2021

# Environmental and Social Management Framework

FOR MONGOLIA TRANSPORT CONNECTIVITY AND LOGISTICS IMPROVEMENT PROJECT (P174806)

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# 1. EXECUTIVE SUMMARY

**The project development objective (PDO)** is to improve climate resilient transport connectivity and logistics efficiency for the meat value chain in Mongolia.

The project has four components.

**Component 1: Infrastructure Investments (estimated total cost: US$100 million; IBRD loan US$90 million)**

Targeting infrastructure constraints specific to the meat value chain, this component will improve transport connectivity for a more efficient meat supply chain. The investments and activities focus on aimags with the highest concentration of livestock, where the freight flows for meat are also concentrated. The interventions will be mainly based on the recent International Roughness Index (IRI) profile of the national road network in the selected aimags.[1] The interventions will also focus on the last-mile connectivity for local roads to connect herder communities to the national road network and complete the missing links in the meat value chain. The component will support development of the national road asset management (RAM) framework to be adopted as part of the national government's transport investment planning and management process to sustain the longer-term benefits and efficiency beyond the project.

**Component 2: Transport and Logistics Services (estimated total cost: US$10 million; IBRD loan US$8 million)**

This component aims to develop the services aspects of logistics efficiency improvement. The Ministry of Road and Transportation Development (MoRTD) has the mandate to address both physical connectivity and logistics services, and this component provides an entry point to tackle some of the long-standing institutional bottlenecks. The investments and activities implemented under this component are limited in scope and scale given the readiness considerations and resource constraints. Nonetheless, these interventions are complementary to others that the MoRTD is working on with the Asian Development Bank (ADB), the Japanese International Cooperation Agency (JICA), and the European Bank of Reconstruction and Development (EBRD), to implement major public transport investments in roads, warehousing, and trucking.

**Component 3: Technical Assistance and Capacity Building (estimated total cost: US$2 million, IBRD loan: US$2 million)**

This component focuses on the necessary preparatory works such as the master plans, functional design, the governance structure, financing/PPP options, feasibility studies, and bidding documents for logistics hubs, strategic and feasibility studies including technical designs, intermodal operations, and business development for export logistics, and institutional development and capacity building for improved transport and logistics services and system.

[1] The MTRD, in collaboration with the Road Transport Development Center, carried out the IRI assessment of the asphalt paved national road network in 2019. The IRI assessment was complemented by the field inspections of roads with poor and very poor IRI scores by the respective RMCs in June 2021.

**Component 4: Contingent Emergency Response Component (CERC) (total cost: US$0)**

This component establishes a zero-budget emergency response contingency fund that could be triggered in the event of a natural disaster through formal declaration of a national or regional state of emergency, or upon a formal request from the government in the wake of a disaster. Upon triggering, reallocation of project funds from other project components could be undertaken to facilitate rapid financing of a positive list of goods and services in the transport and agricultural/meat sectors. Eligible activities would include clearing and rehabilitation of road infrastructure, infrastructure at regional logistics hubs identified or supported by the project, and purchase of eligible materials. An emergency response annex will be included in the Project Operations Manual (POM), specifying the implementation arrangements for the component, including its activation process, the roles and responsibilities of implementation agencies, a list of activities that may be financed, E&S aspects, and fiduciary arrangements. When the Government of Mongolia has determined that an eligible crisis or emergency has occurred, it can request and seek the agreement of the World Bank to include relevant activities under the project. In such situations, all E&S instruments required for the added activities need to be prepared, disclosed, and approved by the World Bank.

Project location. The project will be implemented in Uvs, Tuv, Ovorkhangai, Arkhangai, Bulgan Khovsgol, Khentii and Sukhbaatar provinces of Mongolia.

**Potential environmental and social impacts and risks.** The major areas of risks for the project are assessed based on the following activities: (i) risks related to repair and maintenance of 244km existing roads; (ii) risks related to construction of 127 km last-mile connectivity roads; and (iii) risks related development of a Model Pilot Logistics Hub in Ovorkhangai province. The World Bank Environmental and Social Framework will apply and all ESSs except for ESS9 are considered relevant at this stage.

E&S risks during construction include fugitive dust, noise, spoil/construction waste, soil erosion and runoff, OHS impacts to workers and communities, traffic and road safety, potential impacts to wildlife, potential restrictions to land access, livelihoods impact to communities near the roads and near material sourcing sites, potential impact to ethnic minorities, risk related to SEA/SH, potential impact to cultural heritage, risk related to inclusion and stakeholder engagement etc. These risks are expected to be temporary, site specific and could be managed by adopting mitigation hierarchy. E&S risks during the hub operation will bring potential negative environmental impacts, including wastewater, air pollution, noise, waste, and OHS hazards, and the operational impacts of the project will be long term. The TA activities relate to potential infrastructure investments down the line and E&S risks will have to embedded in the ToRs for all such activities.

This ESMF is proposed as the E&S management instrument to cover all project supported activities, including repair and maintenance of existing road, new construction of last mile connectivity roads, development of the model hub, TAs, CERC activities, and any associated facilities in compliance with both domestic regulations and the World Bank's ESF.

**Environmental and Social Risk Rating.** The project was prepared under World Bank's Environmental and Social Framework with and Environmental Risk Rating of "*Substantial*" and a Social Risk Rating of "*Substantial*", resulting in an overall ESF Risk Rating of "*Substantial*".

**Institutional capacities to manage environmental and social risks and impacts.** Ministry of Road and Transport Development (MoRTD) has developed this ESMF, an ESMP, Labor Management Procedure (LMP), stakeholder engagement plan (SEP), a resettlement policy framework (RPF) for the project consistent with the requirements of ESF. MoRTD will be the implementing agency for the project. The project management office (PMO) functioning under the MoRTD will be responsible for the day-to-day

management of project activities. The PMO will deploy the staff needed for proper implementation of the ESF elements of the project.

# 2. INTRODUCTION

## Project Background

3.2 million people inhabiting a territory of 1.564 million square kilometers, Mongolia has a population density of 2.1 people per square kilometer. About half the population - some 1.4 million people-live in the capital city Ulaanbaatar. The rest of the population is spread across small urban centers and vast steppes, where people herd sheep, goats, horses, cattle, yaks, and camels. Some 233,000 households in Mongolia own and raise more than 70 million head of livestock. Nearly 30 percent of Mongolians are traditional nomadic pastoralists whose livelihoods are still vulnerable, with livestock often their only source of income. Alternate job opportunities are scarce in rural areas. (InfraSAP, 2020)

Poverty is much higher in rural areas (35.5 per cent) than urban areas (23.2 per cent). Rural poor people are either herders, who are scattered, isolated and mobile, or entrenched in rural district settlements called soums, made up of a few hundred families.

Basic infrastructure, such as social services and roads, is very poor due to Mongolia's difficult terrain and high construction costs, coupled with lack of funds. This makes life difficult for isolated rural people, who have limited access to markets, inadequate education and health care, and few opportunities to earn income.

Many herder households live in precarious circumstances on the ranges or in bagh (sub-districts), where opportunities for livelihoods apart from herding are almost non-existent. The effects of COVID-19 on the livestock sector are still largely unquantified and yet to be fully felt. While no formal assessments have been carried out, observations by international organizations and scientists show severe disruptions to livestock value chains, increased limitation in movements, and consequent conflicts over natural resources use.

To ensure sustainable and inclusive growth to reduce poverty and ensure equal opportunities to all citizens in urban and rural areas "Mongolia Transport Connectivity and Logistics Improvement Project" aims to improve transport connectivity and logistics efficiency for strategic value chains in Mongolia and strengthen the institutional capacity at the Ministry of Road Transport and Development to deliver, maintain and manage road infrastructure assets.

## ESMF Purpose and Scope

This ESMF sets out the principles, rules, guidelines, and procedures to examine and manage the environmental and social risks and impacts of the project activities that likely to have environmental and social impacts, for the proposed investment subprojects. The subprojects' design is to be specified; therefore, the Framework has developed the environmental and social impact mitigation measures and plans to avoid, reduce, mitigate and/or offset adverse risks and impacts associated with yet-to-be-defined subprojects.

The Framework describes applicable Mongolian laws, environmental and social management procedures, WB Environmental and Social Standards (ESS), WB ESF Good Practice Notes (GPNs) and WB Environment, Health and Safety guidelines that apply to project activities and subprojects. It also identifies the institutional implementation arrangements and capacity building framework to ensure that the

responsible entities follow necessary law, standards, and guidelines for sound and sustainable, socially responsible project design and implementation.

During the preparation of this ESMF, COVID-19 restrictions in Mongolia led to virtual engagements with key stakeholders. Site visits, in-person meetings with key stakeholders, and public consultation was not available due to COVID-19 restrictions.

Key report structure is:

- Executive Summary
- Introduction
- Policy, Legal and Regulatory Framework
- Environmental and Social Baseline
- Potential Environmental, Social Impacts, and Mitigation Measures
- Procedures to Address Environmental and Social Impacts
- Public Consultation and Disclosure
- Stakeholder Engagement and Grievance Redress
- Project Implementation Arrangements, Responsibilities and Capacity Building Plan

The Framework is supplemented with project-specific mitigation and planning documents:

- Screening form for potential environmental and social issues
- Resettlement Policy Framework
- Labor Management Procedures
- Stakeholder Engagement Plan
- Environmental and Social Capacity Building Plan
- Site Specific ESMP Template
- Environmental and Social Codes of Practice for Road Repair
- Traffic Management Plan

**Project Description Objective Statement**

The project development objective is to improve climate resilient transport connectivity and logistics efficiency for the meat value chain in Mongolia.

**PDO Level Indicators**

Achievement of the project development objective will be measured by the following indicators (details are presented in the Results Framework):

**Improved connectivity**

1) Travel time on project corridors, with sub-indicators measuring travel time along project national roads and local roads

**Improved logistics**

2) Logistics cost on identified corridors

**Improved climate resilience of road connectivity**

3) Road users with access to climate resilient roads along the project corridors (%)

**Corporate commitment *Indicator*: citizen engagement and gender**

1) Surveyed road users satisfied with the road transport and logistics infrastructure and related services along selected transport corridors;
2) Women herders who conducted a transaction/booking/reservation through the transport and logistics platform.

**The proposed Mongolia Transport Connectivity and Logistics Improvement Project consists of a complementary set of interventions that address the three major drivers of logistics costs in the meat value chain**—namely poor physical connectivity, lack of strategically located and efficient logistics hubs, and information asymmetry between the various actors in the supply chain.

**The project has four components**:

**Component 1: Infrastructure investments (estimated total cost: US$100 million; International Bank of Reconstruction and Development [IBRD] loan US$90 million)**

Targeting infrastructure constraints specific to the meat value chain, this component will improve transport connectivity for a more efficient meat supply chain. The investments and activities focus on *aimags* with the highest concentration of livestock, where the freight flows for meat are also concentrated. The interventions will be mainly based on the recent International Roughness Index (IRI) profile of the national road network in the selected *aimags*.[2] The interventions will also focus on last-mile connectivity to complete the missing links in the meat value chain. The component will support development of the national road asset management (RAM) framework to be adopted as part of the national government's transport investment planning and management process to sustain the longer-term benefits and efficiency beyond the project.

The activities to be financed under this component are listed below:

- ***Subcomponent 1.1: Results-based maintenance of key sections of the strategic network.*** This subcomponent will finance maintenance of 244 km of road in poor or very poor condition.

| Road | Route Code | Road Sections for Periodic Repair (km) | Road Sections for Rehabilitation (km) |
|---|---|---|---|
| Ulaanbaatar–Arvaikheer | A0301 | 46 | 37 |
| Ulaanbaatar–Undurkhaan | A0501 | 77 | 27 |
| Kharkhorin–Tsetserleg | A0602 | 13 | 19 |
| Bulgan–Murun | A0902 | 0 | 25 |
| **Total** | | | 244 km |

[2] The MTRD, in collaboration with the Road Transport Development Center, carried out the IRI assessment of the asphalt paved national road network in 2019. The IRI assessment was complemented by the field inspections of roads with poor and very poor IRI scores by the respective RMCs in June 2021.

The results will be measured in relation to evidence-based maintenance planning and budget allocations, a strategic investment plan that informs decisions, and metrics that respond to road users. The proposed activities involve repair and rehabilitation of road links in poor and very poor conditions to achieve year-round connectivity on the strategic network linking selected *aimags*. The purpose of the interventions is to improve network availability, safety, and preservation of the national road assets. These roads have been carefully selected and are the key parts of the national network that anchor connectivity to *aimags* that have concentration of meat. The activities will include the following levels of interventions:

- *Winter and severe weather maintenance*—preparing for extreme cold, activities to combat high winds, mudslides, and flooding.
- *Reactive and emergency response*—repair of potholes, patching, clearing incidents, and traffic management.
- *Routine maintenance*—cyclic maintenance including inspections for minor repairs, clearing drains, inventory management, fixing road signs, and marking.
- *Planned renewals*—interventions to prevent water ingress, drainage improvement, resealing, and preservation of crash barriers.

- ***Subcomponent 1.2: Last-mile connectivity for local herders.*** This subcomponent will finance the upgrading of 127 km of high-priority local road sections that have been identified for interventions to improve last-mile connectivity, and detailed designs for 76 km are complete and ready to be implemented.

| Road | Availability of Detailed Design | Length (km) |
|---|---|---|
| Tseel, Tuv *aimag* | Yes | 23.7 |
| Ugtaaltsaidam, Tuv *aimag* | Yes | 52.27 |
| Bulgan, Arkhangai *aimag* | No | 35 |
| Yosonzuil, Ovorkhangai *aimag* | No | 16 |
| **Total** | | 126.97 |

These activities will improve local roads that link herdsmen to the national road network. In the context of Mongolia's meat supply chain, this final leg constitutes a major constraint for the livelihoods of herders but also crucially for the entire chain and drives costs for operators, processors, transporters, retailers, and exporters. The World Bank has recently developed a multicriteria decision-making framework[3] for low-volume local roads which will be applied to selecting the appropriate intervention. Some of the interventions would include improvements in horizontal and vertical alignment, safety improvement, drainage works, pavement strengthening, or resealing.

[3] World Bank *To Pave or Not to Pave: Developing a Framework for Systematic Decision-Making in the Choice of Paving Technologies for Rural Roads*, Mobility and Transport Connectivity Series (Washington, DC: World Bank, 2021).

- ***Subcomponent 1.3: Road-asset management.*** This subcomponent will finance development of an asset management plan and decision support system for road infrastructure and update the technical standards including the national standards and norms for road asset maintenance and construction and specifications to reflect the reality of new challenges that have emerged due to climate change activity. It will build on the existing road inventory system[4] currently under development and the database, which has limited functionality. The system will be used to implement asset delivery and preservation for the roads under Subcomponents 1.1 and 1.2. This will contribute toward sustainability even after the project.

**Component 2: Transport and logistics services (estimated total cost: US$20 million; IBRD loan US$8 million)**

This component aims to develop the services aspects of logistics efficiency improvement. The MoRTD has the mandate to address both physical connectivity and logistics services, and this component provides an entry point to tackle some of the long-standing institutional bottlenecks. The investments and activities implemented under this component are limited in scope and scale given the readiness considerations and resource constraints. Nonetheless, these interventions are complementary to others that the MoRTD is working on with the ADB, the Japanese International Cooperation Agency, and the European Bank of Reconstruction and Development, to implement major public transport investments in roads, warehousing, and trucking.

Activities under this component include:

- ***Subcomponent 2.1: Model regional logistics hub.*** This subcomponent will finance the development of a model regional logistics hub. It addresses the constraint related to a lack of properly designed facilities for logistics activities in a "hub-and-spoke" configuration. The regional hub will provide facilities for consolidation to address the fragmentation that currently constrains the potential of the meat value chain. The intervention will reduce the need for small, partially loaded trucks without temperature control mechanisms, which currently lead to significant loss of product quality.

Ultimately, Mongolia will need to have strategically located hubs to support an overall network of hubs and spokes to facilitate the domestic and export markets once the issues of consistent quality, quantity, and reliability of products are addressed. Eight strategic locations form part of this network of connected roads and hubs. For demonstration purposes, the regional hub in Overkhanghai *aimag* will be financed under this project and provide a direct link to the domestic market in Ulaanbaatar. It was chosen based on multicriteria related to location, volumes, connectivity, and alignment with the Government of Mongolia's development plans.

[4] With the ongoing ADB TA-9544, a road asset management system is being reestablished to improve maintenance planning, implementation, and prioritization of the national road assets at the MoRTD and the Road Transport Development Center. A pavement maintenance management system called Paver™, developed by the Colorado State University, is currently being piloted for deployment (ADB, "Loan Agreement between Mongolia and Asian Development Bank: Regional Road Development and Maintenance Project," July 23, 2018, https://www.adb.org/sites/default/files/project-documents/48186/48186-005-lna-en.pdf).

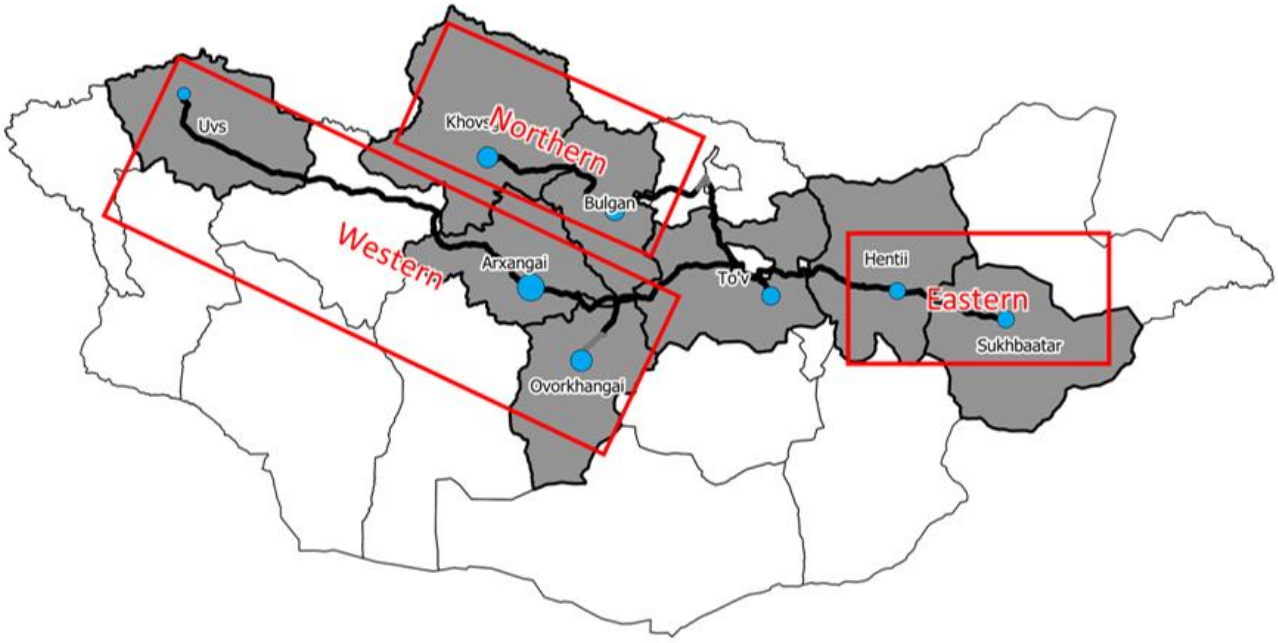


*Figure 1 Mongolia Transport Connectivity and Logistics Improvement Project*

The activities to be financed under this subcomponent include:

- Approximately 4–5 km of internal roads within the hub
- Facilities for docking, loading, packaging, and other value-added services
- Truck parking space
- Warehousing and cold-storage
- Space for offices and ancillary services such as hostels and offices
- Basic energy, solid waste disposal and water supply
- ICT access
- Land to be provided by the Government of Mongolia (approximately 28 hectares to be developed in phased manner)

It is expected that the regional hub would be operated under a public-private-partnership (PPP) scheme whereby the Government of Mongolia will provide the basic infrastructure listed above and the private sector would build the warehousing and freezing facilities and procure, operate, and maintain a modern trucking fleet to transport the frozen goods to markets as demanded throughout the year. The private sector would be selected based on a performance-based contract that encourages efficiencies and achieves economies of scale in the project.

The model regional logistics hub will complement ongoing and upcoming projects supported by the World Bank in the agriculture sector. Specifically, the Livestock Commercialization Project (ongoing) and Agriculture Clusters Project (under preparation FY23).

- ***Subcomponent 2.2: Logistics and supply chain platform.*** This subcomponent will finance the

development and deployment of a digital supply chain platform that provides an information backbone to the meat supply chain. The project will support the design of functional specifications for the digital platform and procure an appropriate platform. At a basic level, the platform should be accessible to core players in the supply chain—herders, warehouse operators, transporters, key government departments, auctioneers, retailers, wholesalers, and exporters.[5] This will function as a public, open, shared logistics information platform sponsored by the MoRTD but developed with functional departments, research institutes, software developers, logistics companies, and other parties.

- ***Subcomponent 2.3: Pilot projects for innovations in the supply chain.*** This subcomponent will finance activities related to innovations to harness the potential of new technology to address some of the inefficiencies. The following activities are envisaged:
    - *Real-time monitoring of deliveries (including radio-frequency identification [RFID] tags, quick response [QR] codes, track and trace blockchain)*. The RFID tags use electromagnetic fields to automatically identify and track tags attached to objects. The combination of RFID technologies with QR codes and blockchains will help address the visibility and tracing of products. The private sector partners will be requested to design solutions for specific routes before scaling up.
    - *Warehousing and smart trucks/containers*. Using simple technologies for machine learning, artificial intelligence, and robotics, solutions have been designed for handling basic processes and automation to reduce incidents of contamination, which are prevalent in Mongolia's meat logistics services.

- ***Subcomponent 2.4: Regulations and standards for contract logistics services.*** This component includes a review and updating of regulations to support the development of the contract logistics sector. Compliance standards and regulations are critical for viability and successful monetization of the contract logistics services in the value chain.

**Component 3: Technical assistance and capacity building (estimated total cost: US$2 million, IBRD loan: US$2 million)**

This component focuses on the necessary preparatory works, strategic and feasibility studies, technical designs, institutional development, and capacity building for improved transport and logistics services and systems. Activities under the component include:

- ***Subcomponent 3.1: Preparatory works for logistics hubs***. It is envisaged that the demonstration hub would form part of a network of integrated regional hubs and, eventually, a central amalgamation hub that could support increased meat supply along an unbroken chain for both the domestic and export markets. Initial indications from market sounding and prefeasibility studies prepared under the project indicated the private sector's concerns about the design and master plan for all the hubs as part of a system to ensure that they are "right sized"—not too big or not too small. This will depend on several factors such as volumes, activities in the hubs, existing production and key actors for each *aimag*, and market demand. To ensure that the network of hubs is built to a suitable scale and market, and the hubs are integrated with one another, the project will support the preparatory works for the remaining hubs. The activities will include master plans, technical designs, assessment of appropriate governance, financing/PPP options, feasibility studies, and bidding documents for logistics hubs.
- ***Subcomponent 3.2: Strategic studies for meat export transport and logistics.*** This subcomponent will

[5] Similar to the Logink platform in China supported by the World Bank, which allows different actors to access information to improve supply chain efficiency.

support activities related to logistics development beyond the domestic market. When the potential for meat exports picks up in Mongolia, specific studies for rail and air freight logistics will have to be designed. These strategic studies will lay the groundwork for export logistics and will include technical designs for terminal handling, intermodal operations, and business development for export logistics.

- ***Subcomponent 3.3: Capacity building and training.*** The public sector in Mongolia is still in its nascent stages of developing capacity to support the logistics sector and to preserve existing physical assets. This subcomponent will provide project management and implementation support, including Project Management Office (PMO) support, technical designs, environmental and social (E&S) studies, public consultation and engagement, and monitoring and evaluation (M&E) for activities under the other components while also developing capacity for road asset management, regulating contract logistics services, and PPPs. Capacity-building activities that will support the implementation include workshops, trainings, conferences, and study tours for government departments and technical staff.

**Component 4: Contingent Emergency Response Component (CERC) (total cost: US$0)**

This component establishes a zero-budget emergency response contingency fund that could be triggered in the event of a natural disaster through formal declaration of a national or regional state of emergency, or upon a formal request from the government in the wake of a disaster. Upon triggering, reallocation of project funds from other project components could be undertaken to facilitate rapid financing of a positive list of goods and services in the transport and agricultural/meat sectors.[6] Eligible activities would include clearing and rehabilitation of road infrastructure, infrastructure at regional logistics hubs identified or supported by the project, and purchase of eligible materials. An emergency response annex will be included in the Project Operations Manual (POM), specifying the implementation arrangements for the component, including its activation process, the roles and responsibilities of implementation agencies, a list of activities that may be financed, E&S aspects, and fiduciary arrangements. When the Government of Mongolia has determined that an eligible crisis or emergency has occurred, it can request and seek the agreement of the World Bank to include relevant activities under the project. In such situations, all E&S instruments required for the added activities need to be prepared, disclosed, and approved by the World Bank.

**Project cost and financing.** The total cost of the proposed project, including financing costs, is US$122 million, of which the IBRD loan will finance US$100 million. Co-financing of US$10 million is expected from the Asian Infrastructure Investment Bank. The Government of Mongolia and the MoRTD will provide counterpart funding of US$12 million. An estimated US$20 million is expected from the private concessionaire in the regional hub.

| | Component | Total Cost | IBRD | Cofinance | Counterpart | IBRD Funding |
|---|---|---|---|---|---|---|
| | | | US$ millions | | | % |
| 1 | Infrastructure investments | 100 | 90 | 0 | 10 | 90 |
| 2 | Transport and logistics services | 20 | 8 | 10 | 2 | 40 |

[6] If required, additional financing could be sought to restore funding to components from which funds have been transferred.

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 | Technical assistance and capacity building | 2 | 2 | 0 | 0 | 100 |
| 4 | Contingent Emergency Response Component | 0 | 0 | 0 | 0 | 0 |
| | **Total project costs** | 122 | 100 | 10 | 12 | 90 |

The Project component, cost and activities are summarized in the table below.

<table>
<tr><th>Component</th><th>Activities</th></tr>
<tr><td>Component 1: Infrastructure investments (estimated total cost: US$100 million)</td><td>
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| | |
|---|---|
| | ***Subcomponent 1.3: Road-asset management.*** This subcomponent will finance development of an asset management plan and decision support system for road infrastructure and update the technical standards and specifications to reflect the reality of new challenges that have emerged due to climate change activity. |
| **Component 2: Transport and logistics services (estimated total cost: US$20 million)** | ***Subcomponent 2.1: Model regional logistics hub.*** This subcomponent will finance the development of a model regional logistics hub. The activities to be financed under this subcomponent include:<br><br>▪ Approximately 4–5 km of internal roads within the hub<br>▪ Truck parking space<br>▪ Space for offices and ancillary services such as hostels<br>▪ Basic energy and water supply<br>▪ Land acquisition by the Government of Mongolia<br><br>***Subcomponent 2.2: Logistics and supply chain platform.*** This subcomponent will finance the development and deployment of a digital supply chain platform that provides an information backbone to the meat supply chain.<br>***Subcomponent 2.2: Logistics and supply chain platform.*** This subcomponent will finance the development and deployment of a digital supply chain platform that provides an information backbone to the meat supply chain. The following activities are envisaged: *Real-time monitoring of deliveries (including radio-frequency identification [RFID] tags, quick response [QR] codes, track and trace blockchain)* and *Warehousing and smart trucks/containers*.<br>***Subcomponent 2.4: Regulations and standards for contract logistics services.*** This component includes a review and updating of regulations to support the development of the contract logistics sector. |
| **Component 3: Technical assistance and capacity building (estimated total cost: US$2 million)** | ***Subcomponent 3.1: Preparatory works for logistics hubs***<br><br>The activities will include master plans, technical designs, assessment of appropriate governance, financing/PPP options, feasibility studies, and bidding documents for logistics hubs.<br><br>***Subcomponent 3.2: Strategic studies for meat export transport and logistics.*** This subcomponent will support activities related to logistics development beyond the domestic market.<br>***Subcomponent 3.3: Capacity building and training.*** |
| **Component 4: Contingent Emergency Response Component (CERC) (total cost: US$0)** | This component establishes a zero-budget emergency response contingency fund that could be triggered in the event of a natural disaster through formal declaration of a national or regional state of emergency, or upon a formal request from the government in the wake of a disaster. Eligible activities would include clearing and rehabilitation of road infrastructure, infrastructure at regional logistics hubs identified or supported by the project, and purchase of eligible materials. |

## Implementation Arrangements

The Ministry of Road and Transport Development (MoRTD) will be the executing agency of the project and will oversee overall project implementation and management activities to ensure smooth and timely implementation and completion of project activities.

- Project steering committee (PSC):
    - To be established to coordinate and align cross-sectorial activities under the leadership of the Cabinet Secretariat, with representation from the MoRTD, relevant local governments, the Road Development Center, the Ministry of Food, Agriculture, and Light Industry, the National Development Agency, and the Ministry of Finance.
- Project Management Office (PMO):
    - To be established under the MoRTD; the PMO Director to be appointed by the Minister of Road and Transport Development; staff to be hired by MoRTD per the MOF guideline. The PMO will be responsible for the overall day-to-day implementation and oversight of the Project upon approval of the loan by WBG and Government of Mongolia.
    - PMO staff will consist of Project Coordinator, Finance office, Procurement Specialist, Field engineers, Environmental Specialist and Social Specialist.
    - The contractors hired by the MoRTD will work closely with the PMO and the project consultants to assure implementation of this ESMF and safeguard documents.

# 3. POLICY, AND LEGAL AND REGULATORY FRAMEWORK

## Relevant Mongolian laws and regulation

Mongolia has enacted a comprehensive policy and legal framework for environmental assessment and management. It has policies, legislation, and strategies in place to manage the protected estate, to satisfy its international obligations, and to protect the quality of the environment for the health and well-being of its citizens. A fundamental principle of the Mongolian state environmental policy is that economic development must be in harmony with the extraction and utilization of natural resources and that air, water and soil pollution will be controlled. In April 1996, Mongolia's National Council for Sustainable Development was established to manage and organize activities related to sustainable development in the country. The country's strategy is designed for environmentally friendly, economically stable and socially wealthy development, which emphasizes people as the determining factor for long-term sustainable development. Key Mongolian laws relevant to the project are shown in below table.

*Table 1. National laws relevant to the project*

| No. | Regulation | Requirement | Project relevancy |
|---|---|---|---|
| 1 | Law on Environmental Impact Assessment (2012) | Road building, maintenance and infrastructure establishment projects may have environmental impact assessment done. | Relevant |
| 2 | Law on Environmental Protection (1995) | Socio-economic development may be balanced with environmental protection. | Relevant |
| 3 | Law on Protected Areas (1994) | Only certain activities are allowed in protected areas and their protection zones. | Relevant |
| 4 | Law on Cultural Heritage (2014) | Tangible and intangible cultural heritages must be explored and protected before any large-scale earth work takes place as part of infrastructure or development projects. | Relevant |
| 5 | Law on Waste (2017) | Impacts and risks from potential waste generation shall be identified, mitigated, minimized and managed. | Relevant |
| 6 | Law on Water (2012) | Water resources shall be effectively used and managed. | Relevant |
| 7 | Law on Labor (1999) | Rights and responsibilities of employees shall be respected and workers shall be provided with safe and healthy working environment. | Relevant |
| 8 | Law on Occupational Health and Safety (2008) | This law and its requirements must be strictly followed at all work environment. | Relevant |
| 9 | Law on Promotion of Gender Equality (2011) | Both women and men shall be provided with equal opportunities. | Relevant |
| 10 | Law on Road (2017) | Road building and maintenance activities shall not have negative impacts on the environment. | Relevant |
| 11 | The Constitution of Mongolia (Amended 2019) (Article 14.2) | No person shall be discriminated against on the basis of ethnic origin, language, race, age, sex, social origin and status, property, occupation and position, religion, opinion and education. Everyone shall be a person before the law. | Relevant |
| 12 | Law on Allocation of Land to Private Citizens, Articles 32 and 37 | Invoking eminent domain is only legally recognized when taking back land for special | Relevant |

| | | | |
|---|---|---|---|
| 13 | Law on land | needs of the State including, lines and networks and other objects of national scale | |
| 14 | The Civil Code of Mongolia is the legal basis for contractual agreements on the transfer of land in the ROW from affected entities to the government (Chapter 15, Articles 1, 6, 7, 8, 109 and112, among others) | Negotiated settlement regulations | Relevant |
| 15 | Law on Culture (Article 1.3, 19.2 ) | Protection of culture, discrimination and harassment of ethnic culture is prohibited. | Relevant |
| 16 | Law on Labor (Article 7.1) | Guarantee equality among ethnic group | Relevant |
| 17 | Criminal Code of Mongolia (Article 2.14, 14.1) | 2.14.for a motive of ideological, racial, national, ethnical, religious, or by reason hatred based on sexual orientation discrimination shall be punishable by imprisonment for a term from twelve to twenty two years or by life-term imprisonment.<br>14.1. Discrimination persons or restriction of human rights and freedoms on the basis of ethnic origin, language, race, age, sex, social origin or status, property, occupation or post, religion, opinion, or education, sexual orientation, gender, health condition shall be punishable by a fine equal to from four hundred and fifty to five thousand four hundred units of amount, or from two hundred forty to seven hundred and twenty hours of community service, or a penalty of limitation of free travel right for a term from one month to one year. | Relevant |

The environmental impact assessment (EIA) requirements of Mongolia are regulated by the Law on Environmental Impact Assessment (2012). The purpose of this law is to protect the environment, prevent ecological imbalance, ensure minimal adverse impacts on the environment from the use of natural resources, and regulate relations that may arise in connection with the assessment of environmental impacts of and approval decisions on regional and sectorial policies, development programs and plans and projects. The DEIA can only be conducted by an entity with licensed from the Ministry of Environment and Tourism. List of licensed entities are listed on the MET's website. While there are no separate social impact assessment rules and regulations, this EIA law includes some social aspects such as engagement with local communities, cultural and historical considerations, and use of land.

There are two types of EIAs defined in the EIA law:

(i) General EIA (screening) - to initiate a General EIA, the project implementer submits to Ministry of Environment and Tourism (MET) (or Aimag government) a brief description of the project including feasibility study, technical details, drawings, and other information. The General EIA may lead to one of four conclusions: (i) no detailed EIA is necessary, (ii) the project may be completed pursuant to specific conditions, (iii) a Detailed EIA is necessary, or (iv) project cancellation. The General EIA is free and usually takes up to 14 working days.

(ii) Detailed EIA – the scope is defined by the General EIA. The Detailed EIA report must be produced by a Mongolian company which is authorized by the MET by means of a special procedure. The developer of the Detailed EIA should submit it to the MET (or *Aimag* government). An expert of

the organization who was involved in conducting General EIA should make a review of the Detailed EIA within 18 days and present it to MET (or *Aimag* government). Based on the conclusion of the expert, the MET (or *Aimag* government) takes a decision about approval or disapproval of the project.

(iii) The Detailed EIA must contain the following chapters: (i) Environmental baseline data; (ii) Project alternatives; (iii) Recommendations for minimizing, mitigation and elimination of impacts; (iv) Analysis of extent and distribution of adverse impacts and their consequences; (v) Risk assessment; (vi) Environmental Protection Plan; (vii) Environmental Monitoring Program; and (viii) Opinions of residents on whether the project should be implemented.

The location, type and size of the planned activities define responsibility for the Ministry of Environment and Tourism (MET) or Aimag (provincial) government in making EIA. It is anticipated that activities planned in the Mongolia transport connectivity and logistics improvement project are likely to trigger these national law requirements. A detailed environmental impact assessment will be required for construction of new roads planned under the Subcomponent 1.2 last mile connectivity for local herders, and the Subcomponent 2.1 The model regional logistics hub. The subcomponent 1.1 maintenance of the road section will likely not require detailed environmental impact assessments.

The establishment of a baseline for environmental monitoring is to determine trends in the quality of ambient air, water, ambient noise and soil and how that quality is affected by the release of contaminants, other anthropogenic activities, and/or by waste treatment operations (impact monitoring). Environment monitoring needs to be carried out to estimate nutrient or pollutant fluxes discharged in atmosphere or ground waters or lakes or to the land across project and nearby areas. Monitoring is done to determine the quality of the ambient Environment before start of any kind of project related activities, as it provides a means of comparison with impact monitoring. It will be also used simply to check whether any unexpected change is occurring in otherwise pristine conditions. The National Agency for Meteorology, Hydrology and Environmental Monitoring (NAMHEM) is responsible for environmental monitoring of water, air, acid deposition, soil, environmental radiation, dust-deposition and Sulphur gases to control the environmental quality. The laboratories in main cities make permanent measurements on air, water, soil quality and radiation level, meanwhile, control waste sources of pollution from such power plants and vehicles; carries necessary monitoring activities on environmental assessment; control industry wastes in cooperation with other environmental controlling organizations.

## World Bank Environmental and Social Standards

The World Bank's ESF is applicable to this project, under which the relevance of environmental and social standards in the context of this project is summarized in Table 1.

*Table 1 Project ESSs relevance*

| No. | Environmental and social standard | Relevancy | Analysis |
|---|---|---|---|
| 1 | ESS1. Assessment and management of environmental and social risks and impacts | Relevant | As per this standard, Ministry of Road and Transport Development (MoRTD) is required of assessing, managing and monitoring environmental and social risks associated with the project. |
| 2 | ESS2. Labor and working conditions | Relevant | ESS2 is deemed relevant considering that the project involves multiple types of workers. |
| 3 | ESS3. Resource efficiency and pollution prevention | Relevant | Road building and rehabilitation work will have significant but controlled amount of impact on the |

| No. | Environmental and social standard | Relevancy | Analysis |
|---|---|---|---|
| | | | environment. The operation of hub and their associated facilities will bring impacts and pressures on the environment, including consumption of resources (such as energy and water), generation of solid wastes, wastewater, and various air emissions. The construction and rehabilitation of roads will have moderate impact on local environment. Direct impacts are consumption of resources, waste generation, emissions during construction phase, and moderate impact on fauna during operation phase. |
| 4 | ESS4. Community health and safety | Relevant | This standard aims to anticipate and avoid adverse impacts on the health and safety of local communities during the project implementation. Given the scale and nature of earth or road works, the project will bring quite significant construction nuisance to nearby communities or affect any ecosystem services. The temporary and localized impacts of noise, dust, waste generation and traffic disturbance during the road construction and rehabilitation period could be mitigated by incorporating good civil works management practices. Designed speed for the last mile roads ranges from 50-80km per hour, traffic safety will be assessed and mitigation measures will be taken as part of the last mile roads construction. The model logistics hub may include office space for workers and hostels for truck drivers, so impact from the hub to nearby communities will be assessed. In the times of covid-19 pandemic, preventive measures shall take place during project implementation to ensure local communities are not affected by any diseases caused by labor influx associated with road construction and rehabilitation. |
| 5 | ESS5. Land acquisition, restrictions on land use and involuntary resettlement | Relevant | The Government of Mongolia will provide clean land already available to support the project. Land acquisition will be avoided as a general rule. Temporary land use will be managed to minimize and mitigate negative impacts to local communities. The SEP prepared lays out detailed steps to identify potentially affected persons for road maintenance and rehabilitation, construction of the hub, last mile connectivity road sections, and material sourcing. The SEP also includes steps for public consultation so that all land related issues would be made transparent to nearby communities to avoid and mitigate any negative impact from land use. A RPF has been prepared in case the need for compensation is identified for permanent or temporary land use. |
| 6 | ESS6. Biodiversity conservation and sustainable management of living natural resources | Relevant | This standard aims to protect and conserve biodiversity and habitats, and promote sustainable management of living natural resources. According to this standard, MoRTD is required to ensure that project activities do not significantly harm biodiversity and block local |

| No. | Environmental and social standard | Relevancy | Analysis |
|---|---|---|---|
| | | | people's access to and use of ecosystem services. All subprojects will be screened by MoRTD to eliminate any activities situated in critical habitat. Eligible subprojects' impacts to biodiversity and natural habitats will be analyzed in site specific E&S instruments and relevant mitigation measures will be proposed. |
| 7 | ESS7. Indigenous peoples/Sub-Saharan African historically underserved traditional local communities | Relevant | This standard deems relevant since ethnic minorities are likely to be living in provinces such as Uvs. Ethnic minority presence will be further assessed once project locations are confirmed during project implementation. |
| 8 | ESS8. Cultural heritage | Relevant | This standard is considered relevant based on the available information and project design during preparation. A few potential cultural heritage sites have been identified near last mile sections. Upon further assessment, alignment of these last mile roads would be adjusted to avoid impact to these sites. The project shall employ chance find procedure to ensure no cultural heritages are destroyed during road construction and rehabilitation. |
| 9 | ESS9. Financial intermediaries | Not relevant | This standard is not relevant to the proposed project, as MRDT will implement the project. No financial intermediaries will be involved. |
| 10 | ESS10. Stakeholder engagement and information disclosure | Relevant | MoRTD recognizes the importance of transparent and meaningful engagement with project stakeholders since it can improve the environmental and social sustainability of the project and enhance its acceptance. As per this standard, the MoRTD will develop and implement a Stakeholder Engagement Plan (SEP) with the objective to establish a systematic approach to stakeholders' engagement, which will guide the identification of stakeholders and project affected parties, as well as building and maintaining constructive relationships throughout the project implementation. Mitigating potential impacts from all ESSs will depend on an effective stakeholder engagement and information disclosure mechanism. |

In addition, the following EHS guidelines of the World Bank Group are considered applicable to the project, namely:

- World Bank EHS General Guidelines
- World Bank EHS Guidelines for Toll Roads
- World Bank ESF Good Practice Note (GPN) on Road Safety
- applicable World Bank Industry Sector EHS Guidelines
- Bank's ESF/Safeguards Interim Note and WHO health guidance regarding COVID-19

## Gap analysis between Mongolian laws and regulation and World Bank Environmental and Social Standards

There are some gaps identified between national and Bank's environmental and social requirements and key findings of analysis of gaps between Bank's and national requirements are presented in Table 2 highlighting gaps identified and measures through which the ESMF can close those gaps.

*Table 2 Environmental and Social policy gap analysis*

| Topic | Gaps identified (reference to World Bank ESF) | Gap-filling measures |
|---|---|---|
| Scope of environmental assessment | Mongolian EIA law covers human health & environment only (WB ESF ESS1) | Environmental and social impacts assessment shall include all aspects as described in each ESS, including natural environment, labor conditions, human health & safety, resource efficiency and sustainable management, involuntary resettlement, indigenous peoples, cultural heritage, and any trans boundary and global environmental aspects. |
| | Only certain types of activity in protected area buffer zones are subject to EIA (WB ESF ESS1) | All subprojects shall be screened and appraised. |
| Labor conditions & OHS | Mongolian Labor Law (1999) and Law on Occupational Safety and Hygiene (2008) implement the ILO core labor standards, and establish rights and responsibilities for ensuring health and safety in the workplace. However, because national laws apply to all employers, there is no legal obligation to ensure that labor and OHS requirements are met by sub-contractors. Specific measures to mitigate OHS related risks are not set out in national law, although some are set out in national standards and regulations. (WB ESF ESS2) | The ESMF contain provisions to ensure that subcontractors are subject to the same labor and OHS requirements, and to ensure that appropriate mitigation options are designed in subproject ESMPs.<br><br>Also, A Labor Management Procedure (LMP) has been prepared to ensure project complies with ESS2 in terms of prevention of child labor and forced labor. |
| Resource efficiency and pollution control | Mongolian laws on Air, Water and Waste define general requirements related to these resources. However, they appear to lack on specifying pollution control and prevention measures related to any economic activity. (WB ESF ESS3) | The subproject environmental screening process will identify the key ESS3 related issues, and the ESMF has developed guidance on the management of resource efficiency and pollution, with reference to Good International Industry Practice (GIIP), including the applicable EHSGs of the World Bank Group |
| Community health and safety | There is no national law specific to community health and safety. (WB ESF ESS4) | The ESMF has provided guidance to prevent or minimize health, safety and security risks and impacts caused by project intervention to local communities and the spread of |

| Topic | Gaps identified (reference to World Bank ESF) | Gap-filling measures |
|---|---|---|
| | | COVID-19 in the workplace or communities. The mitigation measures for public health impacts, such as pestis, the traffic and road safety and food safety outlined in this ESMF. |
| Involuntary Resettlement | Mongolia has no national law specific to land acquisition and resettlement. The Mongolian Law on Land defines ownership and possession rights to specific categories of land, and allows soum governors to sign land use contracts with herder groups. Soum Citizens' Representative Meeting holds the right to approve or decline soum annual land management plan that is submitted by soum governor, which reflects various requests to use local land for different purposes and this procedure shall be adhered during the project implementation. The vast majority of herders using pasture in protected areas or buffer zones have no formally titled land rights, although some may have contracts for limited-term use rights for winter-spring camps. Customary land use is recognized as a consideration in land management planning, but customary rights have no formal status in national law. Mongolia has no current law applicable to expropriation of land under customary use by the state. A draft Law on Land Acquisition for Unavoidable Public Need has been prepared in line with World Bank standards, but not yet been passed. If passed into law, the ESMF may need to be revised. (WB ESF ESS5) | The MoRTD has stated that land acquisition will be avoided. The government will provide clean land for the logistics hub. Stakeholder engagement will be undertaken to ensure potential livelihoods impact fromland for the last mile connectivity roads is avoided or mitigated. Impact to local communities from material sourcing will also be assessed. The SEP has provided guidance on steps of stakeholder identification and consultation in relation to potential land use affected persons. A RPF has been prepared to provide guidance in the case restrictions to access to income sources were identified at implementation stage. |
| Biodiversity and sustainable resource management | Mongolia has no law on animal welfare and sustainable livestock sector. While there is a law on Protected areas, it does not specifically define modified, natural or critical biodiversity habitat. (WB ESF ESS6) | The ESMF has developed guidelines with reference to GIIP, including the applicable EHS guidelines of the World Bank Group. In addition, exclusion criteria have been included in the ESMF to avoid any negative impacts on critical habitats or natural habitats. |
| Indigenous People | Mongolia's constitution states that "no person shall be discriminated against on the basis of ethnic origin, language, race, age, sex, social origin | Initial ESIA indicated there are ethnic minority groups in Aimags where project is implemented. Further screening of ethnic minority presence will be conducted once |

| Topic | Gaps identified (reference to World Bank ESF) | Gap-filling measures |
|---|---|---|
| | and status, property, occupation and position, religion, opinion and education". However, there is no other specific legislation on ethnic minorities. National education and language policies have generally tended to promote Mongolian language, and Khalkh Mongolian is the official language of government business. (WB ESF ESS7) | project locations are finalized at implementation stage. In case ethnic minority presence is confirmed, consultations with ethnic minority groups should be taken in an appropriate manner, for example in a language they feel most comfortable with. |
| Cultural heritage | Relevant laws include the Law on Protected Area and the Law on Cultural Heritage. The Law on Protected Area specifies permitted and prohibited activities in different zones in national protected areas of different status and the roles and responsibilities of different levels of government in granting permissions for land use. The Law on Cultural Heritage has initiated a process of registration of tangible culture and specifies roles and responsibilities for the protection of tangible culture. (WB ESF ESS8) | The project should support stakeholders' engagement in the identification, registration and protection of cultural heritage. Any activities that may cause adverse impacts on cultural heritage will be ineligible for project financing. Also, the ESMF includes chance-find procedure. |
| Public participation in ESIA | EIA Law does not require public participation in general EIAs (WB ESF ESS1, ESS10) | ESMF shall ensure key stakeholders are meaningfully consulted and their views have taken into account before submission of general EIAs. |
| | Regulations on public participation in detailed EIAs give only general guidance on public participation (WB ESF ESS10) | ESMF shall ensure key stakeholders are meaningfully consulted and their views have taken into account. |
| Public notification and disclosure | EIA Law provisions on public notification and disclosure are incomplete (WB ESF ESS10) | ESMF and subprojects ESMP shall specify procedures for public notification and disclosure of project plans and ESAs in line with international standards. |
| Reporting | EIA Law only requires reporting on EMPs pursuant to detailed EIAs (WB ESF ESS1, ESS10) | Status of all environmental and social documents and monitoring results shall be reported and disclosed to all stakeholders. |

# 4. ENVIRONMENTAL AND SOCIAL BASELINE

## Environmental baseline

Mongolia is a landlocked country in Northern Asia with a surface area of 1.56 million square kilometers and about three million inhabitants, of whom 2.2 million live in urban areas. Population density in rural areas thus averages 0.5 inhabitants per square kilometer, which reflects also the dominance of mobile pastoralism as the main rural livelihood throughout the country. Administratively, Mongolia is divided into Ulaanbaatar and 21 aimags (provinces). Aimags are further divided into *soums* (counties) and *baghs* (villages).

**The topography** of Mongolia consists mainly of a plateau with an elevation ranging from 914 to 1524 m broken by mountain ranges in the north and west. The country has an average elevation of 1,580 metres. The Altai Mountains stretch across the western and the southwestern regions of the country, and Khuiten Peak in far western Mongolia is the highest point (4,375 metres). The east and the south are characterized by plains and depressions. The landscape includes one of Asia's largest freshwater lakes (Lake Khuvsgul), many salt lakes, marshes, sand dunes, rolling grasslands, alpine forests, and permanent mountain glaciers. Northern and western Mongolia are seismically active zones, with frequent earthquakes and many hot springs and extinct volcanoes.

**Climate:** Mongolia has a severe continental climate due to its long distance from oceans, the high mountains in the north and west, and high average elevation above sea level. Average annual temperature is below 2°C above 45° latitude, and below -4°C in the northwest of the country, while in the south Gobi, the average temperature is higher than 6°C (Figure 6.1). Average winter temperatures range between -8°C and -32°C, while summer temperature range between 6°C and 24°C. Annual total precipitation ranges between 50 mm in the southern Gobi to 450 mm in the north. Annual mean precipitation is 300-400 mm in the northern and western areas, 250-300 mm in the Altai and central-northern forest steppe zones, and 150-200 mm in the eastern steppe zone. Potential evapotranspiration is above 500 mm across most of the country.

**Vegetation:** Mongolia's vegetation can be classified into five ecological zones that generally follow a north to south gradient: the high mountain, forest steppe, steppe, desert steppe, and desert zones **(Figure 3)**. Forests cover 9.2% of the land area, mostly in the northern taiga and forest steppe zones. The forest steppe and steppe zones comprise over half of the land area (30% and 20% respectively) and have the highest concentration of people and livestock, mainly due to the relatively high biomass productivity (600–1,800 kg/ha). The desert steppe and desert zones occupy approximately 37% of land area with lower productivity (30–400 kg/ha).

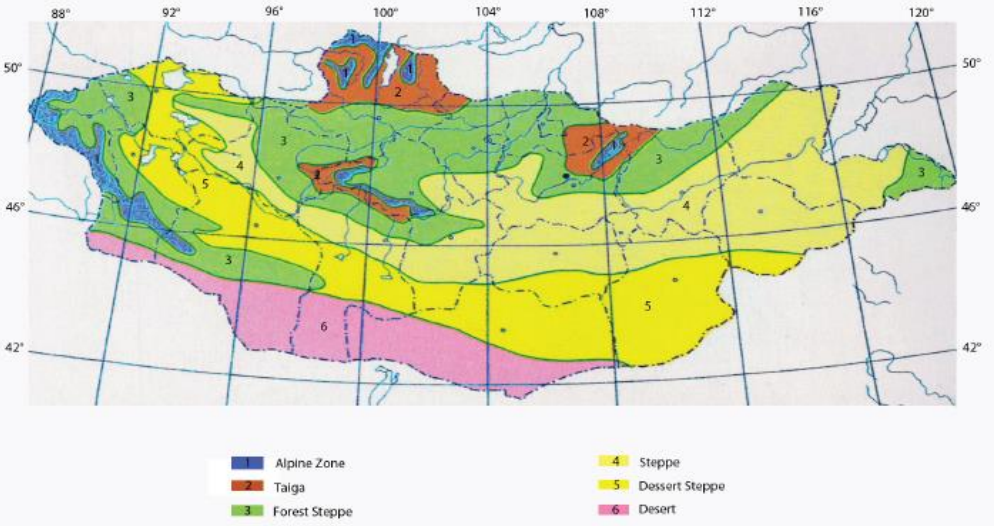



*Figure 2 Vegetation classification*

*Source: Green Gold and Mongolia Society for Range Management (2009) Livelihood study of herders in Mongolia. SDC, Mongolia*

**Ecosystem and biodiversity:** Located between the Russian Federation and the People's Republic of China, in the heart of Central Asia, Mongolia spans across the Siberian taiga, Eurasian steppes and the Gobi deserts of Central Asia, and is situated in the watersheds of the Arctic, Pacific, and Central Asian Internal Drainage basins. Mongolia is of global significance because of its location at the convergence of the Siberian taiga and the Central Asian steppe and deserts that form a rich diversity due to the transitional ecosystems that occur nowhere else and unique assemblage of species. Therefore, it hosts a range of globally important biodiversity, including parts of two WWF Global 35 priority eco-regions (the Amur-Heilong in Eastern Mongolia and the Altai-Sayan in Western Mongolia), as well as 2 UNESCO natural World Heritage Sites, 11 Ramsar sites, 70 Important Bird Areas (IBA) and habitat of globally endangered mammals like wild horse/Takhi (Equus ferus przewalskii), Wild Bactrian camel (Camelus ferus), Asiatic wild ass (Equus hemionus), Gobi bear/Mazaalai (Ursus arctos gobiensis), Saiga antelope (Saiga tatarica mongolica) and others.

Biodiversity was an integral feature of Mongolia's intact ecosystems until the middle of the 20th century. Pasture-based livestock husbandry was a subsistence economic activity functioning in a semi-natural ecosystem integrated with the seasonal climate regime and distinct landscape patterns. In fact, it was a reference point or basic line for biodiversity, which could be sustained across this geographic domain in accordance with the associated climate variability (Batjargal. Z and Shiirevdamba. Ts 2016).

Mongolia contains 16 ecosystem types within its borders, which have been consolidated into four eco-regions, namely the Daurian steppe (28.2% of total area), Khangai (16.4% of total area), Central Asian Gobi Desert (16.4% of total area), and the Altai-Sayan (23.1% of total area) (Figure 6.3), in order to increase integration between national conservation and development policies and plans (Chimed-Ochir B. 2010). These eco-regions with their unique assemblage of ecosystems comprise a variety of fauna and flora species, which consist of 138 species of mammal, 79 species of fish including subspecies (Mendsaikhan B. 2017), 22 species of reptile, 6 species of amphibian, 476 species of bird, over 13 thousand species of insect and 516 species of mollusk, 3127 species of vascular plants, 1574 species of algae, 495 species of moss, 838 species of fungus (Government of Mongolia, 2015). Totally 110 species of fauna and 192 species of

flora were deemed to be nationally endangered and registered into the Mongolian Red Book as either critically endangered.

However, due to climate change and negative human activities, 72.3 percent of the total territory has deteriorated; soil nutrients have been lost; desertification has become an increasing threat; over 70 percent of pastureland has been overgrazed; plant growing rates and compositions have been reduced; hundreds of rivers, streams, natural springs, lakes, and ponds have dried up; the forest resource has decreased by 2 million ha; and about 300 species of fauna and flora are threatened with extinction. Therefore, the need to upgrade conservation management to international standards has become a priority. Additionally, the human right to live in healthy and safe environments must be ensured; untouched environmental conditions and ecological balance must be preserved for future generations; and sustainable development through maintaining balance between social and economic progress and environment must be pursued.

**Ecologically sensitive areas:** Mongolia's Protected Area (PA) network and ecologically important areas are included in ecologically sensitive areas. The Protected Area network consists of 120 protected areas covering 21% (32.7 million ha) of the country's territory. The number of protected areas has increased since the Parliament adopted the National Programme on Protected Areas (1998) that set the goal of establishing a protected area system covering 30% of the national territory. In 2021, the protected areas of the territory of Mongolia included 21 Strictly Protected Areas (13.8 million ha), 37 National Parks (13.5 million ha), 48 Nature Reserves (5.3 million ha), 14 National Cultural and Historical Monuments (0.13 million ha).

In addition, there are 911 locally protected areas covering 16.3 million ha and 10.4% of the total territory of Mongolia. The total size of the state and local protected areas has reached 44.3 million ha, 7 which is 28.3% of the total territory (Government of Mongolia 2015). However, capacities and resources for protected area management have not kept pace with the expansion of PAs, and most protected areas suffer from inadequate resources to conserve important species and habitats they are supposed to protect.[8]

In accordance with the Law on Protected Areas, all Specially Protected Areas and National Parks may have a Buffer Zone (BZ). A separate Law on Buffer Zones regulates the establishment and management of Buffer Zones. It aims to reduce, mitigate and prevent the actual and/or potential adverse impacts experienced in their respective PA by way of (i) increasing local communities' participation in the conservation of protected sites, by (ii) providing livelihood means to local communities and (iii) by ensuring the appropriate use of natural resources. Currently the Government actively advocates the establishment of Buffer Zones around SPAs and NPs. If properly managed the LPAs will in principal offer a good protection and they will also provide for an expansion zone of the Protected Areas.

**Physical Cultural resources/ Cultural Relics Sites:** Mongolia is rich in physical cultural resources. The list of important heritage, cultural and religious sites of Mongolia and its provinces revised in 1994, 1998 and 2008. In this list, total of 460 objects were registered and out of them 175 have to be under State protection and 285 have to be under provincial protection.

[7] https://www.cbd.int/doc/world/mn/mn-nbsap-v2-en.pdf; http://www.eic.mn/spalocal/localspa_stat_en.php?ltype=1
[8] http://www.mn.undp.org/content/mongolia/en/home/operations/projects/environment_and_energy/SPAN.html

*Table 3 List of cultural heritage sites registered in Mongolia*[9]

| # | Name of Provinces | Number of heritage, cultural and religious sites | |
|---|---|---|---|
| | | Under State protection | Under Provincial protection |
| 1 | Arkhangai* | 14 | 24 |
| 2 | Bayn-Ulgii* | 16 | 13 |
| 3 | Baynkhongor* | 10 | 10 |
| 4 | Bulgan* | 10 | 25 |
| 5 | Gobi-Altai* | 8 | 29 |
| 6 | Gobisumber | 0 | 2 |
| 7 | Darkhan Uul | 3 | 2 |
| 8 | Dornogobi | 5 | 8 |
| 9 | Dornod | 3 | 8 |
| 10 | Dundgobi | 7 | 16 |
| 11 | Zavkhan* | 6 | 5 |
| 12 | Orkhon* | 0 | 1 |
| 13 | Ovorkhangai* | 9 | 26 |
| 14 | Umnugobi | 8 | 15 |
| 15 | Sukhbaatar* | 8 | 4 |
| 16 | Selenge | 2 | 5 |
| 17 | Tuv* | 15 | 6 |
| 18 | Uvs* | 5 | 8 |
| 19 | Khovd | 9 | 8 |
| 20 | Khuvsgul* | 9 | 26 |
| 21 | Khentee* | 13 | 23 |
| 22 | Ulaanbaatar | 15 | 11 |
| | TOTAL | 175 | 285 |

**Water:** Compared to many other countries, Mongolia's water resources are limited. The average annual rainfall ranges from 80 millimeters in the gobi region in the south to about 350 millimeters in the northern mountain areas. Seasonal variation in climatic conditions is strong, with 257 cloudless days in a year and with temperature ranging from –40 degrees Celsius (°C) in winter (November–February) to 35°C in summer (July–September). The total surface water resource of Mongolia is estimated as 599 km3 /year, and is composed mainly from water stored in lakes (500 km3 /year) and glaciers (62.9 km3 /year). Only 5.8% of the total surface water resources, i.e., 34.6 km3 /year, are in rivers, with 2.1% in base flow and 3.7% in direct runoff of rainfall and from snow melting as determined from a flow separation analysis. The amount of water resources in the renewable ground water (i.e., groundwater with smaller residence time that can be replenished relatively quickly) has been estimated as 10.8 km3 /year. These rivers originate in Central Asian high mountains ranges and drain into three main river basins of the Arctic Ocean Basin (AOB), the Pacific Ocean Basin (POB) and the Asian Internal Basin (AIB) (Figs. 4 and 5). In another word, 60% of the river runoff formed in the Mongolian territory drains into Russia and China. Only 40% flows into lakes of Gobi, partially recharging groundwater aquifers. The runoff in the rivers draining from the Khuvsgul, the Khangai and the Khenty Mountains is formed mainly from rainfall (56-75% of annual runoff),

[9] Source: "Guideline for registration of cultural heritages" by MECSS and Centre for Cultural Heritages of Mongolia, 2014.

that in the rivers taking their origin from the Altai Mountain is from snow and ice melting waters (50-70%), and that in other rivers is from snow.

**Sensitive receptors identified during preparation of ESMF**: Activities under Component 1- 1.2 Last mile roads connectivity are to construct new roads in Ugtaaltsaidam soum, Tseel soum of Tuv aimags and Bulgan soum of Arkhangai, Yosonzuil of Ovorkhangai aimags. The detailed designs are developed by the MoRTD along with supplementary studies for Ugtaaltsaidam soum and Tseel soum of Tuv aimag. Due to Covid-19 reason, a desktop review on the cultural heritage was conducted. The findings showed that five archeological landmark sites were identified along the unpaved road paths in Ugtaaltsaidam and Tseel soums in Tuv aimag in a preliminary archeological survey in 2018. A heritage survey will be conducted before the bidding of the last-mile roads construction in Ugtaaltsaidam soum financed by World Bank. The route of the last-mile roads will be changed to avoid any heritage sites if the survey identifies any heritage sites and their protection areas on the last mile roads financed by World Bank.

In addition, to the archeological sites, Ugtaaltsaidam soum has been recorded as a migratory path for Red Deer[10] (*Cervus Elaphus)* with population of 200 and Mongolian gazelle[11] (*Procapra gutturosa)* with population of 800. Due to Covid-19 limitations, the in-field investigation to the migratory path of the Red Deer and gazelles can't be conducted during the ESMF preparation stage. Before bidding of the 76km last mile connectivity roads, an in-field investigation to the roads including biodiversity investigation and heritage survey will be conducted. The ESMP will be updated with an integrated biodiversity management plan (BMP) if the adverse impacts to biodiversity are identified during the biodiversity investigation. Mitigation measures including changing the route of the road, if necessary, will be also proposed in the updated ESMP.

## Current Environmental Conditions and Major Problems

**Climate condition**

**Ozone**

Mongolia has signed the Vienna Convention for the protection of the Ozone Layer in 1996 and Montreal Protocol (regulating substances that deplete the ozone layer) in 1996. In 1999 the Government Resolution No. 129 approved and implementing the National Program for the Protection of the Ozone Layer. Some of the chemicals used today are associated with strong greenhouse gases, reducing global warming, and mitigating climate change efforts. Therefore, eliminating the use of ozone and global warming hydrochlorofluorocarbons (HCFCs) by 2030, and to reducing the use of hydrofluorocarbons (HFCs) by 80% from baseline by 2045 is embedded in the national plans.

Mongolia's commitment to reduce imports and use of the ozone layer and global warming GHFN / HCFC by 2030, Mongolia's implementation in Figure 1, and ozone depletion (ODP), the impact on climate change, or total CO2 The eq-tn (GWP) is calculated and shown in Table 1.

[10] Red Deer (*Cervus Elaphus*) sighting in Ugtaaltsaidam: https://news.mn/r/2391650/

[11] Mongolian Gazelle *(Procapra gutturosa)* migration: https://mongolia.wcs.org/wildlife/mongolian-gazelle.aspx

*Table 4 Ozone depleting substances (HCFC-22) import, 2015-2020*[12]

| Substance | Substance in tonnes | | | | | | Total GWP (tonnes) | Total HCFCs ($CO_2$ eq-tn) |
|---|---|---|---|---|---|---|---|---|
| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | | |
| HCFC-22 | 11.43 | 8.18 | 10.71 | 12.61 | 13.38 | 0.44 | 3.12 | 102,717.5 |
| Total | 56.75 | | | | | | | |

**Climate change**

According to the GHG monitoring station located in Erdene soum of Dornogovi aimag, the average concentration of greenhouse gases in Mongolia is constantly increasing.

Carbon dioxide content increased from 354.6 ppm to 413.3 ppm over a 28-year period (1992-2020), increasing 58.8 ppm or 16.5% compared to the long-term average (Figure 3). The average concentration in 2020 was 413.3 ppm, and in 2019 it was 412.3 ppm. The average annual concentration of methane (CH4) in the air increased by 8.8% from1808 ppbv to 1968 ppbv between 1992-2020.

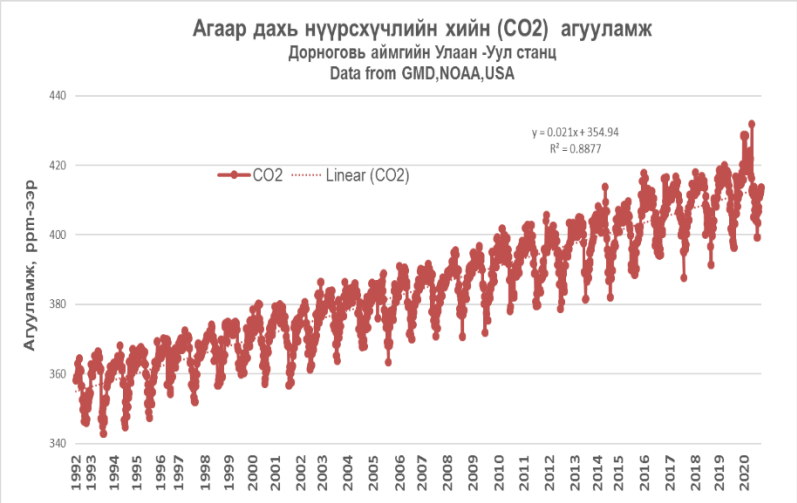



*Figure 3 Concentration of carbon dioxide in the air (CO2)*

According to continuous observations of 44 meteorological stations in Mongolia between 1940 and 2020, the average annual surface air temperature has warmed since 1988, reaching 2.4 ° C / 80 years ($p < 0.05$ or statistically significant). (Figure 4).

[12] *Source: 2015-2020 Customs statistics database*

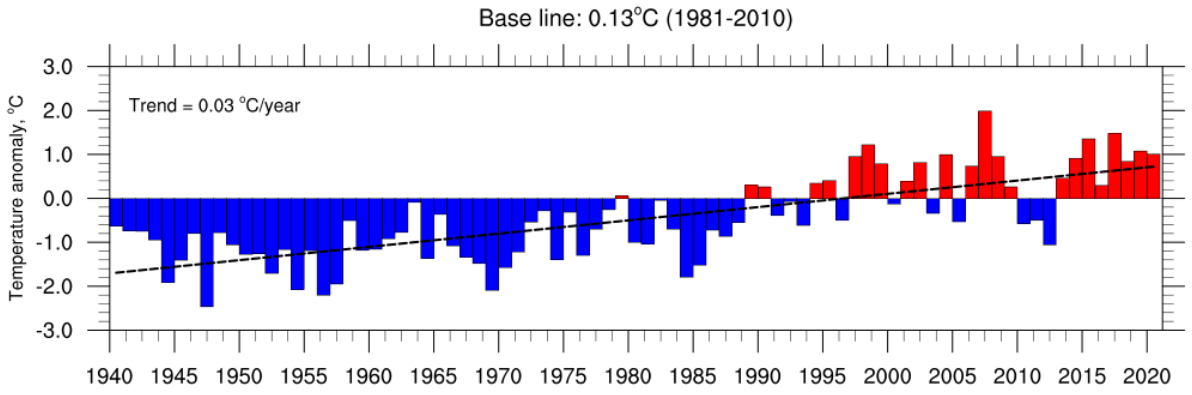



*Figure 4 Deviation from the average annual air temperature AAT (1981-2010 average AAT)*

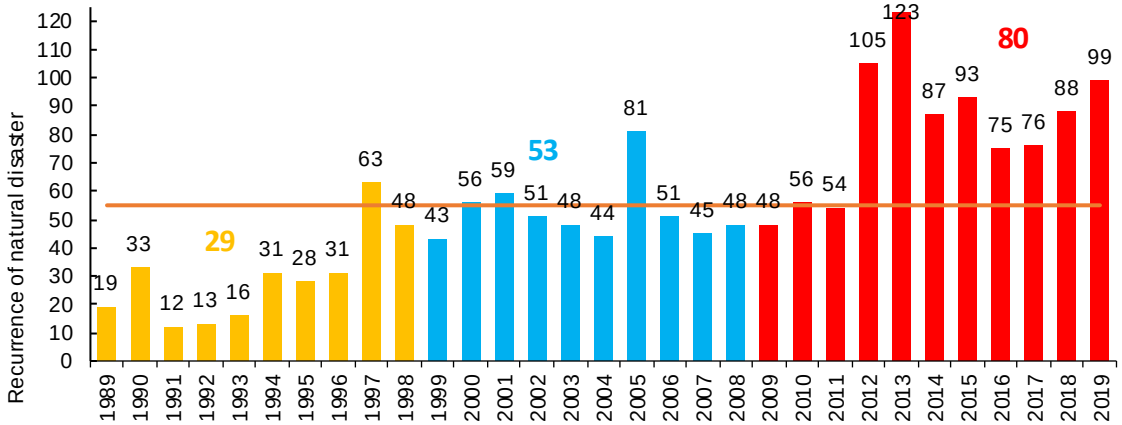
During the winter season, three large diesel power plants in Ulaanbaatar release 4.5 million cubic meters of gaseous pollutants, 4.14 tonnes of particulate matter, and 6.76 kilograms of carbon monoxide into the air every hour. The energy sector accounts for around 64% of Mongolia's greenhouse gas emissions. More than 250 steam boilers burn over 400,000 tonnes of coal every year. Gers and wooden houses with manual heating (in which 48% of the city population lives), use over 200,000 tons of coal and more than 160,000 cubic meters of fuel wood each year. For the cold seasons, the atmospheric content of carbon monoxide exceeds the permissible norm by 2-4 times.

Air quality is a significant environmental problem in big cities and aimag centers of Mongolia. Primary sources of air pollution thermal power plants, small and medium sized heating boilers, traditional Gers and wooden houses, and over 40,000 automobiles. Topography and meteorology exacerbated ambient air quality conditions in the country, and particularly in Ulaanbaatar. As a result, ambient pollutant concentrations often remained for days or weeks at a time to exceed Mongolian and other international ambient air quality standards. Burning of coal and woods in the households in urban cities has been identified as major sources of air pollution, which affects ambient air quality and human health.

**Weather and Natural Disaster**

In the context of rapid global climate change, the frequency of weather disasters and catastrophes is increasing, and the damage is likely to increase. More than ten types of weather phenomena cause significant damage to the country's society and economy, and according to socio-economic risks, drought, dzud, forest and steppe fires, snowstorms, flash floods, and extreme cold are among the significant disasters. Table 5 shows the recurrence of weather-related disasters in Mongolia from 1989-2019.

*Table 5 Recurrence of weather disasters*




In 2019, 78 dangerous weather events and 21 catastrophic events nationwide occurred, which killed 22 people, injured two people, killed 23,847 livestock, destroyed five roads and bridges, destroyed 233 gers, 226 fences, and damaged the roofs of 31 buildings. Twenty-seven power transmission lines fell, and 1,052 hectares of farmland were affected, causing 15 billion 139 million 945 thousand MNT of direct damage to the country and society. (NAMEM, 2021)

In 2020, 90 weather disasters and 11 catastrophes nationwide were recorded, killing 15 people, injuring 14, killing 11,955 livestock, destroying seven roads and bridges, destroying 976 gers and fences, and tearing down the roofs of 17 buildings. Seven power poles fell, and 11,339 hectares of agricultural land were affected, causing 7 billion 625 million 187 thousand 426 MNT of direct damage to the country and society. Some of the critical natural disasters that occurred, damaging roads, are listed below.

On June 15-16, 2019, heavy rains occurred in the central part of the country. Heavy rains fell in the western part of the central aimags on 14th and most areas on the 15th and 16th. 40.3-48.0 mm of rain fell at the station, and 0.1-39.8 mm fell in other areas. The torrential rains killed six people and flooded more than 30 homes. In addition, 110-113 km of the road from Bayankhangai soum of Tuv aimag to Lun soum was flooded, the paved road was damaged, and many vehicles were damaged.

On July 13-15, 2020, 16.0-36.0 mm of heavy rain fell in Uvs, and 40.0 mm of thunderstorms occurred in Murun, Khusvgul aimag. Heavy rains began at 6:00 pm on July 13, continued for three days and three nights, flooding major rivers in Uvs province, shattering roads, and damaging bridges.

On June 21, 2020, floodwaters crossed the Ulaanbaatar-Mandalgobi / A0201 /, Undurdov-Zuunmod and Zuunmod-Nalaikh / A25 / national roads and damaged roadside ditches.

**Snow and Zhud risks**

As of January 31, 2019, about 40 percent of the country is covered with snow. Especially the northern provinces experience heavy snowfall when no snow in the southeastern part of the country.


*Figure 5 now depth, as of January 31, 2019*

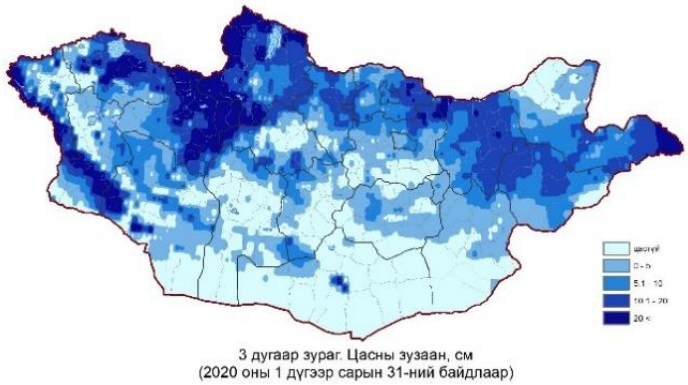



*Figure 6 now depth, as of January 31, 2020*

Zhud risk maps are released annually on November 20 by NAMEM, and it is updated with snow and dzud conditions.

As of November 20, 2019, the dzud risk map shows that more than 30 percent of the country is at high risk (maximum 7%, high 27%), and more than 30 percent (34%) is moderately at risk (Figure 7).

Most of Khovd, Gobi-Altai, Arkhangai, Ovorkhangai, Bulgan, Khentii, Sukhbaatar, Dundgovi, Uvs, Zavkhan, Bayankhongor, Khuvsgul, Selenge, Tuv, Dornod, Umnugovi, and some parts of Dornogovi had a high risk during winter and spring seasons.

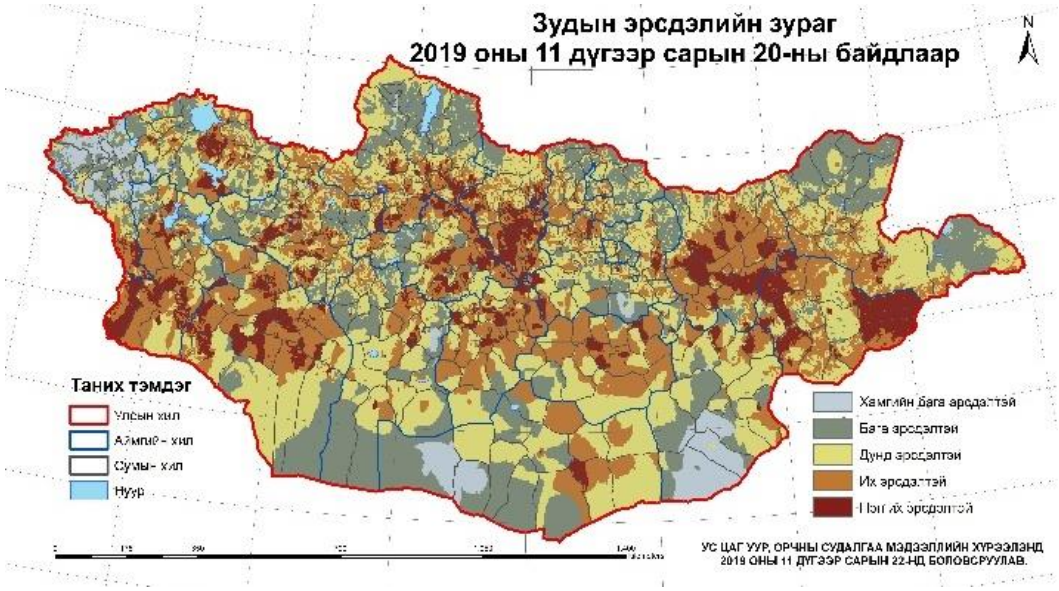



*Figure 7 Figure 44. Dzud risk map, as of November 20, 2019*

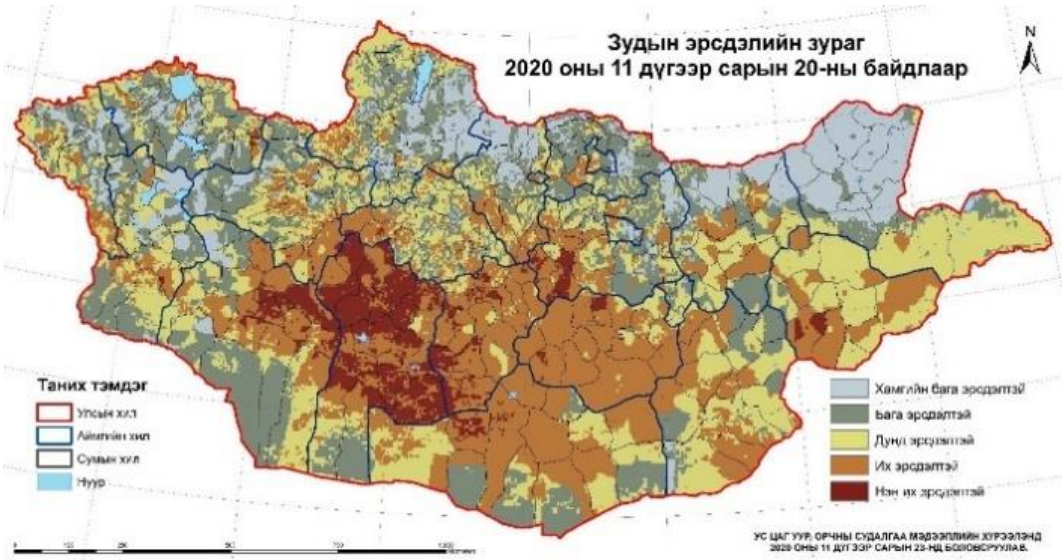



*Figure 8 Figure 44. Dzud risk map, as of November 20, 2020 (b)*

As of November 20, 2020, the dzud risk map shows that 40 percent of the country is at high risk (maximum 6.0%, maximum 30.4%), and almost 30 percent (28.2%) is moderately at risk (Figure 8).

The risk of dzud is very high in Bayankhongor aimag, eastern Gobi-Altai, Ovorkhangai and Dundgovi regions as a whole, and some areas of Umnugovi, Dornogovi, Tuv and Sukhbaatar aimags. In other words, winter and spring conditions are difficult in these areas.

**Land use**

Grassland degradation is one of the critical challenges that Mongolia faces, one of the reasons for grassland degradation is overgrazing as over the past five years, total livestock numbers have increased

by around 13% annually in Mongolia. As of 2019, the number of livestock in Mongolia had reached a historic high of 70.9 million—a 22 percent increase since 2014 and more than triple the number in 1990. Current livestock numbers are 2.4 times higher than the country's grasslands can support. Approximately 35% of this increase is due to newborn animals with only about 22% of them sold for meat. Increases in herd size and resulting competition for grazing land results in overgrazing which degrades the grasslands and increases the amount of time it takes the system to recover. Overgrazing is the result of too many livestock for the size and productivity of the grasslands (carrying capacity) and a lack of herd rotation, which allows grasslands to recover during a period of no grazing. (TNC, 2021)

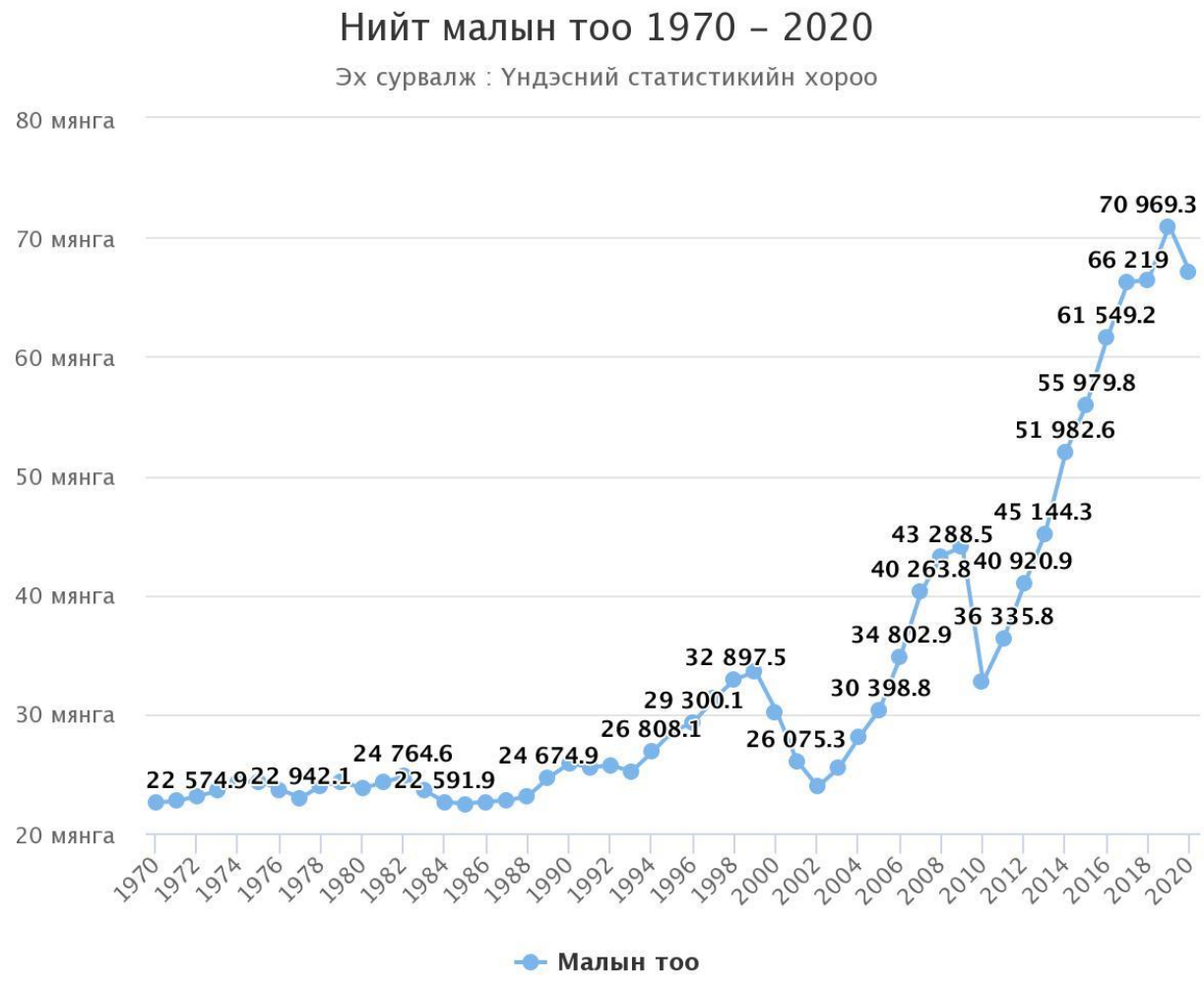



*Figure 9 Livestock in Mongolia from 1970-2020. Source: National Statistics Office of Mongolia*

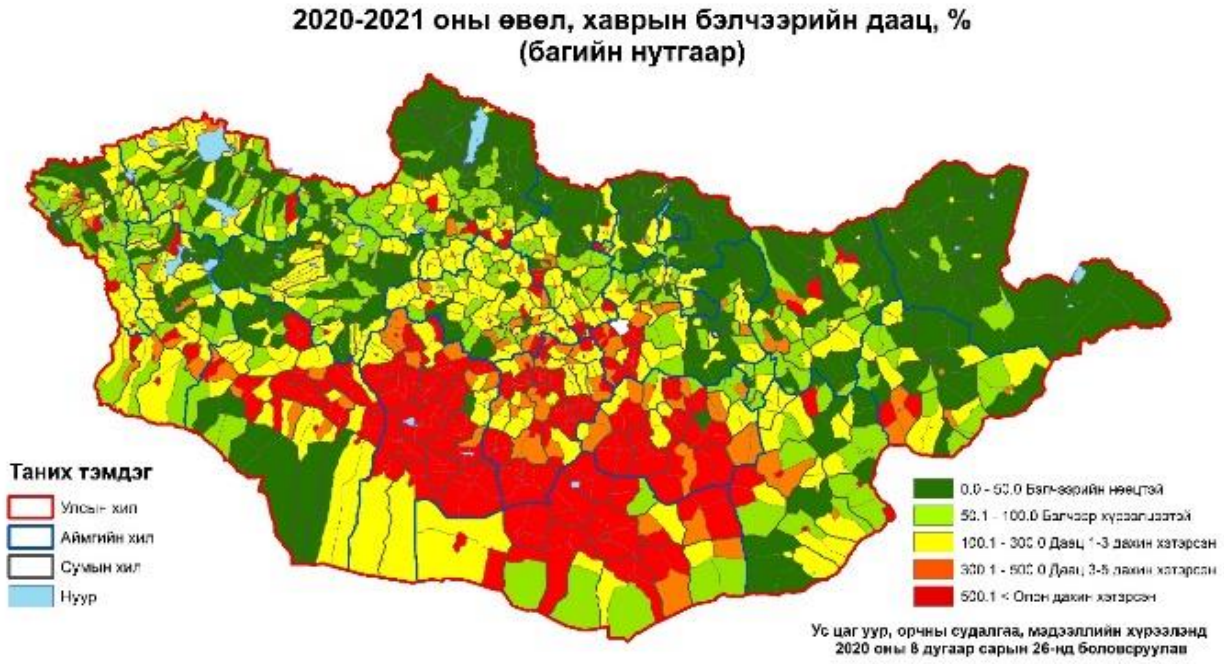



*Figure 10 Winter-spring grazing capacity, 2020-2021*

**Protected Area**

Mongolia's protected areas increased to 21.7 million hectares in 2000 or 13.8% of the total area, in 2014 to 27.2 million hectares or 17.4%, and in 2020 to 32.8 million hectares or 21 percent.

39.2% of Mongolia's forest resources, 50.0% of surface water, rivers, streams, springs, lakes, large rivers and streams, and the main range of more than 300 endangered and endangered species are included in protected areas, natural reserve, national historical and 80% of the cultural heritage site area is covered.

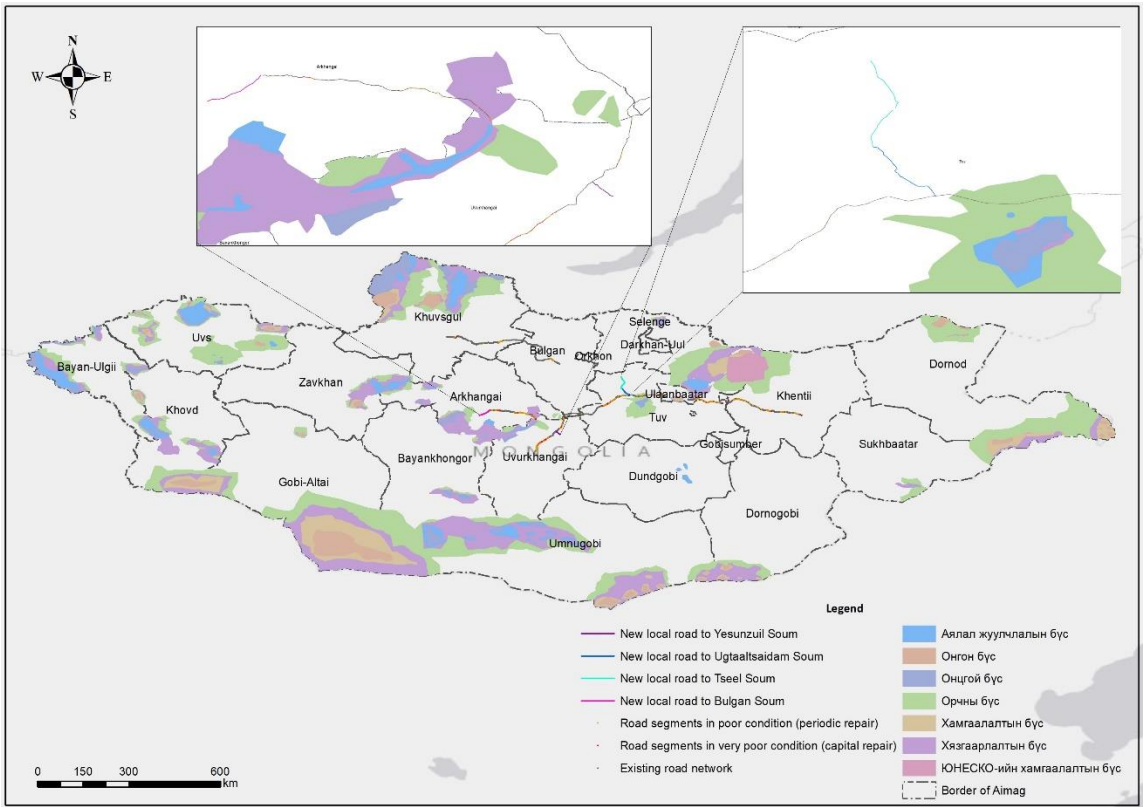



*Figure 11 Project roads overlaid on protected area map*

| Code | Classification | Code | Classification |
|---|---|---|---|
| | Tourism area | | Protected area |
| | Strictly protected area | | Restricted area |
| | Special area | | UNESCO protected area |
| | Buffer area | | |

*Figure 12 Classification of special protected areas of Mongolia*

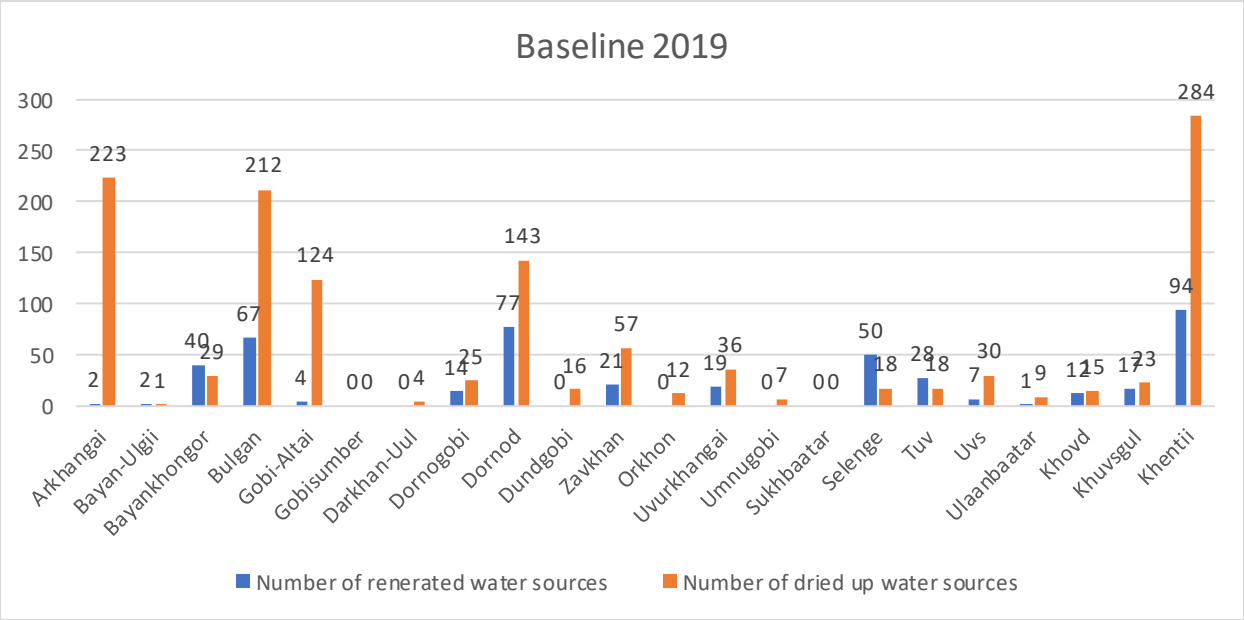
Major issues related to protected areas management are particularly the lack of capacity and resources, the poor application of management zoning, and lack of awareness and visitor management programs. Some of uncontrolled illegal activities are artisanal mining, illegal hunting, mismanaged tourism. Due to unintegration of the mining sector, and protected areas management, the government issues exploration and mining licenses in the protected areas, especially in the local protected areas.

### Water use

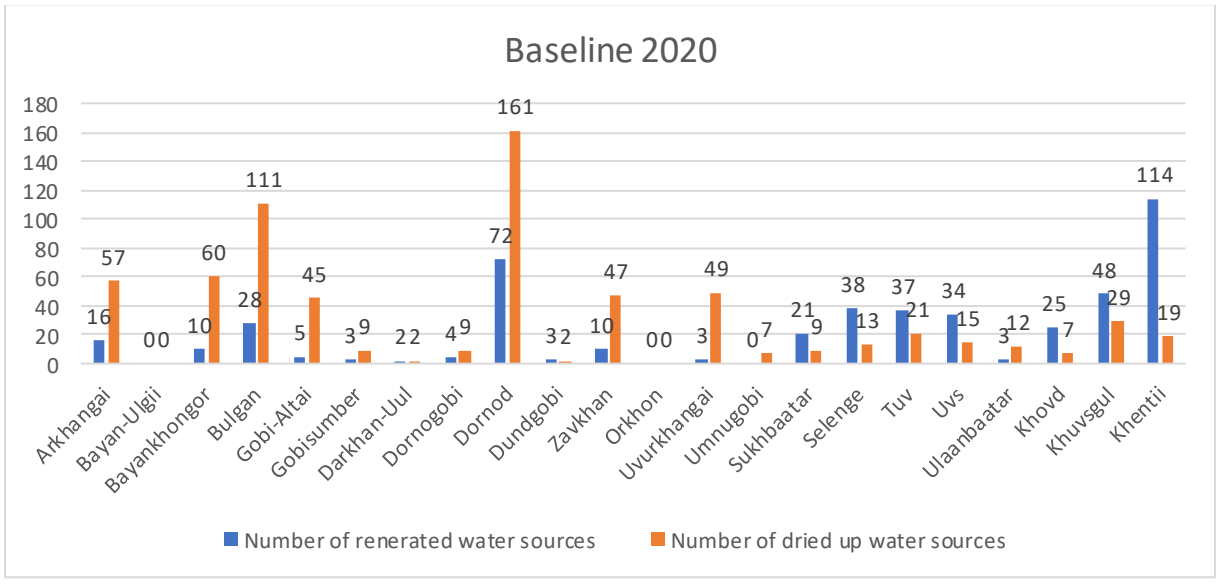
Mongolia's total water resources have averaged 608,300.0 million $m^3$ per year (564,800.0 million $m^3$ due to the reduction of glaciers and Potanin glaciers melts), of which 34,600.0 million $m^3$ are from rivers, 500,000.0 million $m^3$ from lakes and 62,900.0 million m3 (reduced to 19,400.0 million $m^3$) of glaciers and 10,800 million $m^3$ of groundwater.

The groundwater level is monitored automatically, and data is recorded on www.groundwater.mn.

Graph 1 and 2 shows the river connectivity lost and dried and regenerated sources of surface water in each aimags in 2019 and 2020. In 2019, 1266 surface water sources dried up and 457 recovered, while in 2020, 684 surface water sources dried up and 476 recovered.




*Graph 1 Number of dried and regenerated surface water sources, 2019 (orange is lost and dried, blue is regenerated)*




*Graph 2 Number of dried and regenerated surface water sources, 2020 (orange is lost and dried, blue is regenerated)*

| № | Sector | Water abstraction fee | Water abstraction amount mil.m$^3$ | |
|---|---|---|---|---|
| | | | 2019 | 2020 |
| 1. | Potable water use | | 83.2 | 83.2 |

| | | | | |
|---|---|---|---|---|
| 2. | Industries | Agriculture | 351.7 | 353.0 |
| | | Mining | 98.8 | 95.4 |
| | | Heavy industries | 0.067 | 0.059 |
| | | Energy | 31.4 | 40.8 |
| | | Food production | 2.7 | 2.8 |
| | | Light industry | 1.23 | 1.29 |
| 3. | Construction | Construction, construction material production | 1.3 | 2.2 |
| | | Road, road rehabilitation | 0.051 | 2.645 |
| 4. | Green infrastructure, road and field irrigation | | 0.153 | 1.787 |
| 5 | Services | | 7.8 | 8.243 |
| Total | | | **578.5** | **591.4** |

*Table 6 Total water abstraction in 2019 and 2020*

The aimags with the highest water consumption for livestock are Arkhangai 17.9 million m3, Khuvsgul 16.1 million m3 and Ovorkhangai 14.8 million m3.

**Water resources and regimes**

There are 4355 lakes with an area of more than 0.0027 km$^2$ in the M1: 100000 topography of Mongolia, and their total area is 15502.5 km$^2$. According to the 2000 LANDSAT ETM satellite, there are 3,943 lakes in Mongolia, with a total area of 15,233.97 km$^2$, and 412 lakes have dried up, reducing the entire area by 268 km$^2$ or 6.1 percent. According to 2006 LANDSATTM satellite data, there were 3,825 lakes in Mongolia, with a total area of 1,4696.6 km$^2$, and as of 2006, 471 lakes had dried up, reducing their area by 818.1 km$^2$ or 5.3 percent. According to LANDSATTM satellite data of 2010, there were 3699 lakes in Mongolia with a total area of 14393.2 km$^2$, and as of 2010, 597 lakes had dried up, reducing their area by 1121.49 km$^2$ or 7.2 percent. According to the LANDSAT L8 satellite in 2014, a total of 3671 lakes and their total area 14231.2 km$^2$ and a total of 684 lakes dried up, reducing the area by 1271.3 km$^2$ or 8.2 percent. It decreased by 1330.7 km$^2$ or 8.58 percent (G.Davaa et al., 2015), (Figures 11, 12).

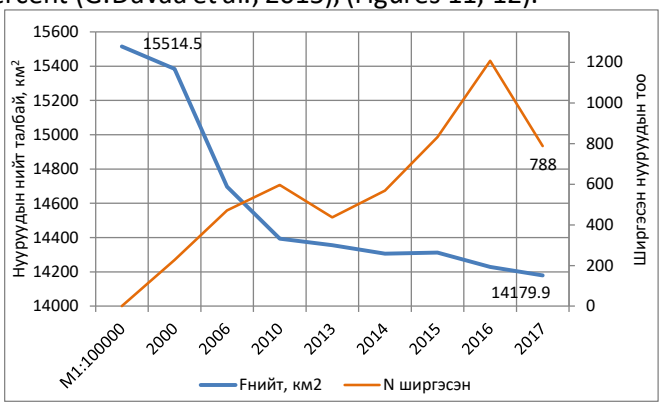



*Figure 13 Lake area and numerical dynamics of Mongolia*

According to the 2017 LANDSAT L8 satellite data, there were 3508 lakes in Mongolia with an area of 14179.9 km$^2$, and in 2017, the number of dried lakes decreased to 788, reducing their area by 1334.6 km$^2$ or 8.6 percent.

**Surface and Groundwater pollution**

River change times are relatively short, but old pollutants such as nitrates remain in rivers. Therefore, it is necessary to bury animal carcasses at a distance of 50-300 m or more from the river bank, depending on the length of the river and stream, and protect the water of rivers, streams, ditches and ravines from various contaminants. This is especially important in the current context of outbreaks of foot-and-mouth disease, equine influenza and other infectious animal diseases. Failure to take this measure will result in the use of organic polluted water for drinking, household and livestock water supply during the spring and summer seasons, and the prolongation of the effects of dzud and infectious diseases.

In recent years, toxic substances such as cyanide, mercury, and sulfuric acid have become increasingly harmful to the environment, especially in rivers and even groundwater and soil. In 2020, Tsenkher of Arkhangai aimag, Bayan-Ovoo of Bayankhongor aimag, Gurvanbulag, Buutsagaan, Bumbugur, Yeruu and Bugant of Selenge aimag, Zaamar of Tuv aimag, Shariin gol of Darkhan city, Baitag bagh of Bulgan soum of Khovd aimag, Orlogin river of Umnugovi soum of Uvs aimag and Ulaannachin of Turgen soum Illegal artisanal gold mining. In 2020, there will be a lot of pollution in the vicinity of Yeruu-Bugant, Tuul-Zaamar and Tuul-Altanbulag hydrological stations.

**Glacier melting**

The total area of glaciers and glaciers in Mongolia is 667.77 $km^2$ by topography M1: 100,000, but does not cover total glaciers. According to the LANDSAT satellite data from 2000-2002, the total area of the ice massif distributed in 42 mountains is 451.0 $km^2$. According to these, the total glacial area of Mongolia in the 1940s was about 535.0 $km^2$ In this case, the error of the glacier field in M1: 100,000 topazura is probably about 20%.

From all this, it can be concluded that the area of glaciers and glaciers in Mongolia was about 535 $km^2$ in 1940, about 470 km in 1990, 451 km in 2000, and 389 $km^2$ in 2011. The area of glaciers decreased by 12.1 percent from 1940 to 1990, by 4.0 percent in 1990-2000, by 13.7 percent in 2000-2011, and by 29.9 percent in the last 70 years.

The melting of glaciers was relatively low until 1990, and has intensified since then, the highest in the last 10 years (G. Davaa et al., 2016).

Glacier melting is highest in the Tsambagarav Mountains, which are dominated by flat-topped glaciers, relatively high in the Tavanbogd, Kharkhiraa, and Turgen mountains, which have valley glaciers, hanging, lateral, and pointed glaciers, and relatively low in the Munkhkhairkhan Mountains.

Douglas Carruthers, a well-known researcher in the British Geographical Society, photographed the Glacier in 1910. A joint Mongolian-American exploration expedition measured the glacier in August 2010 and compared the results with satellite imagery.

**Forest**

Mongolia's total forest resources are 1,248,642,118 cubic meters, of which 79.28% are larch, 8.91% are cedar, 5.96% are birch, 4.95% are pine, 0.23% are spruce, 0.01% are fir, and 0.18% are Poplar, 0.05% are elm 0.01%, willow for 0.28%, and saxaul are 0.14%.

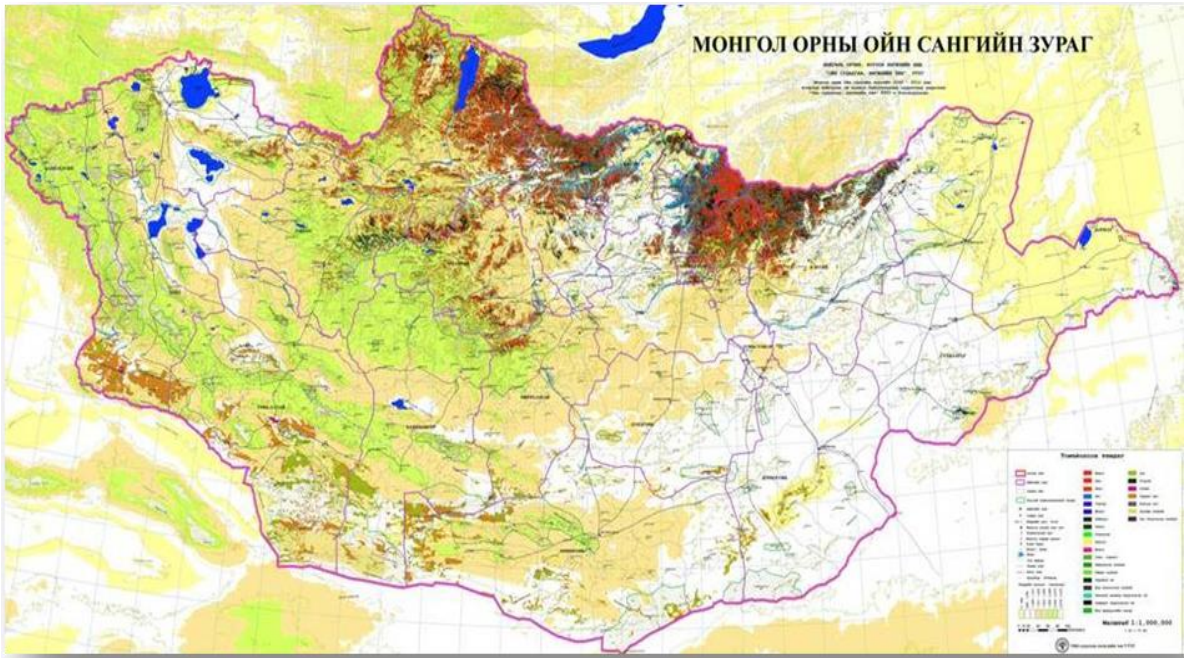
The average age of coniferous forests is 131 years, the reserve per hectare is 142.8 m3, the growth is 1.1 m3, the average age of deciduous forests is 43 years, the reserve per hectare is 44.4 m3, the growth is 1.02 m3, the average annual growth is 10 251.5 m3.

Deforestation: The total remaining forest covers 10.4 million hectares in the north, 2.0 million hectares Saxual forest and 3.6 million hectares of depleted forest, mainly near transport corridors. Statistics on deforestation are confusing but the causes are known to include legal and illegal unsustainable logging, wildfire, insect and disease infestation, animal grazing, and climate change.

Through the 1960s to 1990 average official harvest figures were approximately 1,500-2,000 million cubic meter per annum, very roughly 50% round-wood and 50% fuel-wood. In 2002, official figures recorded a harvest of 620 million m3, almost all fuel-wood. Other issues in forest management are the many forest fires and problems of disease control. The periodic infestations in the coniferous forests are natural disasters with serious local impacts.

Grazing also contributes directly and indirectly to deforestation and forest degradation in Mongolia. Both the southern Saxaul forests and the northern boreal forests are also widely used for grazing (sometimes seasonal), with approximately 35-40% of total livestock population of Mongolia grazing in and near forest areas in Mongolia. Dr. Emerton and Enkhtsetseg (2013) estimate that the role of forests in supporting grazing is worth more than MNT 34.5 billion (US$ 24.70 million) a year, making up 5% of the value of livestock production in soums with boreal forests.

Grazing can interact with other pressures on forests. For example, overgrazing results in damage to young trees and saplings, and can particularly hinder forest regeneration. The Multipurpose National Forest Inventory (2014-2016) found that 14.7% and 32% of forests experienced moderate grazing pressure in the Altai and Khangai regions, and 20.4% and 2.3% of forests suffered from intensive grazing pressure, respectively (Figure 14).



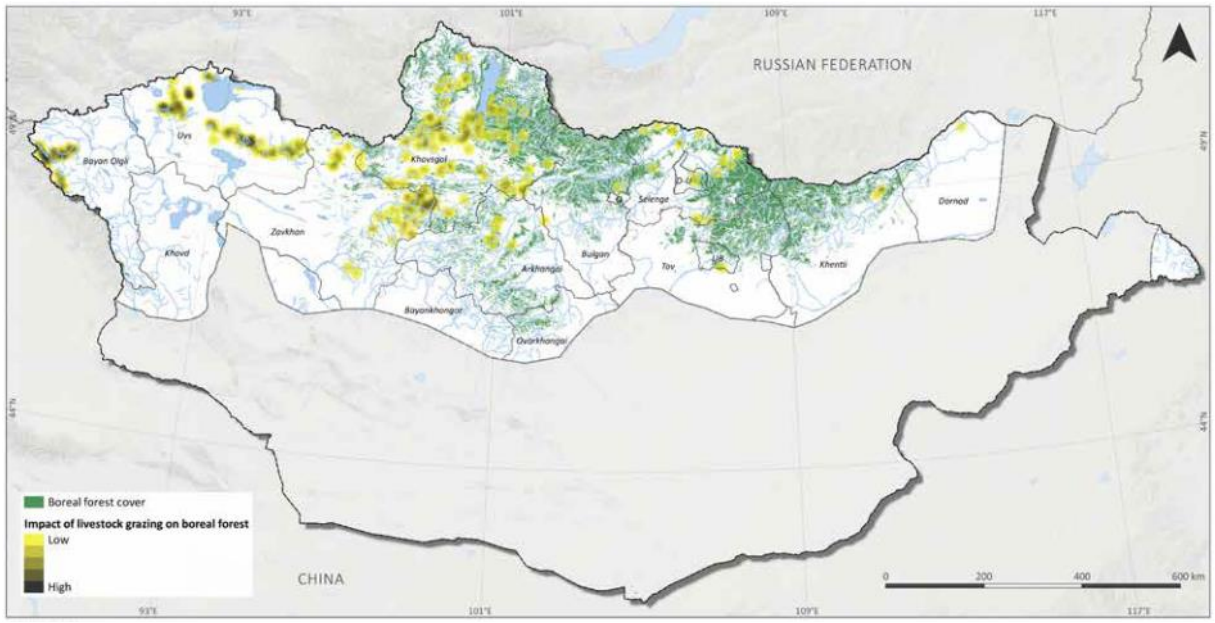




*Figure 14 Pressure on boreal forests from livestock grazing (by UN-REDD Program 2017)*

### Waste and Chemical and Hazardous materials

In Mongolia, solid wastes are disposed in the open air near the cities, towns and soum centers. These wastes are scattered and the disposition for soil its pollution becoming remarkable. Particularly, there is a big gap between city enlargement and city planning projects in Ulaanbaatar, Erdenet and Darkhan cities. Moreover, it doesn't have the good city planning project. There is much household garbage (33.8%), paper (18.9%), and plastics (15.2%) in summer. Ashes occupy no less than 60.2% in winter.

In Mongolia, there are no proper waste treatment facilities. Therefore, the waste are thrown away across the aimag, soum centers. Particularly, Ulaanbaatar city has the serious waste problem. Now, the state owned enterprises, private companies and small medium entities are working with the municipal government on the transport of the waste.

Solid wastes generated from factories, commercial establishment, and construction sites are collected by third party agencies. However, the solid wastes generated so much is over a wastes collection trader's interested collection capacity.

Soil Contamination: In Mongolia, the soil pollution raises due to widespread drainage of chemicals from the waste oil from cars and mining process, employment of agricultural chemicals, etc. Utilization of coal is the biggest causality of air pollution. Soil is polluted due to coal handling as well as scattering of ashes on the ground.

The number of cars has increased dramatically in recent years in Mongolia. Petrol stations within the city and near by main roads have risen to about 800 in numbers. Furthermore, there are backlog appliances of coal oil and small car garages numbering hundreds. Many of them are located in the place where drainage arrangements are not fixed. They throw away used oil in the drains leading to oil contaminating the soil. In addition, various medicines, such as disinfectant, insecticide, and agricultural chemicals, medical wastes, architecture scrap woods, etc. are increasing being used to spur productivity and economic growth.

In Mongolia, gold, coal, copper, iron and other mineral resources mines are being exploited by 120 business corporations. These gold ores have high level of Mercury contamination which contributes as a material factor to widespread soil pollution. Moreover, leaching of chemicals happen during heavy rains from various unscientifically designed waste disposal sites and sewage disposal plants.

The GoM has provided immense amounts of loans and benefits to support crop production as the statistics show that the donations given to agriculture (wheat and meat) fluctuated around 4.7% in the total amount of government donations in 2007 to 2013. As a result of this policy of the Government, the investment in crop production has been increasing continuously including import of nitrous fertilizer having been growing by 10 thousand tons per year in 3 years (NRSO 2015). As some researchers have pointed out, there are cases of excessive residue of chemical fertilizers and pesticides in the environment and in the products due to loose regulation in the utilization of these chemicals. The agriculture programmes and policy papers issued since 2000 have strongly focused on increasing crop production while the financial support provided by the state have been ignoring the issues of ecological balance, soil fertility, economical use of water resources and this situation threatens the soil and water resources together with the biodiversity.

**Fauna**

Loss of biodiversity: Growing population coupled with urbanization, economic development, and an increasing per capita demand for natural resources, have put enormous pressure on land and natural resources. At the same time, the recent transition from a centrally controlled economy to a free market economy has opened the country's natural resources to free enterprise and market forces. Increasing economic activity such as mining, land cultivation and crop farming, and the production of wild and

domestic animal products for internal consumption and export, have resulted in the disturbance hitherto undisturbed natural areas and the loss of wildlife habitat. Inadequately controlled or illegal hunting, and predator eradication programs also contribute to pressures on wildlife and on the natural balance in many areas.

## Social Baseline

### Population and Rural development

Mongolia, which is divided into territorial and administrative units, 21 aimags and the capital city of Ulaanbaatar. There are 329 soums[13] and 1568 baghs[14]. Most of the aimag center population works in light industry, services and small business enterprises. Bagh populations tend to work in agricultural and animal husbandry and mainly lead a nomadic life. Herders migrate with their herds depending on season and weather conditions. Typically, their seasonal camps are located within the borders of their soum and baghs,though droughts, zuds, and other natural disasters, can push them to different areas. According to the NSO statistics, number of herder households is 181.05 thousand by the end of 2020. Average annual income of all herder households is MNT 10.5 million, which is lower than the average income of all households of Mongolia by 6.9%. According to the NSO statistics, household income reduced by 3.0-9.8% nationwide between 2016-2020.

**Table XX. Population and household data as of 2020.**

| | Population | Households | Number of Herders | Households with livestock | Single-headed households | Growth rate | Life expectancy, Male | Life expectancy, Female |
|---|---|---|---|---|---|---|---|---|
| **National total** | **3,357,542** | **908,712** | **298,789** | **242.024** | **86,525** | **4.2** | **66.71** | **76.22** |
| Arkhangai | 94,088 | 27,373 | 25,907 | 19.497 | 3,560 | 3.4 | 69.49 | 73.67 |
| Bulgan | **61,955** | **18,698** | 14,186 | 11.031 | **2,068** | 2.6 | 69.08 | 76.35 |
| Ovorkhangai | 115,732 | 33,700 | 28,334 | 19.813 | 4,420 | 3.5 | 68.98 | 74.08 |
| Sukhbaatar | 63,822 | 18,231 | 15,006 | **10.782** | 2,873 | **4.3** | 68.04 | 78.5 |
| Tuv | 93,162 | 27,669 | 19,170 | 16.393 | 3,409 | **2.3** | **70.37** | 75.13 |
| Uvs | **83,524** | 21,874 | 16,577 | 13.248 | 2,390 | 4.2 | 65.46 | 74.21 |
| Khuvsgul | **135,705** | **38,599** | **31,290** | **21.384** | **5,379** | 3.6 | **64.48** | **72.45** |
| Khentii | 78,172 | 24,372 | **12,818** | 11.546 | 2,864 | 3.7 | 70.03 | **76.78** |
| Ulaanbaatar | 1,597,290 | 414,292 | 3,781 | 5.006 | 19,737 | 4.5 | 67.39 | 75.36 |

[13] A soum is an administrative unit below the aimag level (provinces)
[14] The bagh is the lowest administrative level under the soum

**Ethnic Minorities.** Mongolia is relatively homogenous, and over 90 percent of the population is of Mongol background, mainly Khalkh (83,8 percent) and other Mongol groups with distinct dialects and cultures. A Kazakh-speaking minority group is 3.8 percent, concentrated mainly in the western province of Bayan-Ölgii. Other ethnic minorities such as Buriad, Tuva, Urianhai, and Khotons, represents, between 0.4-1.4 percent of the population. There is a Kazakh-speaking minority concentrated mainly in the western province of Bayan-Ölgii and some part of Khovd and around 30% of Nalakh district in Ulaanbaatar. Other groups are Tuvinian-speaking Tsaatan (also known as Dukha), Turkic-speaking Uyghurs, Urianhais, and Khotons. Given that the project's area of influence is the entire country, and that ethnic minorities will be among the direct beneficiaries.

**Herders' livelihood, labor, and gender aspects.** Majority of herder household income[15] is composed from sales of cashmere, animals and meat and the price on animal products strongly affects the living level of herder households. Fluctuate price on animal products is one of the main factors affecting the living of herder households. Mediating sellers or re-sellers still play a vital role in the sales of animal products. Herders usually sell their animals and meat to the re-sellers. Herders emphasize mostly on increasing number of animals but neglect animal health and quality of animal products as they need to increase household income under falling prices on animal products. Herders are highly interested in selling animals and meat directly to the processors without re-sellers, however, there is no such conditions established. 89.4% of herders are interested in signing contracts with the processors on selling meat and animals, however, the processors classify the meat and animals as well offer price lower than the market price.

According to the socioeconomic study, 2017 , in terms of accessibility and sufficiency of such communication services, 85.0% of the herders 15+ years old have mobile phones and 16.2% of all herder households use the Internet. Increasing the use of information and communication technology is important to disseminate and exchange information with herders. Increased resilience of herder households to Dzud (investment in winter preparedness). According to the socio-economic study of herder households 85.1% of all herder households prepared hay and fodder for the winter in 2016-2017

The workload of a herder household varies seasonally. The highest peaks are in spring (March April) during the birth period and in summer (July-August) during the milking period. The lowest workloads are registered during the cold winter months (November-January). Women's workload resulted to be higher than men for all the months of the year, except for March and December. The average daily workload of women during the year is 11.1 hours while the workload of men is 9.2 hours. Despite this, women's contribution and roles appear to not be adequately recognized in other aspects of herding household such as decision-making on major family spending and purchases, participation in community activities, and leadership. In relation to the control of household assets, properties are mostly registered under the

[15] The major sources of income for herder households are: Livestock income; Pensions and social benefits; Income from crop activities; Other additional income/wages and small businesses. Livestock income: Income from livestock includes earnings from the sale of milk and dairy products, cashmere and other kinds of wool, meat, animal skins, and animals. The major types of welfare support herders receive are: Childcare allowance, Student tuition allowance, Pensions, Benefits for disabled people, and Food coupons.

husband's name. This imbalance can influence women's bargaining power and vulnerability in their homes and communities. (Gender analysis, 2015).

In relation to participation in community activities at bagh level or in herder's organizations such as pasture user groups (PUG) or cooperatives, more men are involved than women. The main difficulty for women to participate in community activities is their difficulty to delegate household tasks and the care of children and elders. Herders mainly join the cooperatives, partnerships and PUG system to sell their raw materials and receive promotions only. In particular, 39.3% of herders are members of PUG/cooperatives but half of them joined such organizations with purpose to receive promotions on raw materials.

Children are an essential support for sharing the household workload. School dropouts is highly gender biased, as there are more boys (16 percent) than girls (9 percent) dropping out prematurely from school. Regarding the opinions of sons and daughters about their futures differ from that of their parents. Eighty-five percent of the 65 sons and daughters interviewed do not want to become herders and want to pursue higher education. Only 15 percent say they would become herders. On the other hand, 53.5 percent of the parents interviewed want their children to become herders, particularly their sons.

**Land Degradation.** Land degradation is caused by two types of factors: natural and human activities. Natural actors are water erosion, wind erosion, and desertification. Human activity factors are many branches of earth track, overgrazing, and land deterioration due to mining and other similar activities. Herders are pushed into a corner and fighting each other over pasture and water source throughout the year. As pastures get overgrazed by millions of livestock, the numbers of plant species and their beneficial quality has significantly declined. "Around 65 to 70 percent of pasture has plants that lost their ability to restore and their roots are weakened, which is causing scarcity of species and lower numbers. In terms of ability to restore, steppe and forest-steppe areas are considered as the worst", according to the Status of Mongolian Pasture report by the Mongolian University of Life Sciences and National Agency Metrology and Environmental Monitoring.

### Vulnerability and Gender aspects

Within the project area of impact, vulnerable groups may include and are not limited to the following: herders, households with livestock, assistant herder households, households with low-income or less than 200 livestock, single headed households, women, persons with disabilities and their caretakers; children, youth, school dropouts, women, unemployed, migrant workers, elderly, communities near pilot hubs and road, meat producers and sellers, small traders or informal business owners. Ethnic minorities are present in beneficiary aimags and live as individual household and communities in the specific area/soums. Social assessment aspects of the ESMF have been prepared in accordance with guidance provided by the World Bank Directive, addressing risks and impacts on Disadvantaged and Vulnerable Individual or Groups. Within the project area of influence, vulnerable groups may include and are not limited to the following:

| Key vulnerable groups | Key drivers of vulnerability | Potential impacts |
|---|---|---|
| Herders and households with livestock | Age, gender, social status, high dependency on livestock income, connectivity and logistics services, and natural disaster and climate change, exclusiveness in decision making and planning/design process. | Primarily positive but can be negative during temporary construction period |
| Households with low-income or less than 200 livestock | Age, gender, social status (ethnicity, education, number of family members, dependency and gender ratios) socioeconomic disadvantages, GBV, high dependency on livestock income, social welfare assistance, public services such as school dormitories and primary health service, transport connectivity and logistics services, and natural disaster and climate change, exclusiveness in decision making and planning/design process. | Primarily positive but can be negative during temporary construction period |
| Assistant herder households | | |
| Single headed households | | |
| Persons with disabilities and their care takers | Physical, mental, or other disability, age, gender, safety, and mobility restrictions, social status, limited access to education, employment support and other social services, GBV, socioeconomic disadvantages, high dependency on social welfare assistance, transport services, exclusiveness of various disabled groups and their individual needs in decision making and planning/design process. | Primarily positive but can be negative during temporary construction period |
| Children, youth, and school dropouts | Age, gender, safety, constrained or limited access to education, employment support and other social services, GBV, exclusiveness in decision making and planning/design process. | Primarily positive but can be negative during temporary construction period |
| Women, young girls, and female headed households | Age, gender, social status, socioeconomic disadvantages, safety, GBV, constrained or limited access to GBV protection and reproductive health services, dependency on transport service, mobility restrictions | Primarily positive but can be negative during temporary construction period |
| Unemployed and migrant workers | Age, gender, social status, socioeconomic disadvantages, occupational health, and safety, GBV, constrained or limited access public services, dependency on transport service, mobility restrictions | Permanently positive and/or temporary negative |
| Elderly | Age, safety, social status, mobility restrictions, high dependency on transport service. | Primarily positive but can be negative during temporary construction period |

| Key vulnerable groups | Key drivers of vulnerability | Potential impacts |
|---|---|---|
| Communities near roads | Age, gender, social status, income and livelihood dependency in related with land and site location, business opportunities, connectivity and logistics services, and exclusiveness in decision making and planning/design process. | Temporary or Permanently positive and/or negative |
| Meat producers and Mediating sellers or re-sellers | Loss or gain of income and livelihood, socioeconomic status, exclusiveness in decision making and planning/design process. | Positive and/or negative |
| Small traders or informal business owners | Loss of income and livelihood, socioeconomic disadvantages, exclusiveness in decision making and planning/design process. | Positive and/or negative |

The 2016 Law on the Rights of Persons with Disabilities introduced specific articles to create a barrier-free environment and set a vision for the future. Although access to the physical environment, transport, information, and assistive devices has been legislated, implementation is not systematic, and enforcement is weak. According to the National Statistics Office of Mongolia, in 2018 total number of PWD in 21 aimags is 70,141 as 39,963 are male, and 30,178 are female. Infrastructure investments and transport services still lack inclusive design and planning processes to recognize and adopt various disability needs such as poor or loss of hearing, eye sights and mobility. Poor mobility conditions and inaccessible transport services continue to restrict their opportunities to receive basic services, education, healthcare and employment opportunities and large segment of disabled people remain dependent on state welfare and unable to lead independent living.

**Life expectancy**. In Mongolia, men live an average of 9.6 fewer years than women (women 76.0; men 66.4) (NSO 2018). This is the 12th largest gap in the world and second largest for Southeast Asia and the Pacific (WHO 2020). Despite the recent accumulation of national wealth in Mongolia, male life expectancy increased by only 5.4 years between 1992 and 2018; female life expectancy increased by 10.9 years over the same period (ADB 2017).

**Labor participation**. Mongolia's statistics show that women's labor force participation has been declining since 2006 to fall from 64.8% to 53.4% in 2018. This indicates that the economic crisis has had a greater impact on women's employment particularly, women's workforce participation has been higher in the rural women (60.5%) as compared with urban areas, namely in the capital city (44.8%) in 2018 (ADB 2018). There are limited or lack of gender disaggregated data or study findings at this moment. According to NSO, Mongolian women earn 19.6% less salary than men in the same job positions as of 2019. Also, women are often engaged in lower paid professions and irrespective of their individual competencies, women tend to occupy lower ranks than men in the job hierarchy both in the public and private sectors. There are reported implementation gaps on legal framework on gender equality and opportunities. In addition, women are engaged in household and care duties twice more than men which result in worse economic outcome from them.

### Gender Based Violence

According to a 2017 study conducted by the National Statistics Office and UNFPA, 58 per cent of women in Mongolia have experienced some form of violence: physical, sexual, emotional, economic and/or controlling behaviors by an intimate partner, most often a husband, in their lifetime. In the year prior to the survey, 35 per cent of women experienced at least one of these forms of violence. In relation to transport services, incidents of sexual harassments and abuse, and physical and verbal attacks are commonly experienced by mostly female passengers, unfortunately, such violence cases are rarely reported or adequately addressed or recorded on statistical data. Similarly, various forms of gender-based violence and incidents are happened to occur at workplaces again not reported or adequately prevented and addressed.

As a result of COVID-19 restrictions, accessibility of health care for women and girls and the importance of the continued operation of One Stop Service Centers (OSSCs)/shelters are exacerbated during the pandemic. In the first quarter of 2020, reports of incidents of domestic violence to Mongolia's National Police Agency increased by nearly 50 per cent 16compared to the same period in 2019. Even more striking, the average number of clients served by one-stop service centers has increased by almost 90 per cent, compared to the same period in 2019. Services for survivors are generally still available, but many consultations and counselling sessions are now done online or over the telephone. A local one-stop service centers continue to provide essential services to survivors of violence, especially during this period of restrictions.

### Access to public service.

Access to many services is various to citizens in aimag and soum centers, and remote areas. Public service tends to be costly to the farther and rural areas and herders need to travel to nearest territorial and administrative unit access basic services. The education system of Mongolia is composed of nursery, kindergarten, primary school, secondary school and university facilities. In education, the biggest concerns are related to access by those in rural communities, mostly herders due to location of schools. Soum/bagh schools usually have dormitories where children can stay up to 9 months during school term. School enrolment age change from 8 to 6 years has caused many herder families live in separate households, usually mothers move in to soum center with their children. This has been cited for many social issues. In health, the specialized services are concentrated in the central areas at aimag center, making rural communities to travel.

**Education.** Based on 2010 Population and Housing Census, the literacy rate in the country of population fifteen years old and above was 98.3 percent with the rate slightly higher for male than female at 98 and 97.5 percent, respectively. The number of students and pupils in all types of educational institutions has reached (excluding pupils studying in pre-primary schools) at 736.8 thousands and increased by 4.2 percent, compared with 2008-2009 school years. At the beginning of academic year of 2009-2010, the number of pupils in general educational schools reached (excluding students studying abroad and pupils studying in schools with evening classes) 522.1 thousand. The total number of students studying in

[16] https://www.unfpa.org/news/mongolian-women-get-help-escape-violence-even-amid-pandemic (retrieved: 15 Jan 2021)

universities, higher educational institutions, colleges, technical and vocational schools had been increasing over the years and had reached 210.2 thousand in 2009-2010 academic year. Out of these, 63.8 percent studied in public educational institutions while 36.2 percent studied in private educational institutions.

The concentration of schools in the aimag centers reflects Mongolia's increasing urbanization (57 percent of the population lived in urban centers in 2008 with average rate of urbanization (2005-2010) estimated to be 1.2%. In less densely populated areas, as in other parts of the world, schools can be widely scattered and lack a range of facilities and services.

**Health.** The population health status in Mongolia dramatically improved over the years. Infant mortality had decreased dramatically while maternal mortality had experienced an almost 100-fold decline, and communicable diseases such as louse-born epidemic typhus, genital lymphogranulomatosis, smallpox and poliomyelitis were eradicated, contributing to an almost four-fold increase in population number and a general improvement in the health condition. Although such profound changes have been associated with a number of socio-economic factors, they have been undeniably bound to the contemporary science-based health sector development in Mongolia. Despite this improvement, however, the health sector still faces challenging problems related to the deepened marginalization of some of the population, internal migration and the number of homeless people as well as poor living conditions which are causing the increase of poverty-related diseases such as TB and STDs. In addition, there are problems of unequal health status and access to health services between the rural and urban populations, and between different income groups.

### Transport service

Recent years' rapid increase in population and socioeconomic activities lead in turn to growing demands and pressures national transport system. However, most citizens endure long commute times and road quality and coverage is inconsistent across the regions. In low habited areas are people are left to their own means to achieve access to public services, and economic activities. Safety risk and concerned issues limit women and youth to engage in employment and other socioeconomic activities. Informal service providers by microbuses or regular cars, have picked up the interconnecting routes, though there is no assurance of passenger safety or fare rates. High growth in vehicle ownership and traffic is expected. The local transport fleet is mainly composed of four-wheel drive vehicles and operates with high transport costs.

### Road Safety issues

In terms of safe speed, the default rural speed limit is 80 km/hour whereas maximum motorway limit is 100 km/hour. Speed cameras and hand-held speed detection devices exist but few are in operation. There is a flat fine for speed offences of 50,000MNT (about US$19) and two demerit points apply for speeds up to 50% above the limit and six months license suspension applies to speeds of more than 50% above the limit. There are three main issues of safe road users: alcohol impaired driving; seat belt and child restraint use and broader pedestrian and public transport user safety issues. The volume of drink drive related violations was reported to be declining but alcohol was identified as a contributing factor in 2.2% of road crashes and declining. Regarding seat belts, child restraints and motorcycle helmets, the UNICEF

reported[17] high percentages of drivers being unrestrained at the time of the crash and very high numbers of motorcycle riders killed and suffering head injuries as a result of the failure to wear helmets. The fine for these offences is 20,000 MNT ($US7.50). In terms of public transport and commuter safety, bus service can be regarded as comparatively safe and reliable. People with disability and the elderly receive inadequate facility. Commuter concerns include alcohol related disorder offences and crimes such as sexual assaults, robbery and theft. Despite Mongolia having a driving on the right rule, right-hand drive vehicles are extensively used, and drivers with restricted vision face unacceptable risk.

In 2020, total of 857 suspects are under investigation connected to traffic safety and vehicle use violations in Mongolia. The gender ratio of the violations is 83.5% male, 16.5% females.

**Table 1. Overall safety indicators for Mongolia[18]**

| INSTITUTIONAL FRAMEWORK | |
|---|---|
| Lead agency | Ministry of Road and Transport Development, The National Committee |
| Funded in national budget | Yes |
| National road safety strategy | Yes |
| Funding to implement strategy | Partially funded |
| Fatality reduction target | 50% (2012-2020) |
| **SAFER ROADS AND MOBILITY** | |
| Audits or star rating required for new road infrastructure | Yes |
| Design standards for the safety of pedestrians / cyclists | Partial |
| Inspections / star rating of existing roads | No |
| Investments to upgrade high risk locations | No |
| Policies & investment in urban public transport | Yes |
| **SAFER VEHICLES** | |
| Total registered vehicles for 2016 | 841 537 |
| Cars and 4-wheeled light vehicles | 547 299 |
| Motorized 2- and 3-wheelers | 42 751 |
| Heavy trucks | 175 648 |
| Buses | 6 823 |
| Other | 69 016 |
| Vehicle standards applied (UNECE WP.29) | |
| Frontal impact standard | No |
| Electronic stability control | No |
| Pedestrian protection | No |
| Motorcycle anti-lock braking system | No |
| **POST-CRASH CARE** | |
| National emergency care access number | National, single number |
| Trauma registry | National |
| Formal certification for prehospital providers | No |
| National assessment of emergency care systems | No |
| **DATA** | |
| Reported road traffic fatalities (2016) | 484 [a] (75% M, 25% F) |
| WHO estimated road traffic fatalities (2016) | 499 (95% CI 471 – 527) |
| WHO estimated rate per 100 000 population (2016) | 16.5 |

[a] Health icators 2016, Center for Health Development. Died within 30 days of crash

| SAFER ROAD USERS | |
|---|---|
| National speed limit law | Yes |
| Max urban speed limit | 60 km/h |
| Max rural speed limit | 80 km/h |
| Max motorway speed limit | 100 km/h |
| Local authorities can modify limits | No |
| Enforcement | 0 1 2 3 4 (5) 6 7 8 9 10 |
| Predominant type of enforcement | Manual and automated |
| National drink-driving law | Yes |
| BAC limit – general population | < 0.04 g/dl [b] |
| BAC limit – young or novice drivers | < 0.04 g/dl [b] |
| Random breath testing carried out | Yes [c] |
| Testing carried out in case of fatal crash | All drivers tested |
| Enforcement | 0 1 2 3 4 5 6 7 (8) 9 10 |
| % road traffic deaths involving alcohol | 25% [d] |
| National motorcycle helmet law | Yes |
| Applies to drivers and passengers | Yes |
| Helmet fastening required | No |
| Helmet standard referred to and/or specified | No |
| Children passengers on motorcycles | Not restricted [e] |
| Enforcement | 0 (1) 2 3 4 5 6 7 8 9 10 |
| Helmet wearing rate | – |
| National seat-belt law | Yes |
| Applies to front and rear seat occupants | Yes |
| Enforcement | 0 1 2 3 4 (5) 6 7 8 9 10 |
| Seat-belt wearing rate | – |
| National child restraint law | No |
| Children seated in front seat | Not restricted |
| Child restraint required | – |
| Child restraint standard referred to and/or specified | – |
| Enforcement | – |
| % children using child restraints | – |
| National law on mobile phone use while driving | Yes |
| Ban on hand-held mobile phone use | Yes |
| Ban on hands-free mobile phone use | No |
| National drug-driving law | Yes |

[b] Law based on breath alcohol concentration, values converted to BAC
[c] Legislation requires probable cause to test drivers or commission of a traffic offence
[d] 2016, General Police Department, "Statistics on road traffic injury and violation"
[e] Children under 12 years can be transported on a motorcycle provided that there is a special support installed in the rear seat

Premature death due to road accidents is the third largest cause of death for Mongolia. A scoping study on the GGLE that the World Bank conducted in 2019 showed that death by suicide, homicide,

[17] UNICEF (2018), Situation of Child Road Safety and Road Traffic Injuries in Mongolia, Assessment Report, Ulaanbaatar.
[18] World Health Organization, 2018, Global Status Report on Road Safety

unintentional injury, road accidents, and noncommunicable disease (NCD) was significantly higher for men than women. In 2018, male mortality was 5.8 times as high as female mortality from suicide, 4.1 times as high from homicide, 3.8 times as high from unintentional injuries, 2.8 times as high from road accidents, and 1.5 times as high from NCDs (World Bank 2019). Alcohol-related road accidents affect Mongolian men far more than women.

As of 2020, there are 1,137,208 vehicles registered in the national database of the National Center for Road Transport, of which 67,796 or 6 percent are motorcycles. Of these, 57,962 or 85.5 percent are registered in provinces. About 81 percent of motorcycle deaths were registered in provinces. Many young herders in Mongolia die because of motorcycle accidents. The main causes of motorcycle accidents were speeding, driving under the influence of alcohol, overtaking, colliding with roadside objects, and injuries to the head, back, arms and legs due to not wearing a helmet. Motorcycle use is prohibited from October 1 to April 1 by order of the mayor of the respective province. It is believed that registered and unregistered motorcycles widely used by provincial residents.

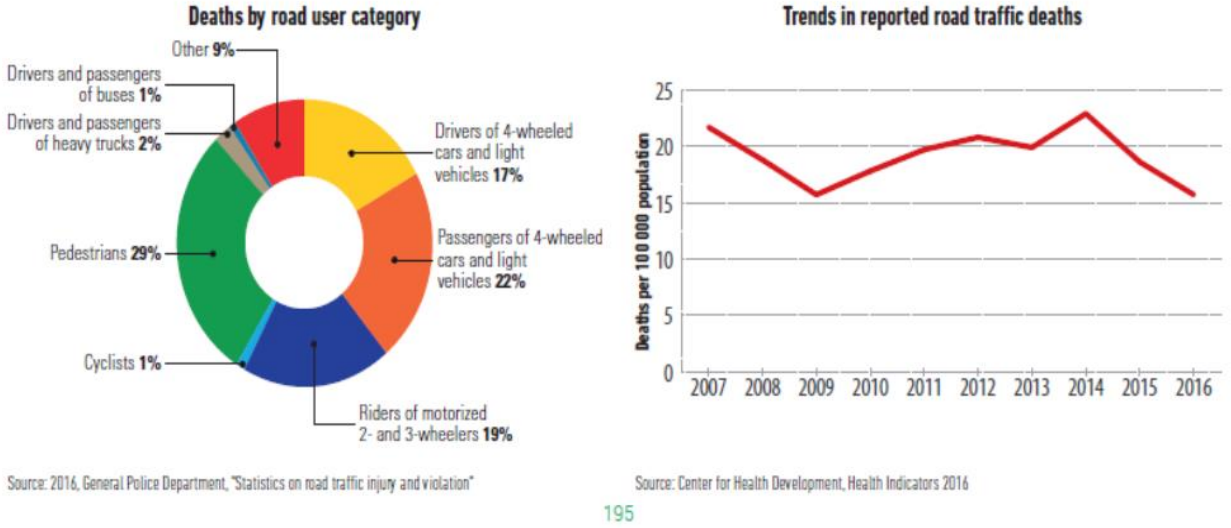



**Figure 15. Road deaths in Mongolia**

### Covid 19

Since the first reported case in March 2020, as of 27 September 2021, there are 358,667[19] confirmed cases, 167,432 are in 21 aimags. The swift and remedial action taken by both state and local government including the wearing of masks, hand washing, physical distancing, a strict lockdown, a mass vaccination, and contact tracing, testing and isolation, have contributed to positive outcome in provincial clusters. Earlier months of 2021, the Cabinet of Mongolia and local government have adopted various regime of heightened state of readiness for disaster protection for certain period. Project activities such as public consultative meetings or construction works can be delayed, cancelled, or contingent costs may occur in relation to COVID 19 mitigation measure.

[19] https://www1.e-mongolia.mn/covid-19 (retrieved: June 05, 2021)

# 5. POTENTIAL IMPACTS AND MITIGATION MEASURES

## Environmental impacts and mitigation measures

### Climate change

Mongolia has developed its Nationally Determined Contribution (NDC), which was approved by the Government Decree No.407 of November 2019, with the aim to contribute to the Paris Agreement. In the NDC, Mongolia has enhanced its mitigation efforts with policies and measures to be implemented in key economic and natural resource management sectors by 2030. The mitigation target of Mongolia's NDC will be a 22.7% reduction in total national greenhouse gas (GHG) emissions by 2030, compared to the projected emissions under a business-as-usual scenario for 2010. Mongolia intends to achieve a target to mitigate its greenhouse gas emissions by 22.7 percent by 2030, compared to the business as usual scenario, excluding LULUCF.[20]

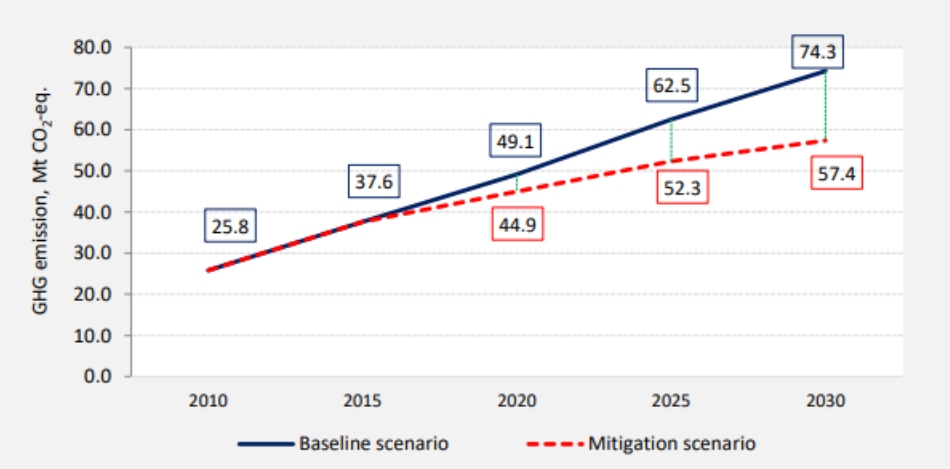



*Figure 16 Comparison of BAU baseline GHG emission and mitigation scenarios (Mt CO2-eq.)*

Overall, works planned under both Components 1.2 and 2 will reduce GHG emissions with increases in fuel efficiency achieved as a result of improved road conditions, reduced travel times, and a more efficient supply chain.[21] Specifically, the improved road conditions along the identified last-mile connectivity corridors result in reduced travel time for transport vehicles travelling through the corridors by an average of 0.26–0.87 hours per vehicle, which is estimated to reduce GHG emissions by 65,881 tons of carbon dioxide ($CO_2$) over the economic lifetime of the project (Table 5). However, the emission reductions from the last-mile connectivity corridors are offset by the 69519 tons of CO2 equivalent GHG emission increased from the increased speeds due to the improved road conditions in the A0301, A0601, and A0502 corridors (while there is no emission change for A0902 corridor) (Table 4), resulting in a net increase of CO2 emissions of about 3,638 tons, or 181.9 tons per year. With the establishment of a logistics network, the frequency of travel between origin and destination points for meat transport purposes is expected to decrease by 30 percent due to the agglomeration of meat supply in regional hubs. While Subcomponent 3.1 focuses on establishing implementation monitoring and evaluation mechanism, it also provides essential support around environmental and social safeguards for the Government of Mongolia. Subcomponent 3.2 on the development of green performance indicators and guidelines for

[20] Nationally Determined Contribution: https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Mongolia%20First/First%20Submission%20of%20Mongolia%27s%20NDC.pdf

[21] HDM-4 $CO_2$ emission analysis results show that $CO_2$ emissions decrease by 16-25 percent due to speed increases in the "last mile" local roads under the with-project scenario. The economic analysis carried out during the project preparation used an assumption that the traffic on roads under interventions will grow approximately 3.5 percent every year until 2040, based on forecasted income and the population growth rates.

the construction, management, and operation of the logistics hubs will further contribute toward reducing GHG emissions. Overall, Component 3 will yield adaptation co-benefits through building the capacity of infrastructure management entities in terms of climate resilience in Mongolia.

*Table 7 GHG emission analysis*

| Component 1 Corridors for periodic repair and capital repair | length of corridor (km) | Without project | | | Total | With project | | | Total | GHG reduction amount (t) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Car Carbon emission (t) | Truck Carbon emission (t) | Bus carbon emission (t) | | Car Carbon emission (t) | Truck Carbon emission (t) | Bus carbon emission (t) | | |
| Component 1.1 Periodic repair | | | | | | | | | | |
| A0301 UB-Arvaikheer | 46 | 346,237 | 552,191 | 88,645 | 987,073 | 356,624 | 568,757 | 91,304 | 1,016,685 | (29,612) |
| A0602 Kharkhorin- Tsetserleg | 13 | 20,177 | 30,533 | 3,830 | 54,540 | 20,782 | 31,449 | 3,945 | 56,176 | (1,636) |
| A0501 UB-Undurkhaan | 77 | 268,779 | 449,358 | 79,809 | 797,946 | 276,842 | 462,839 | 82,203 | 821,884 | (23,938) |
| Component 1.1 Capital repair | | | | | | | | | | |
| A0301 UB-Arvaikheer | 37 | 278,495 | 444,154 | 71,301 | 793,950 | 281,280 | 448,595 | 72,014 | 801,889 | (7,939) |
| A0602 Kharkhorin- Tsetserleg | 19 | 29,489 | 44,624 | 5,598 | 79,711 | 29,784 | 45,071 | 5,654 | 80,509 | (798) |
| A0501 UB-Undurkhaan | 27 | 94,247 | 157,567 | 27,985 | 279,799 | 96,132 | 160,718 | 28,545 | 285,395 | (5,596) |
| A0902 Moron-Bulgan | 25 | 18,574 | 10,330 | 3,686 | 32,590 | 18,574 | 10,330 | 3,686 | 32,590 | - |
| | | | | | | | | | Total reduction | (69,519)[22] |

*Table 8 Last mile new road GHG emission estimate*

| Last mile new roads | length of corridor (km) | Without project | | | Total | With project | | | Total | GHG reduction amount (t) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Car Carbon emission (t) | Truck Carbon emission (t) | Bus carbon emission (t) | | Car Carbon emission (t) | Truck Carbon emission (t) | Bus carbon emission (t) | | |
| Tuv aimag-Ugtaaltsaidam | 52.27 | 17,903 | 133,623 | 2,659 | 154,185 | 15,039 | 112,244 | 2,233 | 129,516 | 24,669 |
| Tuv aimag-Tseel | 23.7 | 10,804 | 71,986 | 163 | 82,953 | 8,103 | 51,100 | 122 | 59,325 | 23,628 |
| Arkhangai aimag- Bulgan | 35 | 12,750 | 68,017 | 593 | 81,360 | 10,583 | 56,454 | 493 | 67,530 | 13,830 |
| Ovorkhangai aimag- Yesunzuil | 16 | 4,497 | 25,815 | 455 | 30,767 | 3,778 | 22,854 | 382 | 27,014 | 3,753 |
| | | | | | | | | | Total reduction | 65,880 |

[22] The GHG emission is increased from the increased speeds due to the improved road conditions in the A0301, A0601, and A0502 corridors (while there is no emission change for A0902 corridor)

## Environmental impacts

While project proposed activities such as roads maintainence and construction and the development of the model regional hub involve earth and civil works that could have potential negative impacts on the environment and local communities, they are likely to be temporary and reversible if adequate mitigation measures are developed and carried out in a timely manner.

Potential negative impacts of road construction and maintenance and the model regional hub development on the environment may include but are not limited to loss of productive soil, erosion, soil contamination, fugitive dust generation from earth moving activities, construction machineries and loading and unloading of materials, surface water contamination and significant increase of noise and vibration in the local area. Furthermore, construction activities may generate excessive amounts of solid and liquid waste in the local area and potential diseases could be introduced to local communities through population influx of construction workers. Habitat fragmentation may to occur depending on the proposed new road sites if Biodiversity Management Plan is not in place. Despite those potential negative impacts, building these new roads and rehabilitating sections of local roads and the hub development will have significant positive impacts on the economy; supporting the rural collection of meat, thereby, generating additional income to herder households and local communities, but may have negative impacts to natural habitats if not well designed. Road rehabilitation associated impacts on the environment will be similar to that of new road construction. The ES risks during the hub operation will bring potential negative environmental impacts, including wastewater, air pollution, noise, waste, and OHS hazards.

New road and rehabilitation of existing road activities and the model regional hub development will be subject to construction and environmental standards in Mongolia and WB EHS guidelines, which specify procedures and measures that must be followed. Having those regulatory requirements in place will greatly reduce the project environment as well as occupational health and safety risks and impacts.

Project potential environmental and OHS impacts and their mitigation measures are shown in below tables.

**Anticipated pre-construction phase impacts and mitigation measures**

Land Acquisition

Pre-construction phase negative impacts are associated with any permanent land acquisition and associated loss of land and/or structures. As all subproject works, development of Model regional hub, construction of last mile connectivity roads, and maintenance and rehabilitation of existing road will take place on government owned unoccupied land, which are not in areas of critical habitats nor cultural heritage sites and other sensitive areas. No land acquisition for any of the subprojects.

Temporary Site requirement

Contractors will be required to select sites on the basis of minimal environmental and social impacts, avoiding or if this is not possible, minimizing, involuntary displacement, and assess final sites chosen so that, where necessary, additional mitigation measures can be applied to reduce adverse impacts. The DEIA shall identify mitigation measures based on the exact location of the workers camp and equipment storage. The temporary site shall be approved by the local authority and the PMO.

*Mitigation measures*

Environmental management measures will also be implemented in the pre-construction phase during detailed design, E&S documents updating, incorporation of environmental mitigation measures into contractor's bidding documents, technical specifications, and contracts for civil construction and equipment installation; implementation of the GRM; and training and capacity building.

ESMF, ESMP for last mile connectivity roads and preliminary ESIA updating

The ESMP and preliminary ESIA needs to be updated to account any design changes or new information. Before bidding of the 76km last mile connectivity roads, an in-field investigation to the roads including biodiversity investigation and heritage survey will be conducted. The ESMP for Ugtaaltsaidam and Tseel soum roads will be updated with an integrated biodiversity management plan (BMP) if the adverse impacts to biodiversity are identified during the biodiversity investigation. Mitigation measures including changing the route of the road, if necessary, will be also proposed in the updated ESMP.

The environmental mitigation measures indicated in the updated E&S documents will be incorporated into the detailed design. All the E&S documents (ESIAs, ESMPs, etc.) will be subject to WB clearance before their approval and implementation.

Bidding documents and contracts

Environmental mitigation measures indicated in the E&S documents will be included in the subproject contractor's bidding documents, technical specifications, and contracts.

**Construction phase environmental impact and mitigation measures**

Erosion, Borrow and Spoil

For works planned under both Subcomponents 1.1 maintenance of 244 km road sections, Subcomponent 1.2 construction of 127 km last mile new road, and Subcomponent 2.1 construction of Model Regional hub, the construction activities such as land leveling, excavation, and filling may lead to localized surface erosion and runoff and spoil generation. Soil erosion can be more serious on slopes or near water bodies and can also occur after the completion of construction if site restoration is inadequate. If the subproject site is generally flat and not adjacent to water bodies, critical habitat, or

sensitive receptors such as residences, schools, or hospitals, then the impacts will be minor in scale, short-term in duration, and localized.

*Mitigation measures*

The Project Implementer (contractor) follows Mongolian and International guidelines for topsoil removal, storage, and restoration and rehabilitation of damaged land and earth's crust. Reuse topsoil as a superficial layer for rehabilitation. Impacts are managed through the implementation of engineering measures and good construction site management. Identify the amount and area of soil disturbance and removal. Include in EIA Mongolian (or applicable international standards) road repair and construction standards and directives: handling contaminated soil standard (National and International practice and guidelines on Hydraulic oils and similar and recycling of treated soil). Spill Management Plan that includes on site fuel storage good practice is prepared and submitted by the contractor and approved by the PMO. Soil Erosion Management Plan, to be implemented as part of project design, should be prepared by the contractor as part of the environmental management plan.

For all works that require civil works, all materials shall be sourced from a licensed entity, where borrow pits are approved by the local authorities with rehabilitation requirements are in place.

Material Use

The consumption of natural and non-renewable resources will have a negative impact on the material resources. The potential for significant effects depends on the volumes required, origins and sources of materials, including their general availability and the proportion of recovered material they contain. The main resources required for construction include aggregate for sub-base, concrete, sand, water and bitumen for works planned under road construction and maintenance. The development of Model regional hub will also require extensive construction materials.

*Mitigation measures*

Where possible during development of feasibility studies and detailed design drawings utilization of reusable materials should be assessed and promoted in additional alternative sustainable materials.

Air pollution and Dust

Anticipated sources of air pollution from works planned under both Subcomponents 1.1 maintenance of 244 km road sections, Subcomponent 1.2 construction of 127 km last mile new road, and Subcomponent 2.1 construction of Model Regional hub, include (i) dust generated from earth excavation, filling, loading, hauling, and unloading; (ii) dust generated from disturbed and uncovered construction areas, especially on windy days; (iii) dust generated from construction material storage areas, especially on windy days; (iv) dust generated by the movement of vehicles and heavy machinery on unpaved access and haul roads; (v) dust generated from aggregate preparation and concrete-mixing; and, (vi) equipment emissions (gaseous CO and NO2 from transport vehicles and heavy diesel machinery and equipment).

Impacts at the subproject site will be localized and short-term in duration and are likely to impact nearby residents and wildlife. Impacts of vehicle emissions along access routes will not result in any predicted exceedances of air quality standards and will be small in scale compared to other vehicle emissions.

*Mitigation measures*

These potential impacts, can be effectively mitigated through good site and equipment management practices, including covering transportation loads and managing construction traffic to reduce the impact. Site spraying will be utilized. Some mitigation measures during road construction include: asphalt and hot-mix plants are located at least 500 meters away from the nearest sensitive receptors; dust-generating items are transported under cover; spraying road surfaces are required; require trucks carrying earth, sand, stone construction materials are covered with tarps or suitable/acceptable

materials to avoid spilling; machinery and equipment will be fitted with best available pollution control devices, calibrated properly; open burning is prohibited the proper use of solvents and volatile materials will be incorporated in the contract and documents.

Pre-construction monitoring of existing ambient air quality will be undertaken in conjunction with each construction package to provide a baseline for the measurement of air.

Water quality

All construction activities will have risk of contamination of surface/run-off water by chemical substances used for construction of new roads, rehabilitation and maintenance of existing roads, and development Model regional hub. During the construction phase, heavy metals and oil grease could be deposited on roadsides and reach water bodies and adversely affect fauna. Rainstorms and heavy rainfall trigger flashflood/stream courses.

*Mitigation measures*

These potential impacts will be mitigated through good wastewater management practices, including providing sanitation facilities for workers, managing construction wastewater, and off-site maintenance of construction equipment and vehicles.

Locations of ground water wells or hand pumps in nearby ger district shall be identified/marked and assessed to avoid contamination from chemical and construction material spoil during transportation and construction.

Noise and Vibration

During the construction phase noise and vibration will be generated by on site construction activities using heavy equipment such as excavators, and by the transport of construction materials. The impacts on the adjacent residents, potential noise and vibration impacts are anticipated. Increasing vibration and noise from roads and/or other existing infrastructure may occur due to construction material transportation by heavy-loaded vehicles.

*Mitigation measures*

The potential impacts will be effectively mitigated through baseline monitoring prior construction commencement, good construction noise management measures, including limiting working hours, using noise barriers if necessary, using low noise equipment, and equipping machinery with mufflers in accordance with relevant government requirements. Pre-construction noise and vibration shall be assessed.

Solid waste

Solid waste generated in the construction phase may include construction and residential wastes. Construction wastes include various road materials and construction waste. Domestic wastes include organic and inorganic matter, and an estimated 0.4 kg/day per worker of domestic waste. Inappropriate waste storage and disposal could affect soil, groundwater, and surface water resources, and hence, public health and sanitation.

*Mitigation measures*

These potential impacts will be effectively mitigated through good waste management practices, including the adoption of the waste hierarchy, providing recycling and waste containers at all construction sites, recycling all materials to the extent possible, and collecting and disposing remaining wastes at appropriate waste disposal sites following national regulations. Waste disposal agreements with local authority shall be made, if unavailable, contractor should have contracts for material surplus and for disposal. Waste burning on the subproject site will not be allowed. The subproject environmental and social management plan to include recommendation and mitigation plan on handling of solid waste

including prevention from spills, daily collection and disposal of construction waste, fencing construction area, usage of effective road signs.

Environmentally harmful waste should be handled according to toxic waste disposal procedure and transported to landfill or incineration plants. If there are no legalized landfills, agreement should be made with municipality for temporary and final disposal

Hazardous and Polluting Materials

Inappropriate transportation, storage, use, disposal and spills of petroleum and hazardous materials are tangible risk associated the reconstruction work. Hazardous waste contaminates soil, surface and groundwater.

*Mitigation measures*

These potential impacts will be effectively mitigated through good practice hazardous materials management such as separate collection, non-leaking containers, impermeable surfaces, and contracts with licensed companies in accordance with relevant WB EHS and local rules and regulation. ESIA/ESMP will include comprehensive procedure for handling hazardous waste to prevent spilling during transportation and inadequate illegal dumping the waste nearby river.

Flora and Fauna

All project sites will not be in critical habitat, rare or endangered flora and fauna or areas of natural forest at or immediately adjacent to the project investment locations. Detailed environmental social impact assessment shall identify and propose an appropriate mitigation measure.

Impacts on fauna can be result from the temporary road design and land take which may pose risks and hazards of livestock and other animal falling, increasing movement of construction vehicles and equipment will disturb affected area fauna, construction workers and temporary construction camps management may pose illegal hunting of endangered fauna on land and in waterbodies.

Impacts on flora are temporary and permanent landtake lead to loss and degradation of natural habitat and plants, vegetation loss and activities associated with quarries and borrow pits.

*Mitigation measures*

Before bidding of the 76km last mile connectivity roads proposed under subcomponent 1.2, an in-field investigation to the roads including biodiversity investigation and heritage survey will be conducted. The ESMP will be updated with an integrated biodiversity management plan (BMP) if the adverse impacts to biodiversity are identified during the biodiversity investigation. Mitigation measures including changing the route of the road, if necessary, will be also proposed in the updated ESMP.

The road design shall aim to incorporate sustainable design schemes, such as biomimicry, promotion of local species with high values (such as water absorbing plants) in flood prone areas. The removed trees shall be replanted at appropriate landscape by the contractors.

For subcomponent 2.1 construction model regional hub the preliminary ESIA will be updated with a comprehensive ESIA in accordance with World Bank EHS guidelines and GIIP, and in which an integrated ESMP.

Physical Culture Resources

All cultural heritage sites shall be assessed prior construction. However, if during construction activities have the potential to disturb as yet unknown PCRs.

*Mitigation Measures*

A construction phase chance find procedure will be established and activated if any chance finds of PCRs are encountered:

- construction activities will be immediately suspended if any PCRs are encountered;
- destroying, damaging, defacing, or concealing PCRs will be strictly prohibited in accordance with Mongolian regulations;
- the local Cultural Heritage Bureau will be promptly informed and consulted; and,
- construction activities will resume only after thorough investigation and with the permission of the local Cultural Heritage Bureau.

**Operation phase impacts and mitigation measures**

Waste Management

Operation and maintenance on all roads are likely to yield waste, including rest areas along the roads.

Model regional hub operation will have larger waste generation as various activities are in place. Warehousing, storage facilities, domestic waste from the offices and hostels and packaging will result large amount of solid and liquid wastes.

*Mitigation measures*

Implementation of waste management plan, identified during DEIAs and ESMPs.

Road design

Lack of signs, barriers, traffic safety measures lead to loss of wildlife and increased traffic collisions and restrict wildlife movement.

*Mitigation measures*

Based on the DEIAs and ESMPs all roads shall have appropriate signs, barriers, traffic safety measures for all road users, i.e., wildlife and livestock crossing signs in line with traffic safety measures.

**Occupational health and safety hazards and mitigation measures**

| Potential OHS impacts | Mitigation measures |
|---|---|
| ● Industrial incident/accident<br>● Traffic incident/accident<br>● Heavy items fall on people<br>● High level of noise and vibration<br>● Falls and falling objects<br>● Working on slippery surfaces<br>● Fire hazards<br>● Chemical hazards such as toxic fumes and vapor<br>● Lightening<br>● Flash flood and other natural disasters<br>● Communicable disease; COVID-19 | ● Good construction OHS practices implemented as per the EHS Guidelines:<br>● All relevant Mongolian safety regulations will be strictly enforced.<br>● All workers will be equipped with appropriate personal protective equipment (PPE), such as hard hats, insulating and/or fire resistant clothes, appropriate grounding, hot line and uninsulated tools, safety gloves, safety goggles, fall protection system including safety belts and other climbing gear (for work at heights), ear protection, etc. PPE will be maintained and replaced as necessary.<br>● All work at height will be prohibited during non-daylight hours, during periods of fog, and during periods of strong wind.<br>● Construction sites will be equipped with adequate potable water and temporary sanitation facilities.<br>● Training will be provided to workers in all aspects of OHS, including prevention of communicable diseases |

| Potential OHS impacts | Mitigation measures |
|---|---|
| | (including HIV/AIDS) prior to the start of construction and on a regular basis (e.g. monthly briefings).<br>● Emergency Response Procedures (ERP): Emergency response procedures will be developed, including communication protocols for interaction with local and regional emergency response providers, protocols for shutting down power, firefighting response procedures, provision of appropriate firefighting equipment, training for workers on fire response, and record keeping.<br>● Medical emergency response procedures will be developed covering both workers and community members (when affected by project related activities), including communication protocols for interaction with local and regional emergency response providers, first aid equipment on site, contact information for the nearest ambulance and medical facilities, training for workers on initial on-site emerge response, protocols for informing and transferring injured workers to local or provincial health centers, and record keeping. At least one trained first-aid worker will be available at the construction site.<br>● Training will be provided to workers in all aspects of the ERP. |

## Social Benefits

The benefits of proposed projects are short, medium and long terms, and, if successful, should not be limited to the numbers of new and repaired roads, and improved logistics, but contribute to the sustainable development, and overall livelihood and wellbeing of the community, specifically:

- New construction and upgrading of roads will improve inter connectivity of selected road network, and facilities supporting safer, accessible, and efficient travels for all road users.
- Increased access to safe, reliable and sustainable connectivity and logistic services will improve a mobility of residents, particularly vulnerable people such as those with disability and young children and reduce the cost of transportation.
- Nearby areas of selected locations will become more attractive to businesses and investment which may contribute to socio economic growth, rural development, and integrated public service delivery. Road construction and upgrading will enable a quicker response to the outbreak for crippling animal diseases, natural disasters such as flood, Dzud during winter, and speedy access to hospitals and medical centers, and other social services for rural residents.
- The new and upgraded roads will directly facilitate development and economic growth by making travel easier and more reliable, and by enabling the reduction in transport costs for imports and exports. Local tourism is likely to expand. There are national parks, nature reserves, important bird areas as well as a range of archeological sites will provide a basis for sustainable and low impact eco-tourism. Importantly, the new and upgraded roads are likely to ease the internal migration impacts because of enhanced employment opportunities.
- Improved access to information and market will contribute to productivity increase and the value of production.

- Local authorities and its implementing institutions will strengthen their technical capacity and competence and adopt inclusive infrastructure management and implementation practice.

## Social Impacts and Mitigation Measures

### Traffic management

During repair, rehabilitation of selected existing roads, construction of new roads may result in a significant increase in the number of vehicle trips passing the roads in the project areas. The movement of such heavy vehicles for the transport of construction materials and equipment may disturb traffic flow on the road. There will be a need to temporarily occupy portions of the roadway requiring traffic control or diversions. The design speed of last mile connectivity roads is 50km to 80km per hour. Traffic safety will be assessed.

Temporary road occupancy during the construction period is likely to result major inconvenience and road safety issues to local herder communities and road users including people with disability, children, and women. Where roads are reduced to single lane or traffic is otherwise disrupted traffic management measures will be implemented by the contractor to ensure safe passage of vehicles through construction zones and minimal delays. In addition, traffic disturbance or the movement of heavy load trucks on the road may also cause increased traffic safety risks on local roads, affecting the safety of local travelers and the workers at sites. Damage of existing roads and/or other existing infrastructure may occur due to construction material transportation by heavy-loaded vehicles. Therefore, these potential impacts should be avoided by measures such as using alternative transportation routes or only allowed trucks with suitable loads.

When sections of last mile roads pass through villages, traffic safety measures should be taken as an integrated part of road construction.

#### *Mitigation Measures*

In order to avoid, minimize and mitigate traffic safety risks, a Site Specific ESMP will be developed according to the templated provided in Appendix 7 and relevant guideline and measures are to be included on ECoP, Appendix 8, and Traffic Management Plan in Appendix 9

### Labor Influx and Working conditions (Occupational Health and Safety)

The influx of labors can lead to adverse social impacts on local communities, especially when the communities are rural, remote, and small. Such adverse impacts may include increased demand and competition for water, electricity, housing, and other local services, such as social and health services, as well as an increased load on ecosystems and natural resources. A significant growth in population can also increase the rate of inflation, which can crowd out local consumers, and have other adverse impacts, such as increased volume of traffic and higher risk of accidents. Social conflicts within and between communities, there may be a potential for increased spread of communicable diseases, and increased alcohol use, disrespect of local customs, violence, rates of illicit behavior and crime.

Under component 1, contracted workers may work in an environment with increased level of dust and toxics generated from the activities of demolition, soil excavation and machine operation, which may lead to fatigue, dizziness during their works. Workers may expose to electricity lines/equipment, physical hazards and various machines operating at the same time within the construction sites especially when they are in negligence in work and lacking awareness of labor safety regulations.

The model logistics hub is designed to include office space for onsite workers and hostels for truck drivers. Potential impact to nearby communities including SEA/SH and other related safety issues will be assessed.

The project contractors are unlikely to recruit a workforce from abroad except highly skilled technical engineers and staff in low volume as local labor market can supply workers to work. Temporary camps for housing and industrial purpose need to be established and there may be the regular coming and going of support services, such as catering, cleaning services, equipment, transport, health care, material and supply deliveries, and the interaction with specialist sub-contractors bought in to deliver elements of the works. Also, there are potential risks on substance abuse, violence and illicit behavior and crime.

Construction activities may cause OHS incidents for workers. Local communities and workers are potential to be suffered with communicable disease and COVID-19 infection and pandemic. In addition, the presence of foreign, especially if they come from countries with high infection rates, may also cause social tension between the foreign workers and local populations. The risk is expected to be moderate under the country's experience in prevention and fighting against COVID-19. The project contractors are required to follow implementing all mitigation measures regulated by the Government and WHO in prevention and control of COVID-19.

*Mitigation measures.*

Planned activities mainly involve road maintenance and rehabilitation, last mile connectivity roads, and a model logistics hub. Total number of workers at peak time is expected to be under 100. Further assessment on the level of impact will be done once detailed design is finalized and locations are confirmed, in relation to required number of workers and proximity of project sites to nearby communities. Such adverse impacts are usually amplified by low capacity at the local level to manage and absorb the incoming labor force, unless they are mitigated by appropriate measures such as social investment, an agreed Code of Conduct (CoC) for workers, and an adequate monitoring program, especially when civil works are carried out in, or near, vulnerable communities and in other high-risk situations. Risks in operation stage is associated with truck drivers using the hostels at the logistics hub. While many of these potential impacts may be identified at the initial stages of a project's Environmental and Social Impact Assessment (ESIA), they may only become fully known once a contractor is appointed and decides on the sourcing of the required labor force. This can be covered in the Environmental and Social Management Plan (ESMP) and Stakeholder Engagement Plan (SEP), and reinforced in the Environmental and Social Commitment Plan (ESCP). This will ensure site-specific mitigation measures before the contractor starts work, to be updated as necessary to reflect project developments. It will also include adequate monitoring and management of risks and impacts from labor influx. Risk and mitigation measures related to gender-based violence and SEA/SH should also be part of the risk assessment during project implementation.

To mitigate this potential impact specific requirement has been described in Labor Management Procedure (Annex 4). An SEP is also prepared to seek feedback from local communities' views. A survey can be conducted as part of a site-specific environment and social assessment to identify and assess these risks on communicable disease and the associated prevention measures will be incorporated in the labor management procedures (LMP) and Occupational Health and Safety Plan (OHSP) to be developed by the contractor upon detailed design development, and approved by the PMO. Additionally, gender sensitive recruitment practice will be promoted. Particularly in COVID 19 pandemic period, relevant guidance, and policies of WBG and WHO are expected to be incorporated in construction management. In case of potential low volume foreign staff in construction activities, adequate management measures to be included on the contractor's agreement and policy. The implementation agencies will keep records and responses of E&S incidents in compliance with the WB Environment and Social Incident Reporting Toolkit[23] requirements.

[23] PMO to utilize the ESIRT for project implementation. Refer to: https://openknowledge.worldbank.org/handle/10986/26033

## Vulnerable groups and inclusion

During construction period, activities of component 1 are expected to cause temporary safety issues for local communities and all road users. There are herders, local small businesses such as shops, cafeterias, motels in proximity that would be affected. Wild animals and livestock access will be similarly affected. Delivery of supplies for and transportation of project workers can lead to an increase in traffic, rise in accidents, as well as additional burden on the transportation infrastructure. More details can be seen on the Good Practice Note on Road Safety for more detailed guidance on this issue.

Some areas of vulnerability among the population (herders and road users) can be lowered with appropriate mitigations in relation to component 1. As such, access restrictions will need to be carefully managed together with the contractor to ensure road users, herders and animals can travel and pass safely. Increased opportunities for the local community to sell goods and services to the incoming workers can lead to child labor to produce and deliver these goods and services, which in turn can lead to enhanced school dropout.

Further assessment will be conducted in areas of how women, children, and elderly people could be disproportionally affected due to their specific vulnerabilities. Ethnic minority people should also be included in assessing vulnerability, such as language issues and particular cultural habits.

Component 1 is foreseen to have a positive effect on residents of near road specially for new roads in selected areas in the future. There are anticipated economic activities under the component 2, which may benefit the rural unemployed and the poor. Due to a potential risk on limited public participation in investment decisions, relation to components 1, 2 and 3, public consultation meetings are expected to incorporate community views into the design, especially in hub selection and related service and any additional measures for vulnerable members of the community that need to be addressed.

### *Mitigation Measures*

Public engagement in planning and design process is essential especially on components 1, 2 and 3 and will be addressed in SEP and GRM during project implementation. Appropriate participation channels should be provided not only for citizens and their representative groups and organizations but also for the affected business community such as meat product producers, animal product supply chain players to have their voice in the planning process and overall outcomes. To maintain public support, MoRTD should make a concerted effort to keep the public informed about the status of projects. The project will encourage gender and disability inclusive infrastructure and service design and safety aspects. Universal accessibility and design tools should be applied.

Additionally, gender tagging, gender analysis and consultation on gender or gender-related concerns could address the distinct needs of women and girls or men and boys or to decrease gender gaps and facilitate the monitoring and evaluation of gender effects through the project's results framework.

## Impacts on land

Given the location of priorities roads to be rehabilitated and the last mile connectivity roads, under component 1, has been predefined and there will be no substantial resettlements requiring physical and economic displacements. The logistics hub under component 2 is expected to assess the needs and requirements for clean land. Since MoRTD has made it clear that the project will avoid any land acquisition, the stakeholder engagement guided by the SEP becomes an important process to ensure land use by the project does not cause any negative impact to local communities. Material sourcing for road maintenance and rehabilitation and last mile connectivity roads is expected to cause restrictions on land

accessing. Public consultation will be held to assess the level of impact from temporary land use and seek views from local communities on how compensation if necessary should be made.

In case involuntary land acquisition or restrictions to access to land is unavoidable, a Resettlement Policy Framework (RPF) has been prepared, and it describes (i) the protocol for compensation of impacts on structures and fixed assets; and (ii) the policies and procedures regarding displacement impacts which require the development of a Resettlement Action Plan (RAP) to be completed after appraisal, prior to implementation of the civil works.

This RPF incorporates the requirements of Mongolian law and the World Bank's ESS5 on land Acquisition, restrictions on land Use and involuntary resettlement. It is expected any Affected Persons (APs) should be better off, or at least maintain their existing livelihoods as before the project. All persons affected by the project are to be consulted throughout the project, have the opportunity to participate in planning, and to share in project benefits. These principles require a process of early identification of stakeholders, and in particular of APs; effective public disclosure of any known impacts; consultation and participation with all sectors of the community to avoid or mitigate negative impacts identified, and to ensure that no person or impact is overlooked; fair, transparent and timely intervention to support APs during implementation, resettlement and restoration of livelihoods; and commitment where possible to improve upon the status quo, particularly for those who may be vulnerable by reason of poverty, ethnicity, gender, age, disability, or social status.

If there are fixed assets lost (such as shop structures), the aim will be to replace like for like, and if this is not possible, to compensate for lost assets and income, and meet the costs of relocation and restoration of livelihoods. Restoration includes not only physical assets, but also social and cultural assets. If there is a risk of disruption of these values, which are often disproportionally encountered by women, the APs will contribute to selection of mitigation options to ensure policy objectives are met.

*Mitigation measures*

Land acquisition will be avoided as far as possible. Avoid acquisition of existing residential land and mitigation measures can be referred in Resettlement Plan Framework (RPF), annex 1. RAPs will be developed in conformance with World Bank Environmental and Social Framework (ESF), 2017 Land Acquisition, restrictions on land Use and involuntary resettlement (ESS5) and Mongolian Law in case land acquisition is unavoidable.

The Project Management Office (PMO) under the Ministry of Road and Transport Development will include individuals charged with screening for impacts on structures and fixed assets in the right of way and response according to the principles of this RPF. Close coordination will occur with local authorities, agencies and other stakeholder representatives, who are responsible for land planning, permission and acquisition, national and local road planning, construction, repair, and maintenance in the city.

### Sensitive receptors

Inconveniences to local communities and businesses, including small businesses and herding practices, are inevitable during the construction period, and they will have a temporary nature. For all road users, the lack of specific infrastructure features may leave them vulnerable to injury or health risks. Road safety inspections, systemic assessments and star rating of existing roads can provide mechanisms to identify failings in infrastructure which can affect a crash likelihood and severity. In this case, high risk roads are selected to be upgraded. As historic road design practice and standards have focused on meeting the capacity and travel time needs of motorized vehicles whereas the specific needs of vulnerable road users often have been secondary considerations.

Construction may cause disruption of the daily domestic and business activities of the local households and/or various services nearby, and other livelihood activities near the construction sites. Noise and dust of construction may potentially

have a moderate impact on residential areas, and the first row of building on the road next to the site. There are local soum clinics, schools, kindergarten and local administrative units in proximity to the construction area.

There are no known physical cultural resources at/or near component 1 activity locations. Impacts on cultural heritages needs to be assessed and to be avoided at any known existing cultural heritage.

In addition, operation of vehicles and heavy machinery may affect the existing physical infrastructures such as water well, bridges, animal exits, power lines, telephone lines, drainage system during component 1 activity construction. The impact can be avoided or minimized through measures such as conducting proper site investigations and consultations with nearby communities, local authorities and relevant agencies before civil works design approval and implementation.

*Mitigation measures*

Relevant mitigation measures will include standard community health and safety actions such as watering the temporary earth road, placing signage, safety barriers, traffic calming for works taking place near sensitive social receptors like schools, kindergarten, soum clinics and water sources. More details of measures can be referred to LMP and SEP, Annexes, 4 and 5. Chance Finding Procedures will be included.

- construction activities will be immediately suspended if any PCRs are encountered.
- destroying, damaging, defacing, or concealing PCRs will be strictly prohibited in accordance with Mongolian regulations.
- the local Cultural Heritage Bureau will be promptly informed and consulted; and,
- construction activities will resume only after thorough investigation and with the permission of the local Cultural Heritage Bureau.

### GBV risks

The risk assessment tool of GBV has been applied and rated that project risk is considered as low.

Local communities and vulnerable groups such as women and children are considered most vulnerable to gender-based violence (GBV) and violence against children (VAC), sexual exploitation or abuse (SEA) caused by influx workers and users of the hostels at the logistics hub. Construction workers are predominantly younger males. Those who are away from home on the construction job are typically separated from their family and may act outside their normal sphere of social control. This can lead to inappropriate and criminal behavior, such as sexual harassment of women and girls, exploitative sexual relations, and illicit sexual relations. The varies of cultural behaviors can lead to conflicts between local and migrant laborers at construction sites and workers camps. In addition, GBV, sexual harassment may occur at sites due to male migrant and local workers causing adverse effects.

Given the rural setting, locally sourced workforce if applicable and short construction period, the potential risk of child labor, forced labor, SEA, VAC, and GBV is expected to be low. There is still potential for opportunistic misbehavior of the workforce towards women near workers' camps during the construction period. During operation period, there will be truck drivers using the hostels at the logistics hub. Nevertheless, a survey will be conducted as part of social assessment to identify and assess these risks and mitigation measures could be designed.

*Mitigation Measures*

Relevant mitigation measures can be referred to LMP and SEP, Annexes, 4 and 5, such as Code of conduct and worker inductions under annex 8. These requirements will also be included in the procurement plans so that construction companies would take necessary steps to educate their workers and take measures to minimize the risk/ Also, ESMP will define the specific ways that SEA/SH risks are to be addressed in the project by identifying prevention and mitigation

measures, including the development of a SEA/SH Prevention and Response Action Plan if applicable. ESMP will be included as part of the tender package and thereby forms part of the subproject contract, with the contractor using the project ESMP to create the contractor's subproject ESMP. Project-level measures to address SEA/SH risks are required to consider other ongoing efforts to prevent and respond to GBV more broadly and its SEA/SH prevention interventions should be linked with existing activities in the health sector, and GBV service providers, such as integrated one stop service centers, hotline and referral services, and justice/security, psychosocial support and economic empowerment programming.

Stakeholder engagement will be conducted throughout the project life cycle according to the SEP and is important for managing the project's risks. Further information and general guidance can be referred on the note on Grievance Mechanisms (GMs) for SEA/SH in World Bank-financed projects, and the Violence Against Women and Girls Resource Guide and specifically, its ethical section for safe and ethical consultations. All consultations should be undertaken in accordance with the Guidance Note on Stakeholder Consultations for Investment Projects.

All relevant stakeholders should be aware, at a minimum, of potential risks to and impacts on local communities, and related to ESHS, SEA/SH, the labor influx implications, CoC standards, the local GBV service providers, stakeholder engagement process and its available channels or GM. More relevant detailed information can be seen on the Good Practice Note on Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment Project Financing involving Major Civil Works. Additionally, there will be capacity building programs focused on gender sensitivity and GBV related issues.

### Community Health and Safety

Potential adverse impacts on project affected communities including workers and road users will be associated to increased exposures to traffic and road safety risks, diseases, and hazardous materials in addition to the construction activities under the project (including repair, rehabilitation and new construction of local roads and the development of the model hub) which may pose potential health and safety for local people and animals living surrounding construction sites. Material sourcing will potentially cause negative impact to nearby communities from gravel harvesting and transporting. There can be increased level of dust, noise, hazardous wastes, odors, contamination of surface water and traffic density due to the project machine operation and transportation and land subsidence, structure collapse, uncovered holes. Construction wastes, if not properly loaded and disposed of, would occupy spaces at the construction sites, affecting the landscape and may pose safety risks for the pedestrians, animals and traffic passing by.

The likely risk of gender-based violence (GBV) is low given the expected scale of works and the rural setting. The project areas are considered a low security context, security risks are similarly considered to be low. Basic security such as fencing, signposting, lighting, basic security awareness training, and a security guard may be all that is needed to manage security risks at project locations.

Appropriate risk assessment and mitigation measures will be incorporated into the design, implementation of all project interventions and ESMF requirements, including: (i) road sections and layout that fosters safer vehicle speeds and pedestrian movement; (ii) traffic calming measures that reduce vehicle speeds or allow safer crossings; (iii) safe pedestrian and other road user facilities and access to public spaces; and (v) safe access to transport corridors, stations, and stops. This work will be undertaken in close consultation with key stakeholders during project implementation. Because the Transport Police are responsible for attending any traffic or safety incidences and they will be an important stakeholder to improve project outcomes.

*Mitigation measures*

Specific measures would be specified on LMP, SEP, ESMP and ECoP. There will be traffic management guidelines for site-specific Traffic Management Plans and temporary safety measures ensuring traffic safety in the local communities and the construction sites, in particular, to protect the pedestrians, animals, and workers including the materials supply workers, construction workers, and transport vehicle drivers. Throughout the project life cycle, a road safety assessment shall be undertaken, and appropriate safety measures shall be developed based on the national and local requirements of responsible government authorities, and the WB EHSGs and Good Practice Note on Road Safety of the WB, ESF including (i) Safe Workplaces at Construction site, (ii) Safe Vehicle at Construction site, (iii) Safe Driver and Driver-related practices, (iv) Traffic safety, (v) Emergency Preparedness and response.

# 6. PROCEDURES TO ADDRESS ENVIRONMENTAL AND SOCIAL IMPACTS FOR ALL ACTIVITIES

During implementation, the Project Management Office (PMO) of MoRTD will conduct specific E&S risk assessment and screening for all the project activities per ESF policy requirements, including TA activities and potential CERC activities. Based on the screening, the associated E&S risks/impacts will be identified together with needed E&S instruments which should be additionally prepared, implemented and monitored following domestic laws and regulations and the World Bank's ESF policy. Following table illustrates a summary of potential implication of physical investment and TA activities and suggestion on the application of E&S instruments according to types of the physical investment and TAs proposed under the project.

Table 9. Environmental and Social Risk Screening for physical investment and TAs

| Typology of Activities | Example of Activities under the Project | E&S Instruments and Due Diligence Requirements | Indicative Risk Level |
|---|---|---|---|
| Road maintenance and last mile connectivity roads construction | Small-scale civil works, site-specific impacts, mainly construction nuisance | Environmental and Social Management Plan for last mile connectivity roads, ECOP for road repair (Appendix 8) and traffic management plan (Appendix 9), to be implemented by the IEs and their contractors as part of contractual obligations. | Moderate |
| Model hub development | Anticipated to have the potential to result in significant E&S risks/impacts, but there are effective mitigation measures available for risk management. | Appropriate E&S instruments, including ESIA with integrated ESMP, Resettlement Action Plan (RAP), Labor Management Procedures (LMP), and etc. to be prepared based on the screening results, by respective IEs and reviewed and cleared before subproject implementation. | Substantial |
| Type 1 TA: Supporting the preparation of future investment projects | • Preparatory works for logistics hubs including financing/PPP options, feasibility report, and bidding documents for logistics hubs.<br>• Strategic and feasibility studies for technical designs, intermodal operations, and business development for export logistics. | The downstream E&S impacts during the implementation of supported infrastructure investments should be considered. Thus, when designing and implementing relevant Tas and physical investment, each specific activities must be screened for potential E&S impacts of to identify/define: (a) E&S risks classification; and (b) E&S instruments (ESIA, ESMP, RAP, LMP, etc.) to be prepared during preparation of engineering designs. Where Type 1 activity is *detailed technical design*, it may be an intended output of the activity to prepare a suite of Bank policy-compliant Environmental and/or Social (E&S) instruments for the eventual investment (whether or not funded by the Bank). If Type 1 activity is *feasibility studies*, it may be sufficient to agree with the Borrower on TORs for the feasibility studies that ensure that relevant environmental and social issues are taken into account in conducting the studies in a manner that is consistent with the ESF. | Moderate to Substantial |
| Type 2 TA: Supporting the formulation of policies, programs, plans, strategies or legal frameworks etc. | Preparatory works for logistics hubs including master plans, governance, for logistics hubs. | Where Type 2 activities are to provide advice through the *development of policies, strategies or investment plan* with potentially significant downstream E&S impacts, TORs should be agreed to include adequate assessment of environmental and social implications and its advice is consistent with the ESF. In addition, the Type 2 activities supporting policies, plans and programs should be screened to identify their potential of downstream cumulative impacts and | Substantial |

| | | | |
|---|---|---|---|
| | | necessary strategic environmental and social analysis (SESA) should be prepared and incorporated the assessment result into the outcomes of relevant activities when applicable. | |
| Type 3 TA: Strengthening borrower capacity | Workshops, training, conferences, and study tours for government departments and technical staff | These activities themselves having minimal or no social or environmental impacts, however, may provide supports to institutions in carrying out or overseeing activities that do have potentially significant social and environmental implications. These implications should be taken into account in the design and implementation of the capacity support. Relevant ToRs should be reviewed to ensure the inclusion of necessary E&S considerations. | Low |

The following guidance shall serve to ensure that potential environmental and social impacts are identified, and practical mitigation measures are prepared early in the planning and development of subprojects, in order to avoid or mitigate potential adverse impacts that may be generated by subprojects to be financed under the project. Also, for physical investment and TA projects, it is essential to promote transparency through stakeholder participation and public information disclosure. As appropriate, strategic planning initiatives could include focus groups, citizen consultations, expert panels, public hearings, etc. at all critical phases of the activities.

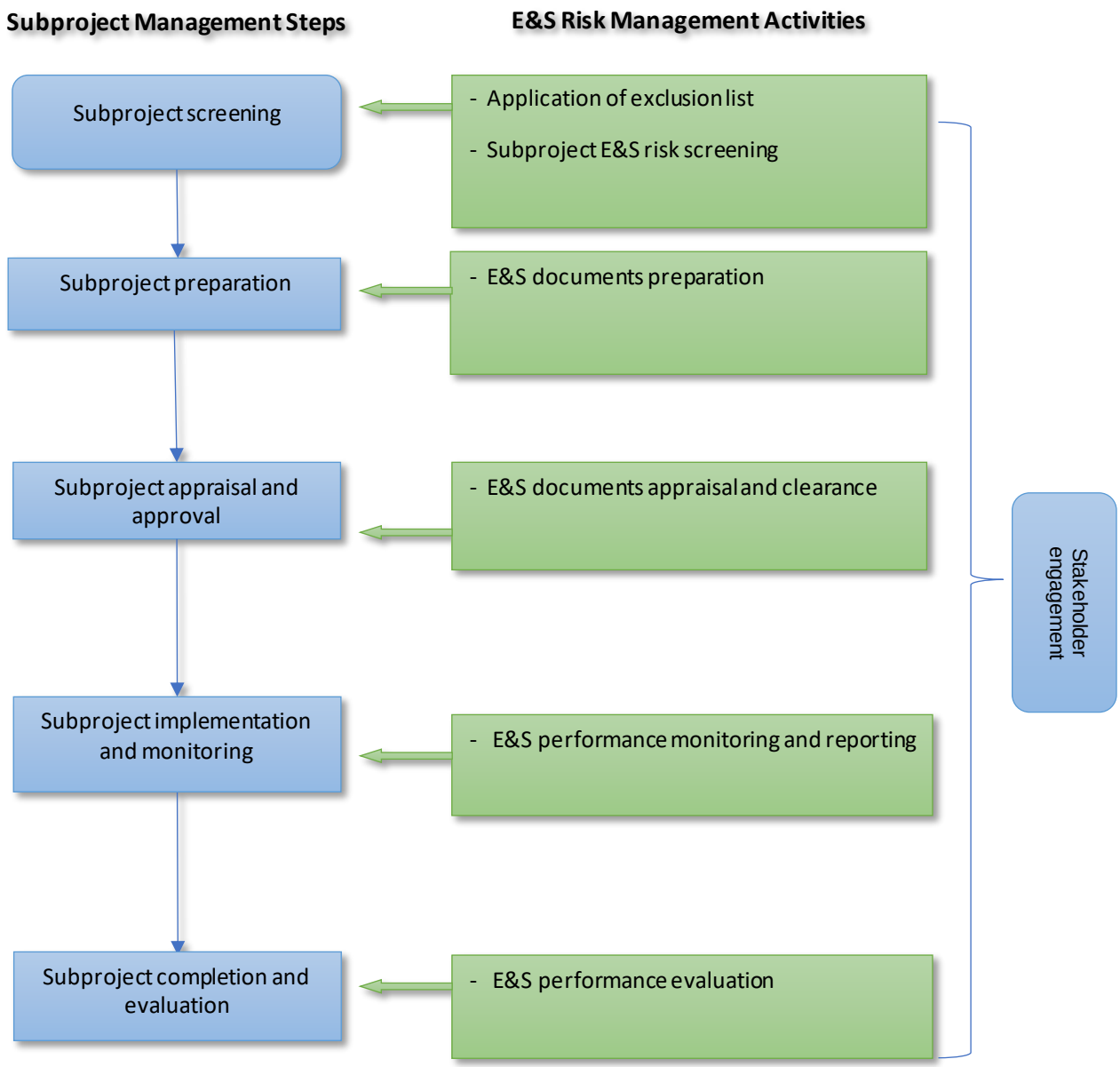



*Figure x Subproject environmental and social management procedure*

**Subproject screening**

The E&S screening will be conducted to ensure the E&S eligibility and preparedness of selected subprojects. More specifically, at this stage, PMO under the MoRTD and Project Steering Committee, with the supports of their external environmental and social experts, should complete the **E&S Screening Form (Annex 2)** for the following purposes:

- To determine the E&S eligibility of proposed subprojects and exclude the ineligible activities (Table 2) from project financing;
- To categorize the E&S risk level of eligible subprojects and confirm the applicable E&S proportionate to the nature and scale and the potential risks and impacts, and consistent with the requirements of the World Bank ESF and applicable domestic laws and regulations.

The Environmental and Social (E&S) risk screening forms should be filed and sent to the Bank for records and spot-check. The risk rating results needs to be endorsed by PMO and their external E&S experts.

**Project exclusion list**

*Table 10 Project exclusion list*

| **High risk project and <u>not</u> funded by Mongolia transport connectivity and logistics improvement project:** |
|---|
| **a.** Any activity prohibited by Mongolian law. |
| **b.** Actions likely to significantly threaten protected areas (e.g. introduction of exotic plants or animals) or to jeopardize threatened & endangered species or adversely modify their habitat |
| **c.** Culturally significant sites such as archaeological or paleontological sites and sacred mountains |
| **d.** Conversion of forest to grazing lands |
| **e.** Construction of dams or other water control structures that flood undegraded grassland or forests |
| **f.** Construction, upgrading or maintenance of roads that pass through undegraded forests |
| **g.** Any infrastructure or other construction activity that causes economic or physical displacement |
| **h.** Any subproject that would result in physical displacement of 200 or more individuals |
| **i.** Any subproject that would result in economic displacement of more than 1000 people |
| **j.** Any subproject that would result in conversion of 100 or more hectares of land. |
| **k.** Any subproject that is located in the Strictly Protected Area and Tourism zone and Core area of National Park |
| **l.** Any subproject is rated with high risk. |

**Subproject preparation**

Based on results of E&S risk screening described above, subprojects not requiring additional measures/instrument will follow domestic laws and regulations on environmental and social management. Otherwise, as specified in the Guidance on Environmental and Social (E&S) risk classification, additional project-specific E&S management instruments, as appropriate, shall be prepared by the PMO and consultants before the subproject implementation by subproject proponents in accordance with applicable ESSs under the World Bank's ESF, which should be submitted to the Bank for review.

**Subproject review and approval**

- Government approval: As required by the Government's regulation on ESIA, all relevant documents will be approved by responsible agencies. The ESIA in Mongolian as well as the approval conditions will be provided to the WB for information. The ESIA report and approval condition will also be disclosed to the public.
- All E&S documents will be posted in the official website of the project and hard copies will be available at PMO and the subproject sites in Mongolian. A notification will be published about the disclosure and comments will be sought within one month of the disclosure date. The English version of the ESIA/ESMP will be disclosed on the WB websites.
- WB review and clearance: All the E&S documents (ESIAs, ESMPs, RAPs, etc.) of the first three subprojects (as minimum requirement) under each of the following categories (existing road maintenance, new road construction, development of hub and Type 1 TA: Supporting detailed design of future investment projects) will be subject to WB clearance before their approval and implementation. For the Project, WB may conduct post review as needed. In line with capacity building efforts, this approval process will be reviewed from time to time and once the E&S capacity of the Implementation Agency has been built with the supports of the E&S capacity building consultants, the WB may carry out post reviews only.
- All the subprojects identified with Substantial E&S risks based on E&S screening should be subject to the World Bank's prior review, and the Bank also retains the right for prior review of subproject E&S instruments if any sensitive E&S issue is identified during E&S screening. For other moderate/low risks activities, SEP and ESCP would

be the key guiding instruments to ensure sufficient stakeholder engagement during the project preparation and implementation.

**Subproject implementation and monitoring**

After subproject approval, the PMO E&S specialists and external qualified consultants shall conduct monitoring of E&S management by performance as an integral part of subproject monitoring during construction and operation phases. Specific requirements include:

- For subprojects to be financed by the World Bank, the project management should include review and assessment of E&S performance of the subprojects. The PMO and external qualified consultants and subproject owners should assess the performance against national laws/regulations and the World Bank ESF requirements applicable to the subprojects.
- During implementation, for those subprojects identified with increasing E&S risks, the PMO and external qualified consultants will document the findings and inform the World Bank by developing and E&S monitoring reports semi-annually as well as upon occurrence of reported incident. Following national regulations and the World Bank ESF requirements, mitigation measures should be developed and implemented, which should also be documented in the monitoring reports to be submitted to the World Bank.

**Subproject completion and evaluation**

As part of the project completion evaluation, the E&S performance of subprojects will be reviewed and evaluated upon completion.

**Stakeholder Engagement**

At all stages of the project, i.e., identification of subprojects and their E&S management, the WB ESS10 guidance notes' requirement should be fulfilled. Engagement with stakeholder is an integral part of the project's environmental and social assessment and project design and implementation, as outlined in Chapter 7 and Annex 5 of this report.

As of March 20, 2021, COVID-19 outbreak in Ulaanbaatar city high and is strictly regulated by State Emergency Commission (SEC). SEC's interim regulation has following four category levels that outlines pandemic preparedness and imposed anti-COVID-19 measures.

Red – Level 4: If community transmission reported;
Orange – Level 3: If cluster transmission reported;
Yellow – Level 2: If transmitted (imported) infection reported;
Green – Level 1: If no infection reported in the last 28 days

All stakeholder engagement activities shall be conducted considering COVID-19 prevention and restrictions.

*Table 1 Public consultation record table*

| Date | Location | Participant's First and Last name | Issues of concerns discussed or raised by key stakeholders during consultation | How to address | Gender |
|---|---|---|---|---|---|
| | | | | | |

# 7. PUBLIC CONSULTATION AND DISCLOSURE

Legal requirements

The Mongolian Law on Environmental Impact Assessment (2012) Article 5 and 18 requires that:

- Development plans and programs assessed as part of the DEIA process will be publicly disclosed on the website of the State Administrative Central Organization in charge of nature and environment.
- There will be a 30-working day period for submittal of verbal or written public input, and the DEIA consultant should organize community consultations that include local government and local residents within the area of influence.
- The DEIA should include meeting minutes, comments by local government, and community consultation that has been conducted with local communities in the area of influence.

The Mongolian Law on Urban Development (2015, Article 17 and 18) states:

- participatory planning shall be adopted in urban development planning and consultation with citizens shall be conducted during implementation of urban planning.
- Decisions pertinent to urban development shall be disseminated and disclosed to the public in a timely manner.
- Utility disruptions are required to be disclosed to residents and entities 24 hours prior to disruptions.

The World Bank's ESF includes Environmental and Social Standard (ESS10), Stakeholder Engagement and Information Disclosure, which recognizes "…the importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practice". Borrowers are required to develop a SEP proportionate to the nature and scale of the project and its potential risks and impacts. ESS10 also requires the development and implementation of a grievance redress mechanism (GRM).

This ESMF was prepared during a global pandemic of coronavirus disease 2019 (COVID-19), an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). In response to the pandemic the GoM introduced a number of measures, including closing all schools and kindergartens, suspending all travel to and from foreign locations, suspending domestic air and rail travel, and prohibiting all public gatherings, events, and meetings, such as conferences, sporting events, and concerts.

As a result of COVID restrictions, it was not possible to undertake subproject related information disclosure and public consultation meetings as would normally be conducted. However, given the restrictions the following consultations has taken place.

| **Stakeholder groups** | **Specific target groups: Name/s** | **Communication means** |
|---|---|---|
| **The Government** | Ministries and agencies: MoRTD, MOFALI, NDA | Online group meeting |
| | Local government /Aimag and Soum/: Governor's office, Citizens Representative Khural, Road maintenance, Environment (Specially protected area), Land, and Cultural Heritage | Online group meeting<br>Or online questionnaire |

| | | |
|---|---|---|
| **Citizens and CSOs** | Herders and Rural communities:<br>• Communities near roads, bagh citizens representatives<br>• Herders' cooperatives, Pasture user association, and local NGOs | Online group meeting Or Online questionnaire |
| | Women, children, Disabled:<br>• Women led business associations<br>• Gender, disability inclusion experts and relevant NGOs | Online group meeting Or online questionnaire |
| **Donors and relevant projects** | WB, ILO, FAO, SDC, ADB, The Asia Foundation:<br>• Livestock commercialization project (WB and FAO)<br>• Women business support project (TAF)<br>• Animal health and Pasture Management (SDC) | Online individual and desk review |
| **Private sector** | • Road companies, local contractors | Online group meeting or online survey |
| | • Small traders or informal business owners<br>• Local business representatives | |
| **Academia** | Academic and Research institutes | Desk review |

During project implementation, in consultation with the MoRTD officials and relevant organizations, the MoRTD/PMO will prepare a draft of the content and invite delegates and attendees for the public stakeholder consultation. The public stakeholder consultation is expected to be a half-day session, and the preliminary agenda at the time of submission of this inception report is as shown in the Table 2 below.

Table 1: An example Agenda of the Public Stakeholder Consultation

| Time Allocated | Items |
|---|---|
| 5 min | Opening Remarks |
| 15 min | Explanation on the Project |
| 30 min | Explanation on the Environmental and Social impacts and procedures |
| 40 min | Questions and Answers |
| 5 min | Closing Address |

In the public consultation, the Project and Environmental and social impacts, mitigation measures and procedures will be explained, followed by a question-and-answer session with the participants. The format of the public consultation will be decided in consultation with the PMU staff and relevant organizations, taking into account any restrictions imposed by COVID-19. During the preparation of the this ESMF and ESMP, all public consultation was online.

The PMO will coordinate the public consultation with the relevant parties, will manage the consultation including its facilitation, and will keep a record of the consultation (list of participants, record of questions and answers, photos, etc. ).

The preliminary plan outlined above assumes that PMO/MoRTD to prepare a presentation material in Mongolian language on the Project itself and explain it at the consultation.

Once detailed project locations of roads to be rehabilitated, last mile connectivity, and the logistics hub is finalized, stakeholder identification will take place to assess impacts on nearby communities. Focus will be on vulnerable groups such as small herder households, women and children, ethnic minority groups, etc. Consultation with these stakeholders will be conducted through the most appropriate manner with information disclosed prior to the consultation. The consultation will ensure that all stakeholders are aware of the potential risk/impact from project activities, and these risk/impact have been avoided or mitigated.

Disclosure

Stakeholder engagement will continue during construction and operation in accordance with relevant government and WB policies and procedures.

Environmental and social monitoring reports will be disclosed on WB's website semi-annually during construction and annually during operation.

The PMO will continue to conduct regular community liaison activities during the construction and operation phases, including the implementation of the grievance redress mechanism (GRM, see Chapter 8). Ongoing consultation will ensure that public concerns are understood and dealt with in a timely manner.

Project information will be disclosed in Mongolian language and ethnic minority language if ethnic minority presence is confirmed, and in a manner that is accessible and culturally appropriate. Meaningful ways of information disclosure will be designed to meet the local context for example herders living in remote grassland areas should be reached through telecommunication technologies, radios, etc.

# 8. STAKEHOLDER ENGAGEMENT AND GRIEVANCE REDRESS

## Information Disclosure

The Ministry of Road and Transport Development will disclose the executive summary and a full document of the ESMF (in Mongolian) on its official webpage https://mrtd.gov.mn to the general public.

Distribution of the disclosure materials by making them available at venues and locations frequented by the community and places to which the public has unhindered access. Free printed copies of the ESMF and the SEP and RPF are being made accessible in Mongolian for the public at the Ministry. An initial stakeholder meeting will be held after loan approval, and press releases will be undertaken. Construction Notice Board, letters to residents via administrative unit and public services, website updates, newspaper advertisements on disruptions will be used during project implementation as outlined.

## Stakeholder Engagement

MoRTD/PMO is committed to ensuring meaningful, effective, and informed participation of stakeholders in the formulation and implementation of projects. This process seeks to enhance transparency, two-way communication, information provision and enable fair and representative participation of all sections of affected populations, including the marginalized.

As part of ESMF, Stakeholder Engagement Plan (SEP) will be developed and disclosed prior to project appraisal, as the starting point of an iterative process to develop a more comprehensive stakeholder engagement strategy and plan. It will be updated periodically as necessary, with more detail provided in the first update planned after project approval. A precautionary approach will be taken to the consultation process to prevent infection and/or contagion, given the highly infectious nature of COVID-19.

Identification of stakeholders considers their interests, needs, possible role in the project, capacity and opportunities, and constraints for engagement. The following key stakeholder and their possible role in the project have been identified:

Table 11. Stakeholders and their roles

| Stakeholder | Role in the project |
|---|---|
| World Bank | Financing of the project. |
| | Following up on the fulfillment of the objectives of the project. |
| Ministry of Road and Transport Development of Mongolia | Through Project Steering Committee, providing overall guidance to the Project implementation. |
| Ministry of Environment and Tourism /Municipal Environmental Department | The MoET/Municipal Environmental Department will provide environmental clearances and may undertake inspections and monitoring at their discretion. |
| Ministry of Finance | Follow up on the fulfillment of the Minister's Order 4 on utilization of proceeds of external debts incurred by the Government of Mongolia; implementation, administration, financing, monitoring, and evaluation of projects and programs funded by such proceeds.<br>Through Project Steering Committee, providing overall guidance to the Project implementation. |
| Ministry of Construction and Urban Development | The MoCUD will provide clearances and may undertake inspections and monitoring at their discretion. |

| | |
|---|---|
| Ministry of Food, Agriculture and Light Industry | Coordination and participation in project design and implementation |
| National and local agencies responsible for Transport and Road Development | Coordination and Supervision of project implementation. |
| National Development Agency | Coordination and participation in project design and implementation |
| Aimag Agencies for Specialized Inspection | Periodic inspection of construction work |
| Aimag Offices and Soum Officials | Support, information disclosure, stakeholder engagement |
| Project Steering Committee | Chaired by the Ministry of Road and Transport Development and consist of representatives from MoFALI, MoF, NDA, local government and relevant agencies. Provide overall guidance to the Project implementation as per Regulation 196 on utilization of proceeds of external debts incurred by the Government of Mongolia |
| Project Implementation Unit | Overall responsibility for assuring project implementation. |
| Contractor | Project partners |
| | Participate in the project implementation |
| Consultants/Advisors | Project partners |
| | Participate in the project implementation |
| Local research institutes | Potential project partners |
| | Participate in the project implementation |
| NGOs and Interests groups | Potential project partners, interested groups alerting the project of potential risks |
| | Participate in the project implementation |
| Project-Affected public entities | Participate in the project implementation; continues communication with utility authorities. |
| Project-Affected private entities | Participate in the project implementation |
| Project-Affected people | Raise concerns over risk/impact on them from project activities. Participate in the project implementation, project beneficiaries |
| Ethnic minority groups | Ethnic minority people living in project areas may have special concern over project activities. |

The project will carry out targeted stakeholder engagement with vulnerable groups to understand concerns/needs in terms of accessing information and services and other challenges they face at home, at workplaces and in their communities. Stakeholders will be kept informed as the project develops, including reporting on project environmental and social performance and implementation of the stakeholder engagement plan and grievance mechanism.

The project implementation arrangements are as follows: The MoRTD will be responsible for the implementation of the project, including overall coordination, results monitoring, and communicating with the World Bank on all fiduciary and safeguard aspects. It will be supported by the PMO, which will carry out the day-to-day implementation of the project. The PMO staff should be appropriately trained to effectively supervise the implementation of the SEP and ESMF. Before an establishment of PMO, The MoRTD is responsible for conducting stakeholder consultations prior to the project approval following the government of Mongolia and the World Bank's laws and regulations. During implementation stage, the PMO will be responsible is obliged to follow the requirements of ESS10 in the World Bank's Environmental and Social Framework

to carry out stakeholder activities. A "Stakeholder Consultation Framework" is included in the SEP of the Project, which provides detailed procedures and requirements to guide stakeholder consultations. (Annex 5)

The objective of the SEP is to identify project stakeholders, the methods for information distribution and consultation during the life of the project, and the approach to grievance redress. A "Stakeholder" refers to individuals or groups who: (a) are affected or likely to be affected by the project (project-affected parties); and (b) may have an interest in the project (other interested parties).

The World Bank's ESF includes Environmental and Social Standard (ESS) 10, Stakeholder Engagement and Information Disclosure, which recognizes "…the importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practice". Borrowers are required to develop a SEP proportionate to the nature and scale of the project and its potential risks and impacts. ESS10 also requires the development and implementation of a grievance redress mechanism (GRM). During preparation of this ESMF, initial stakeholder consultation with relevant parties will be organized between June and July 2021 and their feedback will be incorporated into the SEP.

### Grievance Redress Mechanism

In line with the ESS10, the borrower/MoRTD is required to establish and implement a GRM to response to concern and grievance of project-affected parties related to the E&S performance of the project in a timely manner. The GRM may include the following: (a) Different ways in which users can submit their grievances, which may include submission in person, by phone, text messages, mail, email or via a web site; (b) A log where grievance are registered in writing and maintained as a database; (c) Publicly advertised procedure, setting out the length of time users can expected to wait for acknowledgement, response and resolution of their grievances; and (d) Transparency about the grievance procedures, governing structure and decision makers; and (e) An appealing process to which unsatisfied grievance may be referred when resolution of grievance has not been achieved. Also, a mediation option shall be offered where users are not satisfied with the project's resolution. As EES2's requirement, a GRM will be provided for all direct workers and contract workers to raise their workplace concerns. Such workers will be informed of the GRM at the time of recruitment and the measures put in place to protect them against any reprisal for its use and the application of occupational health and safety (OHS) measures to be designed and implemented.

PMO formulates the procedures for implementing the GRM, and it will be introduced during community consultations and publicly available in the Mongolian language to stakeholders throughout the project. In the event of a grievance issue, up to four stages will be implemented, as follows:

Stage 1: Resolution at Local Level and Access to GRM. The GRM system enables affected persons (residents, representatives of local business entities, workers of contractors) to issue a complaint and/or comments, choosing the most comfortable way out of several options. The affected person's complaint will directly be recorded in the internal central web server of MoRTD, which is linked to all feedback systems. The complaint record includes details such as the comments/grievance issue, the affected person's name, contact, and date of grievance.

Stage 2: Complaint Eligibility Assessment and Resolution by MoRTD. Received complaint is assigned to the relevant personnel either in PMO or to the appropriate department/division/unit in MoRTD. The PMO should take steps to investigate and resolve the issue. This may involve instructing the contractor to take corrective actions. The contractor should implement the redress solution and convey the outcome to the PMO and notify WB. Depending on the type and complexity of the grievance issue, PMO/MoRTD can solve the issue between 1-30 days after receiving the comment/complaint.

Stage 3: Complaint Resolution by PMO Steering Committee. PMO investigates and organizes multi- stakeholder meetings within ten days of Stage 3 and then has ten days to implement a solution.

Stage 4: Higher Authority Resolution. If the complaint is not addressed, AP may seek legal redress through the court system.

| **Ministry of Road and Transport Development** |
| --- |
| Address: Government Building 13, Chinggis Avenue-11, Ulaanbaatar, Mongolia, zip:14251<br>Telephone: 976-(51)263179; Fax: (976-11)-312315; Email: info@mrtd.gov.mn<br>Webpage/webform: https://mrtd.gov.mn/feedback/form<br>Facebook page: https://www.facebook.com/MRTD.GOV.MN<br>Twitter page: http://twitter.com/MrtdGovMn |

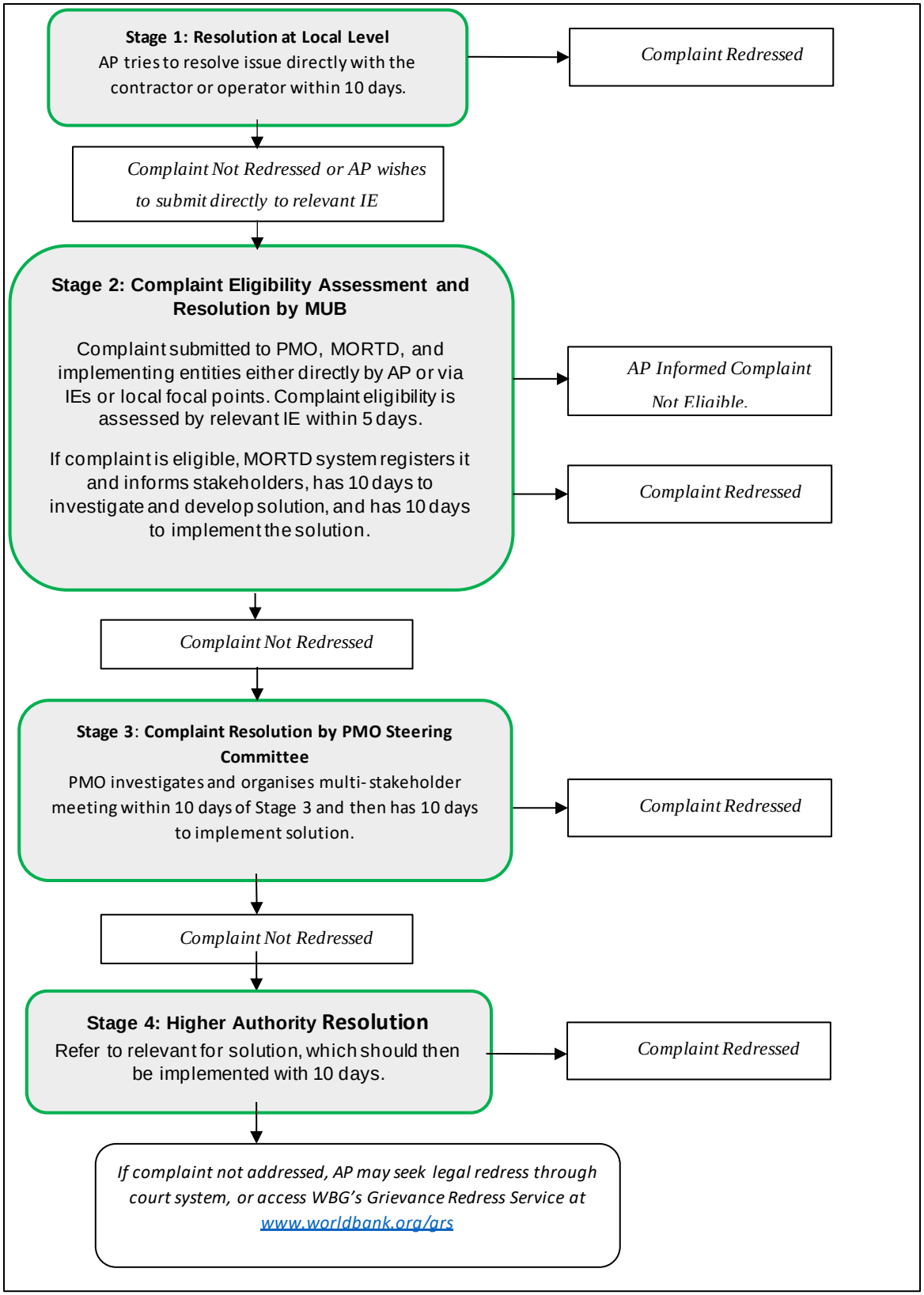



Figure 17. Proposed Project GRM

**Monitoring and Reporting**

The responsibility for implementation of the SEP will be remain within PMO. The local agencies and government authorities will also play an important to role to ensure the local implementation of the SEP. Bi-annual summaries and internal reports on public grievances, enquiries, and related incidents, together with the status of implementation of associated corrective/preventative actions will be collated by responsible staff and referred to the senior management of the project. The [monthly] summaries will provide a mechanism for assessing both the number and the nature of complaints and requests for information, along with the Project's ability to address those in a timely and effective manner. Information on public engagement activities undertaken by the Project during the year may be conveyed to the stakeholders in two possible ways: i). Publication of a project activity annual report on the project interaction with the stakeholders; and ii). Key Performance Indicators (KPIs) will also be monitored by the project on a regular basis. The PMO will include this information in the environmental and social management implementation and monitoring reports for the WB and project steering committee members.

The tracking and documenting of grievance resolution will include: i) tracking forms and procedures for gathering information from project personnel and complainant(s); ii) periodic reviews of complaints to recognize grievance patterns, identify any systemic causes of grievances, and periodically evaluate the overall functioning of the mechanism; iii) processes for informing stakeholders, significance on the vulnerable group, about the status of a case; and iv) procedures to retrieve data for reporting purposes, including the periodic reports to the WB, MoRTD, and MOF.

# 9. PROJECT IMPLEMENTATION ARRANGEMENTS, RESPONSIBILITIES INSTITUTIONAL ARRANGEMENTS AND CAPACITY BUILDING PLAN

## Project implementation organization: Roles and responsibilities

The Ministry of Road and Transport Development (MoRTD) will be the executing agency of the project and will oversee overall project implementation and management activities to ensure smooth and timely implementation and completion of project activities.

The Project Steering Committee will be established by MoRTD and comprise MRDT directors, representatives of MOF, Cabinet Secretariat, Ministry of Environment and Tourism and MOFALI. The MoRTD will constitute a Project Management Office (PMO) for implementing the WB loan which will be established by MoRTD to manage day-to-day activities of the project. Table 8 shows Management roles and responsibilities.

| Project Implementation Organizations | Management Roles and Responsibilities |
|---|---|
| Executing agency – Ministry of Road and Transport Development (MoRTD) | Establish project implementation unit.<br>Establish project steering committee.<br>Establish systems, procedures, and mechanisms to ensure effective and efficient project implementation.<br>Oversee overall project implementation and management activities to ensure smooth and timely implementation and completion of project activities. |
| Project steering committee | Approve annual budgets and plans for the project.<br>Oversee progress in project implementation.<br>Guide and support project implementation.<br>Provide coordination between ministries and other stakeholders involved in project implementation. |
| Implementing Agencies – MoRTD, MOFALI, and Concessionaires | Implement respective parts of the project activities |
| Project Management Office (PMO) including its hired external consultants | Perform day-to-day management of the project.<br>Coordinate and implement project activities, including procurement, recruitment, disbursement, contract administration, monitoring, and reporting.<br>Prepare, on behalf of the executing and implementing agencies, bidding documents, terms of reference, reports, and other supporting documents and submit them for review and approval.<br>ES screening and preparation of ES documents, supervision and reporting.<br>Maintain on behalf of the executing agency the impress accounts; and prepare and submit withdrawal applications and supporting documents, quarterly and annual reports, annual audit reports and financial statements. |
| Contractors | Contractors will be responsible for implementing the mitigation measures as per the E&S documents, such as ESMF, ESIA, ESMP, LMP, SEP, for each subproject.<br>Contractors will be required to respond to the environmental specifications in the bidding documents in their proposals.<br>Contractors will be required to prepare and implement their Occupational Health & Safety Plan (OHSP) following the World Bank Group EHS Guidelines and the project ESMF. The OHSP will also include procedures on incident investigation and reporting, recording and reporting of non-compliance, |

| | |
|---|---|
| | emergency preparedness and response procedures, and continuous worker training/awareness.<br>Each contractor will also be required to develop an Environmental Social Management Plan (ESMP) and will assign a person responsible for environment, health and safety.<br>After Project completion, environmental management responsibilities will be handed over to the operation and maintenance units of the IEs. |
| World Bank | Provide technical support for project implementation.<br>Supervise compliance by the executing and implementing agencies with World Bank's policies and procedures in project implementation. |

*Table 12 Management Roles and Responsibilities*

The Project Implementation Unit will be staffed with experienced professionals (a project coordinator, a procurement specialist, a financial management specialist, monitoring and evaluation specialist, environmental and social safeguards specialist etc) to handle day-to-day project management.

MoRTD The Project Implementation Unit (PMO) which will assume primary responsibility for the environmental assessment as well as implementation of ESMF through Construction Company (civil works contractors) or any third-party consultants. The Project coordinator will be assisted by the PMO's ESS for environmental monitoring and ESMP measures.

The duties of the PMO's Environmental and Social Specialist will include at a minimum: (i) oversight of Construction Company for monitoring and implementing mitigation measures; (ii) liaising with the local Government and Construction Company (civil works contractors) and seeking their help to solve the environment-related issues of project implementation; and (iii) technical progress reporting as well as preparation of environmental management reports every 6 months (as required by WB).

The Environmental and Social Specialists will be assisted by the PMO's Monitoring and Evaluation specialist (M&ES) in monitoring of the contract requirements and any specialist functions by the civil, mechanical and electrical engineers hired under the PMO. Additional third-party services may be employed by the MoRTD as necessary. Further details on person/agencies responsible for ESMF implementation are in **Table 9**.

| Activity | Responsible Person/Agency |
|---|---|
| **Project Initiation Stage** | |
| Establish PMO and award contracts | Project Coordinator, Procurement Specialist, PMO, MoRTD |
| Conduct screening and prepare applicable instruments | PMO's Environmental and Social Specialists, vendors, contractors |
| Clearances/approvals from relevant Government of Mongolia agencies | PMO, MoRTD |
| Disclosure of subproject ESMP details on PMO website | PMO |
| Conducting discussions/meetings/workshops with affected persons and other stakeholders | Environmental and Social Specialists and other Specialists at PMO |
| Updating of ESMP mitigation measures based on discussions | Environmental and Social Specialists, PMO |
| **Implementation Stage** | |
| Meetings at community/household level with affected persons | Environmental and Social Specialists, Construction Company |

| Activity | Responsible Person/Agency |
|---|---|
| Implementation of proposed ESMP mitigation measures | Environmental and Social Specialists, Construction Company |
| Consultations with affected persons during ESMP mitigation measures implementation | Environmental and Social Specialists, Construction Company |
| Grievances Redress | PMO |
| Internal monitoring | PMO/ MoRTD |
| External monitoring* | External Experts |

*Table 13 Institutional Roles and Responsibilities for ESMF Implementation*

ESMP-Environmental and Social Management Plan; PMU- Project Management Unit

*Note –External monitoring only required when projects are noticed to have substantial or higher adverse environmental impacts.

## Capacity Building

During the project implementation, internal staffing should consist at least one dedicated E&S specialists or preferably two assigned safeguard officers in charge of environment and social aspects separately, and recruitment of external E&S consultants. Since no staff have been trained on preparation of the E&S instruments in accordance with the WB's ESSs of ESF yet, additional third-party services may be employed by the MoRTD as necessary. To be effective, within the first to 12 months of project timeline, the E&S training should be made by the qualified international and national consultants with the support of the World Bank safeguards team. Given that the ESF and ESSs require due attention on ensuring effective performance of contractors including provision of adequate services related to health, safety of workers and local communities, specific training on these aspects will be necessary.

It is expected that the training and capacity building on ESF will focus on familiarity and understanding with the core concept and management of the ESF, ESSs, screening, risk rating and the implementation of ESMF, SEP and LMP, especially those related to contractor management and monitoring of E&S issues related to labor management, community health and safety, environment, health and safety (OHS), and the requirements for stakeholder engagement. The targeted training programs focused on E&S risk management may help strengthening inter-agency coordination and cooperation which is critical for ensuring effective management of land acquisition, utility disruptions and other issues.

At the beginning and during implementation stage, E&S training and TA will be provided to the Implementation Agencies and relevant stakeholders. Priority training topics may include the followings:

- The ESMF process and guidelines for preparation, implementation, and supervision of E&S instruments focusing on ESMP, SEP, LMP, and RPF,
- Specific training on RPF/RAP, ESMP, SEP and LMP planning and implementation including the application of GRM,
- Specific training on supervision and monitoring of contractor performance, including forms and reporting process and basic knowledge and awareness on health, safety, gender and inclusiveness, and good construction practices for reducing potential impacts on local communities and environment, GRM procedures and other social issues related to GBV, COVID-19 and other communicable diseases etc.

During the first 2 years PMO is recommended to conduct at least 2 safeguard training workshops per year to the IAs regarding the ESMF process and needs for preparation of safeguard documents, especially those related to ESMP, SEP, LMP, ECOPs, and RAP. Specific target groups for the key training for a beginning program are proposed in Table.

*Table 14. Summary of safeguard training at the beginning of Project implementation*

| No | Contents | Target Groups for Training | Proposed timeline |
|---|---|---|---|
| 1 | ESMF process, implementation, monitoring, and reporting the ESF concept, ESSs, SEP, LMP, including ECOPs and COC on SEA, GBV, GRM | PMO, IAs, individual or firm consultants | Within the first month of PMO establishment |
| 2 | RPF including RAP preparation | PMO, IAs, individual or firm consultants and local authorities | Within the first six months of the project implementation |
| 3 | ESMP, SEP, LMP preparation and monitoring including contract management and capacity improvement including COC on SEA, GBV requirements) | PMO, IAs, individual or firm consultants and contractors | Within the first six months of the project implementation |
| 4 | Environmental and social monitoring skills improvement | PMO, field engineers, contractors, environmental and social consultant, local authority, | Within the first 12 months of the project implementation, to be repeated annual basis. |
| 5 | Training on ECOPs and COC on SEA and GBV compliance and environmental health and occupational safety measures, prevention of communicable diseases, COVID 19 | field engineer, Contractor, individual or firm consultants, local communities | Within the first 12 months of the project implementation, to be repeated annual basis. |

Given different need of E&S training and limited capacity of the agencies, PMO will hire and mobilize E&S consultants (individual or firm) to assist in the implementation of ESMF, preparation of E&S documents, and mitigation measures of the subprojects under their responsibilities. Indicative costs for capacity building and training on ESMF implementation and concept of the ESF and ESSs will be about $0.4 million and PMO will be responsible for management of this budget.

Indicative training course topics are as follows. The PMO, with the support of consultants, will develop a number of courses and at all project sites in which courses would be delivered. It is anticipated that courses would be delivered in each aimags and Ulaanbaatar city.

The Appendix 6 Capacity Building Training plans are proposed for the PMO to undertake at all stages of the project implementation.

All training should be in Mongolian language for clearer understanding.

# APPENDIX1: ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| **MTCLI** | Mongolia Transport Connectivity and Logistics improvement project |
| **ERP** | Emergency Response Plan |
| **EHS** | Environment Health and Safety |
| **EMP** | Environmental Management Plan |
| **E&S** | Environmental and Social |
| **ESF** | Environmental and Social Framework |
| **ESS** | Environmental and Social Standard |
| **ESCP** | Environmental and Social Commitment Plan |
| **ESIA** | Environmental and Social Impact Assessment |
| **ESMF** | Environmental and Social Management Framework |
| **ESMP** | Environmental and Social Management Plan |
| **ESRS** | Environmental and Social Review Summary |
| **GoM** | Government of Mongolia |
| **MoRTD** | Ministry of Roads and Transport Development |
| **MOF** | Ministry of Finance |
| **PAD** | Project Appraisal Document |
| **PMO** | Project Management Office |
| **POM** | Project Operations Manual |
| **PDO** | Project Development Objective |
| **MoFALI** | Ministry of Agriculture and Light Industry |
| **OHS** | Occupational Health and Safety |
| **EIA** | Environmental Impact Assessment |
| **DEIA** | Detailed Environmental Impact Assessment |
| **RPF** | Resettlement Policy Framework |
| **LMP** | Labor Management Procedures |
| **SEP** | Stakeholder Engagement Plan |
| **COVID-19** | Coronavirus Disease 2019 |
| **GESMP** | Generic Environmental and Social Management Plan |
| **TMP** | Traffic Management Plan |
| **SSCOC** | Sample of Safeguard Code of Conduct |

# APPENDIX 2: SCREENING FORM FOR POTENTIAL ENVIRONMENTAL AND SOCIAL ISSUES

This form will be filled out by the Implementing Entities, reviewed and confirmed by the MoRTD PMO with the supports of environmental and social specialists. All filled E&S screening forms should be filed for records and spot check.

**Name of Subproject: _____**

**Type[24] (tick): Existing road maintenance/Last mile Road construction/Hub development / TA1 / TA2 / TA3 / other, please specify: _____**

**Name of Implementing Entity: _____**

| Question | Y | N | Remarks / recommended action |
|---|---|---|---|
| **A. E&S exclusion list (excluding activities with high E&S risks)** | | | |
| 1. Would the activity be prohibited by Mongolian law? | | | Not supported if yes |
| 2. Would the activity significantly threaten protected areas (e.g. introduction of exotic plants or animals) or to jeopardize threatened & endangered species or adversely modify their habitat? | | | Not supported if yes |
| 3. Will the activity has significant adverse impacts to culturally significant sites such as archaeological or paleontological sites and sacred mountains? | | | Not supported if yes |
| 4. Will the activity cause conversion of forest to grazing lands? | | | Not supported if yes |
| 5. Will the activity involve construction of dams or other water control structures that flood undegraded grassland or forests? | | | Not supported if yes |
| 6. Will the activity involve construction, upgrading or maintenance of roads that pass through undegraded forests? | | | Not supported if yes |
| 7. Will the activity cause economic or physical displacement? | | | Not supported if yes |
| 8. Will the activity result in physical displacement of 200 or more individuals? | | | Not supported if yes |
| 9. Will the activity result in economic displacement of more than 1000 people? | | | Not supported if yes |

[24] *According to the Bank's Guidelines on Technical Assistance, and Environmental and Social Framework, "Type I"—supporting preparation for future investment activities, such as preparing for feasibility study, design, E&S documents or other activities with potential E&S risks; "Type II"—supporting the development of policies, plans, programs and legal frameworks; "Type III"—borrower capacity building activities.*

| Question | Y | N | Remarks / recommended action |
|---|---|---|---|
| 10. Will the activity result in conversion of 100 or more hectares of land? | | | Not supported if yes |
| 11. Will the activity be located in the Strictly Protected Area and Tourism zone and Core area of National Park? | | | Not supported if yes |
| **B. E&S risks rating and classification** | | | |
| 12. Does the project activity involve any significant E&S impact (e.g., involving potential impacts on natural habitat, medium to low probability of serious adverse effects to human health and/or the environment, or a small amount of LAR), but with effective mitigation measures available for risk management? | | | If yes, E&S risk of this subproject is deemed "Substantial", and it is necessary to prepare applicable E&S documents as appropriate (ESIA, ESMP, RAP, LMP, etc.) per the Bank's ESF. |
| 13. Does the project activity only involve minimal or negligible adverse risk or impacts on human populations and/or the environment? | | | If yes, E&S risk of this subproject is deemed "Low", and no E&S document is needed other than existing SEP. |
| 14. Are E&S risks of the project activity between the description of Questions 12 and 13? | | | If yes, E&S risk of the subproject is deemed "Moderate", and it is necessary to prepare applicable E&S documents as appropriate (ESMP, RAP, LMP, etc.) per the Bank's ESF. |
| 15. If the project activity belong to TA1, please answer the following questions: | | | |
| 10.1 Does the TA activity plan to support the detailed design or any other equivalent technical document of any specific physical investment? | | | If yes, applicable E&S documents complying with the Bank's ESF should be prepared as part of TA outputs, which may include, but not limited to specific ESIA, ESMP, RAP, LMP, etc. |
| 10.2 Does the TA activity plan to support the feasibility study or any other equivalent technical document of any specific physical investment? | | | If yes, necessary E&S considerations in consistent with ESS should be included into the ToRs and subsequently part of TA deliveries. For example, a special chapter should be included in the FSR report to analyze the Project's E&S risks and impacts, and mitigation measures per ESF requirements. |
| 16. Does the subproject involve any identified 'Associated Facilities'? (An 'Associated Facility' means a facility or activity which is not funded as a part of the project, and judged by the Bank as: (a) Directly and significantly related to the project; (b) Simultaneously implemented or planned with the project; and (c) Constructed for the project and is necessary for the project.) | | | If so, then the relevant E&S requirements of the subproject are applicable to the 'Associated Facilities'. |
| 17. Has any land acquisition or restriction on land use occurred due to the project activity before this E&S screening (usually in the last two years)? | | | If yes, resettlement due diligence should be conducted according to ESS5. |
| 18. Does the project activity belong to TA2? | | | If yes, the consideration of relevant E&S risks should be included in the ToRs and submitted to the Bank for review before such study is conducted; for any subproject involving strategy, plan or |

| Question | Y | N | Remarks / recommended action |
|---|---|---|---|
| | | | regulation development, the TA deliveries should include preliminary analysis on cumulative E&S impacts along with proposed mitigation strategy. |
| 19. Does the project activity belong to TA3? | | | If yes, it is not necessary to prepare additional E&S documents. However, before such activity is conducted, the adequate and effective engagement of stakeholders (including vulnerable groups) should be considered based on the SEP and the specific activity when the relevant ToRs are prepared. |

**Overall conclusion** (please tick appropriate items)**:**

**1. The proposed activity is (eligible / ineligible) for project financing based on the E&S exclusion list of the ESMF.**

**2. The proposed subproject is of (Substantial / Medium / Low) E&S risks.**

**3. During the preparation of the proposed subproject, the following E&S documents, in line with WB's ESF and Mongolian legislation, should be prepared:**

**ESMP for new roads; BMP for new roads with biodiversity issues; ESIA for hub; ESCOP for road repair; ESMP for road rehabilitation.**

_____

_____

Filled out by (IE representative): _____; Reviewed by (PMO representative/E&S specialist): _____

# APPENDIX 3: RESETTLEMENT POLICY FRAMEWORK

## 1. Introduction

This document is a Resettlement Policy Framework (RPF) for the Mongolia Transport Connectivity and Logistics Improvement Project (MTCLIP) (P174806), namely component 1 and 2 infrastructure Investments and logistics services; and any additional candidate activities under component 4, Contingent Emergency Response, in case requested.

Activities of Component 1 include the road improvements and upgrades specific to selected aimags as well as the nationwide interventions. The result-based maintenance of key road sections and priority local roads for last-mile connectivity will be focused on the national road network connecting selected aimags, while the road asset management framework and system will cover the country's entire national road network.

Subcomponent 1.1: Result-based maintenance of key road sections. This involves major repair and rehabilitation of road links in poor and poorer conditions to achieve year-round connectivity on strategic road network linking selected aimags. The works will be done within the existing right-of-way, and works will constitute repair and rehabilitation of roadway, drainage improvements, and installation of road safety facilities such as signs, markings, and wildlife crossings.

Subcomponent 1.2: Last-mile connectivity for local herders to connect to the national network. This will mainly constitute the new construction of 127 km priority local roads to connect local herder communities to the national road network and for last-mile connectivity. Two local roads with completed detailed designs are ready to be implemented. Due to COVID imposed travel restrictions, stakeholder screening and identification will be done when travel permits. The road alignments will be selected to avoid land acquisition and cultural heritage sites.

Given the location of priorities roads, under component 1, has been predefined and further details have also not yet finalized, this Resettlement Policy Framework has been prepared prior to project appraisal. Contingent Emergency Response Component (CERC), component 4, is designed to provide swift response in the event of an eligible crisis or emergency, by enabling the client to request the World Bank to reallocate project funds to support emergency response and reconstruction where needed. In such situations, all E&S instruments required for the added activities need to be prepared, disclosed, and approved by the World Bank.

Component 2 will involve construction of a model logistics hub in Overkhanghai *aimag*, which will reduce the need for small, partially loaded trucks without temperature control mechanisms, which currently lead to significant loss of product quality. The expected activities include:

- Approximately 4–5 km of internal roads within the hub
- Truck parking space
- Space for offices and ancillary services such as hostels
- Basic energy and water supply Land acquisition by the Government of Mongolia

It is not anticipated that there will be substantial resettlement requirements, this RPF provides guidance in the instance that physical and economic displacement occurs.

This RPF describes (i) the protocol for compensation of impacts on structures and fixed assets; and (ii) the policies and procedures regarding displacement impacts which require the development of a Resettlement Plan (RP) to be completed after appraisal, prior to implementation of the civil works.

Any RPs will be developed in conformance with World Bank Environmental and Social Framework (ESF), Land Acquisition, restrictions on land Use and involuntary resettlement (ESS5) and Mongolian Law.

The Project Management Office (PMO) under the Ministry of Road and Transport Development will include individuals charged with screening for impacts on structures and fixed assets in the right of way and response according to the principles of this RPF.

## 2. Objective and Key Principles

This RPF incorporates the requirements of Mongolian law and the World Bank's ESS5 on land Acquisition, restrictions on land Use and involuntary resettlement. The guiding objective for the RPF is that involuntary resettlement is to be avoided or minimised throughout the Project. Where avoidance is not possible, the policy objective is to minimise impacts. Ultimately, any Affected Persons (APs)[25] should be better off, or at least as well off, as before the project. All persons affected by the project are to be consulted throughout the project, have the opportunity to participate in planning, and to share in project benefits. The project should contribute to sustainable development.

These principles require a process of early identification of stakeholders, and in particular of APs; effective public disclosure of any known impacts; consultation and participation with all sectors of the community to avoid or mitigate negative impacts identified, and to ensure that no person or impact is overlooked; fair, transparent and timely intervention to support APs during implementation, resettlement and restoration of livelihoods; and commitment where possible to improve upon the status quo, particularly for those who may be vulnerable by reason of poverty, ethnicity, gender, age, disability, or social status.

If there are fixed assets lost (such as shop structures), the aim will be to replace like for like, and if this is not possible, to compensate for lost assets and income, and meet the costs of relocation and restoration of livelihoods. Restoration includes not only physical assets, but also social and cultural assets. If there is a risk of disruption of these values, which are often disproportionally encountered by women, the APs will contribute to selection of mitigation options to ensure policy objectives are met.

## 3. Key Principles of Resettlement Planning

The following key principles are to be followed during resettlement planning and implementation:

- Displaced persons should be consulted during the process of RP preparation, so that their preferences regarding compensation arrangements are solicited and considered.

[25] Terminology such as 'displaced' can refer to social and/or economic as well as physical displacement of an affected person. In this document, to avoid confusion, the word 'affected' will be used to mean a person suffering any adverse impact. They may have formal legal rights to land and assets, have a claim to land or assets recognizable under law, or have no legal rights to claim land and assets.

- The cut-off date for compensation will be the day of the census and inventory of losses survey and advertised in Mongolian Newspapers.
- All affected persons will be eligible for compensation and rehabilitation entitlements irrespective of their property status, including unlicensed occupants of land, and of the type of use of their property (residential, commercial, public or community). Lack of legal rights to the assets lost will not bar displaced persons from entitlement to such compensation or alternative forms of assistance.
- Affected structures and fixed assets will be compensated at replacement cost based on prevailing market rates for comparable types of structures without deduction of depreciation. Materials may also be salvaged by the affected persons.
- Temporary disturbances, including removal of fences and civil works on land outside ROW, will be compensated in cash based on negotiated agreement with affected entities. Affected entities will enjoy continued access to land and residences. Civil works contractors will move fences and will restore land and fences upon completion of works.
- Compensation rates as established in an RP refer to amounts to be paid in full to the eligible owner or user of the lost asset, without depreciation or deduction for any purpose.
- Compensation for structures and fixed assets will be paid prior to the time of impact.
- All relocation, transfer and transaction expenses (fees and duties) will either be waived by government or included in the contract price of the affected properties.
- Civil works shall not commence unless all compensation and relocation activities have been completed, and short-term financial assistance for loss of income has been paid.
- Cash compensation will not be taxable, and all fees and transaction costs to register property will be paid by the project owner.
- Given affected shops will have to move outside of the Project's ROW, an allowance to effectively support their reestablishment and income loss will be paid.
- The mechanism established for project grievance redress will be utilized, as outlined in the Stakeholder Engagement Plan.
- The project proponent/Bank borrower is responsible for meeting costs associated with compensation. Any RPs prepared will include an estimated budget for all costs associated with land acquisition, including contingency arrangements.
- Any resettlement plan prepared will be disclosed in an accessible place and form and monitored in line with the requirements of the ESF 2017.

## 4. Legal and Regulatory Framework

All provisions of this RPF are in accordance with the applicable Mongolian Laws (as listed below) and the World Bank's ESS5. The relevant stipulations of national law and World Bank policy are summarized in this section along with measures to bridge any gaps between the requirements.

All provisions of this RPF are in accordance with the applicable relevant stipulations of national law and World Bank Environment and Social Framework (ESF, 2017) are summarized in this section along with measures to bridge any gaps between the legal provisions and Bank requirements. The basic legislative framework for land acquisition and resettlement under the existing legal framework consists of the

following: the Constitution (1992); the Land Law (2006); the Law on Allocation of Land to Mongolian Citizens for Ownership (2003); The Civil Code of Mongolia (2002); Government land valuation tariff (Cabinet Resolution 103, 2003); law on State Registration of Property Allocation Rights and Other Related Rights (2003); and the Law on Urban Development (2015).

Constitution of Mongolia states, inter alia, that "The State shall have the right to hold landowners responsible in connection with the manner the land is used, to exchange or take it over with compensation on the grounds of special public need, or confiscate the land if it is used in a manner adverse to the health of the population, the interests of environmental protection and national security" and "If the State and its bodies appropriate private property on the grounds of exclusive public need, they shall do so with due compensation and payment" respectively.

The Land Law regulates how to acquire land when possession titles expire. Non-titled occupants of land are considered illegal land users and can be evicted on the basis of Article 27.4 of the Land Law, which states that "possessing land without a valid license is prohibited". The Law on Allocation of Land to Mongolian Citizens for Ownership contains provisions respecting expropriation of land under private ownership. Article 35 of the Law on Allocation of Land to Mongolian Citizens for Ownership stipulates the confiscation of land owned by a citizen when the Article 28 of the same law is infringed. The Government land valuation tariff (Cabinet Resolution 103) determines land valuation tariffs.

**Table 15. Comparison of Mongolian Law and World Bank Involuntary Resettlement Requirements**

| Topic | Provisions of Mongolian Law | World Bank Environment and Social Framework |
|---|---|---|
| Eligible Affected Entities | Licensed owners, possessors and users of land can transfer their titles to other legal persons recognized under the Land Law (Articles 35 and 38) and the Law on Allocation of Land to Private Citizens (Article 27).<br><br>Non-titled occupants of land as illegal possessors are not eligible to transfer the land occupied or receive compensation (Land Law, Article 27.4).<br><br>The Civil Code recognizes the right of a long-term non-owner occupant of ownerless immovable property (incl. land) to own it after 15 years, if registered in the State register (104.2). | (ESS5) Affected persons may be classified as persons:<br><br>1. (a) Who have formal legal rights to land or assets;<br><br>2. (b) Who do not have formal legal rights to land or assets, but have a claim to land or assets that is recognized or recognizable under national law;14 or<br><br>3. (c) Who have no recognizable legal right or claim to the land or assets they occupy or use. |
| Compensation for structures | Contractually agreed payment for transfer of structures located on land acquired. The value of structures is determined at market rates, with depreciation deducted from | To mitigate unavoidable adverse social and economic impacts from land acquisition or restrictions on land use by: (a) providing timely |

| | | |
|---|---|---|
| | gross value of the structure. The implication in the land laws is that land and immovables should be compensated at market value. In practice, compensation is not based on market value. There are no provisions for compensation of structures in utility right of way or easement areas. | compensation for loss of assets at replacement cost (ESS5)[26]. |
| Vulnerable Groups | No legislative provisions for vulnerable displaced persons. | For economic and physical displacement, the RP will pay attention to gender aspects and the needs of vulnerable segments of communities and will ensure that these are provided in a transparent, consistent, and equitable manner (ESS5). |
| Grievance procedure | The Land Law refers disputes over land to the governors of administrative units and eventually the courts (Article 60). The Civil Code and Law on Allocation of Land to Private Citizens refers various types of disputes to the courts. | Propose and implement a grievance mechanism to receive and facilitate resolution of concerns and grievances proportionate to the project risks and impacts (ESS10). |
| Resettlement Plan information disclosure and public consultation | The Law on Urban Development (Article 17 and 18) states participatory planning shall be adopted in urban development planning and consultation with citizens shall be conducted in the course of implementation of urban planning. Decisions pertinent to urban development shall be disseminated and disclosed to the public in timely manner. | The Borrower will prepare a plan proportionate to the risks and impacts associated with the project: For projects with minor land acquisition or restrictions on land use, as a result of which there will be no significant impact on incomes or livelihoods, the plan will establish eligibility criteria for affected persons, set out procedures and standards for compensation, and incorporate arrangements for consultations, monitoring and addressing grievances (ESS5). |

[26] Replacement cost" is defined as a method of valuation yielding compensation sufficient to replace assets, plus necessary transaction costs associated with asset replacement. Where functioning markets exist, replacement cost is the market value as established through independent and competent real estate valuation, plus transaction costs. Where functioning markets do not exist, replacement cost may be determined through alternative means, such as calculation of output value for land or productive assets, or the undepreciated value of replacement material and labor for construction of structures or other fixed assets, plus transaction costs. In all instances where physical displacement results in loss of shelter, replacement cost must at least be sufficient to enable purchase or construction of housing that meets acceptable minimum community standards of quality and safety. The valuation method for determining replacement cost should be documented and included in relevant resettlement planning documents. Transaction costs include administrative charges, registration or title fees, reasonable moving expenses, and any similar costs imposed on affected persons. To ensure compensation at replacement cost, planned compensation rates may require updating in project areas where inflation is high or the period of time between calculation of compensation rates and delivery of compensation is extensive.

| | | |
|---|---|---|
| Cut-off date | There is no provision as to cut-off date for acquisition of land under possession or use. | In conjunction with the census survey, the Borrower will establish a cut-off date for eligibility. Information regarding the cut-off date will be well documented and will be disseminated throughout the project area at regular intervals in written and (as appropriate) nonwritten forms (ESS5). |
| Notification period for vacating property and commencement of civil works | Time period for vacating a property may be defined in contract.<br>Civil works commence in parallel with acquisition of property, but without a defined waiting period. | The Borrower will take possession of acquired land and related assets only after compensation in accordance with the ESS has been made available (ESS5). This will occur well prior to civil work commencement. |

As presented in Table 01, there are several policy gaps between the Mongolian legal framework and the World Bank ESF. According to Mongolian law or practice: (i) non-titled occupants of government land or utility rights of way, are not eligible for compensation and rehabilitation entitlements; (ii) income and livelihood rehabilitation is not normally considered in local land acquisition practices; (iii) transaction costs are not included in compensation payments; (iv) there are no project internal grievance procedures preceding dispute resolution by governors and the courts; (v) public consultation and information disclosure is not practiced; (vi) an eligibility cut-off date is not declared; (vii) there is no limitation on commencement of civil works until after completion of all land acquisition procedures, and (viii) there is no need to prepare an RP or to undertake monitoring and evaluation activities.

To bridge these gaps, this RPF provides entitlement provisions (see Entitlements Matrix), which integrates both, while World Bank ESF (ESS5) requirements prevail in cases of discrepancies. In addition, to bridge process related gaps procedures outlined in this RPF (such as valuation methodology, preparation of an RP, consultations, GRM, monitoring and evaluation), are to be followed; in addition, the previously listed key principles apply for the project.

### 5. Preparing and Approving Resettlement Plans

The proposed roads will be screened together with the PMO safeguards specialist/s to provide social and displacement inputs. Locations screened, will consider potential for displacement impacts and seek to avoid and minimise these in the first instance.

**Once the final detail of road sections and new constructions is determined**, the PMO safeguards specialist will:

- Conduct additional due diligence to determine the extent of any displacement impacts, temporary or permanent that may occur as a result of civil works activities

**If displacement impacts are identified in the right of way, the following will be undertaken** by the PMO to prepare a resettlement plan:

- Discuss the development and process of preparing an RP instrument with World Bank task team.
- Undertake immediate consultations with relevant officials in government stakeholder Ministries and agencies.
- Preparation of Project Information Bulletins (PIB) in Mongolian and English (Tool 3 for required content) describing the project parameters, anticipated impacts, assistance criteria, and cut-off date for entitlements.
- Meet with potentially affected persons and make disclosure about the project through release of the PIB.
- Undertake a Census of affected persons and an inventory of losses survey (See Tool 1 Content of Census Surveys and Asset Inventories).
- Review replacement cost values undertake any necessary valuation surveys as outlined in section 9.
- Preparation of a draft RP, in conformance with World Bank ESS5 and this RPF. An outline of the Resettlement Plan is provided in tool 4. The RP will include an AP profile, asset inventory, a draft entitlement matrix (refined from the matrix in this RPF as presented in Tool 2) and budget for the RP covering involuntary impacts.
- Disclosure of the Draft RP information and an updated PIB.
- Finalization of the RP; borrower and World Bank Approval of the RP.
- Posting of the RP on the borrower and World Bank websites.
- Preparation of individual compensation and entitlement forms for each AP, specifying amounts, times and places of payment.
- Transfer of entitlements and acquittal by APs.
- Recording and periodic reporting to donors and financiers.
- Monitoring, with AP and community participation and publication of outcomes.

If any unforeseen impact is identified after approval, updates to the RP will be prepared, consulted and disclosed. The World Bank will review and clear any resettlement plan/s prepared.

### 6. Estimated Population Displacement

Under the component 1, infrastructure investments aim to improve network availability, safety, and preservation of the national road assets. The component will support the result-based maintenance of the key road sections in over 2700km strategic road network connecting selected 8 aimags. The interventions will also focus on upgrading the priority local roads to connect the local herder communities to the national road network for last-mile connectivity. Also, an introduction of a road asset management framework will integrate the asset management and planning process including relevant policies and technical standards, performance measurements, investment strategies, and work program with the asset management systems including existing road asset inventory software and databases to sustain the project interventions beyond the life of the project. The interventions will ensure the incorporation of

climate resilience considerations specifically through the application of road design and practices for climate resilience.

The model logistics hub to be financed under component 2 will use public land that the local government has obtained. Due diligence will be undertaken to assess the process of land taking and whether there is legacy issues involved. The due diligence will also include assessment of existing livelihoods impact to nearby communities.

## 7. Eligibility Criteria

The foreseeable categories of displaced persons relative to the project include:

- Owners or users of structures/fixed assets in the right of way.
- Owners or Entities near the road corridors who experience temporary construction impacts or damages.

Eligibility criteria apply to both affected persons and affected assets. Displaced persons may be classified in one of the following three groups: (a) those who have formal legal rights to land (including customary and traditional rights recognized under the laws of the country) ; (b) those who do not have formal legal rights to land at the time the census begins but have a claim to such land or assets provided that such claims are recognized under the laws of the country or become recognized through a process identified in the resettlement plan; and (c) those who have no recognizable legal right or claim to the land they are occupying.

Note: (1) The loss may be temporary or permanent; (2) the term resettlement assistance may include relocation expenses, or meeting costs of starting up new livelihood activities like preparing land in the new resettlement sites, etc.

Resettlement planning will ensure that affected persons have sufficient opportunity to replace assets they will lose, and to improve or at least restore their incomes and living standards. Furthermore, planning will ensure that there will be no discrimination against any affected person due to sex, social status, language or other criteria. To achieve these objectives, the PMO will ensure that all affected persons are identified, and that all affected persons are deemed eligible for appropriate mitigation measures in the RP.

Loss of non-land assets, whether temporary or permanent, will be recognized for project-induced impacts on:

- An individual's business or income
- Any other assets or elements of livelihoods recognized in Mongolian law and in ESS5 that may be discovered during disclosure and consultation.

Persons demonstrating that they will suffer involuntary losses from any of these causes as at the cut-off date for entitlements will be regarded as eligible for resettlement. Losses from encroachments or activities commenced after the cut-off date for the respective projects will not be eligible.

## 8. Valuation Methodology

"Replacement cost" is defined as a method of valuation yielding compensation sufficient to replace assets, plus necessary transaction costs associated with asset replacement. Where functioning markets exist, replacement cost is the market value as established through independent and competent real estate valuation, plus transaction costs. Where functioning markets do not exist, replacement cost may be determined through alternative means, such as calculation of output value for land or productive assets, or the undepreciated value of replacement material and labour for construction of structures or other fixed assets, plus transaction costs. In all instances where physical displacement results in loss of shelter, replacement cost must at least be sufficient to enable purchase or construction of housing that meets acceptable minimum community standards of quality and safety.

Assets and values affected will be fully identified during public consultations, for incorporation in any RP/s. The principles of replacing like for like, replacement cost for lost assets and income, and full restoration of livelihoods will be used in the RPs.

All affected assets will be compensated at replacement cost based on market value for comparable assets estimated by a valuation team. The valuation team will include such persons as: a resettlement specialist; property valuation specialists of the Property Relations Agency and Land Relations, Construction and Urban Development Department (LRCUDD); and a representative of affected entities and agreed with affected persons. The formulation of the valuation team will also be discussed with the World Bank task team. The PMO will be responsible for follow-up and facilitation of the processes for estimation of the replacement values for non-land assets and losses. In the case of disagreements over the compensation rates during the negotiation process with APs, the PMO will be able to engage an independent private valuation specialist and re-assess the compensation rates offered to the APs and disclose the results to the APs.

**Shops, structures, land and buildings.** They will be compensated at replacement value based on prevailing market rates for comparable types of structures free of depreciation, transaction costs and value of salvage materials, which can be used by the affected households for free. The rates established in the RP prepared for the project prior to appraisal may be used if less than 12 months has passed.

**Permanent income loss**. Lost income allowance for 2 months of minimum wage for employees.

**Temporary income loss.** Cash compensation equal to net income losses during interruption period to be included in contractual agreement, estimated based on tax receipts/other valid documents or, if these are not available, based on the average net income of typical road businesses in project areas.

### 9. Implementation Process

To ensure fairness, a time-bound implementation schedule of all activities relating to land acquisition and payment of compensation will be included in any RPs prepared. Payment of compensation should be completed well prior to civil works to give the affected person time to adjust and relocate. If there is a delay of one year or more between asset valuation and payment of compensation, compensation rates will be reviewed and adjusted if necessary, for inflation or other cost factors. If the transaction is agreed but there is a justifiable delay in settlement, for example because it is difficult to locate an owner, the compensation amount may be held in a Government escrow account for disbursement as soon as

practicable. Any interest accrued on the sum will be paid to or apportioned amongst the legitimate claimants. This permits project work to proceed without disadvantage to the owner(s).

### 10. Involuntary Resettlement Consultation & Disclosure Arrangements

Consultation and participation on all aspects of the project is presented in the Project Stakeholder Engagement Plan (SEP), this section discusses consultation/disclosure as it relates specifically to displacement impacts. During the resettlement planning stage key consultation actions include meetings with key institutional and commercial informants; development and dissemination of the PIB; identification and census survey of APs; and disclosure of the draft RP with information about how to participate and seek redress. Any affected persons will be consulted directly regarding displacement impacts and other arrangements.

The main output of the planning stage is the agreed RP which will summarize the activities undertaken and the results of consultation, along with any future planned consultation activities to be undertaken. Other outputs include signed registers of attendance at any public consultations, and summaries of discussions and decisions at all consultations.

The PMO, will disclose any RP prepared in draft and final stages to the affected persons and the general public in the project area both on its website, and in hard copy in a language and location accessible to them. In this and any future projects undertaken in collaboration with the Bank, disclosure of the draft RP will be undertaken at least one month prior to Bank review. Disclosure of the final RP will occur following Bank acceptance.

Consultation and disclosure of this RPF, was undertaken together with the ESMF, please refer to the ESMF for details.

### 11. Grievance Procedures relating to Land Acquisition

The project Grievance Redress Mechanism (GRM) is described in the SEP, this adapts the existing government procedure (hotline, in-person, written) and directs project related complaints to the PMO. Anonymous grievances are also accepted. This GRM is similarly applicable for any Resettlement Plans developed (see below). The relevant activities will be designed to avoid and minimize any displacement so that major grievances are not anticipated and use of a local grievance mechanism already established for the project is favourable given any impacts are anticipated to be minor. The process is as follows (as per the SEP, please refer to the SEP for more details on recording of complaints):

Level 1:

Two phone numbers, the PMO and the 24/7 call centres will be advertised for project related complaints (through construction notice board, GRM brochure, letters to residents/affected). Complainant's can also give complaints in writing and in person as per identified existing mechanism. Complaints from the call centre will be issued directly to the PMO. If received out of working hours, the complaint will be issued to the PMO the next day. The PMO will then work with internal departments and /or the construction contractor to resolve the issue quickly, but in no less than 7 days will either resolve the issue or inform the complainant that their complaint has been forwarded to the 2nd level of the GRM.

Level 2

If the PMO cannot resolve the issue within 7 days, then it will be forwarded to the responsible official of MoRTD, who will review the complainant, such that it can be resolved within 15 days. If compensation values are in dispute, an option of hiring independent appraisal experts shall be considered as part of the grievance redress mechanism If mediation is unsuccessful, or if the matter is substantive, at any time affected parties can file written or verbal grievances through the Mongolian Court system, in accordance with Mongolian laws and procedures.

## 12. Funding & Institutional Arrangements

A PMO is to be established under the MoRTD and coordinates closely with its relevant Agencies. The project borrower will bear responsibility for meeting the costs associated with displacement. Any RP/s prepared in accordance with this RPF require a budget with estimated costs for all aspects of RP implementation. While the process of making an inventory of affected land and assets should identify all affected persons, if there has been a mistake or an omission, persons who had a rightful claim at the time of commencement of the census survey but who are identified after resettlement planning are entitled to compensation even if insufficient mitigation funds have initially been allocated. To meet this and any other unanticipated costs that may arise, the RP budget will include a contingency provision of 10 percent of estimated total costs. Compensation rates included in the RP will provide the basis for calculating compensation amounts due. Compensation will be paid in full to the affected person or persons losing land or other assets or income prior to any civil works taking place. The Project PMO will include a safeguards specialist responsible for preparation and implementation of any resettlement plans prepared.

Resettlement Plan budget items will include the following:

Administration costs:

- Office administration, use of equipment and supplies.
- Travel.
- Advertising and publications.

Resettlement costs:

- Cost of AP consultation meetings (Travel/ Mediation).
- Compensation costs for affected structures and assets
- Compensation for affected livelihoods
- Relocation and reestablishment assistance.
- Transaction costs (notary fees, cadastral map survey, service fees including property registration).
- Contingency for vulnerability and unforeseen costs at an additional ten per cent of the sum of above.
- Costs of scrutineer for entitlements disbursements.

No deductions from compensation will occur for any reason. The RP will put in place transparent procedures for the flow of compensation funds, from the MoRTD to the affected persons, and for

witnessing and recording of the transactions. Joint signatures of both husband and wife from each household are encouraged.

### 13. Monitoring Involuntary Resettlement

This section relates to monitoring requirements to be included in RAPs. . Monitoring is the responsibility of the borrower. Monitoring of conformance with the RAPs during implementation will be carried out by the PMO and progress reported in semi-annual project reports to the World Bank. Each RP will include indicators for monitoring.

The PMO, will prepare periodic progress reports on the RP against any indicators specified in the borrower agreement with the World Bank, including for the period under review:

- Any issues that have arisen necessitating change to the RP to meet policy objectives.
- Publicity about the resettlement process, including PIBs and any media coverage.
- Schedule of consultations with APs.
- Signed roster of attendance at RP consultative meetings, photographs and any other evidence of participation.
- Summary minutes of RP discussions and decisions.
- Record of grievances notified under the RP, process and outcomes.
- Copies of official records of any project-related changes to land use or transfer of land titles.
- Update of the Entitlements Matrix and payments against entitlements under the RP.
- Financial summary of disbursements against entitlements.

**Tool 1: Content of Census Surveys and Asset Inventories**

**MONGOLIA TRANSPORT CONNECTIVITY AND LOGISTICS IMPROVEMENT PROJECT**

**HOUSEHOLD CENSUS QUESTIONAIRE**

| Date: | | | | | | | Questionnaire No: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**1. IDENTIFICATION OF AFFECTED HOUSEHOLD.**

*Complete one questionnaire per structure/asset owner (i.e. one questionnaire for each business owner)*

1.1 Name of the Owner (official name as per bank account):.....

.....

1.2 Other name/Nickname: .....

1.3 Soum/ Bagh: .....

1.4 Location (nearest street/landmark): .....

1.5 Matches with Inventory of Losses Form # .....

**PROJECT KNOWLEDGE**

2. Are you aware of the Mongolia Transport Connectivity and Logistics Improvement project is starting next year? □ Yes □ No

*If respondent is not aware about the implementation of the project, brief him about the project implementation.*

**HOUSEHOLD TYPE OF LOSS**

3. What type of loss will the family experience:

□ Business Structure,

□ Asset (fence, other);

□ Building (i.e. security shed, empty building)

□ Income (i.e. shop employee)

□ Land (describe)

□ Other (describe)

**DEMOGRAPHIC INFORMATION**

| Family Status | | | | | |
|---|---|---|---|---|---|
| | Legal Title | Tenant | Squatter (illegal) in 10-meter safety zone | Encroacher (structure is in both private land & within 10m Right of way | Other |

| | | | | | |
|---|---|---|---|---|---|
| 3.1 | | | | | |

3.2 If tenant, squatter or leasee, please provide full name of owner and address of owner:.....

.....

.....

3.3 Total Number of Family Members (living under one roof): ……..

| . | Name of Family Members | Sex | Age | Education (6 years above) | Economic Activity | Relationship with HH head | Marital Status |
|---|---|---|---|---|---|---|---|
| 3.4 | | | | | | | |
| 3.5 | | | | | | | |
| 3.6 | | | | | | | |
| 3.7 | | | | | | | |
| 3.8 | | | | | | | |
| 3.9 | | | | | | | |
| 3.10 | | | | | | | |

Codes: Sex: 1= Male, 2= Female

Education: 1= Literate but primary education not completed

2= Primary Education (Grade 1-8) completed

3= Secondary Education (Grade 8-10) completed

4= Higher Secondary Education (Certificate Level or similar)

5= Graduate level and above

6= Illiterate Marital Status: 1=Married 2=Unmarried

Economic Status: 1=Government job, 2=Private work, 3=Business, 4=Animal Husbandry, 5=Student, 6=No Work, 7=If any other, please mention.

**FAMILY INCOME**

4. Will the project affect your source of income?
Yes: ……(because)
No:……(because)

Household Income Sources

| | | | | |
|---|---|---|---|---|
| 4.1 | Main Income Source | | 1 Employee (i.e. shop employee)<br>2 Government Job<br>3 Business/ Shop Owner<br>4 Rent<br>5 Labor job | 6 Office job<br>7 Agricultural<br>8 Pension/Remittance<br>9 Other (describe) |
| 4.2 | Extra Income Source | | | |

Total monthly income of the household

| | Income Source | Household per month MNT |
|---|---|---|
| 4.3 | Main | |
| 4.5 | Extra | |
| 4.6 | Total All Sources | |

| Average Income in One Month | | |
|---|---|---|
| | Member of Family | Household per month MNT |
| 4.7 | Husband | |
| 4.8 | Wife | |
| 4.9 | Another member | |
| 4.10 | Total (all family) | |

**FAMILY EXPENDITURE**

| Family Expenditure | | | |
|---|---|---|---|
| | Expenses Type | Annual Expense MNT | Monthly MNT |
| 5.1 | Food | | |
| 5.2 | Clothes | | |
| 5.3 | School Fee, Books, Stationery, etc. | | |
| 5.4 | Medicine/doctor/health checkup | | |
| 5.6 | Transportation, Telecommunication, etc. | | |
| 5.7 | Celebrations | | |
| 5.8 | Other | | |
| 5.9 | Total Expenses | | |

Note: If expenditure seems significantly high than incomes then explain the reason.

**ASSISTANCE PREFERENCE**

| | | | |
|---|---|---|---|
| 6.1 | Do you have another location to move your structure? | | 1 Have location<br>2 don't have location<br>3 need support to find a location |
| 6.2 | Do you need assistance to move your structure/asset to another location? | | 1 need assistance to move<br>2 don't need assistance to move |
| 6.3 | How do you prefer to be assisted by the project before the construction | | No support needed<br>Need support (describe) |

6.4 Do you have other concerns about the project? (list)

6.5 Notes:

Name of Interviewer:

Signature of Interviewer

Signature/Mark of Interviewee

**MONGOLIA TRANSPORT CONNECTIVITY AND LOGISTICS IMPROVEMENT PROJECT**

**INVENTORY OF LOSSES FORM**

Date: | | | | | | | Form No: | | | | | | | | |

**1. IDENTIFICATION/OWNER DETAILS**

**if Owner can't be identified, record all other details in the form. If Government Infrastructure, go to Q6.*

*Complete one form per structure/asset owner (i.e one form for each business)*

1.1 Name of the Owner/Company (official name as per bank account): .....

.....

1.2 Other name/Nickname: .....

.....

1.3 Soum/Bagh: .....

.....

1.4 Location (nearest street/landmark): .....

.....

**STRUCTURES**

2. Is structure in the right of way and will be affected by the construction works? □Yes □ No

List of Structures in the Right of Way, which will be affected by project construction

| No | Type of Structure | Material type | Area m2 | No of stories | Construction year | % of structure affected | Remarks |
|---|---|---|---|---|---|---|---|
| 2.1 | | | | | | | |
| 2.2 | | | | | | | |
| 2.3 | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2.4 | | | | | | | |
| 2.5 | | | | | | | |
| Type of structures: business kiosk/shop, residential home, warehouse, community structure; other (describe. | | | | | | | |

**ASSETS**

3. Is there assets in the Right of Way, which will be affected by project construction □ Yes □ No

| No | Type of Asset | M2 | m | No. | Material Used | Age | Remarks |
|---|---|---|---|---|---|---|---|
| 3.1 | | | | | | | |
| 3.2 | | | | | | | |
| 3.3 | | | | | | | |
| 3.4 | | | | | | | |
| 3.5 | | | | | | | |
| 3.6 | | | | | | | |
| Type of Assets include: boundary fence, playground equipment, roof, water well, water tank, others (describe) | | | | | | | |

**BUSINESS STRUCTURES**

4. Do you own the shop or business structure? □ Yes □ No

4.1 □ Self Owned, □ Joint, □ Rented □Company Owned

4.2 Do you have proof of ownership? □ Yes □ No (possession only)

4.3 Type of ownership documentation:

4.4 How many years are running business in the location?

4.5 Estimated value of present stocks MNT:

4.6 Estimated value of business/shop structure MNT:

**5. BUSINESS INFORMATION**

| | | Business Tax Status | | | | Number of People Working | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Type of Business | Registered | | Not registered but pay taxes | | Regularly | Seasonal | Average profit per month | Average profit per day | Remarks |
| 5.1 | | | | | | | | | | |
| 5.2 | | | | | | | | | | |
| 5.3 | | | | | | | | | | |
| 5.4 | | | | | | | | | | |

5.5 If your shop affected by the Project construction works. Do you have any other source of income?

5.6 What is the other source of income?

5.7 How much of your family income do you receive from other sources (percentage)?

**6. OTHER INFRASTRUCTURE**

Other infrastructure in Safety Right of Way Affected By project construction, belonging to anyone other than UBHC

| | Infrastructure | No/ Unit | Area/ length | Material type | Estimated Cost | Government Agency Owner |
|---|---|---|---|---|---|---|
| 6.1 | | | | | | |
| 6.2 | | | | | | |
| 6.3 | | | | | | |
| 6.4 | | | | | | |
| 6.5 | | | | | | |
| 6.6 | | | | | | |
| Infrastructure: School, electric poles, government office, government fence, other (describe) | | | | | | |

Surveyor Notes:

Signature of Asset/Structure Owner:

Name of Surveyor:

Signature of Surveyor

**PHOTOS ATTACHED**

(including owner in front of asset/structure)

□ Yes □ No

**Tool 2: Entitlement Matrix**

To bridge the gap between Mongolian Law and World Bank policy, this RPF provides entitlement provisions, which integrates both, while World Bank policy requirements prevail in cases of discrepancies. Any RPs prepared for this Project, will update the Entitlement Matrix provided below, to be specific to subcomponent impacts.

**RPF Entitlement Matrix**

| Type of Loss | Entitled Person | Entitlement |
|---|---|---|
| Shop structures in Right of Way (permanent loss of structure) | Structure Owner | • Replacement cost for structures<br>• Transition and relocation allowance<br>• Assistance to find an alternative shop location as applicable |
| Structures in the Right (permanent loss of structure) | Structure Owner | • Compensation for structure at Replacement cost<br>• Right to salvage materials<br>• Transport allowance |
| Alternation to structure | Owner, possessor, legalizable occupant of land | Cash compensation for lost part of structure and reconstruction of remaining structure at market rate without deduction of depreciation, based on contractual agreement. |
| Land (permanent loss of land) | Land user/owner | • Replacement cost for land<br>• Transition and relocation allowance including moving costs coverage and possibly income support provided for the expected period of transition (3-6 months normally).<br>• Assistance to find an alternative land as applicable |
| Businesses | All affected entities temporarily affected | Cash compensation equivalent to the loss, i.e. for the period of interruption of business based on tax receipts/other valid documents or, if these are not available, based on the average net income of typical local businesses in project areas. |
| | All affected entities permanently affected. | Cash compensation equivalent to the loss, i.e. for the period of interruption of business based on tax receipts/other valid documents or, if these are not available, based on the average net income of typical local businesses in project areas. |
| | Lessee permanently affected | • Cash refund at rental fee rate and proportionate to duration of remaining lease period |

| Type of Loss | Entitled Person | Entitlement |
|---|---|---|
| | | • Renter transitional allowance such as 3 months income assistance |
| Employees | All laid-off employees of affected shops | Lost income allowance for 2 months of minimum wage |
| | All temporarily laid-off employees of affected businesses | Compensated with cash indemnity for 2 months wages for workers/employees that have been engaged for at least 1 year; otherwise entitlement is 1-month wage. |
| Vulnerable Household | Vulnerable households as identified in census, such as non-titled, women-headed, disabled headed, below the poverty line. | • Vulnerable household allowance, equivalent to three times the monthly minimum wage.<br>• Advisory services and support to help them relocate or re-establish their livelihood. |
| Temporary Disturbance | Owner, possessor, unlicensed occupant of land | • Temporary disturbances, including moving back of fences and civil works on land near corridors, will be compensated in cash based on negotiated agreement with affected entities.<br>• Affected entities will enjoy continued access to land and residences.<br>• Civil works contractors will move fences and will restore land and fences upon completion of works. |

**Tool 3: Project information Bulletin Contents**

A Project Information Bulletin (PIB) will be issued for component 1.1 where resettlement will be undertaken to give initial project information in English and Mongolian. It will be simple, jargon-free language aimed at the general public. It will be updated at least (i) to disclose the draft RP, (ii) to publicize the finalized RP, and (iii) to convey the results of end-of-project monitoring.

Media bulletins will be released at other intervals as required to inform the public about progress of works, any restrictions to normal access and operation of roads and airport facilities during implementation.

Content of the PIB in the resettlement planning phase will include:

- A whole-of-project description, and of the components to be covered in the RP.
- The project rationale and expected benefits.
- A description of anticipated environmental, social and economic impacts, positive and negative.
- Reassurance that negative impacts will be compensated for.
- Eligibility criteria – persons and impacts that will be recognized in resettlement.
- Cut-off date for entitlements.
- A description of the type of impacts that would be recognized.
- A description of the proposed consultation process.
- Information about how to register as a potentially Affected Person.
- Information about the planned focus group meetings.
- An indication of the proposed process thereafter.
- Description of the proposed grievance system.
- Maps and other visuals when appropriate.

Content of subsequent bulletins will be influenced by initial consultations and the final form of the RP, grievance and monitoring processes.

**Tool 4 Resettlement Plan Contents**

- Description of the project.
- Resettlement Objectives.
- Census survey and baseline socioeconomic studies.
- Legal framework.
- Institutional framework. Eligibility.
- Valuation of and compensation for losses.
- Implementation schedule.
- Costs and budget.
- Grievance redress mechanism.
- Monitoring and evaluation.

# APPENDIX 4: LABOR MANAGEMENT PROCEDURE

These Labor Management Procedures provide an overview of the applicable Mongolian legislative and WB Environmental and Social Standard 2 (ESS2) provisions and how the risks and issues related to labor in the Mongolia Transport Connectivity and Logistics Improvement Project (P174806) components will be managed during the implementation of the project.

**Overview of labor use on the Project**

The Project includes four components:

Component 1: Infrastructure Investments

Component 2: Transport and Logistics services

Component 3: Technical Assistance and Capacity Building

Component 4: Contingent Emergency Response Component (CERC)

The project activities involve four types of employment, these include: (i) *direct workers*- the borrower staff, such as Project Management Office (PMO) staff who will be directly engaged and managed through the MoTRD system, and hired consultants to assist project design and risk management to be managed through contracts, (ii) *contracted workers* through third parties, such as construction workers engaged by the construction companies for road improvement and maintenance and construction of the logistics hub, as well as range of technical specialists employed by the companies; and (iii) potentially community workers who might be engaged for the project. The sections below provide detailed description of the type and number to be engaged throughout the project life.

Component 1 relies on a combination of up to 10 *direct workers* on project management, 50-100 *contracted workers* through third party construction companies to work on roads improvement and maintenance and last mile connectivity, potentially 20 *workers of primary supply* if material sourcing is done by separate companies, and potentially 40 *community workers* on last mile connectivity.

Components 2 and 3 aim to improve the national logistics services and system, and to lay the foundation for improved transport and logistics services. The component 2 will support the development of a supply chain platform which will help better link the herders, operators, and logistics companies to the market. It will also support the innovative pilot projects and provide institutional regulatory supports to enable the development of contract logistics services to facilitate the livestock value chain. The activities under the component 3 will carry out necessary preparatory works including market assessment of and consultations with the private sector for future development of logistics hubs as well as strategic studies for export logistics. The component will also support the capacity development of the MoRTD in implementing the project activities. These components will largely rely on international and national technical specialists (individual consultants) based in the region (*Contracted Workers*). The exact number of *Contracted workers* over the life of the project for this specific component is not yet known and is likely to fluctuate but may be 5- 20 workers/technical experts at any one time.

**Number and characteristics of project workers.**

**1. Direct workers:**

Direct Workers – refers to people employed or engaged directly by the Borrower (including the project proponent and the project Implementation Agencies) to work specifically in relation to the project.

For this project, the borrower will hire staff for the Project Management Office (PMO) per the MOF guideline. Direct workers of the PMO will consist of both male and female workers assigned from the MORTD for the Project on a full-time basis. These workers are managed and have labor relationships with the respective government departments. The PMO director will be appointed by the MoRTD. The PMO will be staffed with coordinator, specialists and consultants hired for the sole purpose of coordinating the proposed MTCLIP. All these workers will be aged 18 and above. The TA may require the hiring of consultants, field validators, monitors, trainers and others. Depending on the situation, these may be considered "project workers".

**2. Contracted workers:**

Contracted Workers – refers to people employed or engaged through third parties to perform work related to core functions of the project, regardless of location. Third parties may include contractors, subcontractors, brokers, agents, or intermediaries. 'Core functions' of a project constitute those production and/or service processes essential for a specific project activity without which the project cannot continue. For this project, contracted workers have been identified as follows:

Approximately 50-100 construction workers are anticipated to be required for relevant components. Contractors will be chosen on bidding basis. An international competitive bid for construction work is anticipated given local private sector capacity and experience. As such, there would be a small number of international technical specialists and staff involved in components one and three, only during the pre-construction and early construction period. The needs for management of construction workers are satisfied through review of the labor management system bid participants in the bidding process. Construction team should have one Chief Engineer who has 2 years of work experience as a Chief Engineer and be professional in the field, hence must have special license, Occupational Safety Health specialist, who also must have OSH certificate and work experience as OSH staff at least for 2 years. They also must submit Social Insurance copy of past 6 months, to prove their employment stability and expertise.

The PMO will be engaged male and female workers from environmental consulting agencies that are approved by and hold special licenses under the Ministry of Environment and Tourism (MET). This may largely rely on international and national technical specialists (individual consultants) based in the region. These would include, environmental and social, financial, procurement specialists to provide technical assistance, exact numbers are not known but are anticipated to be 5 - 10 workers/technical experts at any one time. The exact number of Contracted workers over the life of the project for this specific component is not yet known and is likely to fluctuate but may be 5 - 10 workers/technical experts at any one time.

**3. Primary Supply Workers**

Primary Supply Workers – refers to people employed or engaged by the borrower's primary suppliers. 'Primary suppliers' are those suppliers who, on an ongoing basis, provide directly to the project goods or

materials essential for the core functions of the project. The exact number of primary supply workers is not yet known and is likely to fluctuate but may be 10-20 workers/technical experts.

**Assessment of potential labor risks**

**Project Activities**

Direct workers

The staff of the PMO will be responsible for project management and coordination, the procurement and contract management of goods, works, and services; undertaking of financial management including disbursement processing and project audit; public relations; implementation of environmental and social safeguards measures in compliance with the World Bank's requirements; preparation of periodical reports; monitoring and evaluation (M&E) and their submission to the World Bank; and implementation of grievance redress mechanism. Potential labor risks for direct workers are considered low, although some risks exist, such as: (i) lack of adherence to official work hours; (ii) potential for discrimination in recruitment and employment, and potential for lack of equal pay for equal work for men and women in violation of national law; (iii) OHS risks when conducting field visits (e.g. risk of traffic accidents, exposure to construction sites, exposure to COVID19) due to lack of appropriate travel protocols.

Contracted workers

Workers associated with the technical assistance aspects of the project, shall carry out research and evaluation of the technical proposal as well as environmental and social impacts and risks of the Project. The technical assistance aims to provide technical guidance on the implementation of the Project while the monitoring workers will provide monitoring and management services for the Project.

The construction workers shall be carrying out the construction works of the Project on the construction sites. The specialized construction teams of the Project shall consist of chief engineers, electric engineers, OSH specialists, technicians and construction workers, respectively in an approximate number of between 50-100 people. To develop and execute centralized workplace management and codes of conduct that will be disclosed at places with easy accessibility to outlining appropriate behaviors, such as prohibiting drugs and alcohol, and highlighting the importance of strictly complying with the relevant laws and regulations.

If the construction units do not strictly implement the relevant laws and regulations and do not sign labor contracts, it will become unlikely to guarantee the rights and interests of the construction workers and timely payment of workers' wages. During the operation period, mechanical injury and accidents may occur in the confined in the working area during construction work and maintenance of equipment during the operation period.

A GRM should be established at the site level, with the contractor appointing a grievance focal point who will maintain a grievance register, and escalate grievances that cannot be resolved.

As such, risks for contracted workers may include the following:

- Lack of formal work contract
- Lack of adherence to official work hours
- Violation of national labor law regarding employment of Child laborers and forced laborers

- Lack of equal pay for equal work for men and women
- Violation of national Law on Discrimination in recruitment and employment
- Lack of accessible Labor GRM
- Lack of awareness about Labor GRM
- Non-functionality of Labor GRM
- Serious accidents and or injuries due to lack of adequate OHS measures.
- Lack of GBV prevention and awareness
- COVID 19 related issues
- No certified OHS specialist permanently on site.

**Overview of labor legislations**

Mongolian Law on Labor (1999), Law of Mongolia on Promotion of Gender Equality (2011), Law on Labor Safety and Hygiene of Mongolia amended 2015; that have been enacted in order to protect the legitimate rights and interests of workers of Mongolia.

**Wage and welfare**

1. Wage distribution should follow the principles of performance-based distribution and equal pay for equal work. The wage level shall increase gradually along with economic growth. The national government shall exercise macroeconomic regulation and control on the total wage.
2. Since January 2020, the minimum wage in Mongolia is MNT 420,000 ($147) per month. The wage paid by the employers to the workers shall not be lower than the local minimum wage.
3. Wages should be paid to the workers in person on a monthly basis in monetary terms and shall not be deducted or unreasonably owed.
4. The employers shall pay wages according to law to the workers during statutory holidays, during marriage and funeral leaves and during legal activities.

**Working time and resting and holidays**

1. In accordance with Article 5 of Mongolian Labor Law, a working hour system shall be practiced allowing no more than 8 working hours per day and no more than 40 working hours per week and the length of the uninterrupted rest period between two consecutive working days shall not be less than 12 hours.
2. The employers shall reasonably determine their labor quota and piece payment standard according to the working hour system prescribed by the national government.
3. The employers shall make arrangements for the employees to take vacation according to law during the Naadam Festival (11$^{th}$, 12$^{th}$, 13$^{th}$ of July), Children's Day (1$^{st}$ of June) and other holidays prescribed by laws and regulations.
4. Where an employee is not able to rest on Saturday and Sunday due to the specific nature of the work and production, he/she shall be granted two consecutive rest days on other days of the week that is in accordance with Mongolian Labor Law (Chapter 5. Section 77).

**Equal rights**

1. Workers shall be employed without discrimination based on ethnicity, race, gender, or religious beliefs.
2. Collective bargains and agreements shall incorporate provisions on the creation of conditions and opportunities for a man and a woman to combine their professional and family responsibilities, to bear and care for a child, to take care of his/her health, to enjoy labor safety, equal pay and bonus for equal work and to enjoy equal working conditions.
3. Gender discrimination in employment and labor relations shall be prohibited. Unless otherwise provided by an international treaty ratified by Mongolia and other relevant laws, it is also prohibited to treat preferentially, to restrict or to dismiss an employee based on his/her sex, pregnancy, child care-taking roles, or family status.
4. Any forms of forced labor are strictly prohibited.
5. An employer shall have the following responsibilities to prevent gender discrimination in employment policies and labor relations and to ensure gender equality at a workplace:
    5.1 Implement on the basis of a plan and/or a program activity aimed at promoting gender equality and report to employees on their implementation and results;
    5.2 Refrain from explicitly specifying or implying a preference for any one sex in a job vacancy notice/advertisement, except in conditions under the Law of Mongolia on enforcement of the law on promotion of gender equality (Article 6.5 and Article 7 of this law);
    5.3 Recruiting a person of the under-represented sex in order to ensure gender balance in a given organization or its unit;
    5.4 Carry out monitoring and evaluation of legal provisions on equal pay for equal work and equal working conditions and take actions to eliminate identified breaches;
    5.5 Undertake the promotion, professional training and re-training, skills development and pay increases for male and female employees based on the human recourse roster;
    5.6 Promptly inform all employees of job vacancies and professional training and re-training opportunities;
    5.7 Ensure that in a case of a once a time lay-off of more than one third of the workforce as a result of a structural change, the gender ratio of the dismissed group be directly proportional to that in the entire workforce irrespective of the length of service;
6. An employer is prohibited from dismissing a pregnant woman, mother who has a child under three years of age, except for cases of dissolution of the organization and cases provided for in Subsections 40.1.4 and 40.1.5 of Mongolian Labor law.
7. In order to prevent and keep the workplace free of sexual harassment and to maintain zero tolerance of such harassment, an employer shall take the following measures:
    7.1 Incorporate in organization's internal procedures specific norms for prevention of sexual harassment in a workplace and the redress of such complaints;

7.2 Design and conduct a program on training and retraining geared toward creating a working environment free from sexual harassment, and report on its impact in a transparent manner.

8. When hiring a citizen, in the course of the labor relationship, due to the peculiarities and requirements of the work or duty, an employer has limited an employee's rights and freedom, and then he/she shall be obligated to prove the basis for doing so.
9. When hiring a citizen, if it is not related to a peculiarity of the work or duty to be performed, asking questions related to private life, personal opinion, marital status, political party membership, religious beliefs, or pregnancy shall be prohibited.

**Labor contract**

1. The following basic conditions shall be agreed on in the labor contract:
   a. name or title of the position or employment;
   b. term of the labor contract;
   c. amount of basic salary or salary of the position;
   d. working conditions.
2. The parties may agree to other contents in addition to the necessary clauses stipulated in the preceding paragraph.
3. A labor contract shall come into force on the date it is signed.
4. A labor contract shall be of fixed term or open-ended.
5. Term of a labor contract shall be determined by the parties based on the features of the work and duties to be performed
6. If the term of a labor contract is expired, and the parties do not propose to terminate it and an employee continues to perform his work, such a labor contract shall be considered as to have been extended for the initial term specified in the labor contract.
7. An employer shall establish a laborlabor contract with an employee in written form and submit one copy of such a labor contract to the employee.
   It is prohibited to conclude any contract other than a contract of employment in a permanent workplace.
8. If an employer employs several employees in one workplace, an employer shall enter into a labor contract with each employee.
9. If a labor contract has not been established in written form, an employer shall not require an employee to perform work or duties.
10. In case of unforeseen circumstances that result in the necessity of reducing disaster risk and the consequences of unforeseen circumstances, the employer may transfer the employee to another work that has not been provided in the employment contract for a period of up to 45 days.

11. An employee shall retain his job or position in the following occasions when an employee is not fulfilling his working duties:
    a. if an employee is performing the appointed duties of a state organisation, for not more than 3 months;
    b. if an employee is on a regular holiday;
    c. if an employee is going through medical examinations, or executing duties of a donor, or is on leave with permission from the administration or with a doctor's certificate;
    d. if an employee is on pregnancy, maternity or baby care leave;
    e. if an employee is participating in discussions and negotiations in the course of entrance into collective contracts and agreements or a legally organised strike;
    f. until an army call-up committee issues a decision that an employee who received an order to join the army has been activated to the active army;
    g. Other occasions as provided in law, collective and labor agreements.
    h. Covered by protective measures under the Law on Protection of Witnesses and Victims.
12. The labor contract shall be discharged upon the following grounds:
    a. if the parties have mutually agreed to do so;
    b. if a citizen who is employer or an employee has died;
    c. if the labor contract has expired and it has been decided not to extend the contract;
    d. if an authorized organization specified in law has so demanded;
    e. if an unjustifiably dismissed employee has been reinstated to his previous job or position;
    f. If an employee has been called up in the active army;
    g. if a court decision that imposes a conviction of an employee, preventing him from performing his work duties as a result of his crime, has come into force;
    h. if the labor contract has been terminated by the initiative of an employer or an employee.
13. Dismissal and transfer of work
    a. When terminating a labor contract with an employee, the employer shall establish a time for the transfer of duties to the new employee and include that time in the decision on dismissal of the employee.
    b. An employee shall be considered dismissed on the last day when he/she transfers his/her duties.
    c. The employer shall be obligated to provide the employee dismissed with the decision on the dismissal, social insurance book and, if it is provided by law, with dismissal allowances on the date of dismissal.

d. The employer shall be obligated to issue a letter of reference about the occupation, profession, specialization, position and remuneration at the request of the employee.

**Occupational health and safety**

**Overview of national labor laws**

The Law on Labor Safety and Hygiene (amended 2015) determines the state policy and principles on labor safety and hygiene and regulates relationship with respect to management and monitoring system.

**1. Requirements for machineries for lifting, delivering and transportation**

a. Machineries for lifting, delivering and transportation should meet technical requirements.

b. Machineries for lifting, delivering and transportation should be certified and permitted to use by professional organization.

c. Maintenance, repair service and adjustment to machineries for lifting, delivering and transportation should be made within the time specified in technical documentations or test, adjustment and certification for such machineries should be made within the time approved by competent organization.

**2. Requirements for pressurized container and channels**

a. Pressurized containers, pipes and channels should be tested, adjusted and certified in accordance with the relevant regulations and should meet technical requirements and be permitted to use;

b. Pressurized containers, pipes and channels should have operational procedures and regulations for operation, halting for longer period and maintenance.

c. Pressurized containers, pipes and channels should have distinguishable signs and logos, and be equipped with signaling and protective devices to prevent from accident.

**3. Requirements with respect to toxic and dangerous chemical substances, explosive devices, radioactive and biologically active substances**

a. An employer shall take activities to protect lives and health of employees and preventative measures from toxic and dangerous chemical substances, explosives, explosive devices, radioactive, and biologically active substances and their impacts.

b. An employer shall take records on toxic and dangerous chemical substances, explosives, explosive devices, radioactive, and biologically active substances which are in use of industrial operation, and shall inform, in accordance with procedures approved by competent organization, the labor monitoring organization and other relevant professional organizations.

c. A person who deals with toxic and dangerous chemical substances, explosives, explosive devices, radioactive, and biologically active substances shall have knowledge and training on impact of such substances on human health and preventative measures against them.

d. Other requirements for use and deal of toxic and dangerous chemical substances, explosives, explosive devices, radioactive, and biologically active substances by business entities, organizations, citizens shall be regulated by relevant laws.

e. An accident, acute poisoning related to use of toxic and dangerous chemical substances, explosives, explosive devices, radioactive, and biologically active substances shall be treated as an industrial accident and be investigated and recorded.

**4. Provision of special garments and protective equipment to employees**

a. An employer shall have responsibility to provide employees by special garments and protective equipment which fit their working conditions and work performance nature at free of charge.

b. An employer shall bear expenses related to testing, purchasing, storing, cleaning, repairing and disinfecting of special garments and protective equipment.

c. An employer shall approve and keep the list of names, types, period of use of special garments and protective equipment.

d. An employer shall obtain conclusion from professional organizations on the quality of its special garments and protective equipment. Special garments and protective equipment manufacture in accordance with international standards and have quality warrantees are not subjected to this provision.

**5. Training on labor safety, hygiene and professional training**

a. Employed citizens, employees shall attend short term training on labor safety and hygiene in compliance with procedures approved by the state central administrative organization in charge of labor issues and acquire knowledge and training.

b. Training for citizens and employees who are being shifted to another workplace;

c. Training for citizens and employees who work at workplace which is under toxic and dangerous industrial impact or similar condition to it.

d. An employer shall conduct training on labor safety and hygiene at least twice a year for all employees and shall take examinations from them.

**6. Rights and responsibilities of citizens and employees to be provided by favorable working conditions**

a. Employed citizens, employees shall have the following common rights:

i. To work at workplace which meet the labor safety and hygiene requirements;

ii. To have medical insurance for disease caused by industrial accident and occupational nature;

iii. To receive information on workplace conditions, risks that can impose danger to health, industrial dangerous and poisonous factors;

iv. To suspend work in case of work safety regulations is violated or certain conditions which could cause danger to human life and health is emerged in the course of work performance, and inform such matters to employer;

v. To attend discussion on labor safety and hygiene by personally or through one's representative.

b. Employed citizens, employees shall have the following common responsibilities:

i. To abide labor safety and hygiene requirements, standard, regulations and technologies;

ii. To attend training on labor safety and hygiene, to take examinations if provisions of law requires and to instructed safe operations;

iii. To take prompt measures specified in safety regulations and procedures in case of certain conditions which could have negative impact on human life and health is emerged in the course of work performance.

iv. To protect one's health, to go under medical check-up.

v. To use special garments and protective equipment in accordance with their designated purposes.

vi. To acquire technique and methodology and professional skills in order to perform one's duties without risks and accidents, and to acquire skills by which able to prevent accidents, injuries and acute poisoning and deliver first aid in case of danger and accident.

vii. Not to bring danger and risk oneself and others;

viii. To perform work in compliance with labor safety and hygiene requirements set up by employers in consistence with laws and legislations.

**Occupational health and safety measures**

PMO and Evaluation Committees should select and employ contractors with the ability to manage the occupational health and safety of their employees. Moreover, the PMO will take proactive measures to control risks in the workplace by identifying hazards that can cause harm, assessing the risks they pose to workers and using controls to prevent damage and harm.

In accordance with the Mongolian OHS legislation the engineering and technical personnel passes the knowledge testing at least once in 2 years. Hence, OSH staff of contractor must have at least 2 years of experience working as OSH specialist. Moreover, PMO should regularly organize trainings on occupational health and safety for employees and contractors. OSH briefing needs to occur every morning, where every staff has to sign that they have been briefed about OSH. If they haven't signed the document, they are not allowed to work. According to the working group same procedure will be followed with potential contractors.

PMO should draw up and implement external emergency plans with measures to be taken in the accidents. In order to support prevention of industrial accidents, staff will be provided with special work clothes such as safety helmets, steel cap shoes, safety clothing shall be provided in the plant area and

construction site/s. Moreover, sanitation, changing facilities, milk, dairy products and vitamins will be provided as well. PMO should continuously build on strong safety foundations, by actively meeting with and taking feedbacks from employees, contractors and other related parties.

All electrical equipment shall be installed and protected in accordance with safety regulations of electrical equipment. Issues on establishment of Camp and road manufacturing activities (water, sanitation, disposal)

Warning signs shall be erected at visible place at all dangerous sections of the project area and at the densely populated area of the project. During the operation period, relevant measures shall be taken to ensure the safety of personnel during construction. The first aid supplies such medicine, fire-fighting equipment and clean water shall be provided throughout the project.

**Labor responsibilities and duties**

The Ministry of Road and Transport Development, PMO and Implementation Agencies shall perform the following duties in order to allow them to effectively participate in and manage the Project and guarantee effective operation of the Project.

| Responsibility | Direct workers | Contracted workers |
|---|---|---|
| Management of contractors and subcontractors | PMO (Project Coordinator) | PMO |
| Management workers | MoRTD | Contractors (site manager) |
| Occupational health and safety | PMO. | Contractors (including coordination with subcontractors) |
| Training | MoRTD | PMO, Contractors |
| Appeals | MoRTD | PMO |
| Monitoring | MoRTD | PMO |

**Contractor management**

The contractor should follow these procedures:

1) During the construction period, OSH specialist from contractor's side shall carry out labor management procedures, such as occupational health and safety provisions. Requirement for OSH staff will be included in the tender documents and contract documents.

2) Prior to start of the operation the contractor shall assign special personnel to be responsible for reporting the project implementation process to the PMO.

3) In the event of subcontracting, the general contractor shall be responsible for the coordination of the subcontractors, and the project manager responsibility system shall be established to enable the project

manager of the general contractor to be responsible for coordinating the safety, health and environmental protection work of the subcontractors; an internal control, reporting and supervision mechanism shall be established in accordance with the requirements of labor management.

4) Prior to the construction and operation processes of the Project, a code of conduct should be developed to outline the appropriate behaviors, prohibition of drugs and alcohol, and the importance of complying with relevant laws and regulations. Every employee must understand and be bound by the Code of Conduct during his or her employment. The Code of Conduct needs to be made public in locations easily accessible to the public. The Code of Conduct shall include (but is not limited to) the following measures:

- All workers and contractors shall abide by the Mongolian laws and regulations.
- illegal items, weapons and firearms and other dangerous items are prohibited at the project side.
- Quarrels or fights are prohibited.
- Gambling is prohibited.
- Drug or substance abuse and other related activities are prohibited during work hours.
- Predation of wild animals is prohibited.
- No pets are allowed.
- Do not disturb the neighborhood.
- OHS standards shall be maintained such as wearing protective helmets and uniforms.
- Respectful workplace behavior towards all inside and outside company, avoiding any defamatory, offensive or derogatory statement addressing co-workers of any rank, male or female or others with whom work-related encounters take place, including members of the community.
- Abide by company rules' regarding work hours, leave notification, and resignation.
- Refrain from any discrimination or harassment of co-workers or surrounding communities, both of men and women.
- Abide by company's OHS rules.

The Company's "misconduct" definition and policy should be explained along with rules of warnings and notification.

The contractor will be responsible to provide orientation to employees and laborers on the project Workplace Code of Conduct including orientation regarding Sexually Transmitted Diseases (STD), and Workplace Sexual Harassment (WSH), Sexual Exploitation and Abuse (SEA), GBV, COVID 19 and shall receive orientation regarding GRM options.

The PMO, project contractor, shall in the course of project implementation, carry out daily supervision and inspections of and keep and submit records of project progress, labor management enforcement status, training implementation and occupational health and safety monitoring data and conclusions to the project owner and the PMO in a timely manner.

**Direct workers**

The direct workers shall be managed and have labor relationship with the respective government departments and mainly be engaged in the project coordination and supervisory management activities.

**Labor Grievance Redress**

A community grievance redress procedure exists for the project, however, a GRM for labor related complaints is also necessary under the World Bank ESS2. As such a grievance mechanism will be provided for all direct workers and contracted workers (and, where relevant, their organizations) to raise work- place concerns. Such workers will be informed of the grievance mechanism at the time of recruitment and the measures put in place to protect them against any reprisal for its use. Measures will be put in place to make the grievance mechanism easily accessible to all such project workers.

The grievance mechanism does not impede access to other judicial or administrative remedies that might be available under the law or through existing arbitration procedures, or substitute for grievance mechanisms provided through collective agreements.

In order to quickly resolve project related labor grievances, the following grievance redress procedure will be established. The GRC will be established after effectiveness and well prior to construction activities. Any project worker may submit a complaint to the GRC for workers, by email, phone or written notification. A dedicated email will be established and the GRC for workers will be publicized widely including during employee inductions.

- **Grievance Redress Committee for workers**: members include: (i) MoE, (ii) Ministry of Labor and Social Protection; (iii) representative of the main construction contractor, (iv) Grievance focal officer in the PMO; (v) labor representatives/labor association, (vi) a representative from MoRTD. Complaints submitted to the GRC for Workers will be reviewed within 7 working days.

The implementing entity has the responsibility to provide a complaint registration form and a complaint register book. They should also assist the complainant in filling of the form. They will also inform complainant about the timeframe in which a response can be expected.

The GRC will meet as necessary especially during the construction period, as needed TOR review the complaints and mediate a resolution. The above GRC mechanism is formulated on the principle, that the involved parties (worker and employer) will be able to resolve a work-related grievance through mediation. However, if the GRC fails, the parties will be encouraged to use the existing regulatory framework for further redress as described in the table below.

The GRC for workers will be trained on national labor law, regulations and procedures and the World Bank ESF (ESS2 on labor and working condition) linked to labor management (including benefits, working facilities and other rights).

**Table 16. Existing Regulatory Functions for Labor Grievance Redress**

| Topic | Regulation | Grievance Redress |
|---|---|---|

| | | |
|---|---|---|
| Gender Discrimination | Law of Mongolia on Promotion of Gender Equality (2011), | The Civil Service Council oversee complaint resolution on gender discrimination within the civil service (article 21)<br>Article 23, Any act of violation of provisions except Article 14 of this law shall form a basis to lodge a complaint with the National Human Rights Commission of Mongolia. |
| Wrongful dismissal, compensation, contracts, punishment, | Mongolian Law on Labor (1999), Article 128 | Labor relations disputes covered by the court. |
| All other labor disputes | Mongolian Law on Labor (1999), Article 126 | The Labor Dispute Settlement Commission, covers all other aspects of the Law not addressed in a court under the Mongolian Law on Labor 1999 (Article 126) |

# APPENDIX 5: STAKEHOLDER ENGAGEMENT PLAN

## 1. Introduction

This document is the Stakeholder Engagement Plan (SEP) for the Mongolia Transport Connectivity and Logistics Improvement Project (hereafter "the project") drafted in July 2021. The SEP will be available on the Ministry of Road and Transport Development website.

The World Bank (hereafter "the Bank") is proposing to provide $100million, an International Bank for Reconstruction and Development credit to the Mongolian Ministry of Finance for the Project. The executing agency is the Ministry of Road and Transport Development. The Road Development Agency, the Ministry of Food, Agriculture, and Light Industry, the National Development Agency, and the Ministry of Finance will be coordinated for cross sectoral activities under the leadership of the Cabinet Secretariat of Mongolia.

The SEP has been prepared based on consultation with the project stakeholders[27] and desk research on stakeholders. The SEP identifies project stakeholders, the methods for information distribution and consultations during the life of the Project and the approach to grievance redress.

The key objectives of the stakeholder engagement according to the World Bank's ESF, World Bank Environmental and Social Standard (ESS) 10[28] are:

- To establish a systematic approach to stakeholder engagement that will help identify stakeholders and build and maintain a constructive relationship with them, in particular Project affected parties.
- To assess the level of stakeholder interest and support for the Project and to enable stakeholders' views to be taken into account in project design and environmental and social performance.
- To promote and provide means for effective and inclusive engagement with project-affected parties throughout the project life cycle on issues that could potentially affect them.
- To ensure that appropriate project information on environmental and social risks and impacts is disclosed to stakeholders in a timely, understandable, accessible, and appropriate manner and format.
- To provide project-affected parties with accessible and inclusive means to raise issues and grievances and allow project implementer to respond to and manage such grievances.

The World Bank proposes to provide financing for the project and as such environmental and social assessments and other planning documentation is needed for the project to meet the requirements of the World Bank's Environmental and Social Framework (ESF) effective since October 1, 2018. The various assessments for the project include:

[27] A "Stakeholder" refers to individuals or groups who: (a) are affected or likely to be affected by the Project (project-affected parties); and (b) may have an interest in the Project (other interested parties).

[28] Environmental and Social Framework for IPF Operations. *ESS10: Stakeholder Engagement and Information Disclosure*, 2018.

o Environmental and Social Management Frameworks. (ESMF, all project components) The ESMF guides environmental and social assessment requirements and development of management and mitigation measures once the alignment has been further confirmed.

o Stakeholder Engagement Plan (SEP, all project components). This document, which has been prepared for the whole project, including components prepared prior to appraisal and those developed after appraisal; given the majority of the stakeholders are similar and to provide a whole of project approach to consultation activities.

o Environmental Social Management Plan (ESMP, sub-components 1.1 and 1.2) for the repair and rehabilitation of key road sections and the new construction of 127km priority local roads, this plan outlines the mitigation and management measures for this component.

o Labor Management Procure (LMP, all project components) this document including a labor grievance redress mechanism, outlines labor requirements for the project.

o Resettlement Policy Framework (RPF, sub-components 1.1 and 1.2). The RPF guides the assessment and compensation requirements for the project, it is contained as an Annex to the above mentioned ESMF.

o Resettlement Plan (RP, sub-components 1.1 and 1.2). In case land acquisition or restrictions to access to income resources in unavoidable RAPs will be prepared. The RAPs would outline the process and compensation that will be followed by the project.

The World Bank's ESF, includes Environmental and Social Standard (ESS) 10, "Stakeholder Engagement and Information Disclosure", which recognizes "the importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practice". Borrowers are required to develop a Stakeholder Engagement Plan (SEP) proportionate to the nature and scale of the project and its potential risks and impacts (paragraph 13). Stakeholders have to be identified and the SEP has to be disclosed for public review and comment as early as possible, before the project is appraised by the World Bank. ESS10 also requires the development and implementation of a grievance redress mechanism (GRM). The national regulatory requirements as well as those under the ESF are incorporated herein.

In addition to the World Bank Environmental and Social Standard (ESS) 10, there are national requirements for stakeholder engagement regulations. Mongolian regulatory requirements for consultation and disclosure are also considered herein. The Law on Urban Development (2015, Article 17 and 18) states participatory planning shall be adopted in urban development planning and consultation with citizens shall be conducted in the course of implementation of urban planning. Decisions pertinent to urban development shall be disseminated and disclosed to the public in timely manner. Utility disruptions are required to be disclosed to residents and entities 24 hours prior to disruptions. The Law on Environmental Impact Assessment (2012, Article 5 and 18) requires that:

- DEIA process of development plans and programs shall be disclosed to the public through Environmental Authority's website.

- There will be a 30-working day period for submittal of verbal or written public input. The DEIA consultant should organize community consultations that include local government and residents within the area of influence.
- The DEIA should include meeting minutes, comments by local government, and community consultation for local communities in the area of influence.

## 2. Project Description

The Project Development Objective (PDO) is to improve transport connectivity and logistics efficiency for strategic value chains in Mongolia and strengthen the institutional capacity at the MoRTD to deliver, maintain and manage road infrastructure assets. The project has four components as described below.

| *Component* | *Activities* |
|---|---|
| **Component 1.** *Infrastructure investments* | • Results-based maintenance of priority road sections in 2,700km strategic roads connecting 8 aimags (244km).<br>• Last-mile connectivity for local herder community to the national road network (~127km).<br>• Road asset management framework and system. |
| **Component 2.** *Transport and logistics services* | • A model logistics hub<br>• Logistics and supply chain platform.<br>• Pilot projects for innovations in the supply chain:<br>o Real-time monitoring of deliveries (including RFID, QR-code, Track & Trace blockchain).<br>o Smart Good Manufacturing Practice (GMP), warehouse and automation (robotics for contamination prevention).<br>o Smart trucks and containers, handling technology.<br>• Regulations and standards for contract logistics services.<br>• Logistics for cold-chain storage. |
| **Component 3.** *Technical Assistance and capacity building* | • Preparatory works for logistics hubs.<br>• Strategic studies and master plans.<br>• Capacity building and training. |
| **Component 4.** *Contingent Emergency Response Component (CERC)* | This zero-dollar component is designed to provide swift response in the event of an eligible crisis or emergency, by enabling the client to request the World Bank to reallocate project funds to support emergency response and reconstruction where needed. |

Detailed description of the Project can be found in Chapter One of this ESMF.

## 3. Summary of Previous Stakeholder Engagement Activities

List of screening and meetings undertaken during project preparation before the appraisal by WBG as of June 30, 2021 and summarized on the next table.

| Stakeholder | Topics | When | Summary of suggestions |
|---|---|---|---|
| **Executing/ Implementation Agency** | Overall project concept, ESF and its relevant instruments requirements. ESMF& ESMP draft development and engagements | **March-June 2021** | Regular updates were provided to relevant MoRTD officials. Exchanged relevant studies and resources for selected road locations and beneficiary areas. |
| **National and local NGOs** (pasture management, herder cooperatives, environment, women led business) and **development partners** | Overall project concept, Environment and social risks and impacts | **Friday, June 18, 2021** Online meeting with 8 participants | **Road design and environmental impact**:<br>• Different design has to be considered for Gobi, steppe and land with permafrost.<br>• Local CSO monitoring is essential during construction and CSOs are interested to carry out third party monitoring such as Khuvsgul case in 2013.<br>• Ecological crossing needs to be built at as a speed limit is commonly broken in paved roads and animals and livestock increasingly gets killed.<br>**Women led business and capacity issues**:<br>• Women business usually lack information and network, excluded from procurement process.<br>• Women business leaders are lack knowledge and information on how to meet meat industry standard and access the EU, Arabian market.<br>• Capacity building/training programs are needed for woman's participation,<br>• General concern on GBV is high and workplace GBV is high.<br>• SMEs and informal businesses were negatively affected by the COVID 19 impact. |

| Stakeholder | Topics | When | Summary of suggestions |
|---|---|---|---|
| | | | • Increase the collaboration among women led businesses. |
| **National Agencies, and Local Government of beneficiary 8 aimags** (including officials in charge of environment, strictly protected areas, land management, cultural heritage and development planning) and **State-owned road maintenance companies** | Overall project concept and Environment and social risks and impacts | **Monday, June 21, 2021**<br>Online meeting with approximately 30 participants | **Road design and prioritization**:<br>• Those new road design should take account of mining and other heavy-duty activities to avoid any damage.<br>• During construction, temporary roads need to be built. There will be increased dust and adequate watering of road is essential.<br>• There are local priorities to be considered for soum selection on new roads to support local tourism and other activities. For instance, Arkhangai aimag, following the historical horseback travel, aimag Citizens Representative Khurals approved it as part of local development plan and prioritized Chuluut soum for tourism. Erdenemandal soum has potential for pilot meat manufacturing. For Uvs aimag, soum roads other than Sagil and Turgen should be considered.<br>• Local bridges and drainages need to be repaired. If possible, major repair and a new placement of flood and water drainage are required.<br>• Current road repair and maintenance must be prioritized as local soum road user rate is low.<br>**Environmental impact:**<br>• Consider checking ecological police data, some statistics on animal accidents can be seen. Ecological and animal friendly roads need to be built at certain locations to meet international standard and local legislation. |

| Stakeholder | Topics | When | Summary of suggestions |
|---|---|---|---|
| | | | • Wood theft may increase in certain locations such as Bulgan soum, Arkhangai aimag<br>• For extraction of common road materials, herders would be reluctant to provide their pastureland and some dispute may rise.<br>**Stakeholder engagement:**<br>• Aimag authorities, including Road maintenance companies, and NDA are interested to be engaged on prioritization and design and new road planning.<br>• Recommendable to visit the field for route selection and project design inputs. |

## 4. Stakeholder Identification and Analysis

Stakeholder engagement is an inclusive process conducted throughout the project life cycle. The stakeholder engagement aims to support developing strong, constructive, and responsive relationships that are important for successfully managing a project's environmental and social risks. Stakeholder engagement is most effective when initiated at an early stage of the project development process. It is an integral part of early project decisions and the assessment, management, and monitoring of the Project's environmental and social risks and impacts.

Cooperation and negotiation with the stakeholders throughout the Project development often also require the identification of persons within the groups who act as legitimate representatives of their respective stakeholder group, i.e., the individuals who have been entrusted by their fellow group members with advocating the groups' interests in the process of engagement with the Project. Community representatives may provide helpful insight into the local settings and act as main conduits to disseminate the Project-related information and as a primary communication/liaison link between the Project and targeted communities and their established networks. Verification of stakeholder representatives (i.e., confirming that they are legitimate and genuine advocates of the community they represent) remains an essential task in establishing contact with the community stakeholders. The legitimacy of the community representatives can be verified by talking informally to a random sample of community members and heeding their views on representing their interests in the most effective way. With community gatherings limited or forbidden under COVID-19, it may mean that the stakeholder identification will be on a much more individual basis, requiring different media to reach affected individuals.

Table 17. Stakeholder identification

| Stakeholder | Role in the project | Interest | Influence |
|---|---|---|---|
| Ministry of Road and Transport Development of Mongolia | Executing and implementation agency:<br>Technical design, permits, project steering committee member | High | High |
| Ministry of Environment and Tourism /Municipal Environmental Department | The MoET will provide environmental clearances and may undertake inspections and monitoring at their discretion. | Medium | Medium |
| Ministry of Finance | Follow up on the fulfilment of the Minister's Regulation 196 on utilization of proceeds of external<br>debts incurred by the Government of Mongolia; implementation, administration, financing, monitoring and evaluation of projects and programs funded by such proceeds. | Medium | High |
| Ministry of Food, Agriculture and Light Industry | Coordination in project design and implementation | High | High |
| National Development Agency | Coordination in project design and implementation | High | Medium |
| 8 Aimag authorities, Aimag Major's Office and its agencies | Participate in the project implementation | High | Low |
| Road Development Center | Participate in the project implementation | High | Low |
| Transport Police | Participate in the project implementation | Medium | Low |
| Aimag and Soum Land management authority | Land management agency and division of related districts will provide clearances for land ownership documents, land certificate, land use agreement and cadastral maps. | Medium | Medium |
| Municipal and Aimag Agency for Specialized Inspection | Periodic inspection of construction work | Medium | High |
| Project Steering Committee | Chaired by the Cabinet Secretariat of Mongolia and consist of representatives from MoRTD, MoFALI, MoF, NDA, local government and relevant agencies. Provide overall guidance to the Project implementation as per Regulation 196 on utilization of proceeds of external debts incurred by the Government of Mongolia | High | High |
| Project Management Office | Lead project implementation | High | High |
| Contractor | Project partners | High | High |

| Stakeholder | Role in the project | Interest | Influence |
|---|---|---|---|
| | Participate in the project implementation | | |
| Consultants/Advisors | Project partners | Medium | Medium |
| | Participate in the project implementation | | |
| Local research institutes | Potential project partners | Medium | Low |
| | Participate in the project implementation | | |
| NGOs and Interests groups | Potential project partners | High | Medium |
| | Participate in the project implementation | | |
| Project-Affected public entities | Participate in the project implementation | High/Affected | Low |
| Project-Affected private entities | Participate in the project implementation | High/Affected | Low |
| Project-Affected residents | Participate in the project implementation | High/Affected | Low |
| Project-Affected vulnerable group (possibly ethnic minority groups) | Participate in the project implementation | High/Affected | Low |
| Users (passerby) | Participate in the project implementation | Low/Affected | Low |

## 5. Methodology

To meet best practice approaches, the Project will apply the following principles for stakeholder engagement:

*Openness and life-cycle approach*: public consultations for the Project (s) will be arranged during the whole life cycle, carried out openly, free of external manipulation, interference, coercion, or intimidation.

*Informed participation and feedback*: information will be provided to and widely distributed among all stakeholders in an appropriate format; opportunities are provided for communicating stakeholders' feedback, for analyzing and addressing comments and concerns.

*Inclusiveness and sensitivity*: The participation process for the projects shall be inclusive. First, PMO shall coordinate equal access to information for all stakeholders. Sensitivity to stakeholders' needs is the fundamental principle underlying the selection of engagement methods. PMO shall also highlight the inclusion of vulnerable groups, particularly the elderly, diverse ethnic groups, and persons with disabilities.

*Flexibility:* if social distancing inhibits traditional forms of engagement, the methodology should adapt to other forms of engagement with the stakeholders, including individual telephone calls, and various possible forms of internet communication.

*Various stakeholder engagement tools are available*. One of the methods is the stakeholder-oriented backcasting approach, focusing on identifying future sustainable alternatives for fulfilling stakeholder's needs. (Quist, 2006) The backcasting method[29] allows integrated approaches for involving a broad range of stakeholders and actors of different groups such as government, companies, public interest groups, and knowledge bodies, defining the problem and searching for solutions and conditions, and developing shared visions.

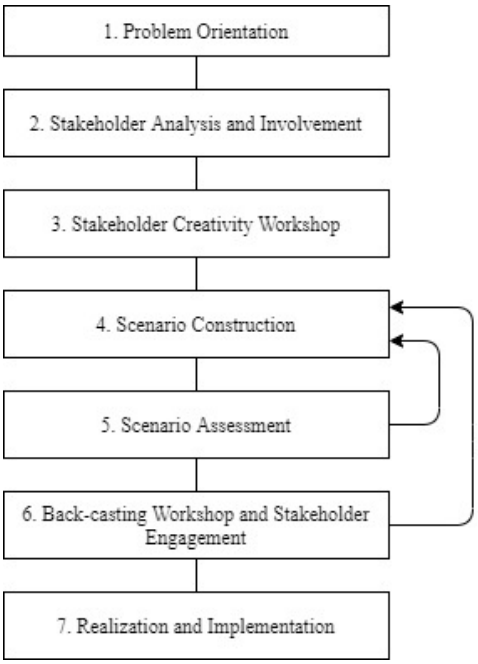



Figure 18. Stakeholder Engagement Example using Back casting Approach

For effective and tailored engagement, stakeholders of the proposed Project (s) can be divided into the following core categories:

*Affected Parties* – persons, groups and other entities within the project area of influence that are directly influenced (actually or potentially) by the Project and/or have been identified as most susceptible to change associated with the Project and who need to be closely engaged in identifying impacts and their significance, as well as in decision-making on mitigation and management measures.

*Other Interested Parties* – individuals/groups/entities that may not experience direct impacts from the Project but who consider or perceive their interests as being affected by the Project and/or who could affect the Project and the process of its implementation in some way; and

[29] Holmberg J (1998) Backcasting: a natural step in operationalizing sustainable development. GreenerManag Int 23:30–51

*Vulnerable Groups* – persons who may be disproportionately impacted or further disadvantaged by the Project (s) as compared with any other groups due to their vulnerable status, and that may require special engagement efforts to ensure their equal representation in the consultation and decision-making process associated with the Project.

Affected Parties include local communities, community members, and other parties that may directly impact the Project. Specifically, the following individuals and groups fall within this category:

- All road users
- Citizens of all ages living nearby
- Business owners
- Vulnerable groups

Other interested parties: the projects' stakeholders also include parties other than the directly affected communities, including:

- Other vendors or service providers and suppliers
- Knowledge bodies, i.e., research institutes, international and national consultants
- Other national and international organizations
- National and local media companies
- Public at large
- All decision-making bodies

Disadvantaged/vulnerable individuals or groups. It is essential to understand whether project impacts may disproportionately fall on disadvantaged or vulnerable individuals or groups. The vulnerability may stem from a person's origin, gender, age, health condition, economic deficiency and financial insecurity, disadvantaged status in the community (e.g., minorities or fringe groups), dependence on other individuals, or natural resources. Engagement with vulnerable groups and individuals often requires specific measures and assistance to facilitate their participation in project-related decision-making.

Within the Project, the vulnerable or disadvantaged groups may include and are not limited to the following:

- Children
- Youth
- Women
- Elderly
- Poor
- Low income and single headed households
- Temporary residents (rural migrants) without residency and land ownership registration
- Ethnic minority households
- Persons with disabilities (PWD)
- Small businesses that require direct access

**Engagement with Persons with Disabilities**

Accessible means of communication is different for each group. Following are examples:

- People who are deaf may require sign language interpretation to understand what is going on at the meeting.
- People who use hearing aids may require a loop system. A loop system facilitates hearing at large meetings.
- People with learning disabilities may require easy-to-read (which are simplified) versions of documents to enable their comprehension of technical details.
- People with mental health difficulties may benefit from pre-meeting contact to overcome their fears of being stigmatized within the gathering. Dealing with concerns about stigmatization will assist the inclusion of all marginalized groups in society.
- People with mobility disabilities using a wheelchair will require a ramp or level access to a building, a lift instead of staircases, sufficient room to move inside the building, and accessible toilet facilities.

## 6. Stakeholder Engagement Activities

State Emergency Commission (SEC) of Mongolia decided to declare public readiness for disaster protection several times until COVID-19 mitigation measures are effectively enforced. (SEC, 2021)

A precautionary approach will be taken to the consultation process to prevent infection and/or contagion, given the highly infectious nature of COVID-19. The following are some considerations for selecting channels of communication considering the current COVID-19 situation:

- If smaller meetings are permitted/advised, conduct consultations in small-group sessions, such as focus group meetings. If not permitted or advised, make all reasonable efforts to conduct meetings through online channels.
- Diversify means of communication and rely more on social media and online channels. Where possible and appropriate, create dedicated online platforms and chatgroups appropriate for the purpose, based on the type and category of stakeholders.
- Employ traditional channels of communications (TV, newspaper, radio, dedicated phone-lines, and mail) when stakeholders to do not have access to online channels or do not use them frequently. Traditional channels can also be highly effective in conveying relevant information to stakeholders and allow them to provide their feedback and suggestions.
- Where direct engagement with Project affected people or beneficiaries is necessary, identify channels for direct communication with each affected household via a context specific combination of email messages, mail, online platforms, dedicated phone lines with knowledgeable operators.
- For ethnic minority households, their unique stakeholder engagement needs can be considered and facilitated with translation services, use of specific media channels etc.
- Each of the proposed channels of engagement should clearly specify how feedback and suggestions can be provided by stakeholders.

When project activities are finalized, screening and identification of projectaffected persons will be undertaken. The focus will be to identify communities affected by the last mile

connectivity and the logistics hub. Public consultation with the affected persons will take place in a variety of methods which are most meaningful to receive feedback from these APs

**Strategy for information disclosure**

| Stakeholders | Interest | Communication Method | Accountability |
|---|---|---|---|
| All stakeholders | Project information disclosure | Regular one-to-one meetings with all stakeholder groups, focusing on vulnerable groups; Announcements, letters, websites | MoRTD, PMO |
| All stakeholders | Sub-project design requirements | Regular one-to-one meetings with all stakeholder groups, focusing on vulnerable groups; Announcements, letters, websites | MUB, PMO |
| Ministry of Finance | Project approvals | Official letters, meetings | MoRTD, PMO |
| Utility and urban planning authorities | Utility disruption plans, permits, approval | Official letters, meetings | MoRTD, PMO |
| Aimag and Soum Governor's Office | Support and collaboration, stakeholder engagement | Official letters, meetings | MoRTD, PMO |
| Ministry of Environment and Tourism | Permitting, assessment, approval | Official letters, Publicly available DEIA and EMP | MoRTD, PMO |
| General Agency for Specialized Inspection | Permits, inspections, approvals | Meetings | MoRTD, PMO |
| Business owners/residents in right of way (ROW) | Relocation support | Regular one-to-one meetings | MoRTD, PMO |
| Local communities | Traffic disruption, pedestrian access | Public meeting, Construction Notice Board, letters to residents, social media platforms, website, TV, radio, newspaper, UB municipal office website (www.ulaanabaatar.mn) | MoRTD, PMO |
| Institute of Archaeology of | Construction related chance finds of archaeology items | meeting, official letters | PMO, IE |

| Stakeholders | Interest | Communication Method | Accountability |
|---|---|---|---|
| Mongolian Academy of Science (MAS) | | | |
| National NGOs | Design inputs, problem identification, knowledge source, Trainings | Regular one-to-one meetings with all stakeholder groups, focusing on vulnerable groups; Announcements, letters, websites | PMO, IE |
| National Media | Project update | Media releases | MoRTD, PMO, IE |
| Donor and multilateral agencies | Project locations | Project Announcements, websites, media releases, meetings | MoRTD, PMO |

## 7. Monitoring and Reporting

The PMO safeguard staff (environmental and social specialist/s) will continue to conduct stakeholder engagement in accordance with this SEP and will build upon the channels of communication and engagement already established with stakeholders. In particular, the PMO will seek feedback from stakeholders on the environmental and social performance of the Project, and the implementation of the mitigation measures in the Environmental and Social Commitment Plan.

Consultation and disclosure activities will also be summarized and reported in semi-annual project reports to the World Bank. A number of Key Performance Indicators (KPIs) will also be monitored by the PMO on a regular basis, including the following parameters:

- Number of consultation meetings and other public discussions/forums conducted within a reporting period (e.g. monthly, quarterly, or annually).
- Frequency of public engagement activities.
- Number of public grievances received within a reporting period (e.g. monthly, quarterly, or annually) and number of those resolved within the prescribed timeline.
- Type of public grievances received; and
- Number of press materials published/broadcasted in the national media.

## 8. Resources & Responsibilities for Stakeholder Engagement Activities

The Project Management Office (PMO) will be established by the Ministry of Road and Transport Development. The MoRTD will provide overall oversight for project activities including project preparation, supervision, and M&E. The PMO will have funds for implementing stakeholder engagement activities, which have been allocated under the Project.

The PMO will include safeguards specialist/s who will be responsible for implementing the activities of this stakeholder engagement plan. At this stage of project preparation questions can be directed to the MoRTD.

The MoRTD and PMO will arrange necessary training associated with the implementation of this SEP that will be provided to the members of staff who, due to their professional duties, may be involved in interactions with the external public, as well as to the senior management. Specialized training will also be provided to the staff appointed to deal with stakeholder grievances as per the project GRM. Project workers will also receive necessary instructions for the labor GRM under the Labor Management Procedure.

## 9. Grievance Mechanism

Mechanism (GRM) provides an effective approach for resolution of environment related complaints and issues of the affected person/community. PMO formulates the procedures for implementing the GRM and PMO's engineering staff shall undertake GRM's initiatives that include procedures of reviewing and recording complaints and comments, handling of on-the-spot resolution of minor problems, taking care of complaints and provisions of responses to stakeholders at all stages of the Project.

The GRM will be introduced during community consultations and made publicly available in Mongolian language to stakeholders throughout the Project. In the event of a grievance issue, up to four stages will be implemented, as follows.

Stage 1: Resolution at Local Level and Access to GRM. The GRM system enables affected person (local residents, representatives of local business entities, workers of contractors etc) to issue a complaint and/or comments choosing the most comfortable way out of several options such as hotline, in-person, written within the existing government procedure. The affected person's complaint will directly be recorded in the internal central web server of MoRTD which is linked to all feedback systems. The complaint record includes details such as the comments/grievance issue, the affected person's name, contact and date of grievance.

Stage 2: Complaint Eligibility Assessment and Resolution by MoRTD. Received complaint is assigned to the relevant personnel either in PMO or to the relevant department/division/unit in MoRTD. The PMO should take steps to investigate and resolve the issue. This may involve instructing the contractor to take corrective actions. The contractor should implement the redress solution and convey the outcome to the PMO and notify WB. Depending on the type and complexity of the grievance issue, PMO/MoRTD can solve the issue between 1-30 days after receiving the comment/complaint.

Stage 3: Complaint Resolution by PMO Steering Committee. PMO investigates and organizes multi-stakeholder meeting within 10 days of Stage 3 and then has 10 days to implement solution. A multi-stakeholder group may consist of equal number of government and non-government representatives from local government, implementing agencies, local social services, local community based or civil society organizations, ger area residents, women and disabled communities, private sector and media and should have no conflict of interests with relevant complaint parties.

Stage 4: Higher Authority Resolution. If complaint not addressed, AP may seek legal redress through court system.

The project GRM can be effectively managed based on existing system. The PMO GRM regulation can be developed with improvements to facilitate Implementation Agencies' involvement for better engagement with each and individual project-affected or/and other interested parties at all stages of the Project.

Currently utilized engagement channels:

1. Government's 1111 Center and Hotline

Citizens either visit the center which is located in front of Government House or call the hotline.

The Office of the President, Parliament Office, Cabinet Secretariat and Government Agencies all receive information through the center and hotline. Each has one officer in charge of collecting information and delegate to relevant authorities, as well as follow-up on its resolving process. Period to reply back to citizens and solve the requests, complaints are within 30 days.

Reports are registered and posted at the website 11-11.mn .

2. Website

a) Ministry of Road and Transport Development

At their official website www.MoRTD.gov.mn there is a button "Requests, complaints", when you press it directly it connects to where citizens can register with an account and leave information. Upon receiving information, an officer who is in charge will assort their relevance and delegate to relevant authorities. When the requests, complaints received by a relevant official, he/she must solve and reply back within the given period (usually 30 days).

b) Office of the President

At their official website www.president.mn there is a section where citizens/entities can leave their comments only. Upon receiving comments, an officer who is in charge will assort the relevance and delegate to relevant authorities accordingly.

When filling the form citizens must include their full name, ID number, address and phone number.

**2.** Local hotlines and complaint mechanisms managed by each local government.

# APPENDIX 6: ENVIRONMENTAL AND SOCIAL CAPACITY BUILDING PLAN

MoRTD lack employees with environmental management experience. The staffs appointed by MoRTD and PMO for environment management shall participate in the project's environmental management training and overall ESF implementation training. The environmental supervision engineers shall have received training on environmental protection, and shall participate in the project's environmental management training, and shall have environmental management qualification. For the contractor, priority should be given to technical personnel who have certain environmental management ability for environmental management, and they will accept environmental management training in the project.

To support the management of environment and social risks, capacity building plan is prepared to develop the awareness and relevant competencies of employees, contractors, and other stakeholders. It is essential that the process for the delivery and maintenance of the capacity building plan identifies the appropriate type of training and to whom and when it is delivered. This capacity building plan focuses on improving competency and/or creating awareness. General training program requirements are as follows.

i. Local community and Temporary Road Users management training and awareness building

   The training for road users shall provide a brief introduction to site HSE rules and regulation. Assure temporary road users are aware of significant HSE risks, security controls and emergency response procedures and other HSE requirements including commitments made through ESCP and temporary traffic management plan.

ii. Employee of PMO and responsible Government bodies and contractor training

   This training shall provide information about World Bank Group and national E&S policies, processes, and procedures. It includes (but not be limited to):

   a. WBG approach to managing E&S risks
   b. National E&S requirements
   c. Site specific management system processes
   d. Significant HSE risks and activities
   e. Accountabilities of specific HSE roles and their responsibilities
   f. Consequences of non-compliance
   g. Emergency response procedures and corrective action plan.

During the project implementation, internal staffing should consist at least one dedicated E&S coordinator or preferably two assigned safeguard officers in charge of environment and social aspects separately, and recruitment of external E&S consultants. Since no staff have been trained on preparation of the E&S instruments in accordance with the WB's ESSs of ESF yet, it is necessary to have the assistance of local specialists to enhance their capacity. To be effective, within the first to 12 months of project timeline, the E&S training should be made by the qualified international and national consultants with the support of the World Bank safeguards team. Given that the ESF and ESSs require due attention on ensuring effective performance of contractors including provision of adequate services related to health, safety of workers and local communities, specific training on these aspects will be necessary.

It is expected that the training and capacity building on ESF will focus on familiarity and understanding with the core concept and management of the ESF, ESSs, screening, risk rating and the implementation of ESMF, SEP and LMP, especially those related to contractor management and monitoring of E&S issues related to labor management, community health and safety, environment, health and safety (OHS), and the requirements for stakeholder engagement. The targeted training programs focused on E&S risk management may help strengthening inter-agency coordination and cooperation which is critical for ensuring effective management of land acquisition, utility disruptions and other issues.

During implementation stage, E&S training and TA will be provided to the Implementation Agencies and relevant stakeholders. Priority training topics may include the followings:

- The ESMF process and guidelines for preparation, implementation, and supervision of E&S instruments focusing on ESMP, SEP, LMP, and RPF,
- Specific training on RPF/RAP, ESMP, SEP and LMP planning and implementation including the application of GRM,
- Specific training on supervision and monitoring of contractor performance, including forms and reporting process and basic knowledge and awareness on health, safety, gender and inclusiveness, and good construction practices for reducing potential impacts on local communities and environment, GRM procedures and other social issues related to GBV, COVID-19 and other communicable diseases etc.

During the first 2 years PMO is recommended to conduct at least 2 safeguard training workshops per year to the IAs regarding the ESMF process and needs for preparation of safeguard documents, especially those related to ESMP, SEP, LMP, ECOPs, and RAP. Specific target groups for the key training for a beginning program are proposed in Table.

*Table 18. Summary of safeguard training at the beginning of Project implementation*

| No | Contents | Target Groups for Training |
|---|---|---|
| 1 | ESMF process, implementation, monitoring, and reporting the ESF concept, ESSs, SEP, LMP, including ECOPs and COC on SEA, GBV, GRM | PMO, IAs, individual or firm consultants |
| 2 | RPF including RAP preparation | PMO, IAs, individual or firm consultants and local authorities |
| 3 | ESMP, SEP, LMP preparation and monitoring including contract management and capacity improvement including COC on SEA, GBV requirements) | PMO, IAs, individual or firm consultants and contractors |
| 4 | Environmental and social monitoring skills improvement | PMO, field engineers, contractors, environmental and social consultant, local authority, |
| 5 | Training on ECOPs and COC on SEA and GBV compliance and environmental health and occupational safety measures, prevention of communicable diseases, COVID 19 | field engineer, Contractor, individual or firm consultants, local communities |

Given different need of E&S training and limited capacity of the agencies, PMO will hire and mobilize E&S consultants (individual or firm) to assist in the implementation of ESMF, preparation of E&S documents,

and mitigation measures of the subprojects under their responsibilities. Indicative costs for capacity building and training on ESMF implementation and concept of the ESF and ESSs will be about $0.4 million and PMO will be responsible for management of this budget.

Indicative training course topics are as follows. The PMO, with the support of consultants, will develop a number of courses and at all project sites in which courses would be delivered. It is anticipated that courses would be delivered in each aimags and Ulaanbaatar city.

The following training plans are proposed for the PMO to undertake at all stages of the project implementation.

All training should be in Mongolian language for clear understanding.

*Table 19 Capacity building plan concentrating on ESMF*

| Topic | Objectives | Subtopic | Target participants | Estimated cost (USD) |
|---|---|---|---|---|
| **ESMF process, implementation, monitoring, and reporting** | Introduction to implementing ESMF and ESMP | the ESF concept, ESSs, Stakeholder Engagament Plan, Labor Management Plan, including Environmental Code of Practices and Code of Conduct on SEA, GBV, GRM | All project implementing stakeholders | 400,000 |
| **Legal framework** | Government of Mongolia laws and regulations,<br>WBG environmental and social standards and requirements<br>To be acquainted with pertinent regulation and standards governing the environmental quality, health and safety, protection of sensitive areas and any other relevant regulation governing the proposed subprojects investment program | International best practices | MoRTD, local aimag authorities, local environmental and social agencies | |
| **Baseline** | Understand the objective of baseline and its importance in the EIA and type of information needed for baseline<br>Know various methodology adopted for baseline data collection | Baseline Data Collection | MoRTD, PMO, and relevant partners | |

| Topic | Objectives | Subtopic | Target participants | Estimated cost (USD) |
|---|---|---|---|---|
| **SEP, Public consultation and information disclosure** | Identify the principles and requirements for consultation with stakeholders and the tools and techniques that can be used for this purpose. | Meaningful Consultation and Information Disclosure<br>Grievance Redress Mechanism<br>Gender Based Violence | MoRTD, PMO, and relevant partners | |
| **Impact Assessment and Mitigation Measures** | Provide an overview of the tools and methods used to identify, predict and evaluate different types of impacts<br>Understand the role of mitigation in EIA process and its importance for impact management | Identification and Assessment of Impacts<br>Potential Environmental Impacts and Mitigation Measures | MoRTD, PMO, and relevant partners | |
| **ESIA, ESMP, SEP, LMP preparation and monitoring including contract management and capacity improvement including COC on SEA, GBV requirements** | Overview of all tools and mitigation measures | Provision of templates and examples | MoRTD, PMO, and relevant partners, constractors | |
| **Environmental and Social Management and Monitoring Plan (EMMP)** | Identify the principles, elements, and contents that are used for preparing Environmental Management and Monitoring Plan<br>To support institutional arrangements for ESMP implementation | Guiding Principles of ESMF<br>ESMF Implementation arrangements<br>Institutional responsibilities<br>Environmental monitoring and reporting<br>Performance Indicators<br>Occupational and Community health and safety | PMO engineers, MoRTD, Engineers of construction supervision team, Civil Works Contractors, Local authorities, local NGOs | |

| Topic | Objectives | Subtopic | Target participants | Estimated cost (USD) |
|---|---|---|---|---|
| **Environmental Sound Construction Management** | Environmental Specification in contracts and bidding documents and their implications<br>Guide on Good construction practice | Construction/Engineering Practice<br>Environmental Specification for Bid Documents<br>Incorporating ESMP into Bid Documents<br>Environmental Code of Practice<br>Environmentally responsible procurement | Concerned Engineers of PMO, Engineers of construction supervision team, Civil Works Contractors | |
| **Resettlement Policy Framework and Resettlement Action Plan** | Resettlement procedures | All PMO Engineers /contractors | During the project implementation | |
| **Training on ECOPs and COC on SEA and GBV compliance and environmental health and occupational safety measures, prevention of communicable diseases, COVID 19** | Detailed description of all rules and regulations | field engineer, Contractor, individual or firm consultants, local communities | During the project implementation | |

*Table 20 Capacity building plan concentrated on ESMP*

| Training topics | Summary of training purpose and content | Recipients/Participants number | Frequency or target date | Estimated cost (USD) |
|---|---|---|---|---|
| **Temporary traffic management HSE guidelines** | Overview and step by step guidance on temporary traffic management, and E&S rules and regulations | All local residents and temporary road users, general public | Prior construction, and during construction | To include in construction cost/contractors |
| **Induction to ESMP** | Overview of ESMP including site information, pollution risks and controls, and programs. Preparation of site specific ESMPs and training on implementation to staff of construction company (s) | All PMO engineers / contractors | At beginning of project | |
| **Review of ESMP, Refresher training on ESMP** | Review of ESMP including new changes and updates to ESMP. | All PMO engineers / contractors | At beginning of project, upon update | |
| **Project management and implementation** | Implementation assessment the program. Principle of donor organizations' support to local beneficiaries. | All PMO Engineers /contractors | At beginning of project | |
| **Training on specific pollution risks and controls** | | | | |
| **Training topics** | **Summary of training purpose and content** | **Recipients/Participants number** | **Frequency or target date** | **Estimated cost (USD)** |
| **Resettlement Policy Framework and Resettlement Action Plan** | Resettlement procedures | All PMO Engineers /contractors | During the project implementation | |
| **Emergency response plan** | To identify on-site "potential accident scenario" and how to plan potential emergency response actions. | All PMO Engineers /contractors | During the project implementation | To include in construction cost/contractors |
| **Air Quality Monitoring** | Ambient Air Quality, VOCs, Particulate Matter, Ozone Depleting Substances (ODS), Greenhouse Gases (GHG) | All PMO Engineers /contractors | During the project implementation | |

| Training topics | Summary of training purpose and content | Recipients/Participants number | Frequency or target date | Estimated cost (USD) |
|---|---|---|---|---|
| **Water Conservation** | Water Monitoring and Management, Process Water Reuse and Recycling | All PMO Engineers /contractors | During the project implementation | |
| **Wastewater and Ambient Water Quality** | Liquid Effluent Quality, Discharge to Surface Water, Discharge to Sanitary Sewer Systems, Land Application of Treated Effluent, Septic Systems, Wastewater Management | All PMO Engineers /contractors | During the project implementation | |
| **Hazardous Materials Management** | General Hazardous Materials Management, Hazard Assessment, Management Actions | All PMO Engineers /contractors | During the project implementation | |
| **Fire safety** | Fire, and Explosion Prevention, Control Measures, | All PMO Engineers /contractors | During the project implementation | |
| **Occupational Safety, Health and Safety** | Occupational Health and Safety Emergency Preparedness and Response, Community Involvement and Awareness | All PMO Engineers /contractors | During the project implementation | |
| **Waste Management** | General Waste Management, Waste Management Planning, Recycling and Reuse, Treatment and Disposal, Waste Storage, Transportation, Treatment and Disposal, Commercial or Government Waste Contractors, Health Care Wast | All PMO Engineers /contractors | During the project implementation | |
| **Climate change and adaptation (applicable to eligible projects under the Program)** | Climate change perspectives due to snow, flooding, dzuds in Mongolia and their impacts during construction and operations | All PMO Engineers /contractors | During the project implementation | |
| **Good engineering and construction practices as mitigation measures** | Sound construction practices. | All PMO Engineers /contractors | During the project implementation | |
| **Labor Management Framework** | Step by step guidance on all acceptable practices and non-compliances | All PMO Engineers /contractors | During the project implementation | PMO training budget |

| Training topics | Summary of training purpose and content | Recipients/Participants number | Frequency or target date | Estimated cost (USD) |
|---|---|---|---|---|
| **Environmental Code of Practices** | Step by step guidance on all acceptable practices and non-compliances | All PMO Engineers /contractors | During the project implementation | PMO training budget |
| **Traffic Management Plan** | Step by step guidance on all acceptable practices and non-compliances | All PMO Engineers /contractors | During the project implementation | PMO training budget |

# APPENDIX 7: SUBPROJECT ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

**TEMPLATE**

## 1. Introduction

*In this section of the report, please provide detailed information on nature, location, scale and timeframe of the project. Please also indicate project implementing agency and detailed description of activities, implementation schedule and cost estimation, and capacity development and training plan.*

## 2. Subproject area environmental and socio-economic baseline

*Write in coordination with the subproject's activities and scope*

2.1. Geology and geomorphology
2.2. Surface water
2.3. Ground water
2.4. Soil
2.5. Vegetation
2.6. Fauna
2.7. Protected areas
2.8. Socio-economy

## 3. Legal, policy framework and regulatory requirements

*Please list the applicable domestic laws, regulations, triggered Bank's safeguard policies, and the standards to be complied with regarding air emissions, wastewater discharge, noise, solid waste disposal, etc.*

## 4. Subproject potential E&S impacts

*Write in conjunction with the subproject activities. Please assess subproject environmental and social impacts separately for construction and operation phases. Subproject E&S impacts shall be assessed for environmental parameters including but are not limited to:*

- Air
- Soil
- Water
- Solid waste
- Noise
- Biodiversity
- Cultural heritage
- Occupational health and safety
- Community health and safety
- Socio-economy

4.1. Potential environmental impacts (construction and operation phase)

4.1.1 Construction phase
4.1.2 Operation phase

4.2. Potential social impacts (construction and operation phase)

4.2.1. Construction phase
4.2.2. Operation phase

## 5. Environmental and social mitigation measures and protection activities

Planned mitigation measures and protection activities for design, construction and operation phases

5.1 Design phase

5.2 Construction phase

5.3 Operation phase

Table 1. Mitigation measures

| No. | **Construction phase** | | | | |
|---|---|---|---|---|---|
| | Impacts | Mitigation measures | Implementation agency | Supervision agency | Cost/Budget |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | **Operation phase** | | | | |
| | Impacts | Mitigation measures | Implementation agency | Supervision agency | Cost/Budget |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

## 6. Subproject implementation arrangements, responsibilities and capacity building

*Please describe organization structure separately for construction and operation stages. Capacity building/training plan and cost estimation to be included here.*

## 7. Information disclosure and public consultation

*Stakeholder engagement should be carried out during both the preparation and implementation of ESMP. This would include stakeholder identification and analysis, disclosure of project information and draft ESMP, consultation on draft ESMP, how the comments and suggestions from stakeholders are considered and incorporated into the ESMP.*

## 8. Grievance redress mechanism

*The objective of grievance redress mechanism (GRM) is to address complaints if or when they arise. A GRM shall be established for each subproject, in accordance with relevant laws and Government practices.*

## 9. Supervision and reporting

*The reporting responsibility and requirements for the subproject implementation agency, supervision engineers, external monitors to the PMO to be included here*

## 10. Environmental monitoring

*The environmental monitoring plan is to be utilized for measuring the extent of compliance with the ESMP during the subproject implementation. The main objective of environmental monitoring is:*

- *to evaluate the performance of subproject implementer in mitigating negative impacts vs. the proposed measures in the ESMP*
- *to provide information on unanticipated adverse impacts or sudden change in impact*
- *to determine if any impacts are irreversible in nature which required remedial measures and monitoring*
- *to suggest improvement in environmental and social mitigation measures, if required;*

Table 2. Construction phase monitoring

| No. | Indicators of monitoring | Types of monitoring/method of monitoring | Monitoring frequency | Responsibility |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Table 3. Operations phase monitoring

| No. | Indicators of monitoring | Types of monitoring/method of monitoring | Monitoring frequency | Responsibility |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |

# APPENDIX 8: ENVIRONMENTAL CODE OF PRACTICES (ECOP) FOR ROAD REPAIR

| Items | Mitigation measures |
|---|---|
| ***Prohibitions*** | The following activities are prohibited on or near construction sites:<br>• Cutting of trees for any reason outside the approved construction area;<br>• Illegal dumping of demolition material and debris;<br>• Use of unapproved toxic materials, including lead-based paints, asbestos, etc.;<br>• Disturbance to anything with architectural or historical value;<br>• Burning of waste;<br>• Illegal sourcing of construction material such as sand gravel, asphalt. |
| ***Traffic and road safety*** | Prior to the commencement of the construction works, the Contractor should develop a Traffic Management Plan which should include analysis of occupational hazards and be subject to the approval and consent of the Supervision Engineer as per Appendix 9 Traffic Management Plan. Minimizing pedestrian interaction with construction vehicles;<br>Traffic management warning signs, night lightening provision, traffic command personnel, traffic control coordinator to be assigned. No dust control in place to provide visibility<br>No materials shall be stockpiled on traffic lanes;<br>No traffic changes shall be made until at the consent of the traffic police in the event of any special circumstances in the construction stage;<br>Stronger efforts shall be made in safety education at the community level as well as for drivers of the transportation vehicles engaged in the implementation of the Project;<br>Adopting limits for trip duration and arranging driver rosters to avoid overtiredness;<br>Avoiding dangerous routes and times of day to reduce the risk of accidents during construction;<br>Use of speed control devices (governors) on trucks, and remote monitoring of driver actions;<br>Collaboration with local communities and responsible authorities to improve signage, visibility and overall safety of roads, particularly along stretches located near schools or other locations where children may be present.<br>Collaborating with local communities on education about traffic and pedestrian safety (e.g. school education campaigns);<br>Coordination with emergency responders to ensure that appropriate first aid is provided in the event of accidents;<br>Ensuring drivers undergo medical surveillance;<br>Ensuring moving equipment with restricted rear visibility is outfitted with audible back-up alarms;<br>All safety measures defined in Appendix 9 Traffic Management Plan shall be obeyed. |
| ***Working hours*** | Core working hours should be from 0800 to 1800 on weekdays and 0800 to 1300 on weekend. Noisy operations shall not take place outside these hours without prior approval from the PMO and relevant authorities. Individual construction site requirements which differ from the above should be considered on a site-by-site basis. |

| Items | Mitigation measures |
|---|---|
| ***Good housekeeping*** | The Contractor should follow a 'good housekeeping' policy at all times. This should include, but not necessarily be limited to the following:<br>• Ensure considerate behavior of the Contractor's staff;<br>• Prohibit open fires;<br>• Ensure that appropriate provisions for dust control and road cleanliness are implemented;<br>• Remove rubbish at frequent intervals, leaving the construction sites clean and tidy;<br>• Remove food waste;<br>• Frequently inspect, repair and re-paint as necessary all construction site hoardings;<br>• Remove all flying posts/boards as soon as reasonably practicable and within 24 hours of notice;<br>• Maintain toilet facilities and other welfare facilities for staff; |
| ***Public information and site access*** | Any un-authorized entry to or exit from the construction sites should be restricted as much as possible. Upon request, the Contractor should provide public information on the construction program (start and finish dates), plus a telephone number for public contacts and/or requests. |
| ***Construction site layout and facilities*** | Any huts, office accommodations, toilets and welfare facilities should be accommodated within the boundaries of the construction sites. Also, site plan shall indicate stockpiling of materials and waste containers. |
| ***Nuisance, dust and noise control*** | To limit nuisance, dust and noise on construction sites, the Contractor should:<br>Plan activities in consultation with the PMO or delegated agencies and authorities, building owners, and/or local communities so that activities with a great potential to generate noise are planned during the periods of the day that should result in least disturbance<br>Use noise control devices, such as temporary noise barriers and deflectors for impact and blasting activities, and exhaust muffling devices for combustion engines.<br>Avoid or minimize heavy project transportation through community areas<br>To the extent possible, maintain noise levels associated with all machinery and equipment at or below90 db.<br>Apply proper measures to minimize disruptions from vibration or noise coming from construction activities.<br>Implement particularly strict measures to prevent undesirable noise levels in sensitive areas (including in residential neighborhoods, near hospitals, etc.). In such areas, minimize the production of dust and particulate materials at all times, to avoid impacts on vulnerable people (children, elders).<br>Selectively remove potential hazardous air pollutants, such as asbestos, from existing infrastructure prior to demolition.<br>Place dust screens around construction areas, provide fencing along the boundary so that emissions do not affect immediate neighbors, pay particular attention to areas close to housing, commercial areas, and recreational areas.<br>Spray water periodically as needed on construction areas, especially at site located near residential area. |
| ***Management of construction waste*** | *Waste management planning.* Possible construction wastes should be characterized according to composition, source, types of wastes produced, generation rates, or according to local regulatory requirements. Processes |

| Items | Mitigation measures |
|---|---|
| | should be designed and operated as much as possible to prevent or minimize the quantities of wastes generated and hazards associated with the wastes generated. For example:<br>Substitute raw materials or inputs with less hazardous or toxic materials;<br>Institute good housekeeping and operating practices<br>Institute procurement measures that recognize opportunities to return usable materials such as containers;<br>Minimize hazardous waste generation by implementing stringent waste segregation to prevent the commingling of non-hazardous and hazardous waste.<br><br>*Recycling planning.* The total amount of waste may be significantly reduced through the implementation of recycling plans. This may for example include the evaluation of waste production processes and the identification of potentially recyclable materials.<br><br>*Clean-up procedures*. The Contractor shall establish and enforce daily site clean-up procedures, including maintenance of adequate storage and treatment/disposal facilities for construction wastes to avoid potential impacts to human health and the environment. Management approaches should be consistent with the characteristics of the waste and local regulations, and may include one or more of the following principles:<br>On-site or off-site biological, chemical, or physical waste material should either be treated to render it nonhazardous prior to final disposal or treated or disposed at permitted facilities specially designed to receive the waste.<br>Debris generated due to the demolition of existing structures shall be suitably re-used, to the extent feasible. The disposal of remaining debris shall be carried out only at sites identified and approved by local authorities.<br>Under no circumstances shall the contractor dispose of any material in environmentally sensitive areas.<br>All garbage, metals, used oils, and excess material generated during construction should be disposed in authorized areas incorporating recycling systems and the separation of materials.<br>In the event any debris or silt from the sites is deposited on adjacent land, the Contractor shall immediately remove such debris and restore the affected area to its original state to the satisfaction of the PMO or delegated agencies and authorities. |
| ***Small quantities of hazardous materials*** | Construction and decommissioning activities may pose the potential for release of small quantities of hazardous materials. The contractor should screen and assess the presence and contents of hazardous materials and petroleum-based products in building systems (e.g. PCB containing electrical equipment, asbestos-containing building materials, lamps or lamp ballasts, used batteries, empty paint cans) and process equipment and remove them prior to initiation of decommissioning activities, and manage their treatment and disposal according to Sections 1.5 and 1.6 on Hazardous Materials and Hazardous Waste Management, respectively in the World Bank Group's General EHS guidelines (www.ifc.org/ehsguidelines). In particular, hazardous wastes should always be segregated from nonhazardous wastes.<br>If generation of hazardous waste cannot be prevented through the implementation of the above general waste management practices, its management should focus on the prevention of harm to health, safety, and |

| Items | Mitigation measures |
|---|---|
| | the environment, according to the following additional principles:<br>Understand potential impacts and risks associated with the management of the hazardous waste during its complete life cycle<br>Ensure that Contractors responsible for the handling, treating, and disposing of hazardous waste are reputable and legitimate enterprises, licensed by the relevant regulatory agencies and following good international industry practice for the waste being handled<br>Ensure compliance with applicable local and international regulations. |
| ***Wastewater discharges*** | The Contractor must take all the efforts to prevent wastes (solid and liquid) discharge into all rivers and canals and to protect surface and groundwater from pollution and other adverse impacts including changes to water levels, flows and general water quality. Whenever possible, the Contractor must minimize the amounts of wastewater that need to be discharged and find alternative means of disposal. Liquid spills of lubricant, fuel and oil within the site should be attended at the earliest in order to minimize land and groundwater contamination. The Contractor must ensure that any seepage and wastewater arising from the works must be collected and discharged via a settlement tank. Water drainage must be designed to avoid stagnant conditions that could create bad smell and unsanitary condition in the construction area and surrounding environment. |
| ***Construction safety*** | *Emergency Procedures:* The Contractor must ensure that emergency procedures are developed to facilitate effective actions in case of medical/fire emergency as well as environmental pollution (major spillage of gasoline, used oil, and/or toxic chemicals, etc.). The emergency procedure must contain emergency phone numbers and the method of notifying the statutory authorities. Contact numbers for the key staff of the contractor must also be included.<br><br>*Fire Prevention and Control:* All construction sites and associated accommodation or welfare facilities must have appropriate plans and management controls to prevent fires in place. The site fire plans must be prepared and must have due regard to government regulations. During operation and maintenance of equipment and vehicles, the Contractor must ensure that its workers are well aware of the procedures and have enough knowledge to comply with them. The specification of non-combustible materials, products and packaging should be pursued wherever reasonably practicable. The Contractor must also comply with government requirements as may be appropriate at specific sites.<br><br>*Operation of equipment:* The Contractor must take all reasonable precautions to ensure that equipment is operated in a manner so as not to cause safety risk and/or nuisance to surrounding residents and occupiers. Operations of cranes and other large equipment must be closely supervised. Permission may be required.<br><br>*Accident prevention.* The Contractor's responsibilities include the protection of every person and nearby property from construction accidents. The Contractor shall be responsible for complying with all government safety requirements and any other measures necessary to avoid accidents, including the following:<br>Properly install notice signs/board at construction sites |

| Items | Mitigation measures |
|---|---|
| | If school children are in the vicinity, include traffic safety personnel to direct traffic during school hours;<br>Conduct safety training for construction workers prior to beginning work;<br>Provide necessary personal protective equipment and clothing (goggles, gloves, respirators, dust masks, hard hats, steel-toed and -shanked boots, etc.,) for construction workers and enforce their use;<br>Ensure that the removal of asbestos-containing materials or other toxic substances be performed and disposed of by specially trained workers;<br>During emergencies of any kind, suspend all work. |
| ***Workforce and workers sanitation*** | The Contractor should whenever possible locally recruit the majority of the workforce and shall provide appropriate training as necessary.<br>The Contractor shall not allow the use of fuel wood for cooking or heating at the construction site or surrounding area.<br>The Contractor shall ensure that site offices, depots, and workshops are located in appropriate areas. Clean and well-maintained toilets should be made available.<br>The Contractor shall adequately provide workers with necessary tools. |
| ***Community relations*** | To enhance adequate community relations, the Contractor shall:<br>Inform the local authorities and community about construction and work schedules, interruption of services, traffic detour routes and provisional bus routes, as appropriate;<br>Limit No construction activities at night. |
| ***Physical cultural property chance finds procedures*** | In the unlikely event that physical cultural property chance-finds occur, responsible local authorities would be in charge of protecting and preserving any archeological sites, historical sites, remains and objects before deciding on subsequent appropriate procedures. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values. Decisions on how to handle the finding shall be taken by the responsible authorities. This could include changes in the lay-out (such as when finding an irremovable remain of cultural or archeological importance) conservation, preservation, restoration and salvage. If the Contractor discovers archeological sites, historical sites, remains and objects the Contractor shall:<br>Stop the construction activities in the area of the chance find;<br>Delineate the discovered site or area;<br>Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be arranged until the responsible local authorities take over;<br>Notify the supervisory Engineer who in turn should notify the responsible local authorities immediately (within 24 hours or less);<br>Resume construction work after permission is given from the responsible local authorities concerning safeguard of the heritage. |
| ***Clearance of the construction site after completion*** | On completion of the works the Contractor should clear away and remove all materials and rubbish and temporary works of every kind. Construction sites should be left clean and in a condition to the satisfaction of the PMO or delegated agencies and authorities. |

# APPENDIX 9: TRAFFIC MANAGEMENT PLAN

The general traffic management plan guidelines for the Project is developed for the purpose of guiding the preparation of site-specific Traffic Management Plan and ensuring traffic safety in the local communities and the construction sites during the construction of the Project. These guidelines are developed based on the local requirements of UB, and the WB EHSGs and Good Practice Note on Road Safety of the WB, ESF including (i) Safe Workplaces at Construction site, (ii) Safe Vehicle at Construction site, (iii) Safe Driver and Driver-related practices, (iv) Traffic safety, (v) Emergency Preparedness and response.

**I. Purposes**

This guideline aims to ensure the traffic safety in the local communities and at the repair, reconfiguration and construction of new road sites of the Project, in particular, to protect the pedestrians, bicyclists, motorbike riders and workers including the materials supply workers, construction workers, and transport vehicle drivers.

**II. Preparation of site specific TMP**

As part of its bid the successful Contractor is required to submit a preliminary TMP, which will ultimately form part of the contractor ESMP. Before work commencement, updated TMP approved by local authority will be submitted to PMO. It will be presented to the workers on regular basis.

The site-specific traffic management plan will provide for:

a. the safety of the workers at the worksite and the public passing through or adjacent to the worksite;

b. overall strategy for the management of traffic, including traffic staging methodology during various stages of the work;

c. temporary traffic management arrangement for each stage of the works including scheduling of the transportation of construction, repair work waste, and resourcing materials;

d. arrangement and number of traffic controllers required for each stage of the works;

e. emergency access – for both workers and any emergency services vehicles travelling through the worksite any unusual hazards or job specific requirements e.g. nearby school or access to shops;

f. use of alternative routes or detours as required;

g. provision for over-dimensional vehicles;

h. provision of safe passage for pedestrians, cyclists and people with disabilities;

i. provision for, and impact on, public transport (e.g. delay to buses/trams, restrictions on passenger access to bus or tram stops, potential for traffic to queue across an adjacent railway crossing), including where possible, priority for public transport;

j. provision for access to abutting properties;

k. duration and times for conducting the works (e.g. day or night operation);

l. traffic management arrangements at the worksite outside normal working hours or when workers are not present at the site (after-care);

m. arrangements to address and monitor the risk of end-of-queue collisions due to a build-up of traffic at worksites;

n. emergency response procedures and contact details;

o. the actions to be taken to address crashes – including the requirement for root-cause analyses as a means to understand if further traffic management needs to be put in place to mitigate the risks and to help prevent that situation re-occurring; and,

p. communication arrangements.

**III. Measures to be included in the TMP**

**a) General Measures**

- Warning signs and night warning lights shall be erected at road intersections, crowded areas, and places with traffic safety hazards such as hospitals, schools, kindergartens and other spaces of public activities;
- Warning signs and speed limit signs shall be provided, and full-time traffic command personnel shall be assigned at sensitive receptors such as sites of pipeline construction in the community affecting road traffic or involving vehicles entering the community.
- Passages to emergency exits should be unobstructed at all times. Exits should be clearly marked to be visible in total darkness. The number and capacity of emergency exits should be sufficient for safe and orderly evacuation of the greatest number of people present at any time, and there should be a minimum two exits from any work area.
- Constant contact shall be kept with the traffic management department during the construction period to coordinate matters concerning transportation vehicles entering the construction sites.
- Traffic signs and facilities shall be erected at obvious positions in the construction sites of the construction works and on both sides of main passages, road intersections and temporary roads; special personnel shall be assigned for proper maintenance of such signs. The requirements of traffic organization in the construction stage shall be consistent with the respective requirements and regulations of the UB.

**b) Traffic measures for construction activities near communities**

- Obstacles with impacts on traffic shall be removed and then sidewalks are properly dealt with to provide space for pedestrian according to the relevant regulations;
- Visible signs shall be erected at road intersections to remind vehicles intending to enter the closed construction sections to bypass; traffic signs and traffic guidance facilities shall be provided on site;

- A full-time traffic coordinator shall be assigned to keep timely contact the traffic police department;
- Special personnel shall be assigned for traffic diversion during the construction period.
- The road surface shall be kept clean and tidy to ensure that no construction dust is raised;
- A traffic coordination office shall be established as a special body of traffic management;
- Signs shall be erected according to the national standards, and fences at the road intersections shall be well aligned and rounded;
- No materials shall be stockpiled on traffic lanes;
- No traffic changes shall be made until at the consent of the traffic police in the event of any special circumstances in the construction stage;
- Stronger efforts shall be made in safety education at the community level as well as for drivers of the transportation vehicles engaged in the implementation of the Project;
- Emphasizing safety aspects among drivers;
- Improving driving skills and requiring licensing of drivers;
- Adopting limits for trip duration and arranging driver rosters to avoid overtiredness;
- Avoiding dangerous routes and times of day to reduce the risk of accidents;
- Use of speed control devices (governors) on trucks, and remote monitoring of driver actions;
- Regular maintenance of vehicles and use of manufacturer approved parts to minimize potentially serious accidents caused by equipment malfunction or premature failure;
- Minimizing pedestrian interaction with construction vehicles;
- Collaboration with local communities and responsible authorities to improve signage, visibility and overall safety of roads, particularly along stretches located near schools or other locations where children may be present. Collaborating with local communities on education about traffic and pedestrian safety (e.g. school education campaigns);
- Coordination with emergency responders to ensure that appropriate first aid is provided in the event of accidents;
- Using locally sourced materials, whenever possible, to minimize transport distances. Locating associated facilities such as worker camps close to project sites and arranging worker bus transport to minimizing external traffic.

**c) Industrial Vehicle Driving and Site Traffic**

Poorly trained or inexperienced industrial vehicle drivers have increased risk of accident with other vehicles, pedestrians, and equipment. Industrial vehicles and delivery vehicles, as well as private vehicles on-site, also represent potential collision scenarios. Industrial vehicle driving and site traffic safety practices include:

- The space provided for each worker, and in total, should be adequate for safe execution of all activities, including transport and interim storage of materials and products;
- Training and licensing industrial vehicle operators in the safe operation of specialized vehicles such as forklifts, including safe loading/unloading, load limits;
- Ensuring drivers undergo medical surveillance;
- Ensuring moving equipment with restricted rear visibility is outfitted with audible back-up alarms;
- Establishing rights-of-way, site speed limits, vehicle inspection requirements, operating rules and procedures (e.g. prohibiting operation of forklifts with forks in down position), and control of traffic patterns or direction;
- Restricting the circulation of delivery and private vehicles to defined routes and areas, giving preference to 'one-way' circulation, where appropriate.

**d) key traffic signs and facilities**

- The construction sites shall be separated from the carriageways with enclosure of no less than 1.8m in height and made of zinc-iron corrugated boards (green) with a thickness of not less than 2mm. Slogans about construction safety and civilized construction shall be erected and unrelated persons shall not be allowed to enter the construction sites.
- Signs on the construction sites shall be conspicuous. Road signs shall be set up at a certain distance in front of and behind the construction sections indicating "Bypass Here, Construction Works Ahead" or "Slow Down; Construction Works Ahead". Full warning lights shall be provided at night.
- Obvious signs shall be set up at the entrance and exit of the construction sites, and special personnel shall be assigned for traffic maintenance to reduce the interference and avoid accidents between road construction machinery and dump trucks entering and leaving the construction site and non-constructional vehicles.
- Temporary traffic guidance signs and prohibition signs shall be set up at the various intersections and temporary roads in cooperation with the traffic management authority and assistance shall be provided to the traffic management authority in proper traffic management for temporary roads.

**IV. Emergency preparedness and response plan**

Emergency preparedness and response plan shall be developed based on traffic risks during construction, mainly including:

(i) The construction sites shall be separated from the carriageways with enclosure of no less than 1.8m in height and made of zinc-iron corrugated boards (green) with a thickness of not less than 2mm. Slogans about construction safety and civilized construction shall be erected and unrelated persons shall not be allowed to enter the construction sites.

(ii) Signs on the construction sites shall be conspicuous. Road signs shall be set up at a certain distance in front of and behind the construction sections indicating "Bypass Here, Construction

Works Ahead" or “Slow Down; Construction Works Ahead”. Full warning lights shall be provided at night.

(iii) Obvious signs shall be set up at the entrance and exit of the construction sites, and special personnel shall be assigned for traffic maintenance to reduce the interference and avoid accidents between road construction machinery and dump trucks entering and leaving the construction site and non-constructional vehicles.

(iv) Temporary traffic guidance signs and prohibition signs shall be set up at the various intersections and temporary roads in cooperation with the traffic management authority and assistance shall be provided to the traffic management authority in proper traffic management for temporary roads.

Employees shall be provided with trainings and drills of related procedures to improve their emergency response capabilities.