia developed a national FRL. The FRL presented in the original submission, for the reference period 2005–2015, corresponds to 5,165,536.8 tonnes of carbon dioxide equivalent per year (tCO<sub>2</sub>e/year). As a result of the facilitative process during the technical assessment, the FRL was modified to 3,477,384.2 tCO<sub>2</sub>e/year, mainly as a result of the exclusion of the soil organic carbon pool, in particular peatland areas.

The proposed FRL includes four carbon pools: above-ground biomass; below-ground biomass; deadwood and litter. Regarding GHGs, the FRL includes CO<sub>2</sub> only.

#### **4.3. National Forest Monitoring System**

The NFMS will report on progress annually for program-level monitoring and evaluation and produce a technical annex to Mongolia’s Biennial Update Reports (BURs) to the UNFCCC.<sup>5</sup> Based on the proposed structure, functions and institutional arrangement of the NFMS (2014), the NSAP-REDD+ will 31 National Strategy and Action Plan for Reducing Emissions from Deforestation and Forest Degradation (REDD+) 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.

Mongolia’s first comprehensive and multipurpose National Forest Inventory (NFI) in 2016

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<sup>4</sup>UNFCCC Report on the technical assessment of the proposed forest reference emission level and forest reference level of Mongolia submitted in 2018, (2018). pp.3-5.

<sup>5</sup>Mongolia’s National REDD+ Strategy, (2018). pp.30-32.

was updated in 2018 to include information on poorly stocked forest.<sup>6</sup> The Ministry of Environment and Tourism (MET) made the decision to undertake an NFI on an ongoing, annual basis, covering at least 10 per cent of permanent NFI sample plots per year, and committed to allocate budget for the NFI under the MET forest management budget. Based on the raw data collected on the below-ground biomass stock of Mongolia's dominant tree species, national research institutes developed a regionally specific biomass model. Data generated through these studies will help improve the accuracy of biomass and greenhouse gas emission estimates in the future. In October 2018, the Government formally approved a technical guidance document that makes Mongolia's national land use and land-use change statistics compliant with the IPCC guidelines.

The Environmental Research Information and Study Center (ERISC) has developed forest cover maps in Mongolia since 2000 using MODIS-based NDVI values based on 30m-Landsat images.<sup>7</sup>

#### **4.4. Safeguard Information System<sup>8</sup>**

Although Mongolia has not submitted the Safeguard Information System (SIS) on the REDD+ web platform, Mongolia will provide a SIS periodically through its National Communications or voluntarily 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.

Mongolia's SIS builds on existing institutions and information mechanisms, as Mongolia already has robust mechanisms for environmental and social data collection and management. Coordinating these existing information mechanisms will be one of the most crucial aspects of operationalizing the SIS.

## **5. REDD+ PROJECTS / INITIATIVES**

Not available.

### **5.1. REDD+ Projects**

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<sup>6</sup>UN-REDD Mongolia Workspace Website

Website: <https://www.un-redd.org/partner-countries/asia-pacific/mongolia>

<sup>7</sup>김박사님 엑셀 자료

<sup>8</sup>Mongolia's National REDD+ Strategy, (2018). pp.30-32.

Table 4. REDD+ Projects Lists<sup>9</sup>

Project name	Proponent	Partners	Project Period	Project area (ha)	Amount of emissions reductions and removals (tCO <sub>2</sub> e)		Certification
					Annual	Total	
Pastures, Conservation and Climate Action, Mongolia	Mongolian Society for Ranger Management (MSRM)	-	2015-2025	77000	6600	132000	2016 First Issuance (Plan vivo)

## 5.2. REDD+ Initiatives

Mongolia is the first country with significant boreal forest cover to become a partner country of the UN-REDD Programme.<sup>10</sup> Mongolia has significant potential to reduce its forest carbon emissions, and enhance and sustainably manage its forest carbon stocks, through the implementation of REDD+ activities.

Mongolia became a partner country of the UN-REDD Programme in June 2011 and has quickly taken steps to start implementing REDD+ readiness activities.<sup>11</sup> A Roadmap sets out how Mongolia will implement its REDD+ Readiness activities and develop a comprehensive National REDD+ Strategy in Phase 1 of REDD+. The Roadmap has four main outcomes, as follows: 1. National REDD+ management arrangements established while ensuring improved stakeholder awareness and effective stakeholder engagement; 2. National REDD+ strategy prepared; 3. Forest reference emissions levels and forest reference levels developed; and 4. National forest monitoring system and safeguards information system developed.

Partnerships with relevant programmes run by institutions such as GIZ, the Asian Development Bank, and the FAO/GEF forest programmes, have been effectively maintained.<sup>12</sup> Representatives of GIZ and FAO/GEF projects continued to engage in coordination efforts through the Programme Executive Board (PEB). The national REDD+ programme process is informing the NDC update that is currently under way.

<sup>9</sup>International Database on REDD+ projects and programmes

Website: [International Database on REDD+ projects \(reddprojectsdatabase.org\)](http://reddprojectsdatabase.org)

<sup>10</sup>Ministry of Environment and Tourism REDD+ Mongolia Official Website, Overview.

Website: <https://reddplus.mn/eng/redd-mongolia/>

<sup>11</sup>Ministry of Environment and Tourism REDD+ Mongolia Official Website, Readiness Roadmap.

Website: <https://reddplus.mn/eng/readiness-roadmap/>

<sup>12</sup>UN-REDD PROGRAMME 2018 Annual Report Website.

Website: <https://2018ar.un-redd.org/country-results/mongolia/>

Table 5. REDD+ Initiatives<sup>13</sup>

Development Partner	Initiatives	Objectives	Period
UN-REDD	UN-REDD National Programme	To support the establishment of Mongolia's REDD+ Readiness management structure to oversee the delivery of the key results described in the Roadmap: 1. National REDD+ management arrangements established while ensuring improved stakeholder awareness and effective stakeholder engagement; 2. National REDD+ strategy prepared; 3. Forest reference emissions levels and forest reference levels developed; 4. National forest monitoring system and safeguards information system developed.	2014
UN-REDD (FAO, UNDP)	<sup>14</sup> 1 <sup>st</sup> Targeted Support	Increased capacity of the Forestry Agency to strategically plan and implement REDD+ Readiness actions in an accountable and transparent manner in order to secure a greater internal funding stream for REDD+ Readiness.	2013
UN-REDD (UNDP)	<sup>15</sup> 2 <sup>nd</sup> Targeted Support	Priorities for the country's Roadmap addressed: Drivers identified and analyzed of deforestation and forest degradation. Review conducted and further in-depth analysis of the	2014

<sup>13</sup>Ministry of Environment and Tourism REDD+ Mongolia Official Website, REDD+ Initiatives.

Website: United Nations-REDD Programme – REDD+ Mongolia National Programme (reddplus.mn)

<sup>14</sup>UN-REDD Programme Collaborative Workspace

Website: <https://www.un-redd.org/partner-countries/asia-pacific/mongolia>

<sup>15</sup>UN-REDD Programme Collaborative Workspace

Website: <https://www.un-redd.org/partner-countries/asia-pacific/mongolia>

		provisional list of drivers listed in the Roadmap.	
FAO-GEF	Strengthening capacity in the agriculture and land-use sectors in Mongolia for enhanced transparency in implementation and monitoring of Mongolia's Nationally Determined Contribution (NDC) under the Paris Agreement	<sup>16</sup> By 2020, Mongolia will prepare reports to the UNFCCC under the Paris Agreement Enhanced Transparency Framework (ETF) with strengthened agriculture, forestry and other land use sector components including inventories of emissions by sources and sinks and information necessary to track progress against priority actions identified in Mongolia's NDC for these sectors. With FAO's support, Mongolia will establish regular and systematic data collection, documentation and archiving processes for Greenhouse Gas (GHG) inventories in the agriculture, forestry and land-use sectors.	2017-2020

<sup>16</sup>FAO and the GEF Partnering for Sustainable Agriculture and the Environment, Projects.  
 Website: <https://www.fao.org/gef/projects/en>

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