
Country programme

Mongolia

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GREEN
CLIMATE
FUND

COUNTRY PROGRAMME

MONGOLIA

*Approved by the order number A/92 dated March 19, 2019 signed by
Mr. Tserenbat Namsrai, the Minister of Environment and Tourism and Member of
Parliament of Mongolia*

COUNTRY PROGRAMME

MONGOLIA

The GCF Country Programme of Mongolia was elaborated as part of the Green Climate Fund (GCF) funded Mongolian Readiness and Preparatory Support Program entitled "Strengthening the country coordination and National Designated Authority (NDA) / National Focal Point (NFP) of Mongolia for efficient engagement with the GCF" implemented by the Environment and Climate Fund (ECF) of the Ministry of Environment and Tourism (MET) of Mongolia and XacBank LLC. The country programme aims to establish a Strategic Framework of Mongolia with the Green Climate Fund (GCF) to realize a paradigm shift in achieving low-emission and climate-resilient development and identifies and proposes short-term and long-term projects/programmes and investment priorities within the current strategic framework.

FOREWORD

Mongolia's harsh continental climate, long lasting heating season, and coal-based electricity production system, combined with highly vulnerable socio-economic sectors exposed to harsh weather and expected future climatic conditions, creates challenging barriers and obstacles to achieve the country's sustainable development agenda. Mongolia's overarching and comprehensive approach to deliver low-carbon and climate-resilient economic growth, as well as the Parliamentary approval and mainstreaming of ambitious strategies, demonstrate the Mongolian Government's ambition to reduce economic, social and environmental vulnerabilities resulting from climate changes, and its strong support of international and global initiatives focused on climate change mitigation and adaptation.

As one of the countries particularly vulnerable to climate change, Mongolia continues to take the lead in institutional and regulatory reforms towards mobilizing climate finance from a wide variety of sources, including the GCF. Under the UNFCCC and other international climate agreements, including the goals outlined by the Paris Agreement, Mongolia aims to reduce greenhouse gas (GHG) emissions by 14%, compared to a business-as-usual scenario (BAU), by 2030 (NDC 2015).

Since climate change mitigation and adaptation represents a public good, public finance remains the primary source of capital for the climate change response. As an international public climate finance institution, the GCF can occupy a pivotal role in Mongolia's mitigation and adaptation strategies by assisting Mongolia in removing barriers to mitigation and adaptation investment at national and sub-national levels, co-financing projects and programmes, and playing a catalytic role in attracting climate change investment from various international and national sources.

The Ministry of Environment and Tourism (MET) of Mongolia represents the main governmental body responsible for climate change and is also the National Designated Authority (NDA) and National Focal Point (NFP) to the GCF and the NDA Office. The NDA is responsible for coordinating the work on developing, and thereafter updating, the GCF Country Programme for Mongolia. The present GCF Country Programme for Mongolia was developed based on relevant guidelines and requirements provided by the GCF, as well as evolving international best practice in regard to creating GCF Country Programmes.

While developing the present GCF Country Programme and regularly updating the Programme in the future, the NDA will engage a wide range of stakeholders as advised by the GCF. The NDA will also arrange for regular meetings in order to discuss the progress made on the implementation of the Country Programme as part of the NDA's country coordination strategies, which include regular Country Coordination Group (CCG) meetings and Country Stakeholder Conventions (CSC).

The NDA will also ensure that the present Country Programme will include methodologies to determine which projects and programmes included in the pipeline for potential GCF support should be prioritized and executed. Future updates to this prioritization methodology included in the present Country Programme will consider any advancements and amendments made to international best practice and respective GCF guidance.

Both the creation and development of the present Country Programme, as well as the future iterations and updates to the document, will be carried out by qualified, independent experts, guided by the NDA.

CONTENTS

Foreword	1
Figures	1
Tables.....	1
Acronyms	2
1. COUNTRY PROFILE	4
1.1 Climate change profile	4
1.2 Development profile.....	9
1.3 Climate change response.....	16
1.3.1 National frameworks.....	16
1.3.2 Regional engagement	23
1.3.3 Access to finance	23
1.4 Gaps and opportunities.....	24
2. COUNTRY AGENDA AND GCF ENGAGEMENT	28
2.1. Institutional arrangements	28
2.2. Roles and contributions of key stakeholders	31
2.3. Identification of country priorities for the GCF	33
2.4. Country portfolio	39
3. MONITORING AND EVALUATION OF COUNTRY PROGRAMME IMPLEMENTATION.....	51
ANNEX.....	52

FIGURES

Figure 1. Mongolia's total and net GHG emissions and removals, 1990-2014 (Gg CO ₂ e).....	8
Figure 2. The composition of Mongolian GHG emissions by sectors in 2014	8
Figure 3. Indicative potential emission reductions of the measures compared to BAU emissions	19

TABLES

Table 1. Seasonal climate change over Mongolia under different GHG scenarios (by ensemble mean of 10 GCMs).....	5
Table 2. Electricity and heat generation.....	15
Table 3. Adaptation and financial support needs (2021-2030)	19
Table 4. Needs for financing to implementing INDC mitigation and adaptation actions.....	26
Table 5. Relationships with international partners (selected activities)	28
Table 6. Overview of consultation processes	32
Table 7. GCF impact areas considered in prioritization of activities in the country	34
Table 8. Summary of Country Programme pipeline.....	39
Table 9. Country projects/programmes pipeline	42
Table 10. Country Project Preparation pipeline	46
Table 11. Country Readiness programme pipeline	48
Table 12. Accreditation pipeline.....	51

ACRONYMS

ADB	Asian Development Bank
BAU	Business as Usual
CCG	Country Coordination Group
CCPIU	Climate Change Project Implementing Unit
CCS	Carbon Capture and Storage
CDM	Clean Development Mechanism
CES	Central Electricity System
CSC	Country Stakeholder Convention
DAE	Direct Access Entity
DBM	Development Bank of Mongolia
EBRD	European Bank for Reconstruction and Development
ECF	Environment and Climate Fund
EFF	Extended Fund Facility
ESIA	Environmental and Social Impact Assessment
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FDI	Foreign Direct Investment
FMO	Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden N.V.
FP	Funding Proposal
GAP	Government Action Programme
GCF	Green Climate Fund
GCI	Gross Commissionable Income
GCM	Global Climate Model
GDP	Gross Domestic Product
GDeP	Green Development Policy
GEF	Global Environment Facility
GGGI	Global Green Growth Institute
GHG	Greenhouse gases
GIZ	German Corporation for International Cooperation
GNI	Gross National Income
GMT	Greenwich Mean Time
GoM	Government of Mongolia
HDI	Human Development Index
ICT	Information and Communication Technology
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
ILO	International Labor Organization
IMF	International Monetary Fund
INDC	Intended Nationally Determined Contribution
IPCC	Intergovernmental Panel on Climate Change
IPPU	Industrial Processes and Product Use
IRIMHE	Institute of Research and Information for Meteorology, Hydrology and Environment
JCM	Joint Crediting Mechanism
JICA	Japan International Cooperation Agency
JSC	Joint-Stock Company
KfW	German Development Bank
LULUCF	Land Use, Land Use Change and Forestry
NAMEM	National Agency for Meteorology and Environmental Monitoring
NEMA	National Emergency Management Agency
MCUD	Ministry of Construction and Urban Development
MET	Ministry of Environment and Tourism
MGFC	Mongolia Green Finance Corporation
MoE	Ministry of Energy
MoFALI	Ministry of Food and Agriculture and Light Industry
LLC	Limited Liability Company
NAMA	Nationally Appropriate Mitigation Action
NAP	National Adaptation Plan
NAPA	National Adaptation Programme of Action
NAPCC	National Action Programme on Climate Change

NFI	National Forest Inventory
NCC	National Climate Committee
NCSD	National Council for Sustainable Development
NDA	National Designated Authority
NDAM	National Development Agency of Mongolia
NDC	Nationally Determined Contribution
NEET	Not in Education, Employment, or Training
NFP	National Focal Point
NGO	Non-Governmental Organization
INGO	International Non-Governmental Organization
NPL	Non-Performing Loan
NSO	National Statistical Office
PA	Paris Agreement
PM	Particulate Matter
PV	Photovoltaic
PPF	Project Preparation Facility
REDD	Reducing Emissions from Deforestation and Forest Degradation
RCP	Representative Concentration Pathway
ROE	Return on Equity
SCM	Supplementary Cementitious Material
SDR	Special Drawing Right
SDV	Sustainable Development Vision
SMEs	Small and medium-sized enterprises
TNA	Technology Needs Assessment
UB	Ulaanbaatar
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
US	United States
USA	United States of America
USAID	United States Agency for International Development
WB	World Bank
WHO	World Health Organization
WMO	World Meteorological Organization
WWF	World Wide Fund for Nature (World Wildlife Fund for USA and Canada)

1. COUNTRY PROFILE

Section 1 is intended to provide a brief overview of the country's key climate challenges, its socio-economic and development status as well as the national policy process to respond to climate change challenges.

Geographical location	Northeast Asia
Land area	1,564,116 sq. km
Population	3,177,899 as of March 2018
Socio-economic and development status	Mongolia is landlocked developing country and economy is based on extractive industry and extensive livestock sector
Types of climate	Severe continental climate from subarctic to semi-arid and Gobi desert climate
GHG emissions profile	Total GHG emissions in Mongolia in 2014 were 34,482.73 Gg CO ₂ e (excluding LULUCF). This represented a 57.09% increase from the 1990 level of 21,950.73 Gg CO ₂ e and 5.49% increase from the 2013 level with 32,687.27 Gg CO ₂ e. Net GHG emissions in 2014 were 10,030.80 Gg CO ₂ e (including LULUCF). This represented a -1,034.44% decrease from the 1990 level of -1,073.46 Gg CO ₂ e and 23.23% increase from the 2013 level with 8,139.60 Gg CO ₂ e. From 1990, total emissions (source) reduced by 13% and net emissions (source and sink), i.e. removals increased by 81% until 2000 and from 2000 the total emissions increased by 77% and net emissions, i.e. removals decreased by 43% until 2014. Carbon dioxide emissions per capita was 7.1t CO ₂ in 2014
Key emitter sectors	In 2014, Energy sector 17MtCO ₂ (50.08% of total emission) and Agriculture 16.7MtCO ₂ (48.5% of total emission); Energy industry (9.5Mt CO ₂), Manufacturing and Construction (2.3Mt CO ₂), Transport (2Mt CO ₂), Enteric fermentation (9.6Mt CO ₂), Aggregated sources and non-CO ₂ emissions sources on land (6.9Mt CO ₂)
Key climate risks	Rapid air temperature increase (2.24°C increase from 1940s), changes of precipitation pattern, water scarcity, glacier and permafrost melting, and intensified extreme weather hazards, including drought and dzud (winter/spring extreme weather condition)
Vulnerable sectors	70% of the country, which is grassland, is at risk for further desertification. Between 1990 and 2006, the surface area of barren land increased to three times that of 1990 levels, and woodland areas decreased by 25%. Surface water resources have decreased at an accelerated rate, which has led to a decrease in snow accumulation zones and has caused snow to melt more (snowmelt now occurs one month prior to historical records). There have been significant melting rates in glaciers and permafrost areas. The frequency and magnitude of natural disasters has increased during the last few decades. Agriculture, livestock, water, grassland, forest, health, natural disaster management, ecosystem services, etc. are the most vulnerable sectors.
NDA/FP for GCF	Mongolia's NDA to the GCF is the Ministry of Environment and Tourism of Mongolia and NFP of Mongolia for the GCF is Dr. Batjargal Zamba. To facilitate smooth implementation of commitments received under the UNFCCC and PA, the MET established a Climate Change Project Implementing Unit (CCPIU) at the Environment and Climate Fund (ECF), which is under the MET. The Secretariat of the GCF NDA, the NFP for the UNFCCC and PA sits within the ECF, which sits within the MET.
National/Regional AEs	XacBank LLC, Mongolia
International AEs	UNDP, UNEP, FAO, IFAD, GIZ, JICA, WB, ADB, EBRD, KfW, IFC and WWF etc
Potential nominated AEs	The Environment and Climate Fund; the Institute of Research and Information for Meteorology, Hydrology and Environment (IRIMHE); the Development Bank of Mongolia (DBM), the Golomt bank and the Trade and Development Bank

1.1 Climate change profile

Climate scenarios: projections from national communication for medium- and long-term climate scenario, basically temperature and precipitations; if available aridity index

Geographical location: Mongolia is located in North-East Asia and has a territory of 1,564,116 sq. km. The mean elevation is 1,580 m above sea level and the highest point is Khuiten Mountain with an elevation of 4,374 m in Western Mongolia, while the lowest point is Khokh lake depression with an altitude of 532 m (Eastern steppe). The size of territory of Mongolia is ranked 7th among Asian counties and 18th in the world. The territory of Mongolia divides into four distinct natural zones such as forest-steppe, steppe, desert-steppe and desert. High mountain and forest-steppe zones are dominant in the western and central parts of the country with the steppe region in the eastern part and the Gobi desert (Mongolian Gobi) in the southern part.

Climate Features: Mongolia has a severe continental climate with long-lasting cold winter and relatively hot and short summer. Main features of the Mongolian climate are characterized by high seasonality with very distinct four seasons, high amplitude of temperature and low precipitation. Latitudinal and altitudinal spatial distribution could be clearly distinguished in any geographical distribution of climate variables. The annual mean air temperature is about -4°C in the Altai, Khangai, Khentii and Hövsgöl mountains ranges, -6-8°C in the depressions between mountains ranges, also along the valley of big rivers, 2°C in the steppe-desert region and 6°C in the southern part. The monthly mean temperature of the coldest month, January, is about -30 to -34°C in the valleys of Altai, Khangai, Hövsgöl and Khentii mountains, -20 to -25°C in the steppe region and -15 to -20°C in the Gobi desert. The warmest month is July with mean temperatures of slightly below 15°C in the high mountain ranges, 15-20°C in the Great Lake depressions and valleys between mountains, 20-25°C in the eastern steppe and southern Gobi and desert regions.

The annual precipitation exceeds 400 mm at high mountain belts, with 300-400 mm in the Khangai, Hövsgöl and Khentii mountains and also in the Khalkh river basin in the Eastern region, 250-300 mm in Mongol Altai and forest-steppe, 150-250 mm in steppe and 50-150 mm in Gobi and desert region. In the south-inner side of Altai Mountain, annual precipitation ranges even less than 55 mm. In Mongolia, 85% of total precipitation falls in the warm season and only 3% or even less as snow in winter.

In terms of sunshine duration in Mongolia, there are high numbers days with clear sky, ranging about 230-260 days during year. Total sunshine duration is about 2,600-3,300 hours per year. Therefore, the solar energy resource is relatively high. Mongolian steppe and desert-steppe regions are very windy. Annual average wind speed in the mentioned regions is in 4-6 m/s.

Past climate change: Near-surface temperature in Mongolia increased by 2.24°C between 1940-2015, according to observation data of the 48 meteorological stations. Annual precipitation during last 76 years decreased by 7% in average. However, precipitation in winter increased significantly since 1961.

According to trends of some extreme climate indices, frost days have been decreased by nearly 15 days, while summer days have been increased by 19 days during 1971-2015 period.

Associated with these changing climate conditions, Mongolia experienced recently high tendency of drought in summer and heavy snow (dzud) in winter since 1990s. Among them, the dzuds in 1999-2000, 2001-2002 and 2009-2010 were the most severe with regards to socio-economic impact and cost.

Future climate change projections: The fifth assessment report of Intergovernmental Panel on Climate Change (AR5, IPCC) was released representing GHG concentration pathways (RCPs) with corresponding socio-economic development future trends¹ which have been accounted into global climate model (GCM) producing future climate change projections quantitatively. Historical simulation from 1860-2005 and future projection from 2006 to 2100 have been done by about 40 GCMs in 28 centers in different countries under different GHG emission scenarios (RCPs). There are 4 GHG emission scenarios, which are increased radiation budget by 2.6, 4.5, 6.0 and 8.5 w/m² as corresponding to each RCP.²

Table 1. Seasonal climate change over Mongolia under different GHG scenarios
(by ensemble mean of 10 GCMs)

GHG emission scenarios	Season	Near future, 2016-2035		Far future, 2081-2100	
		Temperature change, °C	Precipitation change, %	Temperature change, °C	Precipitation change, %
RCP2.6	Winter	2.3	10.1	2.5	15.5
	Spring	2.3	9.2	2.4	11.7
	Summer	2.2	6.2	2.5	5.1
	Autumn	2.1	7.6	2.4	7.6
RCP4.5	Winter	2.1	12.3	3.7	28.7
	Spring	2.0	7.8	3.4	17.4
	Summer	2.1	1.1	3.5	7.8
	Autumn	2.0	8.1	3.4	11.7
RCP8.5	Winter	2.2	14.0	6.3	50.2
	Spring	2.2	9.8	5.6	28.6
	Summer	2.2	2.4	6.0	8.7
	Autumn	2.2	6.4	6.1	24.1

¹ Climate Change 2013: The Physical Science Basis, IPCC Working Group I Contribution to AR5, 2014

² Taylor, K.E., R.J. Stouffer, G.A. Meehl: An Overview of CMIP5 and the experiment design." Bull. Amer. Meteor. Soc., 93, 485-498, doi:10.1175/BAMS-D-11-00094.1, 2012

Vulnerability profile: climate drivers, risks, impacts and key vulnerabilities, climate change threats for the economy, growth, productive sectors, ecosystems and vulnerable social groups like women, indigenous peoples, minorities, the elderly

Mongolia is extremely vulnerable to climate change due to its geographic location, fragile ecosystem, and its citizens' lifestyles and its economic sectors' (such as livestock and arable farming) dependency on favorable weather/climate. While most Southeast Asian countries are concerned with flooding and ocean-based extreme weather events, Mongolia's concerns mostly revolve around increased frequency of natural disasters, permafrost and glaciers melting, water resource risks (changes of hydrological regime of rivers, drying open water sources, decreasing ground water level), deforestation, pasture land degradation, desertification, and altered wildlife habitat and plant species.

Impacts on Water resources: According to the research findings³, the surface water resource of Mongolia is composed mainly from lake water, which is about 500 cubic km, and another 19.4 cubic km is accumulated in glaciers. Average river runoff is estimated to be 34.6 cubic km/year. The reachable groundwater resource is estimated to be 10.8 cubic km. In 2010, the water use rate was 326.3 million cubic m/year and it is expected to increase up to 478.2 million cubic m/year in 2021 according to the low-use scenario. Compared to the low-use scenario, water usage will increase by 26.8% in the mid-use scenario and double in the high-use scenario. Most climate change impacts on water resources will manifest as increased evaporation and evapotranspiration and intensified melting of permafrost and glaciers.

Impacts on Permafrost: Permafrost plays important role for hydrological regimes and river run off. In the north and high mountainous regions of Mongolia, continuous and discontinuous permafrost exist, while sporadic and isolated permafrost is distributed in the foothills and slopes of Altai, Khangai, Hövsgöl and Khentii mountain ranges, as well as along small river valleys and in depressions (Jambaljav Ya, 2016). As reference to the latest permafrost map by the scientist Ya.Jambaljav et al., the permafrost occupies about 29.3% of the country's area from isolated to continuous distribution in Mongolia. The permafrost temperature has been increased by 0.04-0.29°C for every ten years.

Impacts on Glaciers: The total glacier area, distributed in 42 mountain massifs, derived from a topographic map, scaled as 1:1000000, is 535.0 sq.km. Glacier areas, retrieved from LANDSAT satellite data, were 389 sq.km in 2011. Glacier areas retreated by 13.75% between 2000-2011. Totally glaciers retreated by 29.9% during the last 70 years. Glacier retreat and shrinkage has intensified since the 1990s and most intensive ablation occurred during the last 10 years.⁴

Impact on soil fertility and biomass productivity: The future-state of soil and biomass productivity is projected using the Century model during three future periods – 2016-2035, 2050-2065 and 2081-2100 – under a moderate-stress scenario in terms of pasture use. Studies show that aboveground biomass is expected to decrease under the current climate change scenario. Modeling results demonstrate that under the high-stress conditions of pasture use, all characteristics of grassland are expected to decrease which limits growth, yielding capability of plants and further weakens root systems.

Impact on forest ecosystem: According to forest inventory, the forest area of Mongolia decreased by 6.6% between 1999 and 2015 to 12.3 million hectares in 2015 primarily due to logging, harmful insects and forest fire.

There is also a high probability that there will be shrinkage of forest area in the lowland areas of the country, while simultaneously, an increased probability that the upper forest boundary across mountainous areas will shift upwards due to the increased melting of permafrost, increased heat accumulation, an increased phenology period, and intensification of the photosynthesis process.⁵

Impacts on natural disasters: About 10 different types of natural disasters occur within the country, which cause significant damage to the socio-economic status of the country. Most of the natural disasters are a result of atmospheric phenomena. In terms of socio-economic cost to the country, drought, dzud⁶, forest and steppe fires, snow storms, floods, and extreme cold are considered to be the major disastrous events for the country. The frequency of heavy rain and flash flooding, squall winds,

³ Davaa G., 2015

⁴ Davaa G, 2015

⁵ Mongolia 3rd National Communication, 2017

⁶ A Mongolian term for a severe winter in which large number of livestock die, primarily due to starvation due to being unable to graze, in other cases directly from the cold, Source: en.wikipedia.org

hail, and lightning has increased sharply in Mongolia; cases of such natural phenomena which lead to danger and damages have been increased by 2 times in last 20 years.

It is estimated that frequency of disastrous events related to atmospheric phenomena is expected to increase by almost 23-60% by the middle of this century in any climate change scenario. The assessment of future projection for drought and dzud has been conducted by the Global Climate Models.⁷ Through this model, drought frequency is expected to increase by 5-15% under moderate-emission scenarios of GHG, and by 5-15% under the high-emission scenario.

The frequency of dzud occurrence is expected to increase by 5-20% under the moderate-emission scenario, and 5-40% in the in the case of a high-emission scenario.

Impacts on public health: Climate change-related heat waves, flooding, drought, water shortages, pollution and impacts of climate on agriculture are likely to affect the health of the population of the country in both direct and indirect ways. Due to the aforementioned impacts of climate change, cardiovascular and respiratory diseases including asthma, diarrhea, malnutrition, transmission of infectious diseases and other infectious diseases may increase among the population, especially amongst children.

Vulnerability of key sectors to climate changes: Mongolia's economy and human well-being and livelihood depend on key sectors such as agriculture (animal husbandry and arable farming), mining, and processing industries (minerals and raw materials of livestock). All of these sectors rely on water resources, biomass productivity, and soil fertility. In contrast to the historical predominance of nomadic and rural habitats, Mongolia is now overwhelmingly urban, with 68% of the total population living in cities and towns, which is much higher than the Asian regional average for urban dwelling. The capital, Ulaanbaatar (UB), has been the engine of Mongolia's urbanization. Economic growth is increasingly concentrated in the capital with about 40% of the total population generating more than 60% of the country's GDP, and accounting for 50% of its total investment. Thus, rapid urbanization has led to other environmental destruction in addition to air pollution; namely, water shortage. The water shortage creates misbalances of supply and demand for water resources and effects the entire ecosystem, not just human livelihood.

Agriculture sector (Livestock and arable farming): As agriculture is a primary driver of Mongolia's economy, the vulnerability of this sector to climate change can potentially result in highly negative effects on the country's overall social and economic development and food security. The animal husbandry sector was the dominant socio-economic sector in Mongolia until the mid-1990s, contributing to 35% of the total GDP, and 45% of work force. In later years, with the intensive development of the mining sector, the animal husbandry sector's GDP contributions have decreased. However, 14.5% of the total GDP can still be attributed to this sector, and 29.8% of work force is employed through this sector, which demonstrates that it remains one of the main drivers of the Mongolian economy.⁸ After the market economy transition in Mongolia in the early 1990s, the livelihood of rural residents changed drastically, which in turn dramatically affected surrounding nature and ecology. Herds were completely privatized; grazing is now open access, which has led to a constantly increasing number of livestock, especially in regard to the increase of the number of goats within a herd structure. In 2000, only 20% of pasturelands suffered from degradation, whereas in 2010, 70% of the total pastureland had suffered from degradation, to various degrees.⁹ Later studies show even higher levels of degradation.¹⁰ With decreased biomass productivity due to climate change impacts, combined with human-induced pasture degradation, the livestock sector is becoming more and more vulnerable to extreme weather events (e.g., drought and dzud), the frequency of which is also increasing due to climate change.

Industry and urban water supply sector: Mongolia's water scarcity represents a major constraint to the country's sustainable development; this scarcity has been greatly influenced by the country's rapid urbanization rate and an increase in mining in recent years.¹¹ Evidence shows that the already scarce water supply is currently under threat due to climate change. The climate models predict a decrease in river water levels, higher seasonal variations, and a decrease in groundwater levels due to decreased recharge.

Key emitter sectors and related mitigation challenges

⁷ Gomboluudev P, 2014

⁸ National Statistics Office , 2015

⁹ IFAD-GEF project Mongolia, 2010

¹⁰ State of the environment report, 2013

¹¹ ADB, 2014, Demand in the desert: Mongolia's water-energy mining nexus

GHG Inventories: The main sources of GHG emissions have been divided into the following sectors: Energy, Industrial processes and Product Use (IPPU), Agriculture, Land use, Land use change and Forestry (LULUCF) and Waste.

Total GHG emissions in Mongolia in 2014 were 34,482.73 Gg CO₂e (excluding LULUCF). This represented a 57.09% increase from the 1990 level of 21,950.73 Gg CO₂e and 5.49% increase from the 2013 level with 32,687.27 Gg CO₂e. Net GHG emissions in 2014 were 10,030.80 Gg CO₂e (including LULUCF). This represented a -1,034.44% decrease from the 1990 level of -1,073.46 Gg CO₂e and 23.23% increase from the 2013 level with 8,139.60 Gg CO₂e (Figure 1 and Table 2).¹²

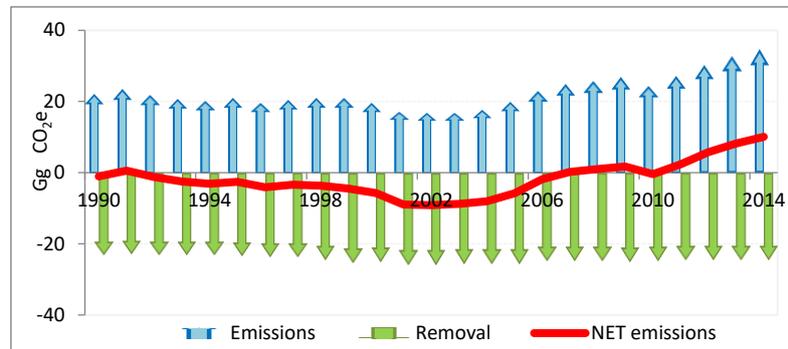


Figure 1. Mongolia's total and net GHG emissions and removals, 1990-2014 (Gg CO₂e)

Source: GHG Inventory prepared by CCPIU under MET.

GHG emissions in 2014 from the energy sector were 17,267.80 Gg CO₂e accounting for 50.08% of total national emissions. The second highest contributor to total emissions was the Agriculture sector, with 16,726.98 Gg CO₂e, or, roughly 48.51% of emissions. Emissions from IPPU and the Waste sector contributed 328.1 Gg CO₂e (0.95%) and 159.91 Gg CO₂e (0.46%), respectively, to the national total in 2014 (Figure 2).

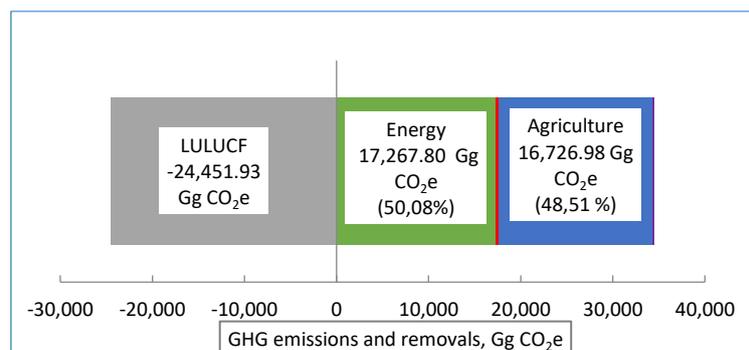


Figure 2. The composition of Mongolian GHG emissions by sectors in 2014

Source: GHG Inventory prepared by CCPIU under MET.

Compared to 1990, in 2014, emissions attributed to the Energy sector increased by 55.69%, emissions from the IPPU sector increased by 50.03%, emissions from the Agriculture sector increased by 58.02%, emissions from the Waste sector increased by 187.49%, and removal for the LULUCF sector increased by 6.2%.

Compared to 2013, in 2014, emission for the Energy sector decreased by 2.78%, emissions for the IPPU sector increased by 37.72%, emissions for the Agriculture sector increased by 15.05%, emissions for the Waste sector increased by 7.93%, and emissions for the LULUCF sector decreased by -0.39% in 2014.

GHG mitigation challenges: Despite the fact that the total GHGs emissions for the country are relatively low, Mongolia has developed, and is implementing, GHG mitigation policies and strategies similar to countries with high emissions rates. These policies and measures are directed at reducing GHG emissions, encouraging efficient use of energy and heating, and introducing and promoting environmentally friendly technologies.

¹² Initial Biannual Update Report of Mongolia, 2017

Mongolia submitted its Intended Nationally Determined Contributions (INDC) to UNFCCC on September 24, 2015. In its INDC, Mongolia set a target to reduce GHG emission by 14% economy-wide, excluding the Agriculture sector, by 2030 (using 2010 levels as a base-case scenario). In order to assess overall mitigation actions, and to identify the future trends, actions, policies and programmes that will need be implemented through the national and sectorial policy framework, counter measures were considered during the creation of the INDC. This comparative assessment is based on the policies and programmes that were implemented from 2007 to 2015. The key national policy documents regarding GHG mitigations actions are the Sustainable Development Vision 2030 (2016), the State Policy on Food and Agriculture (2016), the State Policy on Forest (2015), the State Policy on Energy (2015), the Green Development Policy (2014), the National Program on Waste Management Improvement (2014), and the National Action Programme on Climate Change (2011). These key policies and actions are outlined to assess the current status, and future projections of GHG mitigation policies/actions and their effects and success rate for GHG emission reduction.

Mongolia, as well as many other developing countries, has specific barriers for the implementation of adaptation and mitigation measures, including a lack of financial and technical resources, availability of human and institutional capacity, and public support. The largest obstacles to GHG emissions reduction in the electricity and heating sectors are the use of obsolete techniques and technologies, poor coal quality (which is burned for power), and insufficient funding to upgrade the current infrastructure used for heating and electricity.

In its national communications, Mongolia has reported that in the near future, although coal will remain the basis of energy production, the following approaches and technologies need to be introduced and implemented:

- Clean coal technology and clean fuel production
- Establishing a power plant with integrated-coal gasification combined-cycle
- Utilization of renewable energy and new sources of energy
- Livestock number control
- Use of climate-friendly and highly efficient technologies in industrial sectors and other sectors

The above measures are subject to high upfront investment cost and recurring operating costs. In particular, costs of technologies and infrastructures have been major constraints to successful implementation of new technologies and measures. In addition to these technological costs, local herders have been opposed to reducing livestock in order to mitigate methane emissions due to their traditional, cultural way of life, and livelihood constraints, which necessitates maximum herding capacity.

Implementation of mitigation measures requires a high level of technical capacity and effective coordination across different sectorial agencies. Most of the technologies used in Mongolia's energy sector are old and outdated and have low efficiency and high energy losses. The heat content of the feedstock coal is low and variable, which leads to combustion problems and poor plant performance. Lack of appropriate technologies and know-how is the most apparent and urgent technical issue.

Other key financial, technical, and capacity barriers include lack of support by financial institutions for renewable energy investments (particularly hydro-power plants), lack of domestic technological resources for clean fuel production, and Carbon capture and Storage-CCS plant.

1.2 Development profile

Include information on GDP, growth rate, GNI/capita, HDI, domestic credit levels, ease of doing business and other relevant criteria such as sustainable development indicators

Quick Facts:

Population: 3.18 million	GDP (PPP): US\$37.0 billion (2017)	Fiscal deficit: 7.6% of GDP
GDP: US\$12.0 Bn GDP growth: 6.1% (Apr18)	GDP composition: Agriculture 13%; Industry 36%; Services 50%	Inflation: 6% (Apr18) Unemployment rate: 9.7%
GDP per capita: US\$4,000 (2017)	5-year compound annual growth: 7.0%	Employment rate: 57.9%
GDP per capita (PPP): US\$12,275	Retirement age: 60 men, 55 women	Public debt: 79% of GDP
Interest rate: 10% (daily)	Deposit interest rate: 13% (yearly)	FX reserves: US\$3B
Internet speed: 6626 KBps	Competitiveness rank: 101 (Dec18)	Corruption index: 36 points
Corruption rank: 103 (Dec17)	Ease of doing business: 62 (Dec17)	Corporate tax rate: 10 and 25%
Personal income tax rate: 10%	Sales tax rate: 10%	Social security rate: 23%

Export: US\$6.2Bn (2017)

Import: US\$4.3Bn (2017)

FDI: US\$2.8Bn (2017)

Mongolia's average annual GDP Annual Growth Rate is 5.45% (from 1991 through 2018). The economy has grown by 6.3% year-on-year during the first quarter of 2018, which has been the highest quarterly growth rate since 2014. Industry, and in particular, the construction industry, has rebounded (5.3% compared to -2.4% a year earlier); services have increased by 4.9% (6.1% a year earlier), and agriculture edged up 0.3% due to drought last year (4.2% a year earlier).¹³

Mongolia's services sector is the largest relative to GDP, accounting for 43% of total GDP. The mining industry has expanded heavily in the past few years, contributing the most to economic growth and accounting for 34% of total output. Finally, the Agriculture sector accounts for 13% of total GDP.

Mongolia Competitiveness Index 2007-2018 (101st as of 2018; previous 3.84; lowest 3.43): The Global Competitiveness Report is made up of over 110 variables, of which two thirds are sourced from the Executive Opinion Survey, and one third is sourced from publicly available resources such as the publications issued by the United Nations. The variables are organized into twelve pillars, the most important being: institutions, infrastructure, macroeconomic framework, health and primary education, and higher education and training. The GCI score range on a scale from 1 through 7; a higher average score demarks a higher degree of competitiveness.¹⁴ Mongolia is the 101st most competitive nation in the world, out of 137 countries ranked in the 2017-2018 edition of the Global Competitiveness Report, published by the World Economic Forum.¹⁵ There is a notable contrast between this standing, and Mongolia's higher rankings for indices related to human capital (such as higher education and training, 62nd; health and primary education, 69th; and labour market efficiency, 41st), implying that structural issues constitute the most pressing challenges to Mongolia's overall competitiveness.

Ease of Doing Business: The Ease of doing business index ranks countries against each other based on how a specific country's regulatory environments are conducive to business operation; these rankings also take protection of property rights into consideration. Economies with a high rank (1 to 20) have simpler and friendlier regulations for businesses. Mongolia is ranked 62nd among 190 economies in the ease of doing business index, according to the latest World Bank annual ratings. The rank of Mongolia improved from 62nd in 2017, to 64th in 2016. Ease of Doing Business in Mongolia averaged 69.40 from 2008 through 2017.¹⁶ In 2017, Mongolia scored particularly well in the areas of starting a business, dealing with construction permits, protecting minority investors, and paying taxes, although the overall rating is constrained by low scores for access to electricity and trading across borders. In the Doing Business 2017 index, Mongolia significantly improved its score in paying taxes by introducing an electronic system for filing and paying of taxes (with Mongolia's ranking in this category improving from 73rd place to 35th).¹⁷

Mongolia Corruption Rank: Mongolia is the 103rd least corrupt nation out of 175 countries, according to the 2017 Corruption Perceptions Index reported by Transparency International. The Corruption Rank in Mongolia has averaged 92.53 from 1999 through 2017, reaching an all-time high of 120 in 2009, and a record low of 43 in 1999. The Corruption Perceptions Index ranks countries and territories based on how corrupt their public sector is perceived to be.¹⁸

Economic freedom score: Mongolia's economic freedom score in 2018 was 55.7, making its economy the 125th most free economy, and 27th in the Asia-Pacific region.¹⁹ Mongolia scored relatively well in terms of tax burden, regulatory efficiency (labor freedom, monetary freedom) and market openness (trade freedom, financial freedom) while rule of law (property rights, judicial effectiveness, government integrity) and government size (government spending and fiscal health) impede Mongolia's economic freedom status.

World Bank's Worldwide Governance Indicators: Institutional strength is low; Mongolia falls within the bottom quartile for government effectiveness, control of corruption, and rule of law. Mongolia's governance shortcomings can be found in its standards of corporate governance and business conduct. Furthermore, levels of carbon intensity are still high.²⁰

¹³ <https://tradingeconomics.com/mongolia/gdp-growth-annual>

¹⁴ <https://tradingeconomics.com/mongolia/competitiveness-index>

¹⁵ <https://tradingeconomics.com/mongolia/competitiveness-rank>

¹⁶ <https://tradingeconomics.com/mongolia/ease-of-doing-business>

¹⁷ file:///C:/Users/asus/Downloads/country-strategy-mongolia%20(1).pdf

¹⁸ <https://tradingeconomics.com/mongolia/corruption-rank>

¹⁹ www.heritage.org

²⁰ <http://documents.worldbank.org/curated/en/687471468053969480/pdf/675670CAS0P1250Official0Use0Only090.pdf>

- **Development prospects, macro-economic and fiscal circumstances and strategies, poverty reduction strategies, gender mainstreaming and social inclusion strategies, low emission and clean energy policies/ strategies, infrastructure investment policies (e.g. related to urban development and transport), adaptation and risk management policies/strategies, and emerging green growth strategies (or the like)**

Besides natural barriers such as a harsh and dry climate and a landlocked geographical location, Mongolia is attempting to overcome different obstacles and problems related to the transition from a centrally planned economy to a free market economy. Although Mongolia has yet to reach its planned targets and results in each above mentioned areas, the government organizes several complex measures related to privatization, liberalization on trade, and investment and integrated exchange rate and other policies related to the general advancement of the country's development.

Socio-economic context: After growing accustomed to the mineral export boom, Mongolia faced a sharp slowdown in growth with a fiscal deficit of 17% in 2016, which resulted in an exchange rate depreciation of 20%. To fill the deficit, the Government borrowed externally at high interest rates. Due to expansionary monetary and fiscal policy, low commodity prices and a reduction in exports, Mongolia experienced a financial crisis in 2016. Following parliamentary election and the establishment of a new government administration in 2016, the IMF's Extended Fund Facility (EFF) of SDR 314.5054 million (435% of quota, or approximately \$425 million) was approved as a part of a \$5.5 billion multi-donor financing package to support Mongolia. In line with the arrangement to address macroeconomic imbalances and avoid default, the Government launched its economic recovery plan by starting ambitious structural reforms such as cutting fiscal deficits and rebuilding foreign reserves, which will help stabilize the exchange rate, sustain growth over the medium term, promote competitiveness and diversification, and mitigate the boom-bust cycle.²¹

Due to a combination of unexpectedly strong coal export performance, better terms of trade, capital inflows, and donor disbursements, economic growth has recovered more strongly than anticipated, reserves have been built up, and economic confidence is returning. The fiscal deficit in 2017 (at 7.6% of GDP) is less than half of the 2016 fiscal deficit. The recent budget suggests a primary deficit of 3.4% in 2018. Debt is projected to be 73% of GDP in 2018, versus 84% in 2016.

Despite a cautious policy mix resulting in reserve accumulation and expected GDP growth of 5% in 2018, the economy remains highly exposed to changes in commodity prices and mining sector export revenue. The government intends to tighten fiscal deficits and continue to tighten monetary policy and structural and financial sector reforms.

Sustainable development policy: Since the transition to a market economy in the 1990s, subsequent Mongolian Government Administrations have shown strong commitment towards socially inclusive, low carbon, and sustainable green development initiatives. In line with global and national agendas, the Government has initiated a number of efforts such as Mongolia's National Council for Sustainable Development (NCSD) in 1996 following the Earth Summit in Rio, Mongolia's Agenda 21 (1996), the National Action Program on Climate Change (2011), the Green development policy (2014), and the Sustainable Development Vision 2030 (2016).

Mongolia's economic growth, which has been driven by the mining sector, has been characterized by high emissions, environmental pollution, overexploitation of forests, land degradation, water pollution, loss of biodiversity, and corresponding social issues such as income disparity and poverty.

As stated in the Sustainable Development Vision 2030, the principles for achieving sustainable social development considers human development to be the core measurement for development. The human development measurement parameters include ensuring an open, accessible and high quality lifelong education system, ensuring high quality health care services accessible to all, ensuring equal participation of working age populations in the labor markets, providing social welfare services for the target population in an equitable and inclusive manner, and ensuring gender equality in social development and equal participation in social welfare. As targeted in SDV 2030, Mongolia aspires to become one of the leading middle-income countries with dominant middle and upper-middle income classes, while preserving ecological balance and a stable democratic governance, by 2030. Following implementation of the Mongolia Sustainable Development Vision 2030, Mongolia aims to achieve, for example, an HDI of 70, a life expectancy of 78 years, a global competitiveness index score of 70, an environmental performance index score of 90, a Gini coefficient of 30, an area of land of WHO-classified disease-free status of 60%, desert land area of 60% (vs. 78.2% in 2014), and an area of specially protected land of 30% (vs. 17.4% in 2014).

²¹ IMF Country Report No. 17/396, Mongolia, page 1

Infrastructure development policy: Within the 9th objective of the integrated transport and logistics policy as stated in the Three Pillar Development Policy, the GoM plans to develop an integrated transport policy, connect aimag centers via asphalt roads, expand Ulaanbaatar city's transport network, expand the capacity of Ulaanbaatar Railroad JSC., liberalize the air transportation market, construct new major power and hydro plants to ensure national electrical security, and promote urban construction in Ulaanbaatar city and rural areas over the 2018-2020 period.

Development policy and planning: Approved by Parliament in 2015, the Law on Development policy and planning aims to ensure consistency and coherence of development policy documents at national, local and sector levels, and to define responsibilities and corresponding authority of government organizations in regards to the development of policymaking, approving, policy implementation, results-based reporting, monitoring, and evaluation. In 2016, the National Development Agency of Mongolia (NDAM) took over responsibility for policy development and planning at the direction of the Prime Minister. These responsibilities include overseeing the National Investment and Concession Plan. Hence, NDAM was assigned responsibility to coordinate SDV/SDG development planning and investments across key government institutions. The NDAM was also given the mandate to conduct assessments on national policy document coherence with global commitments, and on the consistency of sector strategies and local development plans with national planning objectives.²²

Social policy: Mongolia ranks 90th out of 188 countries on the UNDP 2015 Human Development Index (HDI), placing it in the category of countries with 'high human development.' It is only second to Kazakhstan (56th) and above other countries in Central Asia. Since the 1980s, Mongolia has experienced a substantial improvement of human development, at a rate comparable to China. This is attested by increased life expectancy at birth (from 60 in 1990 to 69.5 years in 2014) and expected years of schooling (14.6 years).²³

Despite the increase in the length of educational instruction, there is a lack of good quality jobs, resulting in a difficult transition from school to work for young people. This lack of job availability is an increasing concern. According to the International Labor Organization (ILO), the youth unemployment rate in Mongolia was 14.7% in 2015. More than one-fifth of all young people in Mongolia aged 15 to 29 were not in employment, education, or training (NEET), although Mongolia's NEET rate is low compared to other Central Asian countries. Among youth looking for suitable jobs, 63% have been looking for over a year, and 40% have been looking for over three years. This indicates that Mongolian youth are more vulnerable to long-term unemployment and economic insecurity.²⁴

Significant regional disparities remain. Mongolia is the most sparsely populated country in the world with over 40% of its 3 million inhabitants living in the capital city of Ulaanbaatar. Poverty is more abundant in rural areas as compared to urban areas. The poverty rate remains high in rural and peri-urban areas, and the income inequality gap, both within and between regions, is widening. One in five people (21.6%) live below the national poverty line in Mongolia, and in some rural regions, one in every three people (31.4%) live in poverty.²⁵ Regional inclusion gaps also remain large in relation to access to services including water, heating, ICT infrastructure, and education. Access to electricity and a lack of cross-border trade infrastructure have been identified as the main impediments to conducting business.

Gender Equality: Mongolia, as one of few countries that have reached a medium level of gender equity, performs well in gender equity global rankings such as World Economic Forum's 2017 Gender Gap Index with a score of 0.705 (53rd out of 144 countries).²⁶ It ranks first in the world for gender parity in "health and survival", 20th for "economic participation and opportunity", 65th for "educational attainment" but only 107th for "political empowerment."²⁷ There is disproportionately low representation of women in political decision-making, with just 17% of seats in the national parliament won by women in the 2016 election. Women lead around 6% of the top 100 listed firms in Mongolia.²⁸ In the civil service, just 26.6% of state secretaries are women, while only 30% of middle managers and 15% of senior managers in Mongolia are women.²⁹

²² Development Finance Assessment for Mongolia, 2018, page 52

²³ [file:///C:/Users/asus/Downloads/country-strategy-mongolia%20\(1\).pdf](file:///C:/Users/asus/Downloads/country-strategy-mongolia%20(1).pdf), page 16;

²⁴ Perceptions of precariousness: a qualitative study of constraints underlying gender disparities in Mongolia's labor market. World Bank Group. 2018

²⁵ National Statistical Office, Household Socio-Economic Survey, 2014

²⁶ IMF Country Report No. 17/396, Mongolia, page 17

²⁷ World Economic Forum. Gender Gap Index 2017

²⁸ Perceptions of precariousness: a qualitative study of constraints underlying gender disparities in Mongolia's labor market. World Bank Group. 2018

²⁹ Mongolia Human Development Report 2016. UNDP

Despite higher educational attainment and higher life expectancy, women, however, remain at a disadvantage in the economy performing lower in terms of labor force participation at 57% compared to 68.2% for men.³⁰ Women are mostly employed in informal sectors like wholesale and retail trade but less so in high-paid sectors such as mining, transportation, and energy, where prospects for advancement and opportunities to fulfill managerial and technical roles are greater.

Female unemployment among the 15-24 age group is highest at 18.3%.³¹ The national average wage for women is 14.3% lower than that of men and gender disparities also tend to be greater in rural than in urban environments. Female headed households today make up over 10% (81,741) of all households, with 43.8% of them being poor.³² Women entrepreneurs usually possess less movable and immovable assets due to lack of specific legislations for property rights in the context of inheritance and divorce.

There are significant gender gaps in health between women and men in Mongolia. The life expectancy at birth for men is currently 64.9 years, while women have a life expectancy of 74.9 years. A 2016 study by the National Gerontology Centre and Public Health Institute concluded that unhealthy work and lifestyle, high consumption of alcohol and tobacco, poor diet, and lack of physical exercise were the major contributing factors to low life expectancy of men in Mongolia. On the other hand, social and cultural norms on gendered behavior seem to play a role in men's attitudes on health, and this often prevents them from seeking health care service.³³

Herder households periodically suffer from dzud - a slow onset disaster unique to Mongolia. During the 2010 dzud, 217,000 households or 769,000 individuals (28% of population) were affected. Of those affected, 43,555 households lost their entire herd; an additional 163,780 households lost at least half.^{34,35} This caused many herder families to migrate to neighboring aimags or capital cities, where they experienced challenges and had issues accessing basic services such as health care, transportation, and education.³⁶ Women, children, and the elderly are particularly vulnerable during dzud. According to 2018 statistics, 33,000 female herder households and 143,000 female herders were registered nationwide.³⁷ Due to dzud and extreme road conditions, most rural hospitals are not able to reach herders to conduct prevention checkups – particularly for pregnant women, newly born infants and elderly people – or respond to emergency calls, etc. at all times. During the dzud of 2016, a total of 965,000 people – mostly herders – were affected and faced devastating cold and snow storms, lost livestock, and experienced food insecurity. 5,019 expectant women, 20,874 children aged under five years, 6,117 people with disabilities and 4,173 households living below the national poverty line were among the affected populations.³⁸ Furthermore, women and girls experience limited access to sexual and reproductive health supplies and care, and increased vulnerability to gender-based violence.

Environmental pollution and transition to green economy: Mongolia remains a highly energy-intensive economy with an average energy intensity per capita of four to five times that of EU-28 averages. Over 90% of the total primary energy supply comes from coal; a majority of the electricity and heating generated from aging coal-fired plants are in substantial need of rehabilitation and investment.

Mongolia's renewable energy share remains close to 3-4% of total electricity output (2-3% wind and 1% hydro) and 8% of installed capacity, mainly wind (5%) and hydropower (3%). Mongolia has substantial potential for increasing renewable energy generation, especially in regards to solar energy power. Since the adoption of a Renewable Energy Law in 2007, the Government has passed amendments to both Energy and Renewable Energy Laws to introduce "support tariffs" to cover the costs of electricity production from renewable energy sources. Mongolia has set a target for renewable energy production, aiming for 20% of total energy generation to be produced by renewable resources by the year 2023 under its National Renewable Energy Program. In 2018, the GoM has stopped issuing new permits due to some concerns that exist over the capacity of the existing electricity grid to accommodate the rapidly increasing renewable energy share, particularly energy produced via wind farms.

Mongolia is a highly water-stressed region and faces serious challenges associated with climate change. Municipal water supply and wastewater treatment infrastructure remains underdeveloped and

³⁰ National Statistics Office of Mongolia. 2017 (http://www.1212.mn/stat.aspx?LIST_ID=976_L04)

³¹ Analysis of Social Inclusion and Gender dynamic for REDD+ in Mongolia. UNREDD Mongolia National Programme. 2017.

³² Mongolia Human Development Report 2016. UNDP

³³ UNPAGE. Gender Mainstreaming in Green Development Policy of Mongolia. 2016

³⁴ Save the Children Mongolia: Dzud Response Outline. 2016

³⁵ <http://www.unocha.org/cap/appeals/mongolia-dzud-appeal-2010>

³⁶ UN Rapid Assessment: Impact of Dzud situation. 2016

³⁷ Ministry of food, agriculture and light industry of Mongolia. 2018

³⁸ International Federation of Red Cross. Mongolia Dzud Situation Report. 2016 <http://www.reliefweb.int/node/1459856>

better land-use practices, irrigation and water management systems, particularly in industrial uses, as well as wider penetration of climate technologies, are needed to strengthen the country's climate resilience.

Ulaanbaatar city has one of the worst urban air qualities in the world. High particulate matter (PM) concentrations are largely caused by the widespread use of the ger area's coal fired stoves, followed by windblown dust, combustion residues, dirt road dust and exhaust particles from vehicles. Mongolian municipal infrastructure is basic and inadequate, primarily as a result of population migration to major cities and underinvestment in infrastructure, leading to the creation of new urban fringe areas with no connection to main utilities services, including a communal heating and water network. This lack of basic access to infrastructure such as heating and water requires immediate and urgent solutions to address these basic needs for the citizens of Ulaanbaatar.

A waste management programme for Ulaanbaatar was approved in 2013. In 2012, Parliament adopted a Law on Waste that combined the Law on Household and Industrial Waste with the Law on Hazardous and Toxic Chemicals, which was updated in 2016 with the most current concepts and best practices taken from international waste management policies. Local governments, responsible for industrial and municipal solid waste management, are considerably lacking in human and financial resources. Technology and expertise in waste management is also lacking in Mongolia. There is negligible private sector involvement beyond waste transport. Hazardous waste is discharged with household waste in open dumps and landfills, causing severe environmental and health damages. Upon the request of the Ministry of Environment and Tourism, the EBRD is currently funding a construction waste recycling plant project in Ulaanbaatar city. The construction of this waste recycling plant will be based on a technical assistance plan produced to improve hazardous waste management in Mongolia.

➤ **Key economic drivers and anticipated sectors for growth, including urbanization**

In April 2018, Mongolia's trade surplus narrowed year-on-year to US\$534 million. The 2017 surplus amounted to US\$1.9Bn with exports of US\$6.2Bn and imports of US\$4.3Bn. Mining commodities exports account for 90% of export revenue. Mongolia exports mineral products (copper, coal, molybdenum, tin, tungsten, and gold), natural or cultured stones, jewelry, cashmere, and animal origin products including hides and skins. Mongolia imports mainly machinery, equipment, electric appliances, vehicles, spare parts and food products. Mongolia's main export partners are China (89% of total exports) and Great Britain (10%). Mongolia's main import partners are China (42%), Russia (35%), Japan (11%), USA (6%) and Korea (5.8%).³⁹

According to the Sustainable development agenda 2030, the development of agriculture and industry – especially within the light and food industry, construction materials, copper processing, coal, fuel-chemicals, lead processing plants, tourism, mining and extractive industries – will be the highest priority development sectors. Out of these high priority development sectors, the energy and infrastructure sectors will be the most highly prioritized.

Agriculture and food security: Although Mongolia fully provides for its own needs in meat, milk and potatoes by domestic production, there is a gap between the urban and rural population's food consumption levels. Meat and flour dominate the Mongolian diet, which is also characterized by low consumption of fruits and vegetables despite their nutritional benefits.

Animal husbandry: Animal husbandry still occupies an important role in the country's economy, employment and export earnings. The agricultural sector accounts for about 12.8% of the country's GDP, 77.5% of which was comprised of animal husbandry (livestock) in 2015. 35% of the country's total work force are employed by the agricultural sector, and 7.0% of the country's exports are from the agricultural sector.⁴⁰ Although over 20% of all animals were lost during the severe dzud of 2009-2010, the sector has recovered. By the end of 2017, the number of livestock reached a historical record level high of 66 million of heads. Livestock Herds are typically comprised of 5.9% horses, 6.7% cattle, 44.6% sheep, 42.1% goats, and only 0.7% camels.

Arable farming: Previously, arable farming was not of central importance in the Mongolian agricultural sector. However, since the 1960s, when a cultivation campaign of prairie land began, a new agriculture sector focused on arable farming was formed. The size of cultivated land has expanded drastically until 1990, and turnover fields have reached 1.3 million hectares. Since 1990, due to economic crises, cultivation areas were greatly reduced, cultivation of prairie land disappeared, and only potatoes, vegetables, and fodder crops were planted over a comparatively smaller area. Since this reduction, the government has launched the "Reclamation Campaign 3" in 2008, and as a result of the implementation

³⁹ http://www.1212.mn/stat.aspx?LIST_ID=976_L14

⁴⁰ NSO, 2014

of agriculture support policies, the agricultural sector has recovered. Cultivated and planted lands have significantly increased from previous years and by 2015, 390.7 thousand hectares of area were cultivated for crops. 12.8 hectares of this land was used to plant potatoes and 7.7 thousand hectares of land were used to plant vegetables.⁴¹ Thus, the Mongolian arable farming sector almost fully meets domestic demand for grain and potato crops and provides an estimated more than half of vegetable needs. In 2000-2002, Mongolia met only about 30% of domestic flour demand. But after the Crop III campaign and as a result of several measures taken by the government, the volume of imports of flour has declined year over year and by 2013-2015, Mongolia was able to meet 100% of domestic flour needs.

Energy resource and energy production: As suggested by the current energy mix, Mongolia has significant fossil fuel resources, especially coal. Mongolian coal resources are estimated to be almost 150 billion tons. In 2017, coal production tripled; 29 million tons were mined due to strong international market demand. Larger coal mines such as Baganuur, Shivee-Ovoo, Aduunchuluun and Shariin goliin produce the supply needed to meet most Combined Heat and Power (CHP) coal demand in the Central Electricity System (CES) for the major industrial cities, along with other users. Annual coal consumption in Mongolia rose by about 7.2% per annum on average between 2000 and 2016, as shown in Table 3.

Coal is a key resource for Mongolia and is heavily used for energy and heat production. However, environmental consequences, especially air pollution issues due to coal mining and coal burning, is becoming a very serious and a challenging problem for Mongolian society. Due to inefficient use of coal, air pollution is developing into an extremely critical issue for cities, especially for the capital city of Ulaanbaatar, due to the use of coal in small private houses (in the ger area) and CHP plants for heat and electricity production. For example, during the winter season, the Ulaanbaatar city area forms stable temperature inversion, a weather phenomenon that blocks air mass dispersion around Ulaanbaatar city. As a result, smoke pollution from the coal burning stoves used by families in the ger area, heat production facilities, heat-only boilers, and low pressure-water boilers of different companies, organizations and the three big CHPs creates an extremely serious situation in terms of air pollution. Reports and statements of WHO⁴² indicate that Ulaanbaatar city is considered to have one of the highest levels of air pollution in the world. The energy sector is a major source of Mongolian greenhouse gas (GHG) emissions.

Electricity and heat production: The Mongolian energy sector consists of four regional inter-connected systems: the Central, Western, East and Altai-Uliastai Systems. As of 2017, total installed electricity in Mongolia was 1190 MW, of which 12.5% was accounted for by renewable sources. In 2017, Mongolia generated a total of 6,089.0 million kWh of electricity; 5,827.0 million kWh out of this total amount was generated at combined heat and power plants (CHPs), 84.5 million kWh was generated by hydropower plants, 19.7 million kWh was generated by Solar PV plants, and 154.4 million kWh was generated by Wind plants. In addition, the country imported 1,522.5 million kWh from Russia and China.

Table 2. Electricity and heat generation

	1990	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017
Electricity generation, Bn kWh	3.1	2.94	3.42	4.7	4.52	4.86	5.13	5.39	5.63	5.9	6.09
Heat distribution, million Gcal	5.33	5.9	7,8	8.32	8.6	9.3	9.6	10.0	10.4	10.8	8.9

Coal-fired CHP plants produce 5,827.0 million kWh electricity, which accounts for 95.7% of total electricity production. CHPs use 70% of the total coal burned, compared to medium and small-scale boilers, which use 20% of total coal burned, while low-pressure and household stoves consume the remaining 10% of the total coal burned.

➤ **Type and capacity of financial system within the country, including capacity of the private sector, including national credit rating**

The financial sector is dominated by banking. The banking sector oversees a total of US\$10Bn in assets, which accounts for 90% of financial sector assets. The banking system is highly concentrated, with the top three banks accounting for about 70% of market share. The market capitalization of the securities market is around US\$1Bn. The remaining financial sector assets are held by nonbank financial institutions. One third of banking assets are classified as liquid, which in part reflects banks' large exposure to the public sector (one quarter of bank assets are in public sector securities which

⁴¹ NSO, 2015

⁴² WHO Policy Brief. Air Pollution in Mongolia.

http://www.wpro.who.int/mongolia/publications/20180228_policy_brief_on_air_pollution.pdf

currently pay double-digit interest rates). With NPLs standing at 7%, the banking sector benefits from ROE of 10% and 20% credit growth largely due to a household consumption surge. The commercial banking loan interest rate is reported at 18-20% for tugrik, and 11% for foreign currency (US\$) while the deposit interest rate was 13% in 2017. Despite Government initiated programmes to improve access to finance, including an SME development fund and a credit guarantee fund, SMEs in Mongolia face challenges to obtaining financing and access to capital.⁴³

The banking system is currently undergoing rehabilitation and strengthening via various structural changes. Following the comprehensive Asset Quality Review, the Bank of Mongolia is taking steps to improve the regulatory and supervisory framework that oversees the sector. Important legal reforms regarding the governance and operations of the Bank of Mongolia, the Deposit Insurance Corporation, and the banks' recapitalization are expected to be passed soon.⁴⁴

The steadily growing insurance industry, which is dominated by commercial bank subsidiaries, remains small with a total premium income of only 0.4% of GDP in 2016.

The Mortgage Corporation, which is majority-owned by commercial banks, was established in 2006 through the Government's effort to develop the secondary mortgage-backed securities market. Total outstanding mortgages stood at US\$1.6Bn (16% of GDP) as of December 2016. 5% and 8% interest rate mortgages account for 32% of the total portfolio.

Green finance: Other than XacBank's Green Climate Fund credit line, public and private financing mechanisms in the areas of clean energy and energy efficiency are yet to be developed. Furthermore, despite the Government's recent effort to establish a Green development fund through the Development Bank of Mongolia, and the Mongolian Banking Association's initiative to establish the Mongolia Green Finance Corporation, project financing is lacking and credit terms are tight. The financial market also lacks long-term financing sources, as there are no substantial institutional investors, such as life insurance providers or pension funds.

Standard & Poor's credit rating for Mongolia stands at B- with a stable outlook. Moody's credit rating for Mongolia was last set at B3 with a stable outlook. Fitch's credit rating for Mongolia was last reported at B- with a positive outlook.⁴⁵

1.3 Climate change response

1.3.1 National frameworks

Mongolia's prospects for future development face numerous challenges and risks related to climate change and the impact it will have on natural ecosystems and socio-economic sectors. Thus, climate change outcomes, combined with negative anthropogenic factors on ecosystems and ecosystem services, leads to increased vulnerability of the country's economy and its citizens' livelihood.

Mongolia does not have a specific law on climate change that regulates cross-sectoral and nationwide climate change actions. The objectives, priority actions, and implementation principles of climate change mitigation, adaptation, and cross-sectoral actions are reflected in the main national development policy documents, especially in the National Action Programme on Climate Change (NAPCC), 2011, the Green Development Policy and its Implementation Action Plan, and Mongolia's Sustainable Development Vision-2030. Laws issued by the government create enabling conditions to implement the actions outlined in these documents. The following paragraphs will briefly describe, in chronological order, the policy documents that address climate-change related actions.

National Action Programme on Climate Change (NAPCC, 2011): The First NAPCC has been developed in 2000 and updated and approved by Parliament Resolution Nr.2 in 2011. The NAPCC has five strategic objectives:

- To create enabling conditions for addressing on climate change;
- To reduce socio-economic vulnerabilities and risks through national adaptation capacity building;
- To promote low carbon economy through introducing technology transfer;
- To enhance the national climate observation, research and monitoring network; and

⁴³ <https://www.adb.org/sites/default/files/linked-documents/icps-mon-2014-2016-ssa-02.pdf>

⁴⁴ IMF Country Report No. 17/396, Mongolia, page 1

⁴⁵ <https://tradingeconomics.com/mongolia/rating>

- To conduct public awareness campaigns and support public participation in climate change actions.

The action programme includes the national policy and strategy to tackle the adverse impacts of climate change and to mitigate greenhouse gas emissions. The NAPCC is aimed not only at meeting the obligations and provisions received under the UNFCCC and its Kyoto Protocol, but also at setting priorities for action and to integrate climate change concerns into other national and sectoral development plans and programmes. This Action Programme includes a set of measures, actions, and strategies that enable vulnerable sectors to adapt to potential climate change and to mitigate GHG emissions. The NAPCC will be implemented in two phases: 2011– 2016 and 2017-2021.

During the first phase of implementation, a major focus of the document was to create enabling conditions for the implementation of action, and to improve awareness and public participation. The second phase will focus on mitigation and adaptations measures. The Minister for Environment and Tourism recently approved the second phase of the NAPCC.

Green Development Policy (GDeP, 2014): This policy was adopted by Parliament Resolution Nr.43 on June 2014. The GDeP is defined as “a transition to a development model that results in sustaining well-being of people by ensuring environmentally friendly, inclusive economic growth or increasing efficient consumption of natural resources and sustainability of ecosystem services.” The GDeP sets six strategic objectives to ensure green development:

- Promote resource efficient, low GHG emission and zero-waste production and services;
- Sustain ecosystems’ carrying capacity by enhancing nature conservation and restoration activities;
- Increase investment in natural capital, human development and clean technology by introducing financing, tax, lending and other incentives;
- Engrain a green lifestyle by reducing poverty and promoting creation of green jobs;
- Encourage education, science and technology as catalyst of green development, and develop cultural values and livelihoods that are in harmony with nature; and
- Develop and implement population settlement plan in accordance with climate change, while considering the availability of natural resources in regions and restoration capacity.

The GDeP has established a number of specific and measurable targets for each one of these strategic objectives. An Action Plan for the implementation of the GDeP was adopted by the Government Resolution Nr.35 in January 2016. The Action Plan described various approaches to achieve the above stated objectives and determined a total of 254 actions that will be taken through 2030. Many of these activities⁴⁶ relate to climate change adaptation and mitigation.

The Global green economic index⁴⁷ is utilized to rank a country’s green economy; the index utilizes 24 performance metrics broken down into four categories: Leadership and climate change; Sector efficiency; Markets and investment; Environment and natural capital.

Mongolia’s Sustainable Development Vision-2030 (SDV-2030, 2016)⁴⁸: SDV-2030 was adopted by Parliament Resolution Nr.19 in February 2016. The SDV-2030 has four pillars: economical sustainability, sustainable social development, environmental sustainability and good governance. The SDV-2030 included the following objectives, with an overarching goal of ensuring the livelihood of Mongolian citizens:

- Defining a road map of inclusive economic and sustainable social development; and
- Creating opportunity for improving livelihood of citizens through sustainable use of natural resources and preserving ecosystem services

There are three goal areas of improvement to achieve environmental sustainability: integrated water resource management, maintenance of ecosystem services, and climate change adaptation. The following two objectives can be found under the climate change adaptation goal: a) to establish an early warning system for climate change outcomes and b) to reduce carbon emission in production and consumption.

The Government Action Programme, (GAP, 2016): The GAP was adopted by Parliament Resolution Nr. 45 in September 2016. After the Parliament election in June 2016, the new Government administration developed the Government Action Programme, which laid out a plan of action for the

⁴⁶ <http://esd.mn/wp-content/uploads/2017/01/Action-plan-for-Green-development-policy-of-Mongolia-eng-2.pdf>

⁴⁷ <http://dualcitizeninc.com/global-green-economy-index/economic-environmental-indicators.php?id=3>

⁴⁸ http://www.un-page.org/files/public/20160205_mongolia_sdv_2030.pdf

next four years (2016–2020). The Programme, using SDV-2030 as an outline, developed a climate change related action programme worth US\$1Bn (or 3% of the total budget). This action plan included plans for the development and implementation of climate change mitigation and adaptation strategies and the establishment of an environment and climate fund, and a goal to strengthen national capacity.⁴⁹

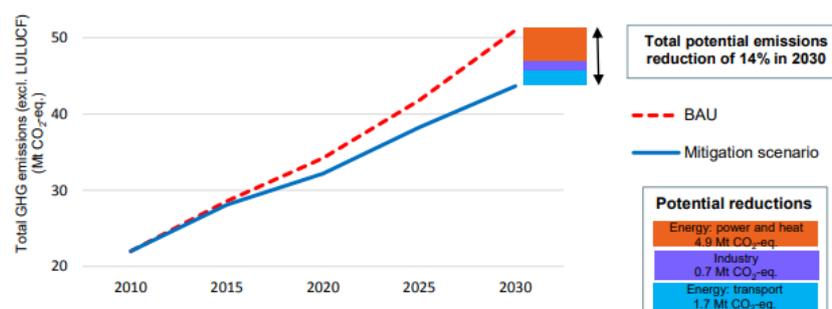
- **Snapshot of national initiatives under the UNFCCC: Intended Nationally Determined Contributions (INDCs)/ Nationally Determined Contributions (NDCs), National Adaptation Plans (NAP), National Adaptation Programmes of Action (NAPAs) Nationally Appropriate Mitigation Actions (NAMA), Technology Needs Assessment (TNA), and any other relevant initiatives. (e.g. REDD+)**

UNFCCC and Paris Agreement: Mongolia joined the United Nations Framework Convention on Climate Change (UNFCCC) in 1993, the Kyoto Protocol in 1999, and the Paris Agreement on Climate Change in 2016. As a non-Annex I Party, Mongolia is not obligated to reduce its GHG emissions under the regulations of the Kyoto Protocol, but under the Paris Agreement (PA)m, Mongolia has a target to reduce its GHG emissions by 14%, as compared a 2010 business as usual (BAU) scenario, by 2030. Between 1996 and 2017, Mongolia has developed three National Communications and Initial Biennial Update Report for the UNFCCC, and conducted GHG inventories four times, reporting on emissions over the time period of 1990 to 2014.

The National Action Programme on Climate Change (NAPCC): The goal of the programme is not only to meet UNFCCC obligations and commitments, but also to identify national response measures, including building up capacity to adapt to climate change and to mitigate GHG emissions, and establishing a foundation for green economic development. The programme aims to ensure environmental sustainability, to develop socioeconomic sectors adapted to climate change, to reduce environmental vulnerabilities and risks, and to mitigate GHG emissions. The programme also aims to promote the economic effectiveness and efficiency for the implementation of 'green growth' policies.⁵⁰ The NAPCC will be implemented in two phases: the first phase (2011-2016) aimed to strengthen national capacities, set up climate-related laws, and improve public awareness and participation in climate change-related activities. The second phase (2017-2021) will work to strengthen the implementation of mitigation and adaptation actions.⁵¹

INDC: Mongolia developed and submitted its Intended Nationally Determined Contributions (INDC) to the UNFCCC on September 24, 2015. Mongolia's INDC outlined a series of policies and measures that the country has committed to implementing through 2030 in the energy, industry, agriculture, and waste sectors. The cumulative impact of the mitigation measures identified in INDC is estimated to result in an approximate annual reduction of 7.3 Mt CO₂-eq. of economy-wide emissions in 2030, corresponding to a 14% reduction compared to a business-as-usual (BAU) scenario, excluding LULUCF (Figure 3).^{52,53}

The actions and objectives included in the Government's Green Development Policy and the National Action Programme on Climate Change (NAPCC) provided the conceptual foundation for Mongolia's INDC. In the INDC, given the importance of adaptation measures and the need for additional financial resources, Mongolia identified not only GHG mitigation policies and measures, but also the needs for adaptation measures, international funding, capacity building, and technological support.⁴⁵ The INDC includes outlines and descriptions of mitigation and adaptation policies which will be implemented through 2030.



⁴⁹ Government Action Programme for 2016–2020, 4.1.5

⁵⁰ <https://policy.asiapacificenergy.org/node/2721>

⁵¹ NDC, Country outlook Mongolia 2017, page 3

⁵² Intended Nationally Determined Contribution (INDC) Submission by Mongolia to the Ad-Hoc Working Group on the Durban Platform for Enhanced Action (ADP); page 4

⁵³ Mongolia's Initial Biannual Report 2017, page 12

Figure 3. Indicative potential emission reductions of the measures compared to BAU emissions

Based on current mitigation and adaptation undertakings and gaps, the INDC defines the country's monetary needs that will enable it to achieve climate change goals and targets for 2021-2030. For example, rough estimations of adaptation measures show that in the future, Mongolia will require around US\$3.4 billion of funding for technology and capacity building. Up to 80% of Mongolia's total need is expected to be financed from international sources and donor institutions.⁵⁴

Table 3. Adaptation and financial support needs (2021-2030)

Sector	Adaptation goals	Adaptation Targets	Needs		
			Capacity	Technology	Investments in Mn USD
Animal husbandry and pastures	To implement sustainable pasture management	-Reduce rate of pasture degradation; and -Regulate headcounts and types of animals including wild animals to match with pasture carrying capacities	-To create regulations for pasture use; -To set up taxation system for pasture use; and -To increase community participation	-To build an early warning system for drought and dzuds to prevent animal loss; -To improve livestock quality and breeds; and -To improve livestock health (epidemic and infectious diseases) management	46.0
Arable farming	-To increase irrigated cropland, reduce soil water loss and decrease soil carbon emissions	-To reduce bare fallow to 30%; -To introduce crop rotation system with 3-4 routes and 3-5 crops; and -To expand irrigated cropland by 2- 2.5 times	-To create regulations on soil protection (soil texture, nutrient and moisture)	-To diffuse zero-tillage technology; -To increase variety of crops and rotation; and -To introduce effective drip irrigation technology reducing water use by 2.5-5.0 times	150.0
Water resources	-To maintain availability of water resources through protection of runoff formation zones and their native ecosystems in river basins	-30% of the territory will be state protected by 2030 and sustainable financial mechanism will be introduced	-To implement Integrated water resource management systems -To coordinate multi-stakeholder relations through improved legal policies and efficient management; and -To strengthen human resource capacity to deal with technical issues	To implement ecosystem based technologies; and -To support ecosystem services through hydrological monitoring, construction of water diversion canals to lakes located in flood plains and reforestation actions	5.0
	-To construct reservoirs for glacier, melt water harvesting; -To regulate river streams and flows	-To create water reservoirs at rivers and at outlets of lakes, and to construct multipurpose systems of water use	- To enhance hydrological monitoring and research for river flow regulation; and -To construct water reservoirs and water diversion facilities to transfer water resources to dry regions		1 800.0
	-To introduce water saving and water treatment technologies	-To find solutions (and subsequently implement) for sustainable water supply in Ulaanbaatar and for industries and mining in the Gobi region	- To conduct studies and introduce sustainable water supply with closed systems preventing evaporation loss	-To introduce new technologies for water saving and treatment	605.0
	-To increase efficiency of reforestation actions	-Forest area will be increased to 9% by 2030 through reforestation activities	To build capacity of community forestry groups to conduct modern technologies for forest seedlings and tree plantations	-To introduce technology to plant seedlings	11.0

⁵⁴ http://www4.unfccc.int/submissions/INDC/Published%20Documents/Mongolia/1/150924_INDCs%20of%20Mongolia.pdf

Sector	Adaptation goals	Adaptation Targets	Needs		
			Capacity	Technology	Investments in Mn USD
Forest resource	-To reduce forest degradation rate	-To reduce forest degradation rate caused by human activities, fires, insects and diseases	-To set up fully equipped stations fighting forest fires and insects outburst and capacity building	To use airplanes to fight against fires; and -To introduce biological technologies against insects and pests	13.0
	-To improve effectiveness of forest management	-To make forests resilient to climate change by improving their productivity and changing their composition and structure	-To provide equipment and machineries to carry out forest cleaning activities; and -To train human resources for forest management practices	-To improve efficiency of forest cleaning technologies	7.0
Natural disaster management	-To enhance and improve early warning and prevention systems for natural disasters	To strengthen early warning system for natural disasters	-To establish early detection and prediction system - To conduct disaster risk assessments at local and subnational levels	-To improve forecast quality through increasing super computer capacity - To establish Doppler radar network covering entire territory of the country	65.4

NDC Partnership: Mongolia joined to the NDC Partnership in 2017 to align and harmonize the coordination efforts amongst national stakeholders and international implementing and development partners. The NDC Partnership Plan was approved by the Minister for the Environment and Tourism of Mongolia in September 2018. However, this initial version of the partnership plan doesn't include overall financial needs for climate actions in the country.

Nationally Appropriate Mitigation Action (NAMA): Mongolia had expressed its intention to be listed as agreeing to the Copenhagen Accord (2009) and submitted the list of NAMAs to the UNFCCC secretariat in January 2010. In the list of NAMAs, Mongolia has determined a total of six sectors' 11 actions⁵⁵ will go towards reducing GHG emission which include actions toward to reduce building heat loss, deploy sustainable urban passenger transport systems and combat desertification and reduce emissions in the agriculture sector. This NAMA list is linked to the GCF's eight result areas.⁵⁶ Through the financial support of GEF, full sized "Construction NAMA" project is being implemented 2014-2019 in collaboration with UNEP.

➤ **Snapshot of other climate related initiatives developed at national, sub-national and local level**

Clean Development Mechanism (CDM): Mongolia has five registered projects under the CDM, which finances an Adaptation fund established as a financial instrument under the UNFCCC and the Kyoto protocol. Of these five registered projects, four have issued a total of 699,177 Certified Emission Reductions (CERs), for wind farm, hydro power plants, and retrofit projects in Mongolia.⁵⁷

Joint crediting mechanism (JCM): In 2013, the Governments of Mongolia and Japan signed a bilateral document called "Low Carbon Development Partnership" within the Joint Crediting Mechanism (JCM). The Joint Crediting Mechanism was created by Japan in order to fulfill their ultimate objectives / goals as stated in the UNFCCC. Mongolia became the first signatory country to cooperate with Japan under the JCM. As a result, Mongolia has conducted joint research to improve the efficiency of thermal power plants and study NAMA within the power supply. Mongolia has four registered JCM projects in the energy sector with a total emission reduction of 13,465 tCO₂ per year, which is equivalent to 157 CERs in total

UN-REDD: A National REDD+ Roadmap Taskforce in Mongolia was established in September 2011 and consists of 20 members representing government, private sectors and civil society. The MET coordinates UN-REDD+ activities and thus is responsible for mitigation in the forestry sector. The UN-REDD National Programme for Mongolia was launched in February 2016 with the overall objective: "To

⁵⁵ MONGOLIA'S NATIONALLY APPROPRIATE MITIGATION ACTION (NAMA), MARCC 2014

⁵⁶ NDC, Country outlook Mongolia 2017, page 4

⁵⁷ Mongolia's Initial Biannual Report 2017, page 40

support the Government of Mongolia in designing and implementing its National REDD+ Strategy and in meeting the requirements under the UNFCCC Warsaw Framework to receive REDD+ results-based payments".⁵⁸ Four key elements improved during REDD+ readiness phase. These are: a) National Program and Action Plan for implementing REDD+ is drafted and submitted to Minister of Environment's council, b) Technical capacity for three pillars of MRV function is significantly improved, specifically the NFI information updated for the degraded/low stocked forests, c) Forest Reference Level submitted to the UNFCCC secretariat and gone through technical assessment process and d) Safeguard Information System design proposed by technical working group.

The Global Environment Facility (GEF): Mongolia received a total of US\$32 million grants from the GEF implementing 27 national projects, of which nine were related to climate change projects. The GEF, JCM, United Nations Development Programme (UNDP), Asian Development Bank (ADB), Adaptation Fund, and the German Development Cooperation have a respectable track record in developing and implementing multiple projects on ecosystem-based adaptation and water security, disaster risk reduction, and reduction of emissions from forest degradation and deforestation (REDD+). In the GEF-6, Ensuring Sustainability and Resilience (ENSURE) of Green Landscapes in Mongolia project has been launched in cooperation with UNDP. The project of the GEF-7 allocation is at stage of development and will be focused on the area of Dryland Sustainable Landscapes and Biodiversity Conservation in the Eastern Steppe of Mongolia, intended to be implemented in cooperation with FAO and WWF.

➤ **Snapshot of key national institutional partners active in the climate change field**

The Mongolian National Council for Sustainable Development (NCSD) which was first created in 1994, was reestablished again by the Government Resolution No. 27 in 2017. The council is chaired by Prime Minister with the Finance Minister as the Vice Chair. Members are cabinet ministers and representatives from the Mongolian academy of sciences, the national university, the national environment council, the labor union, the youth union, the national broadcasting organization, the chamber of commerce and the women's association. The National development agency acts as secretary to the council. The council has sub councils.

The mandate to steer climate change related activities is within the Ministry of Environment and Tourism (MET). The National Climate Committee (NCC) led by the Minister for Environment and Tourism is the responsible authority in the government for climate change-related issues. In addition, central authorities responsible for finance, economy, foreign affairs, food, agriculture, industry, mineral resource, energy, transportation, construction, urban planning, health, education, culture and science relations will facilitate the implementation of measures within their own sectoral strategies and development plans. Climate change measures will also be incorporated into the Government Action Plan, the annual Socio-economic Development Plan and the state budget.

The MET's "Climate Change and International Cooperation Department" coordinates the implementation of the commitments and duties under the UNFCCC and the Kyoto Protocol, and oversees integrating climate change-related issues into other development programmes. In 2015, the MET has set up the Climate Change Project Implementing Unit (CCPIU) at the Environment and Climate Fund engaging experienced professionals to facilitate smooth implementation of commitments under UNFCCC. The CCPIU is supervised by the National Focal Point for the UNFCCC.⁵⁹

The Mongolian National Water Council was reestablished by the Government Resolution No.27, 2017. The council is chaired by the Minister for Environment and Tourism. Members are cabinet ministers and representatives from Mongolian academy of sciences, inspection agency, information technology agency, chamber of commerce, national development agency and Red Cross society.

The Mongolian National Council for Combating Disaster Risk was reestablished by the Government Resolution No. 27, 2017. The council is chaired by Prime Minister with the Deputy Prime Minister as the vice chair. Members are state secretaries from line ministries, the Vice Mayor of Ulaanbaatar city and representatives from National Security Council, the inspection agency, the Mongol Water state owned enterprise and the urban water and sanitation council.

Institutions actively involved in climate change and energy policy include National Statistics Office, the Ministry of Energy (MoE), the Ministry of Road and Transport Development (MRTD), the Ministry of Food and Agriculture and Light Industry (MoFALI), the Ministry of Construction and Urban Development

⁵⁸ Mongolia's Initial Biannual Report 2017, page 76

⁵⁹ Mongolia's Initial Biannual Report 2017, page 28

(MCUD), the CDM Bureau, the National Renewable Energy Center, the Ulaanbaatar Municipality, the National Customs Office, the Clean Air Foundation and the National Agency for Meteorology and Environment Monitoring (NAMEM) which monitors the environment and climate, carrying out a range of climate change studies and research. There is a memorandum of understanding between MET and other line ministries to improve the data collection and quality of GHG estimation. Similar arrangements exist between CCPIU and the CDM Bureau, the National Renewable Energy Center, the Ulaanbaatar Municipality, the National Customs Office, the Public Health Institute, the National Health Center, the National University of Medical Science, the Health Inspection Department of State Professional Inspection Agency and local health departments and soum hospitals.

The Mongolian Environmental Civil Council (MECC) is an 'umbrella' organization of environmental NGOs with 22 local branch councils and a membership of about 703 NGOs as of January 2014. Main functions of the MECC is to contributing to the elimination of environmental degradation in Mongolia, to contribute to the survival of future generations of healthy and safe environment, to provide information and support to NGOs and citizens engaged in environmental activities within the government and civil society partners, to actively engage civil society in supporting sustainable development and sustainable development and to work on implementing a comprehensive partnership and strong monitoring.

WWF Mongolia has Climate and Energy incorporated in its Conservation Programme for 2017-2021⁶⁰ as cross-cutting issues at objective level. WWF Mongolia's approach is to promote climate smart integrated landscape conservation approach, which will be linked with climate adaptation measures such as climate smart grassing practice. At same time, integrated water resource management approach will be strengthened with more focus on the implementation of climate change adaptation measures.

- **Snapshot of existing monitoring systems and predictive climate tools (e.g. National Carbon Emissions Register, Vulnerability Index, Disaster Risk Monitoring System)**

Climate observation networks: At present, 135 meteorological stations are operating in Mongolia and carrying out permanent observation in accordance with the standard program of the World Meteorological Organization (WMO). Among them, the forty meteorological stations of the Mongolian observational networks are the reference stations of a synoptic network of the WMO and another 10 stations are included in the list of reference stations of Global Climate Observation System (GCOS). Besides meteorological stations, there are 180 meteorological posts in the center of soums which are the primary administrative unit of Mongolia (totally 330). At the meteorological posts, single observers work and conduct basic meteorological observations (air temperature, pressure, wind, relative humidity and soil surface temperature) at 00, 06 and 12 o'clock GMT. Since 1993, Mongolia began to install Automatic Weather Stations (AWS) in the meteorological observation network and today the network consists of 90-95 AWSs, some of which are combined with human observation and AWS.

Greenhouse gas monitoring: In 1991, Mongolia established a greenhouse gas monitoring station at the Ulaan-Uul site of Erdene soum of Dornogovi aimag. This station was the first Central Asian station to ever be included in the global greenhouse gas observation network of the National Oceanic and Atmospheric Administration (NOAA) of USA. Since 1991 through present day, data on atmospheric greenhouse gas concentrations have been recorded in the Climate Monitoring Diagnosis Laboratory (CMDL) of NOAA in the USA based on data gathered from this monitoring station. The observation data is published and archived in the world greenhouse gas database in Tokyo Centre, Japan.

Surface water monitoring: The surface water monitoring network operates within the National Hydro-meteorological service of Mongolia. Hydrological observations for river and lakes resources and regime started in 1942. At present, 132 hydrological stations are measuring daily water level, discharge, water temperature and also ice thickness and phenomenon. A number of observation stations sample sediment for further analysis. Also, water level and other lake parameters are measured at 18 big and small lakes of Mongolia.

Permafrost monitoring: The first observational borehole for permafrost monitoring was installed in the mid-1950s. In connection with climate warming, a permafrost monitoring network, which consists of 120 sites, was created through Mongolia's national programme on "Water" and through the joint Mongolian-Japanese project implemented at the Institute of Hydrometeorology and the Institute of Geography, with support from some international programmes such as the Global observation network for terrestrial permafrost (Global Terrestrial Network for Permafrost /GTN-P). This permafrost monitoring network

⁶⁰ WWF Mongolia Strategic Plan for FY17 -21, Ulaanbaatar, 2016

conducts circumpolar active layer monitoring of the polar region, thermal state of permafrost etc. The Institute of Geography and the IRIMHE are responsible for monitoring boreholes.

Glacier studies and monitoring: Glacier mass balance observation has been conducted in the Tavanbogd, Tsambagarav, Munkhkhairkhan mountain ranges since 2003 and in Turgen mountain since 2013 with observation data collected on melting and accumulation of glaciers, glacier area and thickness and flow regime of glacier rivers, and climate and weather at glaciers.

Integrated Vulnerability and Risk Assessment of Climate Change: According to the German Watch – a vulnerability and risk assessment organization which has released an assessment of climate risk induced by natural disasters and hazards at the global scale since the 1990s – Mongolia is considered to have one of the highest risks of climate change amongst other countries in the world.

The first concrete vulnerability and risk assessment of climate change (or exposure) and its effects on the environmental and socio-economic sectors of Mongolia was conducted in 2012. The study used a multi-criteria analysis method based on methodology used in the "Risk assessment of climate change" created by the Department for Environment, Food and Rural Affairs (DEFRA) of the Government of the Kingdom of Great Britain and Northern Ireland.

1.3.2 Regional engagement

Mongolia has been engaged in relatively few regional initiatives and activities in the field of climate change. The UNEP/IETC's regional project "Strengthening the capacity of policy makers and practitioners in Bhutan, Mongolia and Nepal to reduce greenhouse gases (GHGs) and short-lived climate pollutants (SLCPs) from the waste sector" is currently under implementation in Mongolia. The project will deliver technical and institutional capacity building activities, which will increase the ability for partner countries to achieve their international GHG mitigation commitments (INDCs) through specific policy improvements. It will also aid in the identification of suitable environmentally sound technologies (ESTs) to mitigate GHGs and SLCPs emissions from the waste sector and the development of bankable project proposals for the demonstration of the identified ESTs.

1.3.3 Access to finance

➤ **Overview of enabling environment and regulatory framework for mobilization and deployment of climate finance resources, including public private partnerships at national level**

Since the GoM does not currently have an integrated climate budget in place, there is a lack of information regarding public expenditure on climate related programmes and budgets. Moreover, rather than developing policy / strategy to access the Official Development Assistance (ODA) in the form of grants or concessional borrowing from Development Finance Institutions (DFIs), or other sources such as new concessional arrangements from global programmes/funds, the government has worsened its fiscal position by off-budget borrowing on commercial terms.⁶¹ External finance in the form of ODA for financing public expenditure has been declining over the last decade. Because of exceptionally high economic growth (the mining boom) leading to the country's upper-middle income status, many development partners significantly reduced ODA disbursements. The total public sector ODA (i.e., concessional loans and grants) as a share of GDP declined from around 8% in 2007 to just above 4% in 2016. The energy and environmental sectors are among the sectors currently receiving low levels of ODA compared to other countries, with grant levels of only US\$370 thousand and US\$2.3 million, respectively, in 2016.

The Sustainable Development Vision 2030 set the current priorities for long-term planning, whereas the government action plan for 2016-2020, which was formulated at the beginning of the current government's term in office, established the programme of actions to be implemented during this political cycle.

There is large fragmentation in the capital budget, and any investments made within the budget are loosely coordinated (these investments are comprised of a number of small projects, and a few large public projects), which compromises the efficacy of public investments. The GoM lacks a climate policy budget, climate budget tags, and an enabling fiscal environment for climate policy across ministries. This is particularly problematic in terms of performance orientation in cross-cutting policies, such as the GoM's environmental and climate change policies. Despite the fact that a number of amended laws are

⁶¹ Development finance assessment for Mongolia, 2018, page 26

in place to serve as guidance, a comprehensive Green Development Strategy and action plan, ambitious policy approved by parliament, and environmental and climate change issues are generally not highly prioritized by sector ministries. Moreover, insufficient costing practices make prioritization of green development targets unlikely, particularly due to the fact that resources are largely constrained. Climate change mitigation and adaptation policies and programmes are not included in the medium-term budget framework and are largely not financially supported. Selection and prioritization of climate change-related actions in the Government action plan are ad-hoc and without central coordination. Furthermore, these actions lack proper policy and cost benefit analysis. Post evaluation data of climate actions remain limited and of poor quality.

The National Development Agency (NDAM) of Mongolia, established in 2016, initiated a process aiming to operationalize and integrate the SDGs relevant to Mongolia at all levels of government. The process aimed to align new and existing policies and development strategies with the SDV and SDGs to enhance data collection and use, to define financing options for the SDV and SDGs, and to pilot mainstreaming of SDGs at the sectoral and sub-national level. Eight working groups were tasked to localize the SDGs within the context of Mongolia's most pressing SDG areas. Each working group was mandated to identify available baseline values, to review existing strategies, and to identify indicator targets.⁶²

➤ **Overview of current access to finance for projects in mitigation and adaptation from both national and international sources across the public and private sector**

Recent climate finance initiatives include the launch of the Mongolia Green Finance Corporation during the Sustainable Finance Forum in September 2017 under the leadership of the Mongolian Bankers Association. In 2017, the Government of Mongolia has also approved the legal framework for establishing a Green Development Fund under the Development Bank of Mongolia.⁶³ The fund will seek investment from national and international organizations as a professional financial management company.

To date, Mongolia has successfully developed four mitigation projects which address various areas of need, including access to capital for the implementation of energy efficient technology, and the building of a renewable energy power plant, amongst others. The GCF has provided an aggregate amount of USD 183.7 million for these four projects. Mongolia has also successfully developed four readiness projects, worth USD 3.9 million, which have contributed to increased country ownership, and improved knowledge amongst interested entities on how to effectively access the GCF. Moreover, Mongolia is actively involved in regional and international initiatives which promote development and target climate finance, which are worth USD 31.5 million. Mongolia also actively seeks to contribute to funding for renewable energy projects in order to increase energy access and economic opportunities.

For further detail on the institutional arrangement of international organizations, please refer to section 2.1 "Institutional arrangements" for an overview of national climate change engagements with other key international partners or UNFCCC mechanism partners.

A list of completed, ongoing and planned climate change-related projects with support of international development organizations and financial institutions is available in the records or database of the MET.⁶⁴

1.4 Gaps and opportunities

➤ **Referring to the issues and priorities identified in sections 1.1 and 1.2 as well as the responses outlined in sub-sections 1.3.1 to 1.3.3, summarize identified gaps, weaknesses and opportunities in terms of:**
Institutional strengthening and existing policy framework

As a result of the climate change policy gap analysis, the following policy framework and institutional barriers affect Mongolia's climate change response:

⁶² Development finance assessment for Mongolia, 2018, page 48;

⁶³ NDC, Country outlook Mongolia 2017, page 5

⁶⁴ http://www.mne.mn/?page_id=570

Enabling environment: Limited analysis of trade-offs and synergies between various policy objectives and targets has been conducted.⁶⁵ A policy coherence assessment would be useful to ensure coherence towards climate change policy objectives. A preliminary review of the Governments Action plan 2016-2020, with a focus on the SDV 2030 and NAPCC, indicates limited reflection on objectives related to the environment – such as those on clean energy, water and sanitation, and climate change action – as well as those related to economic diversification – such as those on science and innovation.

The Government continues to make a concentrated effort to pilot the mainstreaming of SDGs at the sectoral and sub-national level through appropriate development plans. The preliminary mapping conducted by working groups mandated by the NDA to identify available baseline values, to review existing sector strategies, and to identify indicator targets, resulted in the identification of data gaps. Progress made towards achieving the SDGs is measured using 224 global indicators; 233 of these indicators are relevant to the current situation in Mongolia. As of March 2018, 58% of these 233 global indicators had been reached/attained, demonstrating Mongolia's concentrated dedication to working towards the fulfillment of the SDGs.

In terms of creating an FDI enabling environment, Mongolia has made impressive progress on the legal and regulatory side, despite deficiencies in implementation of a regulatory framework. Mongolia is rated relatively high on international comparison indicators.

Coordination: Mongolia is characterized by fragmented national mandates on climate change. While the coordination of climate change responses lies with the MET, other sector ministries (i.e., Ministry of Finance) and the National Development Agency do not sufficiently coordinate their climate change interventions and their responses may be perceived as insufficient. Climate change-related programmes and projects currently under implementation at various organizations often lack central coordination, leading to budget inefficiencies.

Budget: Due to staff shortages and high turnover among technical staff and leadership in government ministries and agencies, earlier efforts to develop performance-oriented capacities and culture have not always been sustained. Parliamentary sessions tend to focus on line items and outputs, rather than programme allocations and outcomes, hence distorting the performance focus and allocation efficiency in public spending. This is particularly distortive in terms of performance orientation in cross-cutting and long-term policies, such as the GoM's environment and climate policies. Despite the fact that a number of amended laws are in place to serve as guidance for the creation of a comprehensive Green Development Strategy and action plan, ambitious policy approved by parliament, and environmental and climate change issues are generally not highly prioritized by sector ministries. Moreover, insufficient costing practices make prioritization of green development targets unlikely, particularly in the current situation, where Mongolia faces a large number of constrained resources. This results in uncertainty regarding the possibility of achieving both sector goals and cross-cutting policy targets.

Information/Transparency/Governance: Mongolia is characterized by weak public awareness, weak enforcement, and inefficient monitoring and evaluation (M&E) of accountability and transparency. The involvement of the third party business and private sector parties (e.g., XacBank), civil organizations and NGOs in all phases of climate change activities (including their presence in Mongolia's Country Coordination Group advising the NDA and in management of readiness support projects) should be enabled and maintained in the future. Furthermore, their capacity for strong Monitoring, Reporting and Verification (MRV) and accountability in the framework of GCF investment activities in Mongolia should be strengthened. Conflicts of interest and exclusive dominance of a few public organizations and international development institutions in GCF-related investment decisions should be limited in order to pave the way for broader stakeholder representation serving the interests of Mongolian society.

Supply side: Even if a number of highly skilled public sector experts were available, a lack of technically skilled experts at ministries continues to be a problem. Policy formulation and related modeling and economic analysis skills for climate change-responsive action planning should be further integrated with, and disseminated across, government and non-state actors. The quality of costing models varies. Sometimes, these costing models are too simple to provide reliable information for decision making. In combination with often over-optimistic policy targets, this implies that line ministries' over-ambitious resource envelopes are spread too broadly over a large number of projects, without adequate consideration of trade-offs and cost efficiency. This problem is amplified in election years, when politicians increase expenditures and fail to abide by the rules of the Fiscal Stability Law.

There is a lack of awareness or application of science-based (including methods such as Strategic Environmental Assessment, Environmental Impact Assessment, Cost-Benefit Analysis, Ecosystem

⁶⁵ Development Finance Assessment for Mongolia, 2018, page 45

valuation, etc.) methods and information for decision making on climate change-based issues. There is also limited empowerment or ability by the public to monitor accountability, international commitments, decision makers, and the integration of sustainable approaches in organizational services.⁶⁶

Demand side: There is a lack of appropriate information in the community about opportunities, tools, incentives and means for adaptation and resilience⁶⁷ coupled with limited capacities to develop bankable proposals.

➤ **Financing needs across mitigation and adaptation**

Mongolia needs to align its medium-term expenditure and fiscal framework to its climate policy objectives and targets. Climate budgets need to become an integral part of the national budget as a potential source of climate finance. This requires the mainstreaming of climate change actions into the budget cycle, including budget formulation, allocation, and performance monitoring. Tools such as climate budget tagging (adding climate change marker in budget system), expenditure reporting, and revising planning templates (i.e., reform of budget call circulars) for public investments can serve to reprioritize allocation via i.e. climate programme budgets and climate funds. Mongolia might revise its existing budget regulations to integrate green growth, climate change action, and disaster risk reduction into the public investment planning and budgeting at sub-national level as part of its NDC strategy implementation.

Furthermore, to address the gap between policy planning and budgeting, there is a need for development of an integrated national financing framework identifying potential mechanisms and financing options, including private sector financing, for implementation of the 2030 Agenda and national policies.⁶⁸ The lack of access to finance on concessional terms (against commercial bank credits with interest rate of around 20% per year) is the most difficult obstacle to overcome for SMEs. Other than the GoM's Credit Guarantee Fund to improve access to credit for SMEs and European Bank for Reconstruction and Development (EBRD), USAID, and ADB's programmes to support credit guarantee systems for economic diversification and employment, there have been few private sector venture funds and programmes backed by concessional donor funding, risk capital, or credit guarantee schemes.

The needs for financing to implement adaptation and mitigation measures and to introduce climate-friendly technologies and to build capacities at all levels were reflected in the INDC⁶⁹ as well as in the Government action plan for 2016-2020,⁷⁰ which are summarized in table 6. Based on the comparison of INDC funding needs and the climate change action budget from GoM's action programme for 2016-2020, urban development, agriculture, pasture management and water resources have been identified as sectors with large funding gaps, followed by clean energy production.

Table 4. Needs for financing to implementing INDC mitigation and adaptation actions.

Financial needs, technology transfer and capacity building		Financing needs 2015-2030	GoM Action Plan 2016-2020
		US\$ Mn	US\$ Mn
MITIGATION	Construction and Urban Development		
	Improved insulation of 300 existing panel apartment buildings in Ulaanbaatar	90	6.7
	Energy		
	Clean Air Fund		12.5
	Installation of 675 MW capacity large hydro power facilities	1350	
	Installation of 354 MW wind power facilities	584	
	Installation of 145 MW solar PV power facilities	573	
	Improved efficiency of coal fired power plants.	900	
ADAPTATION	Animal husbandry and pastures Reduce pasture degradation		
	To implement sustainable pasture management (Regulations, community participation, early warning system for drought and dzuds, livestock health)	46	9.63
	Arable farming		

⁶⁶ UNDAF, 2017-2021, GAP Analysis, page 26

⁶⁷ UNDAF, 2017-2021, GAP Analysis, page 26

⁶⁸ UNDAF, 2017-2021, page 23

⁶⁹ http://www4.unfccc.int/submissions/INDC/Published%20Documents/Mongolia/1/150924_INDCs%20of%20Mongolia.pdf

⁷⁰ http://www.mfa.gov.mn/wp-content/uploads/2015/06/2016-2020_Gov_AP_Eng_Revised.pdf

Reduce bare fallow to 30%, introduce crop rotation system (3-4 routes, 3-5 crops), expand irrigated cropland by 2.5 times	150	26.8
Water resources		
Protection of water runoff formation zones and ecosystems (30% of territory state protected by 2030); Integrated water resource management; HR capacity; Hydrological monitoring and construction of water diversion canals;	5	
To create water reservoirs at rivers and at outlets of lakes, and to construct multipurpose systems of water use	1800	
To find solutions (and subsequently implement) for sustainable water supply in Ulaanbaatar and for industries and mining in the Gobi region	605	
Forest resource		
Forest area will be increased to 9% by 2030 through reforestation activities (capacity development, technology)	11	18.5
To reduce forest degradation rate (monitoring stations, biological technologies);	13	
To improve effectiveness of forest management (forest cleaning, capacity development, technologies)	7	3.3
Waste treatment		156
Natural disaster management		
To enhance and improve early warning and prevention systems for natural disasters	65.4	117
Other (Mitigation, Adaptation, Crosscutting, Green economy)		33.9
Total	6199.4	384.33

	High priority for GCF investment	Construction and Urban Development, Animal husbandry, Pasture management, Water resources
	Middle priority for GCF investment	Clean energy
	Low priority for GCF investment	Forest resource, Disaster management

➤ **Capacity needs of existing actors across public and private sector**

Line ministries need to develop operational level capacities to design, finance and plan the implementation of specific mitigation and adaptation projects and programmes in line with regular development planning. For that purpose, strengthening fiscal rules and regulations reflecting climate change response should be integral in awareness building and advocacy towards reducing conflict between climate change response and other development agendas.

Sectoral ministries remain understaffed and with limited capacity to perform market analysis, project appraisal, cost-benefit analysis, and bankable funding proposals. Economic incentives and civil service corruption throughout the public sector make it difficult to attract the best talent and expertise. Government institutions need adequate staffing capacity to select viable projects for private sector participation, to develop reliable project documentation and mechanisms for sharing risks that provide private investors with adequate security, to manage contractual arrangements, and to support line ministries (i.e., the Ministry of Energy and Ministry of Transport) as they work to develop and implement their own Public-Private Partnership (PPP) projects.⁷¹ All these issues should be addressed during the implementation of consecutive readiness projects for capacity building.

Despite a conducive regulatory and policy framework such as General Administrative Procedures, the Law on Public Hearing, and Development Policy and Planning regulations requiring public consultations, the GoM faces challenges in implementing dialogue mechanisms. Though a large number of tripartite bodies over the last decade have been formed across industries, most of the initiatives have not worked due to lack of support from relevant line-ministries that have taken over the chairmanship of most sector councils, applying them as instruments to promote government policies rather than dialogue mechanisms. Currently, the private sector and civil society are only consulted on an ad-hoc basis. Therefore, strengthening the engagement of financial institutions, CSOs and the

⁷¹ Development Finance Assessment for Mongolia, 2018, page 43

private sector in decision making processes and the implementation of climate change response measures will become an important priority in the future.⁷²

➤ **Technology needs**

The first Mongolian technology needs assessments for adaptation and mitigation was conducted in 2013.⁷³ These studies assessed technologies for adaptation and mitigation including hardware, software and orgware technologies. The list of potentially useful technologies within the above mentioned three groups were selected based on each technology's potential vulnerability and impact by taking into account the rate of their ability to mitigate the effects of climate change and their usefulness regarding the specific features of the country. However, it is necessary to update the assessment using more advanced technologies and new possibilities and approaches.

2. COUNTRY AGENDA AND GCF ENGAGEMENT

Section 2 is intended to provide a summary of national plans in view of GCF operational modalities and investment criteria.

2.1. Institutional arrangements

➤ **Overview of strategic role and positioning of the NDA within the national legal and planning structure and institutional set up. (seek to include an update on status of the P&I process)**

Please refer to section “1.3.1. National Frameworks” for more information on the role of the Ministry of Environment and Tourism (MET) in the climate change policy settings.

To make the national development vision effective, the Mongolian National Council for Sustainable Development (NCSD) was made operational again by Government Resolution No. 27, 2017. The Prime Minister chairs the council and the vice chair is the Finance Minister. Members consist of cabinet ministers and representatives of research, business and civil society organizations. The National Development Agency (NDAM), established in 2016, acts as secretary of the Council. The NDAM was also given the mandate to conduct assessments on national policy document coherence with “Mongolia sustainable development vision - 2030” as well as with global SDG's, and to streamline planning objectives at central and local levels with National Development Goals.⁷⁴ The MET, responsible for climate change, is working closely with the National Development Agency to revise and update the National Action Programme on Climate Change (NAPCC).

One of the result indicators from “Mongolia's Sustainable Development Vision - 2030” relevant for climate change is the Global Green Economy Index (goal by 2030: “to preserve ecological balances and to be placed among first 30 countries by Global Green Economic Index”). The Global green economic index⁷⁵ is utilized to rank countries' green economy, which is assessed through 24 performance indices within four categories: leadership and climate change, sector efficiency, markets and investment, and environment and natural capital. The Environmental category is defined by the “Environmental Performance index” (EPI), which includes indicators for climate and energy.

The “Law on Development Policy and Planning” was approved in 2015. The law sets basic principles and procedures on planning, implementation, and M&E of development policies at national and local levels as an integrated development policy planning system.

Planning and budgeting institutions such as the MoF, the National Development Agency, and line ministries at the central level and governor's offices (capital city and provinces), Protected Areas Administrations, River Basin Management Authorities, and Hydro-meteorological Departments of provinces play an important role in planning, budget allocation and implementation of climate change related actions.

➤ **Overview of national climate change engagements with other key international partners or UNFCCC mechanism partners, such as GEF, Adaptation Fund (AF), Climate Technology Center and Network (CTCN).**

Table 5. Relationships with international partners (selected main activities)

⁷² Development Finance Assessment for Mongolia, 2018, page 59

⁷³ Technology Needs Assessments, 2013: Volume 1: Adaptation; Volume 2: Mitigation;
<http://www.tech-action.org/Participating-Countries/Phase-1-Asia-and-CIS/Mongolia>

⁷⁴ Development Finance Assessment for Mongolia, 2018, page 52

⁷⁵ <http://dualcitizeninc.com/global-green-economy-index/economic-environmental-indicators.php?id=3>

Entity/Partner Name	Area/s of focus	Engagement in country	Efforts to strengthen engagement with GCF
IFAD	Livestock Sector Adaptation Project	To increase the resilience of Mongolian livestock sector to changing climatic conditions by strengthening the adaptive capacity as well as the capacity of herder's groups to cope with climate change impact	Mainstream GCF funding consideration into planning
UN Country Team (UNCT) ⁷⁶ in Mongolia	Inclusive growth and sustainable management of natural resources; Enhancing social protection and utilization of quality and equitable social services; and Fostering voice and strengthening accountability	People-based climate change adaptation and mitigation approaches tailored to the Mongolian context; Protection of ecosystem services; and Equipping communities to reduce disaster risks	UNDP, UNEP and FAO are keen to help Mongolia access climate funds with project development and management
GIZ	Support for sustainable mineral resource management, Biodiversity, and Energy efficiency	Introducing strategies in Mongolian forestry sector for conservation and sustainable use of forest ecosystems and their biodiversity; and Policy framework to support energy efficiency among both suppliers and consumers in place	Technical assistance and financial support
ADB ⁷⁷	Promoting economic and social stability; Developing infrastructure for economic diversification; and Strengthening environmental sustainability	Promote sustainable natural resource management; Broaden climate change response to support the GoM's compliance with COP21 targets and promote renewable energy; and Build capacity on disaster risk management to improve disaster preparedness mechanisms and climate change adaptation	ADB is keen to help Mongolia access climate funds with finance, project development and management
World Bank ⁷⁸	Regulatory environment, institutional capacity building, investment climate and financial intermediation, infrastructure for mining sector, rural economy, social protection system and basic services, natural hazards and pollution	Enhance Mongolia's capacity to manage mining economy sustainably and transparently; Build a sustained and diversified basis for economic growth in urban and rural areas; Address vulnerabilities through improved access to service and better service delivery, safety net provision and improved disaster risk management; and Improve energy sector efficiency, upscale renewable energy production & strengthen fiscal and financial stability ⁷⁹	Credit, project development and management
Global Green Growth Institute	Green public transport; GHG emission inventory; Energy sector policy formulation	Development of policies for green public transport in Mongolia; Strengthening GHG inventory system	Technical assistance
EBRD ⁸⁰	Economic diversification, sustainable growth, responsible mining, infrastructure, private sector development	Strengthening the competitiveness of non-extractive sector and easing access to finance; Leveraging a well-governed mining sector to enhance sustainability and maximize value creation; and Improving the quality and sustainability of infrastructure services through increased efficiency, commercialization and "green" solution	Credit; Investment; Financial and technical support
JICA ⁸¹	Sound macroeconomic management and strong governance; Environmentally friendly and balanced economic development; Realization of inclusive society and Establishment of sustainable GHG inventory system;	Improving public financial management and promoting the vital market economy; Promoting industry diversification and enhancing strategic planning of regional development; Developing high quality infrastructure to underpin development and creating an environment friendly safe city; Achieving healthcare standards and improving basic social services;	Technical and financial support

⁷⁶ <https://www.unicef.org/about/execboard/files/UNDAF-Mongolia.pdf>

⁷⁷ <https://www.adb.org/documents/mongolia-country-partnership-strategy-2017-2020>

⁷⁸ World Bank Group, Country Partnership Strategy for Mongolia for the period FY2013 - 2017

⁷⁹ Mongolia and World Bank Group, brochure, 2017

⁸⁰ Strategy for Mongolia, 2017

⁸¹ <https://www.jica.go.jp/mongolia/english/index.html>

Entity/Partner Name	Area/s of focus	Engagement in country	Efforts to strengthen engagement with GCF
		Promoting social participation and inclusion of people with disabilities To facilitate the establishment of a sustainable national system on GHG inventory to periodically prepare GHG inventories with improved data reliability, accuracy and consistency;	
WWF Mongolia through WWF US	Freshwater, forest wildlife, Climate change and energy;	Climate and Energy ⁸² as cross-cutting issues with major focus on climate smart grassing practice and climate change adaptation measures through integrated water resource management approach	Technical support
GEF	Climate change adaptation and mitigation; and NAMA in the Construction Sector in Mongolia	To facilitate market transformation for energy efficiency in the construction sector through the development and implementation of NAMA	Financial support for environmental projects
CTCN	Technology needs assessment for climate change	To identify and determine the mitigation and adaptation technology priorities of Mongolia	Technical support
Adaptation Fund	Adaptation, Water	To implement Ecosystem-based adaptation measures in selected river basins of Mongolia ⁸³	Financial support for adaptation projects
KfW	Protected area management	Key bilateral partner of government, currently supporting Phase 1 national "Biodiversity and climate change programme" project to strengthen protected area management in the Northern provinces. Phase 2 (up scaling to the rest of the country) is starting from beginning of 2019	Potentially can be engaged in the forthcoming projects
Swiss Agency for Development and Cooperation	Pasture/land management and desertification	They will be a key partner and will share their successes, lessons learned, and best practices, especially in sustainable pasture management including improvement of livelihoods of the local people	Potentially can be engaged in the forthcoming projects
The Nature Conservancy	eco-regional assessments	They will be a key partner and will share their successes, lessons learned, and best practices, especially in designing of environmentally friendly development planning	Potentially can be engaged in the forthcoming projects
Wildlife Conservation Society	biodiversity monitoring and conservation of large mammals (particularly wild ass) in the Southern Gobi linked to the mining project	They will be a key partner and will share their successes, lessons learned, and best practices, especially in community based nature resource management including sustainable cashmere management	Potentially can be engaged in the forthcoming projects
Korea International Cooperation Agency KOICA	Tree planting	They will be a key partner and will share their successes, lessons learned, and best practices. KOICA experience working with the national "Green Wall" program will contribute to the soil conservation and land restoration through establishment of forest strip and forestation.	Potentially can be engaged in the forthcoming projects

➤ **Overview of existing national coordination mechanisms for multilateral and bilateral funding at national level**

Despite a growing economy boosted by the rapid development of the mining industry, well-defined and targeted development assistance from donor countries is still expected to play a crucial role in the long run as a complementary mechanism for sustainable development of Mongolia. The Ministry of Finance (MoF) has an overall mandate to coordinate all multilateral and bilateral funding at the national level within the national framework, as well as bilateral cooperation agreements and country assistance programmes of multi-lateral donor agencies. Within the MoF, the Division for Credit and Aid Policy of the Department for Development Financing is directly responsible for the Government's consolidated credit and aid management, cooperation with multi- and bi-lateral institutions, co-financing and database, monitoring credit and aid projects, and programmes of multi- and bilateral financial institutions.

⁸² WWF Mongolia Strategic Plan for FY17 -21, Ulaanbaatar, 2016

⁸³ AF/UNDP/MET project for Ecosystem-based adaptation in vulnerable river basins

During the last decade, Mongolia made substantial progress towards improving the legal environment for governmental aid and loan policy and management. The law on the stabilization of public budget was adopted in 2010; this law set the government's debt limits.⁸⁴ The law on public budget was updated in 2011; this law defined the government's debt as an integral part of public budget.⁸⁵ The law on debt management was adopted in 2015; this law regulates the government's debt policy by setting criteria for projects financed by public debt.⁸⁶ The regulation on receiving and extending, management, registration, and reporting of international loan and aid was adopted by Governmental order Nr. 176, in 2016. The Law on Development Policy and Planning of Mongolia (2016)⁸⁷ aimed to ensure consistency and coherence of development policy documents at national, local and sector levels.

2.2. Roles and contributions of key stakeholders

➤ Overview of key national institutional partners or private sector groups that are active in driving climate action

Government ministries and agencies, research institutions, and NGOs are key national stakeholders in driving climate action. Mongolia's private sector can play an important role for both adaptation and mitigation measures. However, their engagement and direct investment in climate change projects remains weak. Several private companies are implementing small size projects, mainly in the field of renewable energy, to generate electricity using wind and solar energy resources. Some of them are also involved in JCM projects through joint ventures with Japanese companies.

Moreover, stakeholders such as the Chamber of Commerce and Industry, Trade Unions, industrial associations or other interest and lobbying groups including environmental and gender NGOs engage with the government in a silo manner, rather than joining efforts to keep the government accountable. The national coordination mechanism for climate change-related activities is crucial to achieving the goals and targets of climate change adaptation and mitigation policy. One of important steps of improving the coordination mechanism for climate change issues is a multi-stakeholder consultation process to engage all stakeholders in climate change policy dialogue and actions.

Mongolia has progressed within the NDC Partnership and has appointed designated focal points within the MET and the Environment and Climate Fund. The NDC Partnership will be moving forward in the coming months to design and implement a Partnership Plan. The first phase of the plan has been approved by the MET. The plan will aim to address Mongolia's most immediate needs when it comes to building a low-carbon and climate resilient country. The NDC Partnership works to facilitate and coordinate effective technical and financial assistance in order to empower those with climate ambition through means like knowledge products (climate watch) and technical assistance. Mongolia could use the resources of the Partnership to deliver a technical and collaborative dialogue on how best to improve coordination within new governance structures.⁸⁸

Under the activities of the NDC Partnership, Mongolia is developing an Online NDC Coordination Platform to improve coordination of activities carried out by implementation and development partners, as well as national stakeholders to implement NDC goals and targets and to track financial flows. Key stakeholder groups include government institutions, accredited DAEs, relevant GCF IAEs, provinces, CSOs, development partners, business associations, universities, research institutes, private companies, experts/consultants, and media. They can be involved in decision-making and technical advisory bodies.

➤ Overview of key stakeholder groups and consultations carried out with regards to determining climate priorities for the country and GCF engagement (The NDA/focal point may summarise the key stakeholders that have a role to play in developing and executing the country programme, highlighting key roles for line ministries (including the Ministry of Women's Affairs, Ministry of Minority Affairs or their equivalent), local government, private sector, civil society (including women – led organizations, representatives from indigenous peoples' groups where applicable, faith – based organizations, and international organizations)

The development of this document involved a multi-stakeholder process and consultations with key public bodies. The Ministry of Finance, Ministry of Energy, Ministry of Food, Agriculture and Light Industry, Ministry of Construction and Urban Development, Ministry of Road and Transport Development have all been involved in the drafting and finalization of the country programme. The

⁸⁴ Law on Public budget stabilization, 6.1.4 and 19.3

⁸⁵ Public budget law, 6.4 and 23.3

⁸⁶ Law on debt management, 18.6

⁸⁷ <http://www.legalinfo.mn/law/details/11484>

⁸⁸ NDC country outlook Mongolia 2015, page 6;

development of this programme involved extensive consultation with researchers, NGOs, business associations and gender representative organizations.

Table 6. Overview of consultation processes

Stakeholder group	Date	Type or objective of consultation	Outcome
Multistakeholder Inception workshop	12/03/2018	To introduce the stakeholders about GCF funding opportunities and ongoing Readiness Support Project, its expected outputs including e.g. Country Programme (CP), and No objection and stakeholder engagement procedures.	The stakeholders including Government and International organizations, CSOs, NGOs and INGOs and private sectors got informed about GCF modalities, CP process and related opportunities
Meeting with private energy companies	15/03/2018	To inform on GCF funded activities in Mongolia; and To identify potential climate change mitigation projects of energy sector	GCF funded activities in Mongolia informed; and Potential climate change mitigation projects identified
Meeting with Mongolian National University of Science and Technology	24/03/2018	To inform on GCF funded activities in Mongolia; and To identify potential climate change mitigation and adaptation projects in the business sector	GCF funded activities in Mongolia informed; and Potential climate change mitigation projects identified
Ministry of Road and Transportation	09/04/2018	To inform on GCF funded activities in Mongolia; and To identify potential climate change mitigation projects in the sector	GCF funded activities in Mongolia informed; and Potential climate change mitigation projects identified
Ministry of Urban Development and Construction	10/04/2018	To inform on GCF funded activities in Mongolia; and To identify potential climate change mitigation projects in the sector	GCF funded activities in Mongolia informed; and Potential climate change mitigation projects identified
The Ministry of Environment and Tourism	27/04/2018	To introduce about GCF funding opportunities and ongoing Readiness Support and its expected outputs, and identify potential adaptation and mitigation ideas	GCF funding opportunities and ongoing Readiness Support and its expected outputs introduced; and Potential project ideas discussed
International Organizations (ADB, WB, UNDP, GIZ, JICA, KfW, AFO)	08/05/2018	To introduce about GCF funding opportunities and ongoing Readiness Support and its expected outputs, and collect potential adaptation and mitigation ideas	GCF funding opportunities and ongoing Readiness Support and its expected outputs introduced; and Potential project ideas discussed
Ministry of Road and Transportation	09/05/2018	To inform on GCF funded activities in Mongolia; and To identify potential climate change mitigation projects of the sector	GCF funded activities in Mongolia informed; and Potential climate change mitigation projects identified
Gender responsible representatives from Government, CSOs and NGOs	14/05/2018	To introduce about GCF funding opportunities and ongoing Readiness Support and its expected outputs, and collect potential adaptation and mitigation ideas	GCF funding opportunities and ongoing Readiness Support and its expected outputs introduced; and Potential project ideas discussed
National Development Agency of Mongolia	15/05/2018	To inform on GCF funded activities in Mongolia; and To identify potential climate change mitigation and adaptation projects	GCF funded activities in Mongolia informed; and Potential climate change mitigation projects identified
National Chamber on Commerce and Industry	15/05/2018	To inform on GCF funded activities in Mongolia; and To identify potential climate change mitigation and adaptation projects in the business sector	GCF funded activities in Mongolia informed; and Potential climate change mitigation projects identified
Ulaanbaatar city's mayor's office	18/05/2018	To inform on GCF funded activities in Mongolia; and To identify potential climate change mitigation and adaptation projects in the business sector	GCF funded activities in Mongolia informed; and Potential climate change mitigation projects identified
Meeting with CSOs, Research Institutions, NGOs and INGOs,	18/05/2018	To introduce about GCF funding opportunities and ongoing Readiness Support and its expected outputs, and collect potential adaptation and mitigation ideas	GCF funding opportunities and ongoing Readiness Support and its expected outputs introduced; and Potential project ideas discussed
Ministry of Energy	19/05/2018	To inform on GCF funded activities in Mongolia; and	GCF funded activities in Mongolia informed; and

Stakeholder group	Date	Type or objective of consultation	Outcome
		To identify potential climate change mitigation and adaptation projects in the business sector	Potential climate change mitigation projects identified
Ministry of Health	21/05/2018	To introduce about GCF funding opportunities and ongoing Readiness Support and its expected outputs, and collect potential adaptation and mitigation ideas	GCF funding opportunities and ongoing Readiness Support and its expected outputs introduced; and Potential project ideas discussed
Meeting with WWF and Wildlife Conservation Society (WCS)	25/05/2018	To introduce about GCF funding opportunities and ongoing Readiness Support and its expected outputs, and collect potential adaptation and mitigation ideas	GCF funding opportunities and ongoing Readiness Support and its expected outputs introduced; and Potential project ideas discussed
Information and Research institute of Meteorology, Hydrology and Environment	25/05/2018	To introduce about GCF funding opportunities and ongoing Readiness Support and its expected outputs, and collect potential adaptation and mitigation ideas	GCF funding opportunities and ongoing Readiness Support and its expected outputs introduced; and Potential project ideas discussed
National Agency for Meteorology and Environment Monitoring	26/05/2018	To introduce about GCF funding opportunities and ongoing Readiness Support and its expected outputs, and collect potential adaptation and mitigation ideas	GCF funding opportunities and ongoing Readiness Support and its expected outputs introduced; and Potential project ideas discussed
Private business organizations (energy, construction, waste);	05/06/2018	To inform on GCF funded activities in Mongolia; To identify potential climate change mitigation and adaptation projects in the business sector;	GCF funded activities in Mongolia informed; and Potential climate change mitigation projects identified
Multistakeholder Consultative Workshop	07/06/2018	To introduce and discuss the initial proposals developed within the scope of ongoing GCF Readiness Project including No Objection Procedure, Stakeholder Coordination Mechanism, collected project ideas for CP pipeline.	Participating stakeholders got introduced the initial drafts of GCF Readiness Project and comments and recommendations provided.
Ministry of Food, Agriculture and Light Industry	08/06/2018	To introduce about GCF funding opportunities and ongoing Readiness Support and its expected outputs, and collect potential adaptation and mitigation ideas	GCF funding opportunities and ongoing Readiness Support and its expected outputs introduced; and Potential project ideas discussed
Ministry of Environment and Tourism	24/08/2018	To provide the status of ongoing Readiness progress and introduce draft outputs such as development of CP and No Objection letters etc .	Status of the ongoing project informed and draft products introduced
Validation workshop	13/09/2018	To introduce and discuss Country program of Mongolia to GCF and NDA operational manual	Received the the feedback from the multistakeholders and reflected them in the Country Programme and Operational manual

2.3. Identification of country priorities for the GCF

Summarize the process of distilling these priorities into projects and programmes that are consistent with GCF policies, principles and access modalities. Some questions to be addressed in defining these priorities:

National climate change related priorities and high-priority projects and programmes have been identified based on qualitative climate change policy analysis, including the following: funding needs, assessments of climate change impacts on biophysical environment, social and economic sectors, and the results of GHG inventories and GHG mitigation potential. In addition, national climate change response policies, actions, goals and targets were assessed, providing the legal and policy background for prioritization. Another important step in prioritization of actions was the consultation of stakeholders.

Priority areas for mitigation are mainly the energy and agriculture sectors. Within these sectors, there is an especially large need for technology assessments within the context of economic feasibility and paradigm shift. The country programme includes a holistic approach to prioritization of adaptation areas, as it attempts to address vulnerabilities across sectors.

PRIORITY AREAS FOR MITIGATION:

- Energy efficient buildings, cities and industries: construction, urban and industrial development;

- Low-emission energy access and power generation, both in urban and rural areas;
- GHG emissions from livestock;
- Afforestation, forest conservation & management.

PRIORITY AREAS FOR ADAPTATION:

- Sustainable land use: animal husbandry, pasture management;
- Water and food security, health: water resources management, irrigation, food production, addressing expected health impacts;
- Reduction of adverse impacts on economic sectors, supply chains and infrastructure;
- Reduction of adverse impacts on most vulnerable people and communities, including livelihoods diversification, adapted supply chains and energy access of nomads and migrants;
- Ecosystem and ecosystem services: ecosystem conservation and management.

Is there early alignment with GCF's fund level strategic impacts across mitigation and adaptation?⁸⁹

Above mentioned priority areas can be aligned to the GCF's result areas as follows:

Table 7. GCF impact areas considered in prioritization of activities in the country

Country priorities for the GCF:		GCF Result Areas:	
MITIGATION	Energy efficient buildings, cities and industries	MITIGATION - Reduced emissions from: 1. Energy access and power generation 2. Transport 3. Buildings, cities and industries and appliances 4. Sustainable land use and Forest management ADAPTATION - Increased resilience of: 5. Most vulnerable people and communities 6. Health and well-being, and food and water security 7. Infrastructure and built environment 8. Ecosystem and ecosystem services	
	Low-emission energy access & power generation		
	Low-emissions from livestock		
	Afforestation, forest conservation & management		
ADAPTATION	Sustainable land use		
	Water and food security, health		
	Reduction of adverse impacts on economic sectors, supply chains and infrastructure		
	Most vulnerable people and communities		
	Ecosystem and ecosystem services		

For most of the proposed projects and programmes included in the project pipeline, identified priority areas were aligned with both the GCF's result areas and other elements of the GCF's investment and performance management framework during a GCF Concept Note development workshop held in June 2018. As one can see from the table above, many of the prioritized proposed interventions have a cross-cutting nature or address several GCF result areas.

Is there alignment with the investment criteria (impact potential, paradigm shift potential, sustainable development potential, needs of the recipient, country ownership and efficiency and effectiveness)⁹⁰

Mongolia already has four approved GCF projects for which the investment criteria alignment has been considered satisfactory. While identifying and prioritizing additional new projects and programmes proposed to be financed and co-financed by GCF resources, investment criteria alignment has already been considered to a large degree, since these proposals have been developed and discussed during two series of GCF Concept Note development trainings held in June and September 2018. It can be expected that the respective accredited entity will further develop the draft Concept Notes and eventually, the corresponding Funding Proposals, while considering the alignment of investment criteria throughout the process.

- **What are the benefits of GCF intervention?**

Despite the GoM's continued effort and dedication to fulfill its climate change objectives by allocating 3.5% of its budget for the 2016-2020 period to combating climate change actions, the benefits of GCF intervention include the following:

⁸⁹ The 8 GCF Fund level strategic impacts are listed on the GCF website, Detailed information is provided in the mitigation and adaptation performance measurement framework, found [here](#).

⁹⁰ Initial guidelines on the investment criteria are provided in the GCF Investment Framework provided [here](#) with detailed activity-specific sub-criteria and indicative assessment factors further defined [here](#).

- Filling the funding gap of climate change-related policy implementation
- Contributing to the shift to a low-emission sustainable development pathway
- Contributing to increased climate-resilient sustainable development, innovation, scalability and ability to be replicated
- Contributing to the creation of an enabling environment
- Improving the potential for strengthened regulatory frameworks and policies to drive investment in low-emission technologies with social co-benefits, economic co-benefits and environmental co-benefits
- Strengthening institutions and implementation capacity and the capacity of accredited entities or executing entities to deliver improved engagement with civil society organizations and other relevant stakeholders

The GCF's ability to aid Mongolia is not limited to the above listed activities, but these areas stick out as major opportunities for collaboration with the GCF. It is the intention to develop and eventually submit funding proposals that are fully aligned with the GCF investment framework and other relevant policies and requirements, overall contributing significantly to the objectives of the Fund.

- **Have gender and social dimensions been adequately considered while setting these priorities?**

Funding proposals and newly developed concept notes in the project pipeline of the present Country Programme have all aimed to reduce gender inequalities in connection with climate change impacts. These proposals and concept notes have also encouraged equal participation by gender groups in contributing to expected outcomes. Projects and programmes to be funded by the GCF will reflect the GoM's gender-related policies and address the needs of women and men in order to correct prevailing inequalities in climate change vulnerability.

- **Have other financing options been explored? Are financing needs commensurate to the country's needs?**

Mongolia seeks to fund its climate change mitigation, adaptation, and cross cutting measures through a variety of means including government funds, international sources, and private investments. Lower-cost measures that can be used as part of mitigation, adaptation and cross-cutting response include institutional capacity building of public and non-government sector stakeholders, regulatory reform, and changing behaviors and shifting business practices. Intervention and transaction costs will be lower if authorities plan ahead to cope with consequences of climate change such as dzud and drought, rather than investing and compensating financially affected groups retroactively.

To address the challenges of climate change over the coming decades, significant resources will be needed in addition to those allocated by state and local budgets. Foreign resources in the form of loans, grants and technical assistance account for 48% of current funding, while private investments account for 46% of the budget for the current period. Around 50% of private sector involvement is through the construction of solar and wind power plants (US\$250M). The state budget accounts for 5% of funds to be allocated to climate action related activities, and are mainly utilized for regulatory reform. Within this budget, resources from international funds (UN organizations, GCF, multilateral and bilateral organizations) are included for funding climate change mitigation and adaptation measures. Financial support is available in the form of non-repayable grants, loan instruments for project development and technical assistance, and advisory services in various sectors.

National and regional adaptation strategies reflecting the needs of municipalities and encouraging local-level planning should be promoted in the coming years through the government's planning and budgeting authorities. Local authorities and non-state stakeholders should be more involved in the decision-making and local budget resource allocation processes. Additionally, state and local budget legislations currently require multi-year programme budgeting. This constrains general administrators and local governors from taking on debt, which in turns limits their climate finance options.

Though funding mechanisms exist such as the Adaptation Fund and the Least Developed Countries Fund established by UNFCCC, and through institutions and funds set up through multilateral agencies such as the World Bank, the resources available to middle income countries like Mongolia do not cover the projected costs of mitigation and adaptation (INDC). In addition, there is a significant gap between the amounts pledged and the amounts available/received from these international funds.

In consideration of the proposed new and additional project pipeline included in this Country Programme, and as per discussions held during the GCF Concept Note development workshop of June 2018, project design options were chosen that fully considered current knowledge available on different climate finance project's intentions for additional future support, as well as potential co-financing sources. As part of the feasibility studies to be carried out ahead of Funding Proposal development, alignment with existing and projected climate finance sources and concrete co-financing options will be further developed.

- **What options for leveraging the private sector have been assessed?**

It is the GoM's priority to mobilize private financial resources for investments that are key for GoM's climate change policy objectives. Public and private financing mechanisms in the areas of clean energy and energy efficiency have not yet been developed, except XacBank's (the Direct Access Entity of GCF) approved GCF credit lines. Despite Government's recent effort to establish Green Development Fund at the Development Bank of Mongolia and Mongolian Banking Association's initiative to establish Mongolia Green Finance Corporation, project financing from private sector remains lacking and credit terms remain tight. Once established and institutionally strengthened, including with the help of GCF readiness assistance, those institutions aim to support project promoters during the project development process through dedicated financial and technical advice and assistance. GCF grants can serve as a local market promoter and be used as an important initial source of financing to leverage private investment through the introduction of complementary non-grant instruments such as green bonds, revolving funds, guarantees and debt financing. Note that four Mongolian banks are currently seeking GCF accreditation.

The financial market also lacks long-term financing sources and there are no substantial institutional investors, such as life insurance providers and pension funds. The nascent capital market needs to be diversified through new and innovative instruments like green bonds to diversify funding sources and access low-cost capital for infrastructure and climate investment.

Private businesses and households will have to adapt their activities, whilst government authorities play a role in setting guidelines and by providing information about climate action and financing options available to households and industry to incentivize and motivate their citizens and local businesses to take actions. Such activities will help to generate demand for climate finance within local communities. Additionally, individuals and households will be incentivized to bear costs – examples for this include purchasing insurance or adjusting heating or cooling at home.

➤ **An analysis of the methodology used in the prioritization process should be provided as an Annex to the Country Programme.**

Methodologies used in the prioritization process are provided in the Annex to the present Country Programme. Key factors in prioritization were: expected climate change outcomes as per current knowledge, compatibility with national policy priorities, alignment with current and expected allocations of other climate finance sources, extensive stakeholder consultation, and the development of initial project ideas into draft Concept Notes that are largely aligned with GCF requirements. Notably, Mongolia's current prioritization method was developed and applied while GCF guidance and good practices were largely absent. Mongolia is, however, keen to apply evolving good international practice in regards to this prioritization process in future amendments and iterations of Mongolia's GCF Country Programme, should such information become available.

➤ **Summarize key areas of engagement with the GCF in relation to the gaps, weaknesses and opportunities identified in Section 1.**

Highest priority capacity building areas for GCF's engagement in Mongolia:

As the current largest, and hopefully continually growing global climate finance mechanism, the GCF is uniquely positioned to help Mongolia set a course to a more climate change resilient, diversified, inclusive and competitive economy in line with the country's sustainable development agenda objectives and the GCF's paradigm shift objective. In this context, the following strategic themes are proposed to guide the GCF's engagement with Mongolia in the forthcoming strategic period:

- Mainstreaming of climate change priorities into national, sectoral and local development programmes and plans. Due to current inconsistent policy and regulatory frameworks, financial

resource allocation and operational efficiency in the Mongolian public policy context can be increased. There is also potential for strengthening capacity and developing a performance-oriented culture at the institutional level. The GoM lacks an overall public and private financing strategy for the mobilization of public and private finance (including international development assistance in support of achieving the sustainable development vision and other high-ranking policy initiatives, including the ones related to climate change).

- Given the challenging landscape of international development finance, the GoM seeks to increase the alignment of financing flows to national development goals and the SDGs by improving the basis for achieving development results using the concept of an Integrated National Financing Framework (INFF).⁹¹ Therefore, the GCF might assist the GoM (MET, MoF, NDAM) in developing an overarching and cross-sectoral climate change funding strategy (including environmental tax reform and/or carbon taxation) for resource mobilization and the provisions of incentives that facilitate investment. This includes clarifying and prioritizing the objectives, roles and procedures for government ministries and agencies in the planning and budgeting process for climate change actions. This also applies to public investment programming at NDAM.
- Mongolia needs to align its medium-term expenditure and fiscal framework to its climate policy objectives and targets. If the national budget includes finance allocated towards climate change, this resource could serve as a potential source of climate finance. These funds could be used for the mainstreaming of climate change actions into the budget cycle via budget formulation, allocation and performance monitoring, ideally triggering a paradigm shift. Tools such as climate budget tagging (adding climate change marker in budget system), expenditure reporting, and revising planning templates (i.e. reform of budget call circulars) for public investments can serve to reprioritize allocation via i.e. climate programme budgets and climate funds. Mongolia might revise its existing budget regulations to integrate green growth, climate change action, disaster risk reduction into the public investment planning and budgeting at sub-national level as part of its NDC strategy implementation.
- The GCF would facilitate improved access to low-cost finance, particularly in local currency, with dedicated grants, credit lines, equity participation, credit guarantee and risk sharing facilities, with a focus on renewable energy, construction material, green building, public health, energy efficiency, agriculture and other prioritized areas in order to promote capacity building, innovation, skills transfer and further increase the resilience of the economy.

The energy and environmental sectors are amongst the sectors receiving low levels of ODA compared to other countries, with grants at only US\$370 thousand and US\$2.3 million, respectively, in 2016. The relatively low share of ODA grants to these key sectors provides for significant potential to mobilize additional funding to these sectors from the GCF. However, a precondition prior to funding disbursement is that GoM will pursue credible climate change related sector-specific strategies to mobilize additional international funding via concessional terms to underpin development partners' long-term commitment to funding.

- Demonstrating the bankability of proposed non-grant investments for climate action continues to constitute a significant challenge for state authorities and banks. Insufficient information and suboptimal incentive systems on benefits/savings from mitigation and resilience actions can be addressed with GCF support as GCF projects also allow for bundling smaller and dispersed interventions to increase bankability and efficiency of individual components. Technical assistance on how to best combine different climate action investments in line with evolving international experience and lessons learnt is another area where the GCF can play a significant development role, in addition to creating economy of scale efficiency gains, if, for instance, smaller energy efficiency or power generation investments are bundled into bigger projects.
- Improving the quality and sustainability of public (communication, energy, housing, transport) services through increased efficiency and “low emission or green” solutions. In cooperation with other development finance partners, the Fund might seek to develop bankable structures for financing creditworthy entities (Ulaanbaatar city) on a sovereign/sub-sovereign basis. The financing will be subject to the sovereign borrowing guarantee space. The Fund should also continue to support credible and bankable PPP projects, including projects in the energy sector.

⁹¹ Development finance assessment for Mongolia, page 2;

The Fund might also support PPPs that aim to introduce state-of the-art low emission technologies and renewable (wind and solar) energies;

- The Fund's ability to broaden its presence in Mongolia's private sector will remain constrained by the lack of bankable PPPs and the small number of qualified business projects. Engagement with the public and business sectors will primarily be pursued through pre-existing, strong relationships with existing development (World Bank; UN organizations; bilateral organizations) and financial institutions (XacBank, Mongolia Green Finance Corporation, Green Development fund at Development Bank of Mongolia (DBM, EBRD, IFC, ADB, etc.), which will support the GCF. This will allow the GCF to become an effective channel for financing low-GHG solutions and to advocate relevant solutions for municipal, energy and transport infrastructure, with a focus on the City of Ulaanbaatar. In particular, the GCF will seek to aid the development of projects with high performance and replication characteristics.
- A robust monitoring, evaluation framework and performance-oriented practices in Mongolia remain suboptimal and to a large extent, output-oriented. In 2017, the NDAM initiated a process to establish a system for SDV and SDG monitoring. However, a mapping undertaken by NSO revealed that many of the SDG targets are currently impossible to monitor and that there is insufficient data to establish baseline values. Based on a comprehensive assessment of the statistical system in 2014, and a Mapping and Assessment of the Data Ecosystem in 2017, a National Program for Development of Statistics for 2017-2020 was created. However, the programme has not yet been approved by the government.⁹²
- Despite reform efforts by subsequent governments to set up central planning and performance data platforms, there are some significant gaps to be addressed in order to strengthen accountability mechanisms that support transparent and open dialogue between the government, private sector, and NGOs. There are currently no procedures in place for systematic third-party or external ex-post evaluation of climate change activities for the GoM and international organizations with separate reporting and monitoring mechanisms. Though a conducive regulatory and policy framework such as General Administrative Procedures, Law on Public Hearing, and Development Policy and Planning regulations requiring public consultations in place, the GoM faces challenges in implementing dialogue mechanisms. Currently, the private sector and civil society are only consulted on an ad-hoc basis. Environmental organizations, financial institutions, and private sector industries at times express frustration with the lack of effective dialogue forums.
- Institutional strengthening of non-state participation in climate change policy creation in Mongolia, mainly through participation by business and NGO organizations involved with GCF stakeholder engagement, and the management of readiness projects by business and NGOs (i.e., XacBank and NGOs), will be a priority area of cooperation between the MET and the GCF to ensure accountability and transparency of both the GoM's and international development organizations' (UN) climate change goals. Setting up dialogue mechanisms for regular exchanges of opinion on developing climate change strategies, budgets, and financing opportunities will allow for the sharing of technical knowledge, and will provide a basis for mobilization of private capital and technical expertise in programmes and projects that are being planned.

The CSO networks/coalitions are generally more effective in the application of social accountability tools and processes, including evidence-based advocacy. However, the government's and international development organizations' willingness to engage with CSOs may sometimes be perceived as low. This constrains the CSOs influence and ability to hold government and international organizations accountable.

- It is essential that the GoM approves the National Strategy for Development of Statistics (NSDS). The NSDS should maintain a strong focus on user needs and capacity building measures on the use and application of data for policy making. Therefore, project developers might consider including project elements that lead to increased quality of the national Statistical System when applying for GCF financing. This, in turn, will also improve administrative data systems regarding climate change policy objectives, tracking tools and data.
- Strengthening climate change action-specific fiscal rules and regulations (environmental tax reform, public procurement) that reflect climate change responses should be integral in public awareness building and advocacy. Regarding the design and implementation of the framework and infrastructure required for effective MRV and progress review, the MRV infrastructure may

⁹² Development Finance Assessment for Mongolia, 2018, page 14

hold major synergies with other non-climate related objectives and should be designed in parallel with other sector-specific processes.⁹³ Climate finance measuring and tracking tools might include climate public expenditure review and private climate expenditure review. While the former refers to measuring public finance and looking at gaps in the budgeting system, the latter is used primarily for mitigation flows in the private sector. Finally, public awareness building and enhancing participation of non-state stakeholders in policy formulation, implementation and MRV of policy actions should be an important focus.

High-impact and high-potential programme/project funding areas for GCF's engagement in Mongolia over 2018-2020 period:

- **Portfolio investment:** There is significant potential to leverage international public finance instruments such as the GCF (through all 8 result areas) and private financing in sectors including renewable energy and climate change resilient agriculture, amongst others. The GCF might assist Mongolia in stimulating private investment in clean technology and low GHG emission industries, and in funding climate change investment facilities (the Mongolia Green Finance Corporation, the Green Development Fund at DBM, etc.) through instruments such as PPPs and blended finance mechanisms potentially in partnership with development partners that are active both in Mongolia, and globally. Since the GoM prefers concessional loans and grants over commercial borrowing, the GCF's financial resources are in line with the GoM's diversified financing strategy (which still needs to be further developed), which will bring together responsible actors from across various governmental positions, representatives of the private sector, and development partners and other actors.
- **Blended finance** mechanisms offer the potential to attract scale up investment in renewable energy projects. Globally, these mechanisms are being deployed in various contexts to overcome some of the challenges to mobilizing private investment in the renewable energy sector. While some challenges remain, Mongolia has been identified as one of the countries with the highest potential for investment through such mechanisms.⁹⁴

2.4. Country portfolio

Overview of the pipeline for projects and programmes, Project Preparation Facility requests, Readiness and accreditation.

- In the action plan below each project or proposal outline the next steps for taking it forward, along with the lead actor for taking the action forward and a timeline by which the action should be completed.

The following project/programme portfolio reflects submitted, approved and potential new readiness support, Project Preparation Facility (PPF) support and investment projects to be funded and co-financed by the GCF over the 2018-2020 period and beyond. The portfolio was developed through careful consideration of the latest known environmental impacts due to climate change, through a rigorous stakeholder consultation process led by the NDA, policy analysis, alignment with past and future support from other climate finance sources, and a review of similar processes implemented in other countries. This process was further supplemented by capacity strengthening in the area of GCF Concept Note development. The pipeline is subject to review and approval by designated authorities including the NDA and the GCF. A summary of more detailed items in the pipeline is presented in the table below.

Table 8. Summary of Country Programme pipeline

#	Project name ID	GCF/total cost, US\$	Accredited entity	Key contacts	Project Status	
PROJECT FUNDING						
ADAPTATION	1	High altitude water harvesting & management; strengthening the resilience of key ecosystems to alleviate negative impacts of climate change in Mongolia	20M*/32M*	UNDP	Bunchingiv Bazartseren, Programme analyst on Climate Change bunchingiv.bazartseren@undp.org , +976 11-327585	Draft Concept Note
	2	Restoration of Mongolian forests to strengthen their climate resilience	98.8M*/125.2M*	GIZ	Daniel Passon, Country director,	Draft Concept Note

⁹³ Intended Nationally Determined Contribution of Mongolia 2015, page 77

⁹⁴ Development finance assessment for Mongolia, 2018, page 29

#	Project name ID	GCF/total cost, US\$	Accredited entity	Key contacts	Project Status	
	and enhance carbon pools through sustainable forest management			Daniel.passon@giz.de , +976 11-315340, +976 70115340 Davaakhuu G, Junior officer, ganbold.davaakhuu@giz.de +976 11-312282 (Ext.23)		
3	Prevention from the adverse impacts of climate change on public health and public health adaptation	20M*/25M*	Ministry of Health (MoH)	Urantsetseg Sh, Officer of MoH, urnaashagdar@yahoo.com , +976 51-264269 Burmaajav B, Prof, Mongolian Academy of Medical Science burmaajav55@gmail.com , +976 99817218	Draft Concept Note	
4	Resilience Building and Solutions to Dzud Disasters	20M*	JICA	Yoshino Satomi, Project formulation advisor, Yoshino.Satomi@jica.go.jp , +976 11-312393 Munkhmanlai Chinbat, Programme Officer, +976 ChinbatMunkhmanlai.MG@jica.go.jp +976 11-311329	Draft Concept Note	
5	Preserving peat lands and their ecosystem services in Mongolia	10M*	UNEP	NDA of Mongolia Saruul Dolgorsuren, Climate finance officer saruulsh@gmail.com +976 70000743	Draft Concept Note	
6	Improved resilience in Agriculture through crop biodiversity and soil protection measures in Mongolia	40M*/50M*	FAO	Nyamjargal Gombo, Assistant FAO Representative, Ulaanbaatar nyamjargal.gombo@fao.org , +976 11-310248 (ext 159)	Draft Concept Note	
7	Improving Adaptive Capacity and Risk Management of Rural Communities in Mongolia	23.7M/79.9 M	UNDP	Bunchingiv Bazartseren, Programme analyst on Climate Change bunchingiv.bazartseren@undp.org , +976 11-327585	FP submitted	
MITIGATION	8	Affordable housing and resilient urban renewable project (AHURP) (B.19/FP077)	145M / 544M	ADB	Arnaud Heckmann, Senior Urban Development Specialist, Mongolia Resident Mission aheckmann@adb.org +976-11-329836	Under implementation
	9	Grid integration of large-capacity Renewable Energy storage	80M*/120M*	TBD	O.Bavuudorj, Head of Renewable Energy Department, MoE Bavuudorj@gmail.com +976-99100224	Project idea
	10	Thermo-technical retrofitting (TTR) of panel buildings in UB City	54M*/84M*	TBD	Tserendash S, National coordinator, GIZ Sugarragchaa.tserendash@giz.de +976-99130618	Draft Concept Note
	11	Climate-smart livestock	49.8M*/55M*	XacBank	A.Enkh-Amgalan, Director, Center for Policy and Research of Mongolia, cpr@cpr.mn , +976-99119027	Draft Concept Note
	12	Renewable Energy Programme (REP) #2	25M*/25M*	XacBank	Tuul Galzagd, Director of Eco Banking Department, Xacbank, tuul.g@xacbank.mn	Concept Note in development
	13	Energy Efficient Consumption Loan Programme (B.21/SAP004)	10M/21.5M	XacBank	Tuul Galzagd, Director of Eco Banking Department, Xacbank, tuul.g@xacbank.mn	SAP approved
	14	Business Loan Programme for GHG Emissions Reduction (MSMEs) (B.15/FP028)	20M/60M	XacBank	Tuul Galzagd, Director of Eco Banking Department, Xacbank, tuul.g@xacbank.mn	Under implementation
	15	Renewable Energy Programme #1 - Solar (1 solar power project) (B.18/FP046)	8.7M/17.6M	XacBank	Tuul Galzagd, Director of Eco Banking Department, Xacbank, tuul.g@xacbank.mn	Under implementation

PROJECT PREPARATION FACILITY (PPF)

#	Project name ID	GCF/total cost, US\$	Accredited entity	Key contacts	Project Status
16	Individual and small size heating with improved water supply and sanitation system	1.2M*	TBD	NDA of Mongolia Saruul Dolgorsuren, Climate finance officer saruulsh@gmail.com +976 70000743	Project idea
17	Strengthening and enhancing the application of Environmentally Sound Technologies related to holistic waste management including waste to energy solution	1.5M	TBD	NDA of Mongolia Saruul Dolgorsuren, Climate finance officer saruulsh@gmail.com +976 70000743	PPF in development
18	Mini-grid and Off-grid solution for Ger Area	40M*/80M*	XacBank	Tuul Galzagd, Director of Eco Banking Department, Xacbank, tuul.g@xacbank.mn	PPF request approved
19	Support for establishment of the Mongolia Green Finance Corporation	40M/50M	XacBank	Tuul Galzagd, Director of Eco Banking Department, Xacbank, tuul.g@xacbank.mn	PPF request submitted
20	Establishing a low carbon and climate resilient construction industry through greening sector's SMEs practices and capacities	1.5M	UNEP	Altantsetseg Sodnomtseren, Project manager, UNEP Papemongolia@gmail.com +976-99160036	FP in development

READINESSSUPPORT PRORGAMME

21	Direct Access Entity (DAE) accreditation support		TBD	NDA of Mongolia Saruul Dolgorsuren, Climate finance officer saruulsh@gmail.com +976 70000743	Project idea
22	Further development of Mongolia's GCF project pipeline		TBD	NDA of Mongolia Saruul Dolgorsuren, Climate finance officer saruulsh@gmail.com +976 70000743	Project idea
23	DAE capacity development		XacBank	Tuul Galzagd, Director of Eco Banking Department, Xacbank, tuul.g@xacbank.mn	Request in development
24	Establishment of an energy saving insurance mechanism in Mongolia	0.3M	XacBank	Tuul Galzagd, Director of Eco Banking Department, Xacbank, tuul.g@xacbank.mn	Request submitted
25	Mongolia: Strengthening in-country coordination and engagement with the Fund and aligning the development of Nationally Determined Contribution and revision of the Country Program with the country's Sustainable Development Vision 2030	0.3M	XacBank	NDA of Mongolia Saruul Dolgorsuren, Climate finance officer saruulsh@gmail.com +976 70000743	Request submitted
26	Readiness Support to Strengthen Sustainable Finance Practices in Mongolia and Encourage Regional Knowledge Sharing	0.29M	IFC	Batmunkh Batbold, Senior Financial Sector Specialist, International Finance Corporation, bbatbold@ifc.org	Request submitted
27	Building capacity to advance National Adaptation Plan Process in Mongolia	2.89M	UNEP	NDA of Mongolia Saruul Dolgorsuren, Climate finance officer saruulsh@gmail.com +976 70000743	Under implementation
28	Scaling-up of Implementation of Low-Carbon District Heating Systems in Mongolia	0.368M	UNEP	Sudhir Sharma, UN Environment, Office of the Asia Pacific Bangkok, sudhir.sharma@unep.org +66 2288 1441	Under implementation
29	Readiness Support for Enhancing Access to Green Finance in Mongolia	0.35M	GGGI	Romain Brillie, Country Representative, GGGI, Mongolia, brillie.romain@gggi.org +976 95121945	Under implementation
30	Establishing & strengthening NDA & Strategic frameworks for engagement with the Fund, including the preparation of country programmes	0.3M	XacBank	Tuul Galzagd, Director of Eco Banking Department, Xacbank, tuul.g@xacbank.mn	Completed

MULTINATIONAL PROGRAMS AND PROJECTS

#	Project name ID	GCF/total cost, US\$	Accredited entity	Key contacts	Project Status
31	Sustainable Energy Financing Facilities (B.14/FP025)	11.3M/41.5M	EBRD	Andreas Biermann & Marta Simonetti, EBRD BiermanA@ebrd.com ; Simonetm@ebrd.com +44 (0) 20 7338 6000	Under implementation
32	Green Cities Facility (B21./FP086)	11M/67.7M	EBRD	Ekaterina Beschasnova & Jan-Willem van de Ven beschase@ebrds.com vandevj@ebrd.com +442073387821	Under implementation
33	Climate Investor One (B.21/FP099)	9M/74.6M	FMO	Idsert Boersma & Georges Beukering, FMO T.van.der.Zee@fmo.nl +31 (0) 70 204 52 05	Under implementation
34	Green Bond Cornerstone Fund (Phase II)	4.1M/116.6M	IFC	Batmunkh Batbold, Senior Financial Sector Specialist, International Finance Corporation, bbatbold@ifc.org	PF submitted
35	EBRD MSME Programme	4.2M/17.1M		Andreas Biermann & Marta Simonetti, EBRD BiermanA@ebrd.com ; Simonetm@ebrd.com +44 (0) 20 7338 6000	PF submitted

(*) refers to approximate amount

Table 9. Country projects/programmes pipeline

Country projects/programmes pipeline (ADAPTATION)				
Project Title #1	Description	Accredited Entity		Submission timeframe
High altitude water harvesting and strengthening the resilience of key ecosystem to alleviate negative impacts of climate change in Mongolia	Climate change projections indicate that the negative impacts, among others, will include water stress after 2050's, when glaciers and permafrost feeding the water sources are melt away. Mongolia's mountainous region that keeps 70% of the country's water resources will suffer most from the warming effects of climate change. As such, there is a need for a long-term policy and measures to anticipate and respond to this change and reserve water in high altitudes. At the same time, the proposed project will also take actions to minimize negative impacts of climate change on key ecosystems and support sustainable livelihood of local community in protected areas of Mongolia.	<u>UNDP</u> <u>Impelenting agency and partner:</u> Ministry of Environment and Tourism		2019
Fund level strategic impacts		Total financing: (US\$ 32m)		Status
4,5,7,8		<u>GCF:</u> 20M	<u>Other:</u> 12M	Draft concept note
Action		Lead		Timeline
CN developed		NDA, UNDP		TBD/2024
Project Title #2	Description	Accredited Entity		Submission timeframe
Restoration of Mongolian forest to strengthen its climate resilience and enhance carbon pools through sustainable forest management	The forestland of Mongolia is small relative to the country's entire territory, but plays a crucial role in regulating river runoff, reducing soil erosion, moderating climate, absorbing greenhouse gas emissions, and maintaining permafrost and balance of ecosystems. Due to a lack of sustainable forest management, the forest area has decreased by 4.1% between 1999-2012. Frequency of forest fires has increased; burnt forest area has expanded by 13.3% from 1999-2012. Also, recurrent drought and dry spells negatively affect the forest biomass accumulation leading to slower annual biomass growth. Forest insects and pests tend to cover more areas.	<u>GIZ</u> <u>Impelenting agency and partner:</u> Ministry of Environment and Tourism		2019-2020
Fund level strategic impacts:		Total financing: (US\$ 125.2m)		Status
4,5,8	The project aims to reduce emissions from deforestation and forest degradation and to enhance forest carbon stocks in Mongolia to support Mongolia's REDD+ vision - building resilience, livelihoods and an economy for a Greener future.	<u>GCF:</u> 98.80M	<u>Other:</u> 26.4M	Draft concept note

Action		Lead	Timeline	
CN developed		GIZ	TBD/2030	
Project Title #3	Description	Accredited Entity		Submission timeframe
Prevention from adverse impact of climate change on public health	Amongst the impacts of climate change, more frequent, heavy rainfall and warming temperatures will increase vector-borne diseases such as diarrheal diseases, dengue fever, and malaria. Research reveals that incidence rates of vector-borne diseases, some communicable and non-communicable, have increased in recent years in some regions of Mongolia. The increase in disease incidence could be a major risk for Mongolians who have no immunity to these types of diseases. Moreover, the public decision makers of the health sector are not well prepared to respond to an incidence of climate change induced diseases. The project aims to strengthen the health sector's capacity to deal with direct and indirect impacts of climate change, to raise awareness amongst health workers, and to develop an early warning system.	<u>WHO/TBD</u> <u>Impelenting agency and partner:</u> Ministry of Health		2019
Fund level strategic impacts:		Total financing: (US\$ 25m)		Status
5,6		<u>GCF:</u> 20M	<u>Other:</u> 5M	Concept note development
Action		Lead	Timeline	
CN developed		NDA, Ministry of Health	TBD/2025	
Project Title #4	Description	Accredited Entity		Submission timeframe
Resilience Building and Solution to Dzud Disaster	The Ministry of Environment of Japan (MOEJ) has provided support to develop a "dzud prediction model" with Mongolian researchers. This project is part of the cooperative project based on the "Memorandum of Cooperation Between MOEJ and MET" signed in 2015. Since 2016, this dzud prediction system has been tested by whole soums in Mongolia; warnings have been announced from Chuo University to NEMA, MOE, MoFALI. Although the accuracy of the prediction is already fairly strong, the system needs to further develop its accuracy so that the results can be used in national policy. Since meteorological conditions are changing every day, the distribution of frequently updated predictions directly to herders are strongly demanded. Based on dzud predictions, the most effective countermeasure to dzuds and the best way to increase resilience is to conduct early harvests and to store meat in freezing conditions. In order to minimize the mortality of livestock and increase resilience in the livestock sector, technology transfer and capacity development of the Dzud prediction system and renewable energy driven measurs has become the most important and urgent issue.	<u>JICA</u> <u>Impelenting agency and partner:</u> Ministry of Food, Agriculture and Light Industry, Ministry of Environment and Tourism, National Emergency Management Agency, National Agency for Meteorology and Environmental Monitoring		2019
Fund level strategic impacts:		Total financing: (US\$ 20m)		Status
5,6,7		<u>GCF:</u>	<u>Other:</u>	Concept note development
Action		Lead	Timeline	
CN developed		JICA	TBD/2025	
Project Title #5	Description	Accredited Entity		Submission timeframe
Preserving peat lands and their ecosystem services in Mongolia	Mongolia's peat lands are distributed in the northern, central, and eastern areas of the country in highland regions, taiga forest and forest steppe. They are productive and biologically diverse systems for biological samples; they contain an estimated 18% of Mongolia's flora, despite the fact that peat lands account for only 2% of the country's spatial area. The ecological characteristics of peat lands make them extremely important for the socio-economy; many communities rely on their ecosystem services. Locally, they support grazing and crop cultivation, and conserve biodiversity, water and soil quality. Regionally, they maintain the natural hydrological cycle, and create a barrier to desertification and degradation in the face of changing climatic conditions. Their carbon storage potential plays an important role in Mongolia's climate change mitigation efforts. Despite their crucial value, Mongolian peatlands have been dramatically degraded in recent decades due to a	<u>UNEP/ADB</u> <u>Impelenting agency and partner:</u> Ministry of Environment and Tourism		2021
Fund level strategic impacts:		Total financing: (US\$ 10m)		Status
4,5,8		<u>GCF (US\$):</u> 10M	<u>Other: (US\$)</u>	Concept note development

	<p>combination of factors, including increasing grazing pressure, agricultural expansion, and recent climate change. Peatlands are also vulnerable to land-use changes and economic activity.</p> <p>This project aims to reverse current declines in the extent, quality, and ecosystem functioning of Mongolian peatlands to achieve adaptation and mitigation benefits of national significance and help the country achieve its obligations under the UNFCCC and Paris agreement. Its ultimate objective is to build greater resilience to climate change in these extremely valuable ecosystems by removing anthropogenic drivers of degradation.</p>				
Action		Lead		Timeline	
CN development		UNEP		TBD/2020	
Project Title #6	Description	Accredited Entity		Submission timeframe	
Improved resilience in Agriculture through crop biodiversity and soil protection measures in Mongolia	<p>This project is intended to enhance food and nutrition security of Mongolian farmers and build resilience for adaptation to and mitigation of climate change in Mongolian cropping sector through increasing crop biodiversity and soil protection measures. The project is expected to produce following outcomes.</p> <p>Outcome 1: Crop adaptation to climate change increased, Outcome 2: Crop biodiversity losses prevented, Outcome 3: Provision of environmental services strengthened, Outcome 4. Soil protection measures improved and Outcome 5. Project management</p>	<p><u>FAO</u></p> <p><u>Impelenting agency and partner:</u> Ministry of Environment and Tourism, Ministry of Food, Agriculture and Light Industry</p>		2021	
Fund level strategic impacts:		Total financing: (US\$ 50m)		Status	
5,6		<u>GCF:</u> 40M	<u>Other:</u> 10M	Concept note development	
Action		Lead		Timeline	
CN development		FAO		TBD/2025	
Project Title #7	Description	Accredited Entity		Submission timeframe	
Improving Adaptive Capacity and Risk Management of Rural Communities in Mongolia	<p>Mongolian rural communities are extremely vulnerable to expected impacts of climate change, which include: greater intensity of storm surges; increased exposure to flooding; loss of life from extreme weather events such as dzuds; marked declines in the productivity of livestock and agriculture; and major reductions in the supply of goods and services from pasture and land ecosystems. The main goal is to forecast long-term climate change impacts and enhance resilience to withstand the added climate change stressors. Project target areas are four aimags with severe climate conditions, namely Zavkhan, Khovd, Dornod and Sukhbaatar.</p> <p>Expects outputs are:</p> <ol style="list-style-type: none"> 1. Climate change forecasting informed medium and long-term planning in agriculture enhanced and climate resilient sector policy promoted; 2. Climate vulnerability of herder livelihoods reduced through water and land management and investments; 3. Herder household income increased and de-risked to reduce vulnerability of agriculture-based livelihoods; 	<p><u>UNDP</u></p> <p><u>Implementing agency and partner:</u> Ministry of Environment and Tourism/MoFALI</p>		2018	
Fund level strategic impacts:		Total financing: (US\$ 79.9m)		Status	
4,5,8		<u>GCF:</u> 23.7m	<u>Other:</u> 56.2m	CN approved. Full project proposal is submitted	
Action		Lead		Timeline	
Concept note development		UNDP		Submitted in March 2017 & approved	
Full proposal development		UNDP		Submitted in June 2018	
Country projects/programmes pipeline (MITIGATION)					
Project Title #8	Description	Accredited Entity		Submission timeframe	
Ulaanbaatar Green Affordable Housing and Resilient Urban Renewal Project	<p>The ger areas of Ulaanbaatar are highly vulnerable to climate change and hotspots of greenhouse emissions and air pollution. The Ulaanbaatar Green Affordable Housing and Resilient Urban Renewal Project addresses this by providing the population in selected ger areas a low-carbon and climate</p>	<u>ADB</u>		2016	

(AHURP) (B.19/FP077)	resilient alternative—affordable housing in apartments that are connected to the main urban infrastructure service networks. The project will launch a large-scale demonstration initiative; providing comprehensive, integrated, and affordable solution for vulnerable communities and leveraging private sector investments. The aim is to deliver 10,000 green housing units that are energy efficient, affordable, and designed to maximize the use of renewable energy. 100 hectares of ger areas will be redeveloped into eco-districts that are both low-carbon and climate resilient as part of the project.			
Fund level strategic impacts:		Total financing: (US\$ 50m)		Status
		<u>GCF:</u> 145M	<u>Other:</u> 399M	FP approved, under implementation
Action		Lead		Timeline
Under implementation		ADB		2026
Project Title #9	Description	Accredited Entity		Submission timeframe
Grid integration of large-capacity Renewable Energy storage	Recently, wind and solar power plants have been intensively built. This requires the accumulation of electricity produced by renewable sources. A grid powered entirely from solar and wind wouldn't work with the current state of energy storage, as solar and wind don't produce consistently, and they can't be tweaked to meet demand. That is, solar energy can only be produced during cloudless days and wind energy only when it's windy. Production also can't be increased to provide consumers with more electricity during peak demand hours. Rapid deployment of renewable energy and energy efficiency is resulting in significant energy security, climate change mitigation, and economic benefits.	TBD		2020
Fund level strategic impacts:		Total financing: (US\$ 100m)		Status
1		<u>GCF:</u> 80M	<u>Other:</u> 20M	Project idea
Action		Lead		Timeline
Project idea		Ministry of Energy		2020
Project Title #10	Description	Accredited Entity		Submission timeframe
Thermo-technical retrofitting (TTR) of panel buildings in UB City	Ulaanbaatar is the world's coldest capital city with the eight-month heating season. Winter temperatures frequently fall below -30°C at night and -20°C in the daytime. 90% of overall energy is used for heating purposes which is a peculiarity of Mongolia. Most residential building were built with poor insulated concrete panels before 1990s. So, heat loss of buildings is estimated at about 40% of the total loss. The National Policies on Green Development and Energy aim to reduce the heat loss of building by 20% in 2020 and 40% in 2030. Investment cost for insulation of 50% of existing panel apartment buildings (250 apartment buildings) will require 84 million USD.	TBD		2019
Fund level strategic impacts:		Total financing: (US\$ 84m)		Status
3		<u>GCF:</u> 54M	<u>Other:</u> 30M	Project idea
Action		Lead		Timeline
Project idea		Ulaanbaatar city		2020
Project Title #11	Description	Accredited Entity		Submission timeframe
Climate-smart livestock	Livestock herding is major economic activity and social safety net for Mongolians accounting for 10% of GDP and 30% of employment. The Government targets to reduce GHG from livestock herding has failed mostly due to a lack of incentive mechanisms to control the herd size growth. Largely open access pastureland regime led to widespread environmental and social consequences. A sustainable development model for livestock with breakthrough mitigation effects is tested for feasibility and further replication. The GHG emissions will be reduce by 8400 tons per soum or 588,000 tons per 70 soums (If replicated for all soums of Mongolia GHG emissions will reduce by 2772 GgCO ₂ e). Pastureland use agreements between herders groups and local Governors are proposed as a mechanism to tackle the	XacBank LLC		2019
Fund level strategic impacts:		Total financing: (US\$ 54.8m)		Status
4,5,8		<u>GCF:</u> 49.8 M	<u>Other:</u> 5M	Concept note development

	overgrazing problem. The loan component will offer soft loans for herders who have met pre-condition to establishing pastureland use agreements under the existing legal frameworks. The project is proposed to be implemented in 70 selected districts/soums over 5-year period. The total budget claimed from GCF is \$49.8 m, out of which \$29.3 m for the loan component and \$20.5 m for the grant component.			
Action		Lead		Timeline
CN development		XacBank		2019
Project Title #12	Description	Accredited Entity		Submission timeframe
Renewable Energy Program (REP) #2	As continuation of the REP #1, the program will continue to finance renewable energy projects in Mongolia, mainly solar and wind. As part of Mongolia's Intended Nationally Determined Contributions (INDC), the country aims to supply 20% of the country's energy through renewable energy by 2020, and 30% by 2030.	XacBank LLC		2019
Fund level strategic impacts:		Total financing: (US\$ 50m)		Status
1		GCF: 25M	Other: 25M	Concept note development
Action		Lead		Timeline
CN development		XacBank		2019
Project Title #13	Description	Accredited Entity		Submission timeframe
Energy Efficient Consumption Loan Program (B.21/SAP004)	The EE Consumption Loan Programme (the "Programme") is the first EE heating appliance and EE housing lending program to be implemented at scale in Mongolia. Building on XacBank's prior experience, the Programme will finance heating and housing solutions with reduced emissions and improved environmental and health co-benefits.	XacBank LLC		2018
Fund level strategic impacts:		Total financing: (US\$ 22m)		Status
		GCF: 10M	Other: 11.5M	SAP approved & under implementation
Action		Lead		Timeline
SAP		XacBank		2029
Project Title #14	Description	Accredited Entity		Submission timeframe
Business Loan Programme for GHG Emissions Reduction (MSMEs) (B.15/FP028)	The proposed Business Loan Program for GHG Emissions Reduction will be a \$60 million facility aimed at promoting the use of energy efficient and renewable energy solutions in the Mongolian MSME market. MSME's make up more than 90% of the businesses in Mongolia, the majority of which are currently using extremely outdated and inefficient equipment, processes and buildings (privately-held buildings only). The program's main objective is to promote both the use and production of EE/RE products in the domestic market.	XacBank LLC		2016
Fund level strategic impacts:		Total financing: (US\$ 60m)		Status
		GCF: 20M	Other: 40M	Under implementation
Action		Lead		Timeline
FP		XacBank		2025
Project Title #15	Description	Accredited Entity		Submission timeframe
Renewable Energy Program #1 - Solar (1 solar power project) (B.18/FP046)	This program includes the financing of a 10MW plant in Sumber soum of Govisumber province (southern Mongolia). 10 MW SPP: reduce greenhouse gas emissions by 12,270 tons annually; net electricity supply of 15,395 MWh of electricity annually. Project lifetime is 25 years. For the project developer, a pre-assessment was conducted by the Corporate Banking Division (CBD). Currently, a full due diligence is being conducted by the CBD and the Risk Management Department (RMD).	XacBank LLC		2017
Fund level strategic impacts:		Total financing: (18.4m)		Status
		GCF: 9.5M	Other: 8.9M	Under implementation.
Action		Lead		Timeline
FP		XacBank		2027

Table 10. Country Project Preparation pipeline

Project Title #16	Description	Accredited Entity		Submission timeframe
Individual and small size heating, sanitation (toilets) and water supply system in ger districts Ulaanbaatar city	Ger districts located in remote areas are usually not connected to the centralized heating system. Additionally, they use very primitive toilets and do not have a heated water supply system. They burn raw coal and other flammable materials for cooking and heating purposes and emit a large number of GHGs. The sanitary state of most ger area households is very poor. Therefore, there is great demand to provide the ger areas with Individual and small size heating, sanitation and water supply systems.	TBD		
Fund level strategic impacts		Total financing: US\$ 1.2m (Grant)		Status
6		<u>GCF:</u> 1.2M	<u>Other:</u>	Project idea 2018.02.14
Action		Lead		Timeline
Project idea		NDA		2020
Project Title #17	Description	Accredited Entity		Submission timeframe
Strengthening and enhancing the application of Environmentally Sound Technologies related to holistic waste management including waste to energy solution	The goal of the project is to implement a holistic waste management approaches and introduce environmental sound technologies in selected places of Mongolia. The project also aimed to implement 3R approach and establish a model site(s) to utilize landfill gas (LFG) generated from waste at a sanitary landfill site(s) and to produce electricity while conducting an environmental management such as odor and leachate prevention and pest control in urban areas of Mongolia.	TBD		2019
Fund level strategic impacts		Total financing: US\$ 1.5m (Grant)		Status
1,6		<u>GCF:</u> 1.5M	<u>Other:</u>	Draft concept note & PPF in development
Action		Lead		Timeline
CN & PPF development		NDA		2030
Project Title #18	Description	Accredited Entity		Submission timeframe
Mini-grid and Off-grid solution for Ger Area	Ulaanbaatar's peri-urban settlements (known as ger districts) have a dire need for affordable low-emission heating, water, sanitation, and electricity systems capable of serving households without access to the city's main infrastructure. Such systems exist globally but have yet to be integrated to meet the unique needs of Mongolia's most vulnerable communities. XacBank proposes to introduce a scalable mini-grid, or a system that generates and manages energy flows between clusters of adjacent households. The system will be capable of serving multiple end uses (e.g., non-coal heating, waste water, and/or sanitation) under an affordable business model to alleviate pervasive utility and pollution challenges.	XacBank LLC		2018
Fund level strategic impacts		Total financing: US\$ 0.9m		Status
3,6		<u>GCF:</u> 40M	<u>Other:</u> 40M	PPF request approved
Action		Lead		Timeline
PPF		XacBank		2019
Project Title #19	Description	Accredited Entity		Submission timeframe
Support for establishment of the Mongolia Green Finance Corporation	Mongolia Green Finance Corporation (MGFC) is a joint public and private sector effort for creating a national financing vehicle (NFV) to overcome challenges and constraints for climate change mitigation. MGFC Funding proposal for GCF investment and loan financing has been developed under GCF Readiness program and submitted to GCF in March 2018. This PPF is to facilitate the establishment and operational readiness of the MGFC. Establishment of MGFC as independent professional financial institution requires clear governance arrangements, responsible	XacBank LLC		2018
Fund level strategic impacts		Total financing: US\$ 0.4m		Status
3,6		<u>GCF:</u> 40M	<u>Other:</u> 10M	Concept Note and Funding proposal developed and submitted to GCF

	management and staff and institutional capacity. This PPF is for ensuring the establishment of the MGFC is achieved efficiently and effectively and to the highest international standards. PPF activities are technical assistance for business establishment, planning, governance and reporting of the MGFC.			/ PPF request submitted
Action		Lead		Timeline
PPF development		XacBank / GGGI		2018-2019
Project Title #20	Description	Accredited Entity		Submission timeframe
Stablishing low carbon and climate resilient construction industry through greening sector's SMEs practices and capacities	Objectives of this project is to promote sustainable, climate resilient and resource efficient production and consumption patterns and behavior of SMEs in the construction industry in Mongolia (architecture, design and planning, technological solutions on building energy and heating, building materials, utilities, construction, maintenance and repair, usage, disposal, recycling SMEs) capacities in the construction sector along with relevant public sector authorities	UNEP		2019
Fund level strategic impacts		Total financing: US\$ 1.5m		Status
3,6		GCF: 1.5M	Other:	PPF in development
Action		Lead		Timeline
PPF development		MCUB/UNEP		2021

Table 11. Country Readiness programme pipeline

Title #21	Description	Delivery Partner	Submission timeframe
DAE accreditation support	Support may be sought by one or several DAE applicants (see accreditation pipeline below) to close accreditation gaps and build DAE capacity.	TBD	2019/2020
		Total financing:	Status
		GCF	Readiness request to be developed
Action		Lead	
Readiness request		NDA	
		Expected close: 2019/2020	
Title #22	Description	Delivery Partner	Submission timeframe
Further development of Mongolia's GCF project pipeline	Support may be sought to carry out scoping and/or (pre-) feasibility studies related to potential future GCF projects in Mongolia, including (list not necessarily complete): <ul style="list-style-type: none"> Low emission transport, especially in the capital city and public transport Climate change adaptation in fragile ecosystems, including in protected areas Addressing consequences of permafrost melting and groundwater level decrease Mitigation and adaptation options in coal mining and other industrial sectors Identification/realization of geothermal energy options 	TBD	2019/2020
		Total financing:	Status
		GCF	Readiness request to be developed
Action		Lead	
Readiness request		NDA	
		Expected close: 2019/2020	
Title #23	Description	Delivery Partner	Submission timeframe
DAE capacity development	The project is expected to build Xacbank's capacity in the following areas: <ul style="list-style-type: none"> gender mainstreaming; renewable energy & energy efficiency project identification, development, monitoring and evaluation; multi-stakeholder consultation; In addition, the elaboration of an external audit report on Xacbank's DAE activities is planned.	XacBank LLC	2019
		Total financing:	Status
		GCF	Readiness request in development
Action		Lead	
Readiness request		XacBank	
		Expected close: 2019	

Title #24	Description	Delivery Partner	Submission timeframe
Establishment of an energy savings insurance model development in Mongolia	This proposal seeks readiness funding to support XacBank in structuring its energy efficiency (EE) financing model as part of its "MSME Business Loan Programme for GHG Emission Reduction" which is supported by the Green Climate Fund. XacBank proposes the development and incorporation of the Energy Savings Insurance (ESI) model that comprises of financial and non-financial mechanisms designed to work together to create trust and credibility among key actors, reduce the perceived risk of EE projects for stakeholders, eventually persuade clients to invest in EE and generate a continuous pipeline of "bankable" projects.	XacBank LLC	2018
		Total financing:	Status
		GCF 0.3m	Readiness submitted
Action	Lead	Timeline	
Readiness request	XacBank	Expected close: early 2019	
Title #25	Description	Delivery Partner	Submission timeframe
Mongolia: Strengthening in-country coordination and engagement with the Fund and aligning the development of Nationally Determined Contribution and revision of the Country Program with the country's Sustainable Development Vision 2030	This readiness program aims to align periodic participatory review and revision of climate finance country program with the development of Mongolia's NDC and to strengthen the capacity of NDA and its key stakeholders to improve in-country coordination, stakeholder engagement, and information dissemination. Although the first readiness and preparatory support by GCF laid groundwork for institutionalizing NDA and developing country program for engagement with the Fund, readiness gaps analysis conducted by an independent consultant and consultation with key stakeholders revealed the need for further technical and financial support in filling in the gaps.	XacBank LLC	2019
		Total financing:	Status
		GCF 0.3m	Readiness request submitted
Action	Lead	Timeline	
Readiness request	XacBank	Expected close: early 2019	
Title #26	Description	Delivery Partner	Submission timeframe
Readiness Support to Strengthen Sustainable Finance Practices in Mongolia and Encourage Regional Knowledge Sharing	The project is expected to support the Mongolian Sustainable Finance Initiative, an industry wide voluntary initiative implemented by Mongolian banks to integrate environmental and social risk considerations in their lending operations. Proposed activities include (subject to change): <ul style="list-style-type: none"> Integrate sustainability and Environmental, Social and Governance (ESG) considerations in financial policies and regulations and ensure sector wide uptake and consistency in implementation by all financial institutions Expansion of the Sustainable Finance Initiative into the non-banking sector focusing on Non-Bank Financial Institutions (NBFI) and the capital market Capacity building and development of guidelines and tools in the area of green finance definition, gender policy and E&S performance monitoring Promote Mongolia as a regional sustainable finance knowledge hub. 	IFC	2018
		Total financing:	Status
		GCF 0.29M	Request submitted
Action	Lead	Timeline	
Submission of readiness request	IFC	Expected: 2019	
Title #27	Description	Delivery Partner	Submission timeframe
Building capacity to advance National Adaptation Plan Process in Mongolia	The objectives of the national adaptation plan and/or process are: <ul style="list-style-type: none"> To reduce vulnerability to the impacts of climate change, by building adaptive capacity and resilience; To facilitate the integration of climate change adaptation, in a coherent manner, into 	UNEP	2017
		Total financing:	Status
		2.89m	Approved and under implementation

	relevant new and existing policies, programmes and activities, in particular development planning processes and strategies, within all relevant sectors and at different levels, as appropriate		
Action		Lead	Timeline
Under implementation		NDA	Expected: 2021
Title #28	Description	Delivery Partner	Submission timeframe
Scaling-up of Implementation of Low-Carbon District Heating Systems in Mongolia	The objective of the project is to develop a funding proposal for scaling up the use of energy efficient district heating systems in Mongolia, and potential alternate heat supply options in 'ger' areas with private sector participation to reduce its emissions from energy use and address the air pollution issue. Specific activities include: <ul style="list-style-type: none"> Situational assessment of existing systems and demand in selected areas Elaboration of feasibility study Elaboration of implementation plan and investment proposal 	UNEP	2017
		Total financing:	Status
		0.368m	Approved, Under implementation; PPF in development
Action		Lead	Timeline
Completion		UNEP	Expected: 2019
Title #29	Description	Delivery Partner	Submission timeframe
Readiness Support for Enhancing Access to Green Finance in Mongolia	This project supports the Government of Mongolia and Mongolian Bankers Association in establishing and scaling up the Mongolia Green Finance Corporation (MGFC) to bring long-term finance to projects and programs that stimulate green growth.	GGGI	2017
		Total financing:	Status
		0.35m	Approved, Under implementation
Action		Lead	Timeline
Completion		GGGI	Expected: 2018/2019
Title #30	Description	Delivery Partner	Submission timeframe
Establishing & strengthening NDA & Strategic frameworks for engagement with the Fund, including the preparation of country programmes	Key activities include: <ul style="list-style-type: none"> Establishment of a country coordination mechanism Establishment of No-objection procedure Elaboration of NDA Manual Implementation of stakeholder consultations Development of initial Country Programme 	XacBank LLC	2017
		Total financing:	Status
		0.3m	Completed
Action		Lead	Timeline
Completed		NDA	2018

Multinational programs and projects included in the summary table of the country programme pipeline (Table 12) is not being considered in the detailed description, for more detailed information of these programs and projects please refer to the GCF website.

Table 13. Accreditation pipeline

Entity Name	Type	Action	Lead	Timeline
XacBank	Direct national			Accredited, no upgrades planned
Golomt Bank	Direct national	Application submitted	GCF - Stage 1 assessment	2018/2019
Trade and Development Bank	Direct national	Application submitted	GCF - Stage 1 assessment	2018/2019
Arig Bank	Direct national	Application submitted	GCF - Stage 1 assessment	2018/2019
Environmental and Climate Fund	Direct national	Interested in getting accredited but no Online Accreditation System (OAS) account opened. Accreditation strategy to be determined.	NDA, applicant	2019

Information and Research Institute of Meteorology, Hydrology, and Environment	Direct national	Interested in getting accredited but no OAS account opened. Accreditation strategy to be determined.	NDA, applicant	2019
Development Bank of Mongolia	Direct national	Interested in getting accredited but no OAS account opened. Accreditation strategy to be determined.	NDA, applicant	2019

3. MONITORING AND EVALUATION OF COUNTRY PROGRAMME IMPLEMENTATION

Section 3 outlines key steps in the updating, monitoring and evaluation of the country programme and its related activities. Questions which can be considered: How will new developments related to economic circumstances, new information on adaptation and mitigation, new information on changing viability or costs of various options inform updates in the country programme?

Please outline a practical schedule of periodic reviews/evaluations to effectively monitor progress and adjust course as necessary? How can it be linked to the Paris Agreement's periodic ambition reviews?

Specify which parameters of the country programme will likely require updates and what will be the frequency for updating the country programmes.

The intention is to update Mongolia's GCF Country Programme annually, first focusing on updates to the project pipeline, whereas other sections will be updated as new and relevant information becomes available - examples of this include:

- new and improved data and information on expected climate change impacts in Mongolia become available;
- new or updated relevant policy is developed or adopted;
- new international good practice or GCF guidelines for Country Programming become available; and
- relevant GCF operational policies are being changed, etc.

The NDA, after consultation and considering GCF guidance and advice that may be provided by Mongolian stakeholders, will determine the exact scope of updates and revision. In line with Mongolia's NDA Manual, updates and revisions will be drafted by qualified external experts under the coordination and guidance of the NDA and will be based on comprehensive and meaningful stakeholder engagement. Prior to finalization, draft updates and revised versions of the Country Programme will be discussed in Country Coordination Group and Country Stakeholder Convention meetings convened by the NDA.

Continuous updates to and improvement of the Country Programme will guide future project development and implementation so that they are in line with the latest available information and good international practice. This, in turn, will improve the impact and efficiency of the projects and programmes funded by the GCF in Mongolia.

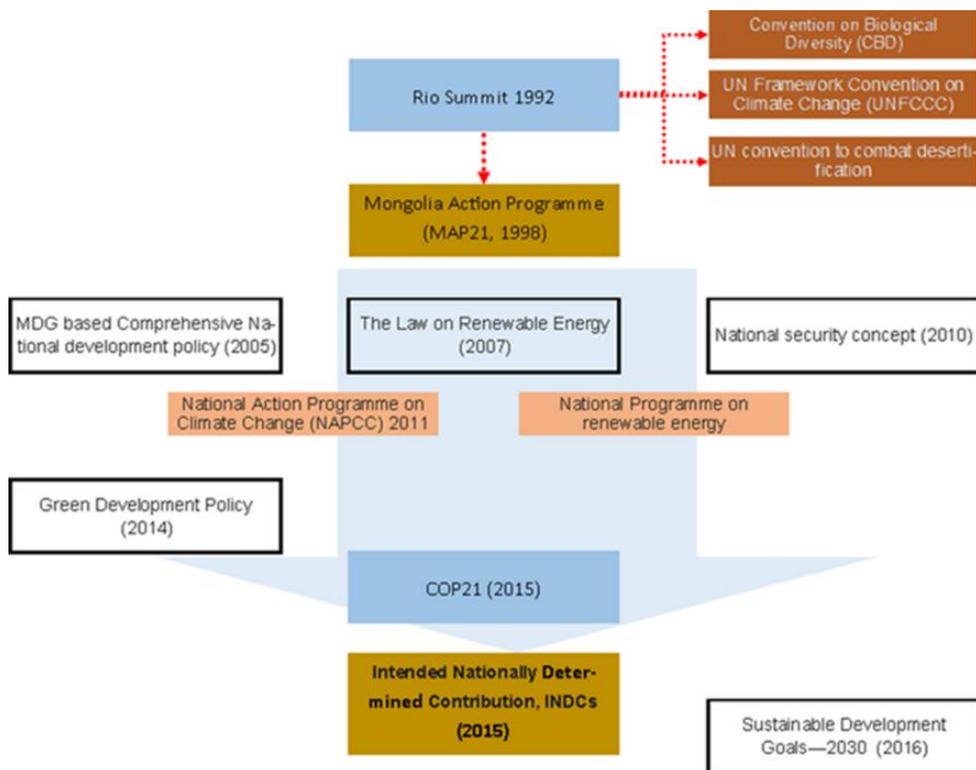
Monitoring and further evaluation of the Country Programme and GCF portfolios in Mongolia will follow the recommendations, requirements and schedules communicated by the GCF to the NDA. The NDA will engage in creating and realizing alignment and efficiency gains wherever possible with other relevant processes, including, for example, the planned process of updating Mongolia's INDC to NDC.

The present Country Programme should be considered a living document, especially due to the fact that the GCF is a relatively young institution. Furthermore, there are still a large number of lessons to be learned from GCF projects currently in progress, especially in the context of direct access implementation and capacity development efforts in Mongolia and other countries around the world. Due to the ever evolving landscape, the Country Programme of Mongolia will be reviewed and updated annually.

Overall, the expectation is that the implementation of the Country Programme will advance the achievement of the National Development Agenda 2030 goals as well as Mongolia's objectives towards a low carbon and climate resilient society and economy.

ANNEX

Methodology used in the prioritization process of climate change action programs and projects in the country program



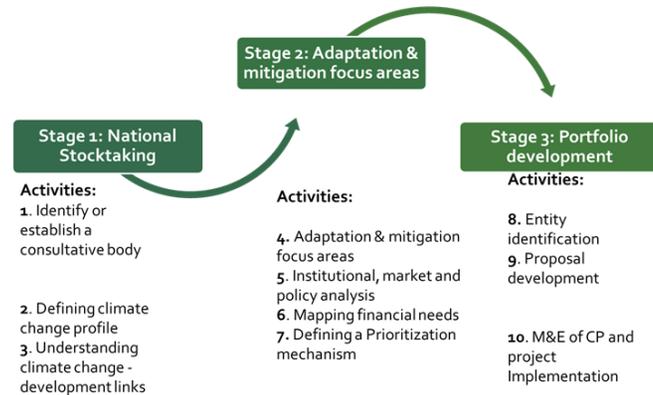
QUALITATIVE POLICY ANALYSIS

Development Policy (1996);
Mongolian Action Programme for 21st century (Rio, MAP21, 1998);

MDG based Comprehensive National development policy (2005);
The Law on Renewable Energy (2007);
The National Programme on renewable energy;
Nationally Appropriate Mitigation Actions (NAMAs) (UNFCCC Secretariat, January 2010);
National security concept (2010);
Government resolution No. 171, 2012: Building materials programme;
The Environmental Protection Law (2012);
The Green development concept (2014);
Intended Nationally Determined Contributions (INDCs) (UNFCCC, 2015);
Law on Energy Conservation (2015.11.26);
Law on energy, 2015;
State policy on energy (Parliament resolution No. 63, 2015);
Urban public transport investment programme, 2015;
State policy on Industry, 2015 (2015-2030);
State policy on forest, 2015 (2016-2030);
Mongolia's Initial Biennial Update Report to UNFCCC (08/2017)
Mongolia Third National Communication to UNFCCC (final draft version 12/2017)
National Action Program on Climate Change, 2012
State Policy on RE Mongolia 2015-2030 (in original language)
Technology Needs Assessment, Volume 1 – Climate Change Adaptation in Mongolia (2013)

ANNEX. Methodology used in the prioritization process (cont.)

The activities outlined in the graph below served as guiding steps towards developing the country programme for Mongolia. These were intended to support and identify the activities that represent the highest impact and potential for transformation across mitigation and adaptation.



1. Two consultative bodies are included in Mongolia's NDA Manual: the Country Coordination Group and Country Stakeholder Conventions. While both bodies have yet to be established following the enactment of the NDA Manual, for the present Country Programme, comprehensive stakeholder consultations have been carried out. Going forward, these bodies will only play a role in future updates and revisions of the Country Programme.

2. Information for defining Mongolia's climate change profile largely stems from systematic and extensive literature review. It is hoped that additional and further refined information will become available in the future.

3. The climate change development links included in the present version of the Country Programme are a result of both an extensive qualitative policy review, and discussions with relevant Ministries and key stakeholders, including a study of budget processes.

4. After taking these actions, adaptation and mitigation focus areas could then be identified. It is important to note that all GCF result areas are relevant for Mongolia and often cross-cutting, integrated concepts will yield the highest impact, efficiency and paradigm shift potential.

5. More specific institutional, policy and market analysis were implemented at the project concept level as part of a dedicated GCF Concept Note development workshop held in June 2018, bringing together 2-5 sectoral experts from various institutions for each of the ten identified adaptation and mitigation focus areas. This workshop also facilitated integrated project conceptualization, alignment among different projects under preparation (as well as past and expected climate change projects funded from other sources than GCF), alignment with GCF investment criteria and other relevant GCF policies (e.g. ESS, RMF/PMF), as well as selecting (or narrowing down options) of Accredited Entities to eventually develop and hopefully implement these projects. A follow-up workshop held in September 2018 focused on identifying key data and information and potential alternative project approaches to be further investigated in feasibility studies. Furthermore, this workshop produced a road map for each project, with the goal of eventually receiving proposal approval by the GCF Board.
6. Mapping of financial needs at the macro level was informed by Mongolia's INDC, relevant information included in adopted policies or other relevant documents, a study of state budget processes, and budget envelopes of current government action plans. At the project level, initial draft budgets for proposed new projects were developed during the mentioned GCF Concept Note development workshop. For proposals already approved and those nearing completion, data from respective Funding Proposals and other documents published on the GCF website were used.
7. The prioritization mechanism applied for the proposed project pipeline is the result of all of the above mentioned steps.
8. In some cases, entity identification has been established and agreed upon. However, in some cases, further discussion will be needed in order to determine which entities will lead projects, most notably during the process leading up to Concept Note completion.
9. Proposal development is underway or completed in several cases as reported in the Country Programme. For a number of new proposed Concepts, proposal development is still outstanding. In some cases, completion of these proposals will be challenging, and will likely require PPF and readiness support as indicated in the main section of the Country Programme.
10. M&E of Country Programme and project implementation will constitute activities that can be implemented in the future.