Environmental and Social Management Framework (ESMF)

for the

“Mining Infrastructure Investment Support Project”
(P118109)

November 11, 2013
Environmental and Social Management Framework
“Mining Infrastructure Investment Support Project”

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Mongolia: Mining Infrastructure Investment Support Project

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

INTRODUCTION

The World Bank is providing a loan in an amount of US$25.00 million to the Government of Mongolia for the Mining Infrastructure Investment Support Project (MINIS). The project will seek to facilitate investments in infrastructure to support mining and downstream processing activities, regardless of funding source, and to build local capacity to prepare and transact infrastructure projects.

The project is a technical assistance activity which finances feasibility studies of proposed infrastructure projects, and relevant capacity building activities. The project will not finance any physical activities or works that pose direct environmental and social impacts. However, when the projects that are transacted under the MINIS are implemented by the Government or under subsequent agreement between the Government of Mongolia and investors, there is the potential for moderate to significant environmental or social impacts.

Given its potential for environmental and social impacts during implementation, the project triggers the World Bank safeguards policies, and is classified as a Category A project, as per World Bank Operational Policy 4.01 Environmental Assessment.

1. PURPOSE AND SCOPE OF ESMF

Because specific projects to be prepared using MINIS funds will only be identified during implementation of the TA, an Environmental and Social Management Framework (ESMF) has been developed. The purpose of the ESMF is to ensure that studies carried out under the MINIS to prepare projects, which may subsequently be implemented under separate financing, address and identify measures to avoid and minimize environmental and social impacts, as much as possible, and where they cannot be avoided, the impacts are adequately identified/assessed and necessary mitigation measures designed and implemented following relevant Mongolian environmental and social legislation and the World Bank’s safeguards policies.

The future implementation of projects that are prepared with MINIS funding will be subject to the processes defined in this ESMF, regardless of funding source. The ESMF defines how safeguards will be taken into account and managed for all project activities that may have safeguards requirements, including feasibility studies and non-PPP transaction activities. During implementation of the TA, project activities with potential safeguard issues will be screened to determine the scope and types of safeguards instruments that would be required. Depending on the project, a regional, sectoral or strategic environmental assessment, rather than a full environmental assessment, may be required.

To ensure that transactions with investors include relevant measures to safeguard the environment and minimize the potential for negative social consequences, the ESMF would be part of contractual documents for implementing transactions for which MINIS funds were used to help prepare.
This ESMF identifies the responsibilities of project stakeholders, procedures for environmental and social safeguards screening, review and approval, monitoring and reporting requirements, as well as plans to enhance institutional capacity. It also offers sample terms of reference for carrying out environmental impact assessments (EIAs) and Guidelines for carrying out resettlement action plans (RAP/ARAPs) and Ethnical Minority Development Plans (EMDPs). The ESMF serves as an environmental and social safeguards instrument to provide the framework to both the relevant government agencies and private investors for preparing and implementing infrastructure projects.

2. DESCRIPTION OF THE INVESTMENT SUPPORT PROJECT

The development objectives of the proposed MINIS are to facilitate investments in infrastructure to support mining and downstream processing activities, regardless of funding source, and to build local capacity to prepare and transact infrastructure projects.

The proposed MINIS is a US$25.00 million project that does not focus on mining activities, but rather on general infrastructure that would support the mining sector and local communities within an investment’s area of influence. While many of the projects are expected to be in the Southern Mongolia Region, projects in other locations throughout the country would also be eligible for financing under the MINIS. The project has four main components:

- Component 1: Support for Infrastructure Investments (US$19.69 million);
- Component 2: Capacity Building and Knowledge Transfer (US$1.45 million);
- Component 3: Strengthening Groundwater Management (US$3.23 million);
- Component 4: Project Management (US$0.63 million).

To support investments in needed infrastructure, the project would provide financing to conduct feasibility studies to assess technical options and determine economic and financial implications of proposed projects, and address emerging priority issues as a result of the country’s nascent enabling environment governing private investment in infrastructure. To develop local skills to prepare infrastructure projects, including transactions involving investors, both formal and on-the-job training will be carried out. An emphasis will be placed on learning by doing. Funds would be extended to hire advisors, carry out regular programs of training on topics germane to the preparation of mining-related infrastructure projects, including cost-benefit analyses, and bring in specialists to train officials in contract administration, as needed. In addition, annual conferences to promote and provide guidance on preparing infrastructure transactions would be held for Government officials. Support will also be extended to strengthen the management of groundwater by piloting a new institutional structure at two locations in Southern Mongolia. Funding will also be provided to establish a Project Management Unit, which will have overall responsibility for managing the MINIS.

The International Finance Corporation (IFC) is providing transaction advice to the Government to identify, develop, market and competitively select private developers/investors for up to three pilot projects. This support is expected to complement some of the activities of the MINIS. It has been agreed with the IFC that the ESMF will be considered to apply to both World Bank and IFC in line with the Environmental and Social Policy and Procedural Guidelines for Projects in IDA Countries that are financed jointly by the World Bank, IFC and Multilateral Investment Guarantee Agency (MIGA).
Specific projects to be prepared using MINIS funds will be identified during implementation and jointly agreed by the World Bank and the Project Management Unit (PMU). Follow-up feasibility studies, PPP transactions, and the future implementation of identified projects are subject to this ESMF.

More detailed information about the project can be found in Annex 4 of the Project Appraisal Document (PAD).

Component 3 on strengthening groundwater management consists of providing support to strengthen the capacity of local authorities to manage groundwater resources in the region. The government has established a framework of 29 river basins for the entire country. This new institutional structure will be piloted at three locations in Southern Mongolia. A framework, including a mandate and staffing needs, has been defined and made operational under this component. Under the proposed framework, three River Basin Councils (RBC) and three River Basin Administrations (RBA) would be established in water basins 17, 18 and 20, each.

The RBCs will act as the coordinating body in which all relevant stakeholders and actors will be represented to voice and protect their interest in groundwater management in their respective basins. It is expected that the RBC would only have a full-time staff - a Secretary, who will seat and work together with RBA staffs at the same office. The other RBC participants would be stakeholders who are invited to attend the occasional meetings without payment.

The RBAs will consist of a small core team of professional staff to carry out the daily management tasks and function as the knowledge and information center on water issues in their respective basins. When needed, they would call on outside specialists, and where possible, the RBA would outsource key activities, such as drilling and water quality analyses. The RBAs are expected to have twelve full-time staffs, including a: (i) Director; (ii) Accountant; (iii) Hydrogeologist for groundwater resource and utilization; (iv) Hydrogeologist for ground water monitoring; (v) Hydrologist; (vi) Specialist for water quality and ecology; (vii) GIS database engineer; (viii) Specialist for water fee and taxation; (ix) Specialist for hydro-construction & design analysis; (x) Socio-economic development specialist; (xi) Training and public relations officer and (xii) Driver.

The ESMF defines how safeguards will be taken into account and managed for all project activities that may have safeguards requirements, including the Groundwater Management component. During implementation of the TA, activities with potential safeguard issues will be screened to determine the scope and types of safeguards instruments - if any - that would be required. For the Strengthening the Groundwater Management component funds would be provided to finance start-up costs such as to:

- review existing laws and regulations and proposing any amendments needed to make the proposed structure implementable;
- prepare a groundwater management plan with assistance from a consultancy firm;
- develop a groundwater monitoring plan to regularly measure groundwater levels, groundwater abstractions, and groundwater quality;
- gather existing data on groundwater and carry out new data collect, including surveys of boreholes, groundwater use, groundwater storage and recharge and current groundwater quality;
• carry out groundwater investigations and research;
• develop a data exchange protocol to allow the use of extensive existing data with various institutes;
• monitor and enforce compliance with licenses to abstract groundwater;
• prepare, in close cooperation with the Division of River Basin Management, guidelines for the design and construction of wells; and
• identify a revenue stream to sustain operations of the GMCs and GMAs.

3. POTENTIAL PROJECTS AND IMPACTS

3.1. Potential Projects

The MINIS will support the preparation of infrastructure projects to facilitate future mining development throughout Mongolia. It is important to note that the MINIS does not focus on mining activities, but rather on general infrastructure that would support the mining sector and local communities within an investment’s area of influence. While most of the projects are expected to be in the Southern Mongolia Region, projects in other locations throughout the country would also be eligible for financing under the MINIS.

While feasibility studies for a number of infrastructure projects may be financed under the MINIS, implementing projects, including with investors as PPPs, is likely to be limited to three or four projects during the five-year implementation period.

The types of feasibility studies that are eligible for financing under the MINIS include technical assessments, such as engineering designs, geotechnical surveys, economic and financial analyses, environmental and social impact evaluations, and reviews of specific aspects of the country’s legal, regulatory and institutional frameworks. Funds could be used to prepare mining-related infrastructure projects whether financed from the government budget or the private sector.

Projects in the energy (power plants, transmission and distribution networks), transport (railways and roads), IT and communications, water (water supply and waste water systems), housing and social sectors (schools, hospitals and clinics) would be eligible, as would logistics and border crossing facilities. In addition, the evaluation and structuring (for private investment) of downstream, value-added activities, such as copper smelters, coal processing facilities and iron pellets plants, would also be eligible for funding. If funding is used to prepare a power plant, then the March 2010 Operation Guidelines on Criteria for Screening Coal Projects under the Strategic Framework for Development and Climate Change would be followed.

It is possible that one or two (at most) infrastructure projects will be prepared as PPPs with some support from the MINIS. Potential project(s) include transport systems (roads, railways, airports) water supply systems, wastewater systems, border crossing facilities, or housing.

3.2. Potential Environmental Impacts

Due to its extremely harsh natural environment, much of the country remains largely undisturbed by human activities. Southern Mongolia includes a number of critical and non-critical natural habitats and hosts unique biodiversity and wildlife species. The development of infrastructure facilities and future mining activities are likely to generate moderate to significant
environmental impacts. These include potential fragmentation of natural habitats, blocking of wildlife migratory routes, loss of surface vegetation, land degradation, pollution or depletion of groundwater, and noise and air pollution. To address these possible events, the Government needs to initiate careful study and proper planning at an early stage to ensure effective implementation and monitoring over the long-term.

3.3. Potential Social Impacts

Since the MINIS will largely finance feasibility studies, provide capacity building and other assistance, it is not expected to have direct social impacts. However, if the infrastructure project(s) are subsequently implemented, there could be both positive and adverse social impacts during the construction period as well as over the long-term at the regional level.

Because Mongolia is sparsely-populated, the provision of infrastructure would improve social services and quality of life for both local communities and herders. It would also facilitate the development of infrastructure needed to support long-term development of the mining sector and community planning. Potential adverse impacts resulting from projects include social and cultural disturbance, land acquisition and resettlement, effects on land use and resources, loss or damage of physical cultural resources, public health and safety, and other social issues from both planned and unplanned developments. These issues necessitate proper planning, effective implementation and monitoring, and responsive and adaptive management.

To help manage these potential impacts, an Environmental and Social Management Framework (ESMF) has been prepared. The ESMF would identify potential social impacts and mitigating measures, to be incorporated into feasibility and other studies as well as in PPP transactions when applicable.

3.4. Previous Studies and Recommendations

A number of Bank-financed studies that are relevant to the proposed MINIS have been reviewed. The review is intended as a summary of what safeguard studies and assessments have been carried out, to identify key findings and recommendations that are relevant and to be taken into account as is feasible within the scope of the ESMF.

The following studies were reviewed: Southern Gobi Regional Environmental Assessment, Southern Mongolia Infrastructure Strategy, Livestock and Wildlife Issues in the Context of Development in the Southern Gobi Region, Protected Area Corridors - Urban Development and Wildlife Movement in Mongolia, Environmental Management Guidelines for Mongolia: Oil & Gas Development, Groundwater Assessment of the Southern Gobi Region. These studies present descriptions of the current situation in Southern Mongolia and analyze challenges and opportunities for the region’s economic development. The purpose of the review was to assess and better understand the possible environmental consequences of proposed developments, and more specifically the mining industry. Each report specifies recommendations to minimize impacts and proposes measures to mitigate any negative consequences.

Priority recommendations include the need to: (i) improve the capacity of government agencies at the local and national levels to manage the environmental review process and ensure environmental assessments are properly carried out; and (ii) strengthen abilities to better manage and monitor the use of groundwater in Southern Mongolia. Appropriate capacity building activities, including a separate component to strengthen groundwater management, have been incorporated into the project’s design and ESMF.
The full report, entitled *Summary of Safeguard Documents with Relevant Recommendations (June 2010)*, is available in the Project Files at the World Bank and included as Annex 1.

4. LEGAL FRAMEWORK ON ENVIRONMENTAL AND SOCIAL ISSUES

4.1. Applicable Mongolian National Legislation

**Environmental Matters.** The major Mongolian national legislations on environmental safeguards include *Mongolian Law of Environmental Impact Assessment (LEIA, updated in May 2012)*, *Law on Environmental Protection*, *Water Law (updated in May, 2012)*, *Manual for Implementing Environmental Impact Assessment Procedures*, *General EIA Study Manual*, *Detailed EIA Study Manual*, *Criteria for Application of Projects to Environmental Impact Assessment*, *Manual on Developing and Implementing an Environmental Management Plan and a Monitoring Program*. Some of guidelines which follows Law of Environmental Impacts Assessment such as *Guideline for Strategic Environmental Assessment (SEA guideline)* and *Guideline for Cumulative Impact Assessment (CIA)* are in the process of development and soon will be proved. An Environmental audit mechanism is enforced by the Law on Environmental protection, since in May 17, 2012. The following guideline for Environmental auditing was activated from June, 2013.

Mongolian LEIA requires the undertaking of environmental screenings (identified as “General Environmental Assessments”) for each proposed project to determine the appropriate extent and type of environmental assessment (EA) required.

Depending on a project’s scale, the Ministry of Environment and Green Development (MEGD) or its local branches are responsible for environmental screening to decide whether a detailed EA is required or not. All detailed EAs include Environmental Protection Plans (equivalent to the Bank’s environmental management plan, as per Bank operational procedures), and need to be reviewed by MEGD before an environmental permit can be granted for construction.

Public consultation is mandatory for detailed EA preparation, however, disclosure of information is not clearly required, i.e., EA documents are not disclosed to the general public.

In 2004, the Government of Mongolia adopted the river basin approach for water resource management, an essential step to introducing more integrated water resources management in Mongolia. The *Water Law (2004)* prescribes the establishment of River Basin Councils (RBC), the powers of which are further specified in the law, including the main tasks of assessing and planning for water resources, monitoring and protecting it use, and carrying out related research.

**Land Acquisition and Resettlement Matters.** Mongolia does not yet have specific laws regulating the acquisition of land. As such, land acquisition and resettlement issues are regulated by the specific provisions of key Mongolian laws that regulate access to ownership or possession of land. These laws are:

- *Law on Allocation of Land to Mongolian Citizens for Ownership (Law on Land Allocation) 2003*, with amendments in 2005 and 2008; and
In addition to the above-mentioned laws, specific provisions of other specialized laws, such as the Law on Auto Roads and the Law on Water Supply and Sewerage System Utilities of Cities and Settlements, regulate land acquisition affairs.

In Mongolia the State can “take back land” for state special needs. Presently, this is regulated by the following provisions of the relevant laws.

**Land Law**
- Article 42 of the Land Law specifies that the relevant State Administrative Central Organization of land issues may, following an agreement with the land possessor on withdrawing his/her land, with or without replacement, and with full or partial compensation for state special needs, submit a proposal to the Government (42.1).
- Article 16 of the Land Law lists lands for special needs purposes. However it does not include roads, water supply and any other infrastructure constructions. By the amendments from 2009 to the Land Law it was added that state can take back lands for nuclear constructions and use. Presumably this can include nuclear power plants.

**Law on Land Allocation**
- Article 32 of the Law on Land Allocation stipulates that land owned by citizens may be replaced or taken back with compensation based on special need of the state including among others ‘to build roads, lines and networks and other objects of national scale’ (32.1.3).

**Law on Auto Roads**
- Article 3 of the Law on Auto Roads national scale roads are defined those that connect the capital city to aimag cities, aimag cities to aimag cities, and aimag cities to border points.

Based on the above, it can be concluded that with regard to infrastructure development, land acquisition and resettlement issues are regulated only for construction of national scale roads. Land acquisition and resettlement associated with other infrastructure development will be achieved through agreements with affected land owners or possessors in accordance with the Civil Code.

**Civil Code of Mongolia**

The provisions of the Civil Code of Mongolia provide a legal framework for land acquisition and resettlement.

- Article 1 of the Civil Code stipulates that state and affected persons engaged with each other contractually as equal and autonomous legal bodies in civil legal relationship.
- Chapter 10 of the Civil Code defines property and assets including land and other immovable property. Chapter 11 describes the possession by legal acquisition and Chapter 12 for property ownership by individuals and other legal entities. Article 101, 109 and 112 provides provisions on possession, use and disposal of property.

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1 Ministry of Road, Transportation, Construction and Urban Development
Recent economic developments, especially for infrastructure, have evolved many cases of land acquisition and resettlement in urban areas. According to officials from the Ministry of Road, Transportation, Construction and Urban Development (MRTCUD), current legislative acts do not fully address or regulate land acquisition and resettlement procedures. In particular, the valuation of land to be acquired and properties is unclear. Even “land acquisition and resettlement” are not defined in current legislation. Therefore, MRTCUD is developing the following amendments to the existing laws to improve the legal framework for land acquisition and resettlement.

For the Land Law:
- A new amendment is proposed to Article 16 of the Land Law that would add Government reserve lands as one of the lands for state special needs (Article 16.1.11). This would include lands reserved for any type of national scale infrastructure construction.
- By new law amendments, the terms “land acquisition” (Article 3.1.7) and “taking back lands for state special needs with compensation” (Article 3.1.11) are defined. Taking back lands means “to acquire lands for the purposes of construction of engineering infrastructure including energy, water and sewerage supply, road, transportation, communication networks and other type of constructions of significance importance to the economic and social development of the country.”
- New provisions have been proposed to increase citizens’ participation and involvement in land re-planning and management.

New Law on Urban Re-planning and Development (at the preparation stage)
- This new law will propose provisions on Resettlement Action Plan.
- The law will also specify different steps for land acquisition and resettlement.
- The Law will define various stakeholders’ roles in land acquisition.

Through a recent initiative of the MRTCUD, the Cabinet issued a Resolution to take lands in Southern Mongolia, including Oyu Tolgoi, Tavan Tolgoi and Sainshand industrial park, for the state’s special needs. This will avoid any further resettlement issues in the region.

Since all selected projects are national scale projects, they will use of eminent domain in accordance with the Land Law and Land Allocation Law. Under the process, the State retains the right of eminent domain and the process must follow two steps: (1) agreements are negotiated with affected persons on compensation and related issues; and (2) if mutual agreement cannot be reached resolution of compensation and other entitlements is decided by the courts. For those local level projects, they need to follow the process of negotiation for local sales. Here, negotiation is the main basis for the transaction between the State and the affected person. The two parties engage contractually as equal and autonomous legal entities and participate legally in the civil transaction. If mutual agreement cannot be reached, the State does not have the right to forced eviction or use of demand notices.

Under the support of ADB, a Land Acquisition Law is being drafted, which will introduce eminent domain to all public projects at both national and local levels. Under the new law, the land acquisition process will begin with preliminary land acquisition study by land office along with project feasibility study. The approval of land acquisition study will be made following the approval of project feasibility study, which will be followed by approval of project and land acquisition budget. The land acquisition preparation by land office begin with completion of detailed design and set of cut-off date, which involves collecting documents of APs, inventory of losses, social economic survey, eligibility of compensations, appraise affected assets,
formulate action for relocation and rehabilitation and submit LAR plan for review and approval. It follows with LAR negotiation procedures, which include land office preparing compensation package for each entity, invite affected entities discuss and sign agreements, pay compensation and assistance, and transfer property registration. If no agreement reached after discussion with land office and mediation council, it enters the process of expropriation and eviction procedures for affected entities. Such process includes review evidence of compliance with law, issue notice of intention of expropriation to each affected entity, offer compensation to each entity, issue notice date for vacate the property to each entity, and final eviction.

4.2 World Bank Safeguards Policies

The World Bank has developed policies for ten environmental and social safeguards. While most of the projects to be financed under the MINIS are expected to be in the Southern Mongolia Region, projects in other locations throughout the country would also be eligible for financing under the MINIS.

So far, the following main projects have been identified to be prepared under MINIS (i) Development of Feasibility study for Shuren Hydropower station at Selenge river; (ii) Development of feasibility study for Integrated steel plant complex with infrastructure in central region of Darkhan-Selenge region; (iii) Development of feasibility study for Flow regulation reservoir on Orkhon river and its water conveyance system within the framework of Component I, and Strengthening ground water management in Gobi region (include 3 water basin administrations as Umard Gobi-middle steppe of Khalkh basin /17/, Galba-Uush-Doloood basin /18/ and Altain uvur Gobi /20/ ) in the Component III; (iv) Development of feasibility study for the Expansion of Tavan Tolgoi Thermal Power Station; (v) Environmental and Social Impact Assessment for Darkhan Oil Refinery Plant; and (vi) Development of feasibility study for Extension of Coal Mine "Baganuur" LLC.

Based on the present understanding of potential safeguards issues in Southern Mongolia, there is potential for the following World Bank policies to be triggered:

- **OP/BP 4.01 Environmental Assessment**: Given the nature of the potential infrastructure projects, this policy will be triggered. Individual projects will be screened and assigned the appropriate environmental categorization, and environmental safeguards documents will be prepared in accordance with OP 4.01.

- **OP/BP 4.04 Natural Habitats**: The currently identified potential sub-projects of Shuren Hydropower and Orkhon Gobi Water Supply projects will have impacts on natural habitat of two main rivers and one Ramsar site at Selenga Delta and Lake Baikal. Therefore, this policy is triggered.

- **OP/BP 4.11 Physical Cultural Resources**: This policy is triggered because initial baseline information indicates the presence of a number of physical cultural resources, including archeological, paleontological and sacred sites, in Southern Mongolia, including World Heritage Site of Lake Baikal.

- **OP/BP 4.12 Involuntary Resettlement**: Because land acquisition and involuntary resettlement is anticipated for selected infrastructure projects, this policy will be
triggered. Projects will be screened for land-related impacts and resettlement action plans will be developed and implemented as per OP4.12.

- **OP/BP 4.37 Safety of Dams**: The potential projects include hydropower station and water diversion proposals, which will involve construction of dams, therefore this policy is triggered.

- **OP/BP 7.50 Projects on International Waterways**: The proposed study of Shuren hydropower and Orkhon Gobi water supply would be developed on international waterways and would impact the upper water system of Lake Baikal in Russia. Therefore, this policy is triggered.

- **Operation Guidelines for Screening Coal Projects under the Strategic Framework for Development and Climate Change (March 2010)**: Should the coal power plant or coal mine projects be prepared under the project, then this Guidelines will apply and should be followed.

However, since other specific projects to be prepared under the MINIS have not been identified yet, and because some projects may not be located in Southern Mongolia, screening for all Bank safeguard policies will be undertaken and determined for each sub-project during project implementation, and if needed the ISDS will be updated accordingly. This ESMF is designed to the application of the World Bank safeguards policies, even though some policies are not triggered yet for the currently identified projects.

5. PROCEDURES TO ADDRESS ENVIRONMENTAL AND SOCIAL SAFEGUARDS ISSUES

Upstream feasibility studies, including for transactions with investors, that are financed under the MINIS shall comply with environmental and social safeguards requirements of the Mongolian national legislations, as well as the World Bank safeguards policies.

The screening process and other procedures specified in the ESMF will apply to all activities under the project that have potential safeguards requirements. The following procedures are established as a framework to ensure compliance with safeguards throughout project identification, preparation and implementation:

5.1. Initial Screening for Potential Environmental and Social Safeguards Issues

The PMU will identify the candidate infrastructure projects for feasibility, including PPPs. Once the projects are identified, MEGD will be responsible for initial screening of potential environmental and social safeguards issues of candidate projects to determine the nature and extent of the environmental requirements, and the applicable Mongolian national laws and regulations. MEGD will also use the screening tool (Annex 2 of this ESMF) to conduct initial screening on the World Bank safeguards policies. The results of the initial screening exercise will
be used to determine the categorization and the proposed safeguards documents that will be required for further feasibility studies such as environmental impact assessments or other studies during preparation and/or implementation.

The following information provides guidance and reference for MEGD to exercise the screening using the form in Annex 2.

**Environmental Safeguards Screening**

According to World Bank safeguards policies, projects shall be classified as one of the following three categories, depending on the nature and extent of potential environmental and social impacts:

- **Category A**: Projects of this type would have significant adverse environmental impacts that are sensitive, diverse, or unprecedented. These impacts may affect an area broader than the physical works. Examples of Category A projects include construction of new roads, railways, power plants, major urban development, water treatment, waste water treatment plants and solid waste collection and disposal, etc.

- **Category B**: A proposed project may have some adverse environmental impacts, but less adverse than those of Category A projects. These impacts are typically site-specific, few if any have irreversible impacts, and in most cases mitigation measures can be readily designed. Examples of category B sub-projects include small scale in-situ reconstruction of infrastructure projects such as road rehabilitation and rural water supply and sanitation, small schools, rural health clinics, etc.

- **Category C**: Projects of this type are likely to have minimal or no adverse environmental impacts, e.g. supply of goods and services, capacity building training, simple repair of damaged structures, etc.

The screening results will be cross-checked with Mongolian national regulations, in order to determine the applicable domestic EA documentation requirements. The three possible results from screening based on Mongolian EIA regulations are that:

- Projects require full or detailed EAs;
- Projects do not require a full EA, but have other safeguards requirements; or
- Projects are rejected.

Therefore, projects and activities with potential safeguard issues will be screened to determine the scope and types of safeguards instruments that would be required. Depending on the project or type of feasibility study, a partial EA, regional, sectoral or strategic environmental assessment, rather than a full environmental assessment, may be required.

The Mongolian national regulations and World Bank policies are considered on the whole to be overall similar. In those cases where the EA documentation required by the Mongolian regulations is not equivalent in depth and scope to those required by the World Bank safeguard policy requirements, the latter will apply. A summary of key gaps between Mongolian and World Bank safeguards policies and how to address these gaps in MINIS is shown as follows (detailed in Annex 1):
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<th>Area of Differences</th>
<th>Mongolian Policies</th>
<th>World Bank Policies</th>
<th>Addressing gaps in MINIS</th>
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<tr>
<td>EIA definition</td>
<td>“identification” of any possible adverse effects and “determination” of measures to minimize and mitigate such adverse impacts.</td>
<td>a “process” whose breadth, depth, and type of analysis depends on the nature, scale and potential environmental impact of the proposed project.</td>
<td>ESMF defines a EA process in line with World Bank policies.</td>
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<td>Public consultation</td>
<td>do not clearly define ways in which the public can be involved in EA process</td>
<td>Public consultation essential part of EA process (two rounds for Category A project). Consults project-affected groups and local nongovernmental organizations (NGOs) about the project's environmental aspects and takes their views into account.</td>
<td>Public consultations as per OP4.01 is built into ESMF and later EA process.</td>
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<td>Disclosure</td>
<td>does not require EA reports to be available in a public place, or to the project affected groups and local NGOs.</td>
<td>borrower provides relevant material in a timely manner prior to consultation and in a form and language that are understandable and accessible to the groups being consulted; the borrower makes the draft EA report available at a public place accessible to project-affected groups and local NGOs.</td>
<td>Disclosure requirements as per OP4.01 is built into ESMF and later EA process.</td>
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<tr>
<td>EMP</td>
<td>do not have sections on capacity building and training, or on institutional measures</td>
<td>EMP includes mitigation measures, monitoring, institutional strengthening and capacity building, implementation schedule and cost.</td>
<td>EMP requirements as per OP4.01 is built into ESMF, and will be developed during EA process following OP4.01.</td>
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The requirements for environmental safeguards documentation will be determined based on the screening results, as follows:

- **Category A**: An Environmental Assessment (EA) and an Environmental Management Plan (EMP) and/or other safeguards instruments are to be prepared in accordance with Bank requirements.

- **Category B**: An EIA (as required under the Mongolian laws and regulations) and/or other safeguards instruments and/or an EMP (as per the Bank policy) consisting, at a minimum, of standard environmental codes of practices supplemented, if necessary, with additional analysis.

- **Category C**: No environmental safeguards documents are required.

**Social Safeguards Screening**

Social safeguards screening focuses on: (a) the potential social and economic impacts when land is involuntarily taken for infrastructure projects and which result in: (i) relocation or loss of shelter; (ii) loss of assets or loss of assets; or (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location; (b) whether there
are ethnic minority communities that would be affected by the project in a way as described in the World Bank OP4.10; and (c) when significant social impacts are anticipated based on the results of the screening.

Social Safeguards documents for projects depend on the nature and extent of social impacts identified as part of the screening exercise:

- **Social Impact Assessments (SIA) or Social Assessments (SA):** when social impacts of significance are expected or there are affected ethnic minorities in the project area.
- **Resettlement Action Plans (RAP):** If more than 200 people will need to be involuntarily resettled (Guidelines for RAP is provided in Annex 3 of ESMF).
- **Abbreviated RAPs:** If fewer than 200 people need to be resettled or impacts on entire displaced populations are minor (guidelines for abbreviated RAPs are provided in Annex 3 of ESMF).
- **Ethnic Minority Development Plans (EMDP):** If an ethnic minority community would be adversely affected by the project. (Guidelines for EMDP are provided in Annex 4 of ESMF).

The Bank’s OP4.12 on Involuntary Resettlement applies to all components of possible projects that result in involuntary resettlement, regardless of sources of financing. It also applies to other activities resulting in involuntary resettlement, that are: (a) directly and significantly related to the Bank-assisted project; (b) necessary to achieve its objectives as set forth in the project documents; (c) carried out, or planned to be carried out, contemporaneously with the project.

The OP 4.12 of the World Bank provides essential guidance on objectives and principles that are applicable in projects generating land acquisition and resettlement-related impacts. Key objectives and definitions are as follows:

Every reasonable effort will be made to avoid or minimize the need for land acquisition, and to minimize all resettlement-related adverse impacts. If land acquisition and associated adverse impacts cannot be avoided, the principle objective of the ESMF is to ensure that all persons subjected to adverse impacts (“displaced persons” as defined below) are compensated at replacement cost (as defined below) for lost land and other assets and otherwise provided with any rehabilitation measures or other forms of assistance necessary to provide them with sufficient opportunity to improve, or at least restore, their incomes and living standards.

“Displaced persons” refers to all of the people who, on account of the activities listed above, would have their (1) standard of living adversely affected; or (2) right, title, interest in any house, land (including premises, agricultural and grazing land) or any other fixed or movable asset acquired or possessed temporarily or permanently; (3) access to productive assets adversely affected, temporarily or permanently; or (4) business, occupation, work or place of residence or habitat adversely affected; and “displaced person” means any of the displaced persons.

"Full replacement cost" is the method of valuation of assets which determines the amount of compensation sufficient to replace lost assets, including any necessary transaction costs. Compensation at full replacement cost is defined as follows:

- For agricultural land, it is the pre-project or pre-displacement, whichever is higher, market value of land of equal productive potential or use located in the vicinity of the affected land,
plus the cost of preparing the land to levels similar to those of the affected land, plus the cost of any registration and transfer taxes.

- For land in urban areas, it is the pre-displacement market value of land of equal size and use, with similar or improved public infrastructure facilities and services and located in the vicinity of the affected land, plus the cost of any registration and transfer taxes.

- For houses and other structures, it is the market cost of the materials to build a replacement structure with an area and quality similar to or better than those of the affected structure, or to repair a partially affected structure, plus the cost of transporting building materials to the construction site, plus the cost of any labor and contractors' fees, plus the cost of any registration and transfer taxes.

In determining the replacement cost, depreciation of the asset and the value of salvage materials are not taken into account, nor is the value of benefits to be derived from the project deducted from the valuation of an affected asset. Where domestic law does not meet the standard of compensation at full replacement cost, compensation under domestic law is supplemented by additional measures so as to meet the full replacement cost standard. Such additional assistance is distinct from resettlement measures to be provided under other clauses in the World Bank Policy on Involuntary Resettlement OP 4.12, Para. 6.

“Land acquisition” is the process whereby a person involuntary loses ownership, use of, or access to, land as a result of the project. Land acquisition can lead to a range of associated impacts, including loss of residence or other fixed assets (fences, wells, tombs, or other structures or improvements that are attached to the land).

“Rehabilitation” is the process by which displaced persons are provided sufficient opportunity to restore productivity, incomes and living standards. Compensation for assets often is not sufficient to achieve full rehabilitation.

“Cut-off Date” is the date prior to which the ownership or use establishes eligibility as displaced persons for compensation or other assistance. The cut-off date is established in the RP. It normally coincides with the date of the census of affected persons, or the date of public notification regarding the specific civil works that would cause displacement. Persons coming into the project area after the cut-off date are not eligible for compensation or other assistance.

World Bank’s OP 4.12 establishes several key principles to be followed in resettlement planning and implementation. Of particular relevance for this ESMF are the following:

a) Wherever possible, project designs and RPs should be conceived as development opportunities, so that displaced persons may benefit from the services and facilities created for, or by, project activities.

b) All displaced persons are entitled to compensation for lost assets, or to alternative but equivalent forms of assistance in lieu of compensation; lack of legal rights to the assets lost will not bar displaced persons from entitlement to such compensation or alternative forms of assistance.

c) Compensation rates as established in a RP refer to amounts to be paid in full to the individual or collective owner of the lost asset, without depreciation or deduction for taxes, fees or any other purpose.

d) When cultivated land is acquired, effort should be made to provide land-for-land replacement.

e) Replacement houseplots, sites for relocating businesses, or replacement agricultural land should be of equivalent use value to the land that was lost.
f) The resettlement transition period should be minimized. Compensation for assets should be paid prior to the time of impact, so that new houses can be constructed, fixed assets can be removed or replaced, and other necessary mitigation measures can be undertaken prior to actual displacement.

g) Displaced persons are to receive support (direct assistance or allowances) to meet moving expenses or for temporary subsistence until they can resume productive activities.

h) Displaced persons should be consulted during the process of RP preparation, so that their preferences regarding possible resettlement arrangements are solicited and considered; RPs are publicly disclosed in a manner accessible to displaced persons.

i) The previous level of community services and access to resources will be maintained or improved after resettlement.

j) Responsibility must be clearly established for meeting all costs associated with land acquisition and resettlement, and for ensuring that sufficient funds are available as they become needed.

k) Clear institutional arrangements must be established to ensure effective and timely implementation of all resettlement and rehabilitation measures.

l) Adequate arrangements for effective monitoring will be made on implementation of all resettlement measures.

m) Methods by which displaced persons can pursue grievances will be established, and information about grievance procedures will be provided to displaced persons.

There are several significant policy gaps between the Mongolian legal framework and the World Bank Involuntary Resettlement requirements. According to Mongolian law or practice: (i) nontitled occupants of land (without ownership or possession license), including lessees of land and structures, are not eligible for compensation and rehabilitation entitlements; (ii) compensation for affected land is based on a government compensation tariff, not market rates, although there is room for negotiation with individual APs; (iii) a depreciation coefficient is applied in the valuation of affected structures; (iv) income and livelihood rehabilitation is not normally considered in local land acquisition practice; (v) transaction costs are not included in compensation payments; (vi) there are no project internal grievance procedures preceding dispute resolution by governors and the courts; (vii) public consultation and information disclosure is not practiced; (viii) an eligibility cut-off date is not declared; and (x) there is no need to prepare an RP or to undertake monitoring and evaluation activities. For the different requirements in resettlement planning and implementation under the Mongolian regulations as to those required by the World Bank policy requirements under OP4.12, the latter will apply for the Project.

On screening of ethnic minority communities to be affected by the project (negatively or positively), the ethnic minority people, according to the definition of OP4.10, refers in a generic sense refers to a distinct, vulnerable, social and cultural group possessing the following characteristics in varying degrees:

- Self-identification as members of a distinct indigenous cultural group and recognition of this identity by others;
- Collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories
- Customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture, and
- An indigenous language, often different from the official language of the country or region
If the selected project will have either positive or negative impacts on ethnic minority communities in the project affected areas, the following measures need to be carried out during project planning process, which include:

(a) screening by the Bank to identify whether ethnic minority people are present in, or have collective attachment to the project area;
(b) a social assessment by the borrower;
(c) a process of free, prior, and informed consultation with the affected ethnic minority communities at each stage of the project, and particularly during project preparation, to fully identify their views and ascertain their broad community support for the project.
(d) the preparation of an Ethnic Minority Peoples Plan or an Ethnic Minority Peoples Planning Framework by the borrower; and
(e) disclosure of the draft EMPP or draft EMPPF.

The level of detail necessary to meet the requirements specified in (b), (c), and (d) is proportional to the complexity of the proposed project and commensurate with the nature and scale of the proposed project’s potential effects on the Indigenous Peoples, whether adverse or positive.

5.2. Review of Initial Screening by the World Bank

After initial screening by MEGD, the PMU shall submit the summary of initial screening (Annex 2 of ESMF) to the World Bank.

The World Bank’s EAP Safeguards Secretariat will review, comment and finally confirm the conclusion of project categorization and necessary safeguards document instruments.

5.3. Incorporation of Safeguards Requirements into Specific Projects

During implementation, project activities with potential safeguard issues will be screened to determine the scope and types of safeguards instruments that would be required. This will be reviewed by the Bank.

Once a project’s categorization and requirements for safeguards documents have been jointly agreed by the World Bank and MEGD, the environmental experts in MEGD will be responsible for developing TORs for EIAs with project-specific requirements based on the sample TORs in Annex 5.

Project specific TORs for EIAs shall be submitted to the World Bank for review and approval.

The jointly agreed TORs for EIAs will be attached to the MEGD’s EIA screening approval document. Project specific TORs for RAPs/ARAPs/EMDPs/SAs shall also be submitted to the World Bank for review and approval. The jointly agreed TORs for RAPs/ARAPs/EMDPs will be attached to the MEGD’s safeguards screening approval document.

During implementation, project activities with potential safeguard issues will be screened to determine the scope and types of safeguards instruments that would be required.
5.4. Incorporating ESMF into Contractual Documents

The PMU under the Ministry of Finance will be responsible for ensuring that the full ESMF (including a completed Annex 1 from, project-specific TORs for EIAs as per Annex 5, and other annexes) are incorporated into the contractual documents, which will contractually obligate the entities involved in a transaction to prepare safeguards documents and implement them according to the ESMF.

5.5. Review and Approval of Safeguards Documents

Once contacts are signed, the private entities will hire licensed EA consulting companies to develop environmental safeguards documents according to the requirement of ESMF and other provisions of Mongolian national laws and regulations. The EA document will be submitted to MEGD for review and approval, which will have primary responsibility for reviewing and approving safeguard documents, with input and guidance from the Bank.

Resettlement action plans are developed by project owners with the guidance from local aimags and city land departments. Experienced consultant team will be hired to assist the RAP preparation. Plans will be agreed by the aimag and city citizen representative khurals before being submitted to the Government for approval, with input and guidance from the Bank.

Ethnical Minority Development Plans are to be developed by project owners with free, prior and informed consultation with ethnic minority groups. Experienced consultant team will be hired to assist EMDP preparation. The Plans are to be agreed by local aimag officials and community leaders with input and guidance from the Bank.

5.6. Implementation Supervision and Reporting

During project implementation, the PMU will be responsible for ensuring that the safeguards requirements are properly implemented as approved by the MEGD and local government, and for providing annual reports to the MEGD. Local branches of the Environmental Protection Unit of the State Professional Inspection Agency will carry out periodic supervision, and provide reports to the MEGD. External monitors will be hired to monitor the implementation of social safeguards instruments.

6. GRIEVANCE REDRESSAL

A grievance redress mechanism for projects is necessary for addressing legitimate concerns of affected individuals and groups who may consider themselves deprived of appropriate treatment under projects.

The mechanism would include:

- a recording and reporting system, including grievances filed both verbally and in writing;
- designated staff with responsibility at various levels of governments; and

\[3\] It should be noted that Steps 4, 5 and 6 will apply only to those projects that are subsequently implemented, regardless of funding source.
• (iii) a time frame to address the filed grievances.

This mechanism will be detailed in sub-project safeguards documents. In the event of disputes, attempts should be made to reach resolutions among the parties involved. If agreement is not possible, the resolution of the dispute may need to be decided by the courts.

The PMU will hire a consultant to develop an appropriate grievance redress mechanism, to be incorporated in the Operational Manual, which will be regularly monitored and evaluated by the PMU during implementation of projects.

7. RETROACTIVE FINANCING

Retroactive financing has been requested under the MINIS. If retroactive financing is requested during implementation of the TA a due diligence review of the project or activity will be carried out to determine compliance with environmental and social safeguards requirements. If there are potential or outstanding environmental or social issues, further studies and/or mitigation measures will be developed, agreed and implemented to address these issues in accordance with the procedures of the ESMF.

When applicable, a post-review report will be prepared to describe the safeguards aspects of each retro-actively financed project or activity. The post-review report will be reviewed by the Bank. Compliance with the safeguards requirements are a condition for retroactive financing under the project.

8. CAPACITY BUILDING

The capacity of the PMU, MEGD, EIA experts panel and local branch staff of MEGD and SPIA, as well as the Ministry of Road, Transportation, Construction and Urban Development, Government Agency of Land Affairs, Geodesy and Cartography, Aimag and UB city land departments, will be critical to effectively implement environmental and social safeguards requirement under Mongolian legislation and World Bank policies. Capacity building activities are designed in the TA project to provide adequate training to strengthen the management and technical capacity of these agencies, which will be responsible for ensuring that safeguards requirements are enforced after the MINIS has closed.

A component to build capacity and transfer knowledge has been designed under the project. Among the various activities that are expected to be carried out, environmental and social safeguards training will be conducted for the environmental staff of the MEGD, local branch staff, environmental officers from line ministries, and land departments at the aimag level. Potential training would focus on environmental and social safeguards policies and practices of the World Bank and international society, safeguards screening, environmental assessment techniques (including cumulative impacts, REA, SEA) and good practices (infrastructure and mining sectors), social assessments, and implementation supervision and monitoring.

Much of the training is expected to be carried out by World Bank specialists using the Bank’s Country Office facilities in Ulaanbaatar. As such, a first assessment of the overall cost of the safeguards training activities is expected to be in the range of $150,000 to $200,000 over five years. The following table breaks down key capacity building activities and provides cost estimates for each activity.

**Capacity Building Activities**
<table>
<thead>
<tr>
<th>Objectives</th>
<th>Project Activities</th>
<th>Project Inputs and Expected Outputs</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>PMU Staffing</td>
<td>Hire part-time Environment and Social Safeguards Specialists for five years in PMU.</td>
<td>Knowledge and experiences on safeguards contribute to safeguards implementation. Smooth implementation of safeguards and good communication with Bank’s safeguards team.</td>
<td>$85,000</td>
</tr>
<tr>
<td>Training of Trainers</td>
<td>Bank’s safeguard team to provide environment and social safeguards training to the PMU’s Safeguards Specialists on policies, ESMF and international best practices.</td>
<td>Strengthening the PMU safeguards specialists’ understanding of Bank’s Safeguards policies and project ESMF. Better serve the PMU on safeguards implementation.</td>
<td>$2,500</td>
</tr>
<tr>
<td>Safeguards Workshops</td>
<td>Bank and PMU jointly organized safeguards workshops for stakeholders</td>
<td>Professional and continuing workshops for relevant governmental officials, including officials from MEGD, WA, SPIA, MRTCU and land department from local governments. Better awareness of environmental and social concerns during project preparation and implementation, and more supportive and capable of implementing safeguards.</td>
<td>$2,500</td>
</tr>
<tr>
<td>Skills Development</td>
<td>Training courses for environment and social management.</td>
<td>Professional and continuing training for representatives of private sector/potential private investors, local environment and social consultative institutes. Enhance capacities of safeguards implementation and enhance the countries’ overall capacities in environment and social management.</td>
<td>$15,000</td>
</tr>
<tr>
<td>Study Tours</td>
<td>Bank and PMU jointly organize study tour to environmental and social friendly projects.</td>
<td>Best practice demonstration, and better understanding of the safeguard policies in combination of the theory and practice.</td>
<td>$50,000</td>
</tr>
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9. PROJECT IMPLEMENTATION

This section summarizes the particular arrangements for the TA project. It also describes the responsibilities of different government agencies that are involved in or relevant to the application of the ESMF.

9.1 Project Steering Committee. Because the types of infrastructure projects to be developed using MINIS funds have not been identified, and because they are expected to cover more than one sector, a Project Steering Committee will be established to agree and oversee the use of funds. Membership will be from key line ministries (Directors General level), the National Development and Innovation Committee (planning agency), the State Property Committee, and others as deemed necessary. The State Secretary for the Ministry of Finance will Chair the Committee.

9.2 Implementing Agency. The Ministry of Finance will be the implementing agency for the project, and a new Project Management Unit (PMU) will be established. A Project Director will be hired to oversee implementation of the MINIS and will report to the State Secretary for Finance. The Project Director will have overall responsibility for: (i) contracting consultants and guiding their work; (ii) monitoring and evaluation activities; (iii) reporting on implementation progress; (iv) effective implementation of the environmental and social safeguards framework; and (v) implementing project activities within budget and according to schedule. Technical and safeguards specialists are expected to be hired to support the work of the Project Director. These costs would be financed through the MINIS.

9.3 Government Ministries or Agencies

Ministry of Environment and Green Development (MEGD). The MEGD will be responsible for environmental screening of potential projects as its mandate under Mongolian EIA system. It will also be responsible for reviewing and approving EIA documents for potential projects, and for granting environmental permits to commence construction activities. For projects with significant impacts, MEGD will be part of the inter-agency council, which is responsible for carrying out all relevant inspections and granting permission to commence operations.

Department of Policy Implementation, MEGD (Formerly as Water Authority /WA/): As described in the Water Law (2004), the Water Authority (WA) was established under the MEGD in 2005. It is a Government agency that is charged with safeguarding the country’s water resources and is responsible for such activities as: (i) assessing and planning for water resources, monitoring and protecting it use, and carrying out related research.

State Professional Inspection Agency (SPIA). The Environmental Protection Unit of SPIA is the national agency responsible for enforcing environmental laws. Its local branches are equipped with environmental inspectors, responsible for periodic on-site environmental safeguards supervision during project construction and operation.

Ministry of Road, Transportation, Construction and Urban Development (MRTCU). At the central level, the MRTCUD, particularly its Department of Urban Development and Land Affairs, is in charge of land acquisition and resettlement policy, and all associated legal issues. The Officer overseeing land planning, management, and land use and restoration is also in charge of land acquisition. However, land acquisition is not formally included in the Officer’s job description.
Government Agency for Land Affairs, Geodesy and Cartography: In addition, the Government Agency for Land Affairs, Geodesy and Cartography is in charge of land management planning. At the local level, the Municipality of Ulaanbaatar and Aimag Governments, including their respective land departments, are in charge of land acquisition and resettlement plans and their implementation.

State Administrative Central Organization of Land: Article 42 of the Land Law specifies that the relevant State Administrative Central Organization of land issues may, following an agreement with the land possessor on withdrawing his/her land, with or without replacement, and with full or partial compensation for state special needs, submit a proposal to the Government (42.1). Decisions on replacing or taking back Citizen’s owned land based on special needs of the state and for fee shall be made by the Cabinet (32.2).

Furthermore, the state administrative organization/agency in charge of land matters enters into preliminary agreement with the owner of the land one year prior to making a decision on replacing or taking back the land owned by citizens for special need of the state, with compensation. Article 42.3 of the Land Law: Governors of relevant levels shall, on the basis of government decisions, make contracts with the land possessor citizen, company or organization and remove the land from their possession with or without replacement and with compensation.

ANNEXES

Annex 1: Summary of Safeguard Documents with Relevant Recommendations
Annex 2: Initial Screening Form for Potential Environmental & Social Safeguards
Annex 3: Involuntary Resettlement Instruments
Annex 4: Guidelines on Ethnic Minority Development Plans
Annex 5: Sample TORs of Environmental Impact Assessments
Annex 1: Summary of Safeguard Documents with Relevant Recommendations

Mongolia: Mining Infrastructure Capacity Building Project (P118109)
Summary of Safeguard Documents with Relevant Recommendations

This document reviews recommendations contained in safeguards documents that are relevant to the proposed Mining Infrastructure Capacity Building Project (MINCAP). Some of the studies describe the current situation in the Southern Mongolia Region, while others are focused on the country as a whole. The intent is to provide a limited review of safeguards reports and documents about the region, to summarize key findings and recommendations, and identify those recommendations that can reasonably be adopted by the MINCAP.

SOUTHERN GOBI REGIONAL ENVIRONMENTAL ASSESSMENT

Summary of Study

The Southern Gobi Regional Environmental Assessment (REA) evaluates the potential for and constraints to development across all relevant sectors - transport, rural development, mining, energy, water, and natural resources management - and supports efforts of the Government of Mongolia and local communities to expand, deepen, and improve existing capacity for environmentally sustainable and integrated regional development planning. The principal objective of the document is to provide guidance to sustainably manage environmental resources in the future development of the Southern Gobi Region. The REA looks at two development scenarios - a base case and a high case - and explores their direct and indirect impacts on the environment. It examines opportunities and constraints of the region’s hydrology, soils, vegetation, wildlife, protected areas and physical cultural resources. It also assesses institutional arrangements for implementing the REA.

Study Recommendations

The REA provides a number of recommendations, which are focused on the institutional aspects to support the sustainable development of Southern Gobi Region. These include:

* Strengthening capacity of government agencies at both the local and national levels. Building the abilities of local governments to plan and manage mining-based land development in the region will be critical. Enhancing the capacity of officials at the Ministry of Environment and Green Development, the State Professional Inspection Agency for approving environmental impact assessments (EIAs) and reviewing and monitoring environmental management plans, and Aimag and UB city land departments will be essential for ensuring compliance with Mongolian legislation and World Bank policies.

* Establishing new regional development bodies. Decisions about infrastructure investments in the region will necessitate input from local communities, exchange of information among numerous government entities, and coordination of decisions across various levels of government. To effectively do so, consideration should be given to establishing a regional development body or council to facilitate planning of infrastructure needs, sharing of information, and ensuring environmental and social issues are adequately considered in regional development. In addition, the REA suggests establishing a groundwater management and information center to collect information, carry out studies on groundwater potential, and develop guidelines on allocation and use.
Developing new standards and guidelines for effective road and railroad crossings for wildlife and livestock.

Improving mine permit and EIA procedures. This would best be achieved through increasing the participation of local governments in the decision-making process and allowing adequate consultation with soum and aimag citizen representative khurals. The report also suggests that local governments should be involved in EIA approval for mine licensing applicants.

The REA provides an environmental impact evaluation and significance of the impacts in the region; and summarizes possible mitigation measures to avoid and/or minimize adverse environmental impacts. Below is the summary of the impacts and mitigation measures:

Existing transport modes. Existing traffic volumes to transport mineral products from mine to market is already causing significant adverse impact to the environment. Truck traffic travelling on unpaved roads and multiple parallel tracks are causing soil erosion and desertification, dust and noise considerably affect both human and animal health. Especially in the buffer zone of the Gobi Strictly Protected Area, the traffic is disturbing movements of endangered species. To mitigate the near-term impacts it has been suggested that roads be improved, the width of traffic lanes be reduced to a single set, and wildlife movement corridors be established. However, in the medium-term a shift from road-based to rail-based transport is considered the best mitigation measure.

Wildlife management. The REA recommends paying considerable attention to wildlife management, particularly to avoid habitat fragmentation. Animal overpasses and underpasses should be incorporated into road and railway designs to allow animals to across.

Groundwater management. Based on available information, groundwater resources in the South Gobi Region (SGR) can accommodate forecast development for the next ten years to twenty years. However, the information on groundwater availability and its regional variations is incomplete and additional studies and investigations need to be carried out. At some point, development in the SGR will likely exceed available water resources. Mine dewatering will lower the water table and may impact water sources used by livestock, wildlife and herder families.

Demand for power supply will increase. To provide the electricity mines will require, at least one power plant is expected to be constructed in the SGR over the next five years. The construction of power plants must be carefully monitored to avoid any negative environmental impacts.

Mining development will attract workers from outside the SGR. Because of the employment opportunities that new mine development will create, non-indigenous people will come to the region in search of job opportunities. Many will settle down and if housing is not offered, migrants will live in informal settlements without access to social and medical services. This might create both negative social and environmental impacts. Therefore, better town and land management planning and law enforcement will be required. In addition, to the environmental impacts of wastewater and solid waste will need to be mitigated through the construction of adequate facilities.
Recommendations for MINCAP

Strengthening capacity of government agencies at both the local and national levels has particular relevance for the MINCAP. As much as US$1.72 million has been set aside to build capacity and transfer knowledge to officials at the national and local levels. While much of the envisaged training will focus on preparing public-private partnerships, a sizeable amount will be utilized to ensure that EIAs are properly reviewed and approved, and to ensure compliance with Mongolian legislation and World Bank policies pertaining to safeguards.

Establishing new regional development bodies. Component 1.3 of the MINCAP sets aside a pool of funds to address emerging priority issues. The establishment of a regional body to enhance regional development is specifically mentioned as one possible issue to be addressed under the project.

GROUNDWATER ASSESSMENT OF THE SOUTHERN GOBI REGION

Summary of Study

This report describes the current and future water resources and water demands in the Southern Gobi Region. It is based on available data and information and proposes a way forward to assure that water resources development and management can support the economic and infrastructural development and environmental protection.

Current water demand for domestic uses (rural and urban) is approximately 10,000 m$^3$/day and 32,000 m$^3$/day for livestock water supply; and 40,000 m$^3$/day for current operational mines. This demand is expected to grow sharply under ongoing and planned mining developments and may reach 300,000 m$^3$/day in 2020.

The most important conclusion of the assessment is that the groundwater is the main source of water in the SGR. Almost all significant sources of groundwater in the SGR are “fossil” or “non-renewable.” Pumping water from these fossilized aquifers will cause the lowering of the ground water table and if pumping continues the aquifers will start to be emptied. It was concluded that the groundwater potential for the SGR as whole is sufficient to cover the water demands for the next ten years to twelve years.

The report also examines alternative options of water supply through long-distance conveyance of water from rivers in the north (500 km to 700 km away), such as proposed Khelren Gobi and Orkhon Gobi pipeline projects. It was noted that this is in fact a conjunctive use option, which would not replace current groundwater use. Groundwater would still supply areas outside the reach of pipelines, and would serve as a backup to the surface water system.

Study Recommendations

The study’s key recommendation is to establish a groundwater management center (Ground Water Management Information Unit /GWMIU/ at MEGD) to bring all information and data together in one location, prepare an overview of the groundwater potential, define information gaps, and coordinate additional investigations for regional groundwater management.
The proposed center would also serve as the focal point for managing, monitoring and coordinating studies and investigations.

The report recommends that water demand projections be determined with the specific considerations of factors, such as: (i) regional economic/mining development; (ii) water uses and required quality, re-use and recycling of water; and (iii) agriculture demands.

The report further recommends that the capacity of the national staff should be strengthened in groundwater resource assessment and management.

**Recommendations for MINCAP**

The proposed MINCAP has funds available to support water demand projections and capacity building initiatives for national and local officials. It is not expected funds would be used to help establish or make operational a groundwater and information center.

**SOUTHERN MONGOLIA INFRASTRUCTURE STRATEGY**

**Summary of Study**

This report examines various options for delivering the infrastructure required to support mining activities in southern Mongolia. Specific chapters explore the benefits, drawbacks and economic impact of the options for housing, land transport, and electricity. In addition, separate chapters address the potential impacts on water resources and the environment, as well as possible social implications resulting from large-scale development of mines.

**Study Recommendations**

For the housing and urban infrastructure sectors, the report assumes that the population of the SGR will increase by around eight times the number of mine employees. Based on preliminary estimates of mine employment and indicative populations, the capital cost of town development by 2015 was estimated at US$1.4 billion. The costs include housing, other buildings, drinking water, waste water, town electricity, heating and solid waste services. The report has taken different models for town development including: fly-in and fly-out, gated community, integrated community and company town as options for future town developments in the region. However, for better planning and selection of the most appropriate town models, the report recommends organizing consultative processes with participation of central and local governments and mining companies.

Managing the trade-off between building railways and roads will be driven by the need to transport coal. To efficiently transport large quantities of coal (in excess of 5 mil./tons/year), investment in railways will be required. The development of railways can be best managed with a phased approach, whereby in the near-term, the priority should be to develop the least-cost railway to kick-start the development of mining in Southern Mongolia. Of the options available, the proposed railways from Tavan Tolgoi to Gashuun Sukhait, and from to Gashuun Sukhait to Ceke make the most economic sense. Once the capacity of these lines has been met, additional lines should be developed. However, construction of major railways (and roads) will have significant impacts on wildlife movement. Little is known at present about which migratory
routes are used by animals. *Studies should be carried out to identify appropriate wildlife crossing arrangements and requirements to construct wildlife crossing should be included in the environmental management plans that are approved for railways and roads.*

Without **additional generating capacity**, there will be inadequate supply reserve margins for the country beginning in 2011, and electricity demand will exceed supply by 2012. The report concludes that without additional generating capacity in the region, there will be difficulties in meeting growing demand in Southern Mongolia. As such, *it recommends that a power plant at Tavan Tolgoi Coal Mine be constructed.*

The extent and spatial distribution of **groundwater resources in Southern Mongolia** is not known. The report indicates that groundwater potential will likely be able to accommodate growth in regional demand until 2020. An alternative option would be to supply Southern Mongolia with surface water, piped from the Kherlen or Orkhon rivers in Northern Mongolia. However, the capital cost of this option is much higher than utilizing groundwater in the region. The report’s recommendation calls for relying on regional groundwater in the short-term and increasing knowledge and understanding of the extent of the groundwater resources. To support this work, *a new Southern Mongolia Groundwater Management and Information Center should be established.* The center would act as a focal point for information and studies, and develop guidelines for the sustainable allocation and use of groundwater.

*To ensure that local residents receive a reasonable share of the benefits of mining,* a regular **consultative process providing a forum for participation of various stakeholders should be established.** The forum, which should include representatives from government, mining companies, local communities and NGOs, could provide opportunities for information-sharing, decision-making, and resolution of conflicts. Some of the social issues that could be addressed include:

- **Sharing mining revenues:** Local residents should receive at least as much of the proceeds of mining revenues as residents in other parts of the country, and there should be transparent reporting on how mining revenue is allocated to local communities.
- **Improving employment opportunities through education and training:** Education and training facilities need to be developed and improved to meet the demand of the mining industry, so that local residents could have better employment opportunities.
- **Encouraging women’s participation in the labor force:** Mining companies could play an important role in the promotion of women in the workforce. Governments can support women with social services including child care centers and providing support through centers against violence and sexual harassment.
- **Improving town and social services:** With population growth the demand for adequate accommodation, town infrastructure, education, health, law and order and town administration will increase. This will necessitate local governments to expand their capacity.
- **Protecting vulnerable groups:** Compensation arrangements for herders who are displaced by new mining developments could be reviewed to ensure that adequate livelihoods are retained following the relocation.
Recommendations for MINCAP

Organizing consultative processes to garner input from various stakeholders has been identified as a possible area for support under the MINCAP. The objective would be to ensure that the voices of local communities and herders are considered when decisions about large investments are made. It would also provide a venue for addressing social impacts.

An Environmental and Social Safeguards Framework (ESSF) was developed as part of the MINCAP’s preparation. The ESSF defines a process for ensuring that safeguard issues are adequately addressed in contractual documents of agreements to be signed between the government and developers of infrastructure. This will be achieved by incorporating requirements to carry out EIAs, resettlement action plans (where appropriate) and studies on wildlife movements according to Bank policies and Government laws into PPP contractual documents, which will contractually obligate the private entities involved in a transaction to prepare safeguards documents and implement them according to the ESSF.

LIVESTOCK AND WILDLIFE ISSUES IN THE CONTEXT OF DEVELOPMENT IN THE SOUTHERN GOBI REGION

Summary of Study

This report, which focuses on the South Gobi Region, describes the status, trends, and likely development paths for pastoral livestock herding and populations of large herbivore wildlife relative to development of mechanical wells, exploitation of shallow groundwater, economic development, and the impact from climate change on these issues.

Development of mining industry, together with associated infrastructure needs and human population change, could cause significant impacts on the regional environment. It has been argued that new dynamics in current Mongolian society and economy have already started and the traditional “conservation ethic” of the people is rapidly changing into an “exploitation ethic” that is threatening rangeland capacity to support livestock and wildlife populations.

The SGR has desert and desert steppe land cover, which is highly sensitive to drought and severe winters, and natural disasters exacerbate the region’s susceptibility to degradation. The region is important in terms of high-value cashmere wool production. In addition, the region accommodates critical habitats for globally significant populations of threatened and endangered wildlife.

Study Recommendations

Measures to limit development’s impact on wildlife. Although the anticipated development might result in increased potential for ecotourism and wildlife viewing, the impacts are likely to compound the threats facing wildlife. These impacts include: (a) interference with wildlife mobility; (b) increased pressure from and access for hunting and poaching; (c) loss, degradation, and fragmentation of habitat; (d) increased competition for rangeland resources with livestock; and (e) increased rate of human intrusion. Further anticipated economic development and human intrusion is therefore expected to increase pressure on livestock and wildlife unless appropriate safeguards to protect natural ecosystems, wildlife, and pastoral livestock production are in place and functional prior to the development. Unconstrained economic development without prior functional regulatory mechanisms would be a major cause of natural rangeland
degradation. *Measures to lessen the impact of regional development on wildlife, including strengthening regulatory and institutional capacities, should be mainstreamed.*

*Within the SGR, there is little surface water.* The largest water resources are underground water stored in shallow and deep aquifers. Most humans and domestic livestock rely on small, hand-drawn wells to meet water requirements. Large wild herbivores, however, rely almost exclusively on surface or near-surface water sources. Processes to extract minerals, precious metal, and coal also require substantial and reliable sources of water, and the development of infrastructure development at the scale anticipated will need access to large quantities of water and require additional infrastructure development to extract water from aquifers. *A sustained approach to better manage water resources in the Region is needed.*

*The potential impacts of climate change.* The report notes that the projections of climate change impacts by the Intergovernmental Panel on Climate Change (IPCC) for the regional area, which includes the SGR, call for: (a) increased annual temperatures of 2.5°C to 5.0°C during both winter and summer months; (b) an increase in annual precipitation during the winter; and (c) a slight decrease or increase in summer precipitation depending on sub-region location. Higher temperature and precipitation are predicted to result in a 25–75 percent increase of Net Primary Productivity in Mongolia’s desert steppe zones. However, there is concern that desert land cover types are gradually expanding their area northward into desert steppe and grass steppe, at least partially due to higher temperatures and less annual moisture accumulation. Further, potential vulnerabilities to rangeland and natural ecosystems to climate change impacts include (a) increased frequency of extreme weather events, including drought; (b) increased water stress and heat stress, resulting in decreasing vegetation productivity; (c) reduced soil cover in arid land vegetation due to wind erosion; and (d) potential for increase in non-native invasive species caused by reduced ground cover and increased soil disturbance.

The authors of the study recommend that to successfully respond to the impending challenges Mongolia is facing, a *South Gobi Region Natural Resources Management (NRM) program should be prepared.* The SGR NRM program would recommend national policies and programs to mitigate the adverse impacts of economic development, exploitation, and human intrusion on natural resources. The objectives of the NRM program should be to: (a) improve regional government capacity to enforce existing laws and regulations; (b) ensure application of environmental remediation measures as an essential component of economic development and infrastructure construction; (c) encourage and support regional rangeland management and sustainable use of resources by livestock and wildlife; and (d) provide meaningful and realistic information on wildlife needs to government planning and management agencies.

**Recommendations for MINCAP**

Through the ESSF, *measures to help limit the impact of developing infrastructure on wildlife* would be addressed by incorporating requirements to carry out EIAs, including screening for potential adverse impacts on critical and non-critical natural habitats and suitable mitigation measures, into PPP contractual documents.
PROTECTED AREA CORRIDORS - URBAN DEVELOPMENT AND WILDLIFE MOVEMENTS IN MONGOLIA

Summary of Study

This report examines international examples of linking protected areas through biological/wildlife corridors and the concepts Mongolia is exploring in this direction. Although the focus of the report is on urban areas, there is good information about some of the institutional players involved in establishing and managing a corridor system for wildlife.

Study Recommendations

Economic development is having a profound impact on wildlife movement. To develop wildlife corridors, the report recommends:

(a) Creating wildlife corridor working group with the participation of relevant stakeholders, including ministries, protected areas authorities, city and aimag governments, protected area management teams, and other specialists to integrate urban planning with protected area wildlife corridor planning;

(b) Developing amendments to the Law on Protected Areas with provisions on protected area corridor systems;

(c) Increasing wildlife corridor research and monitoring;

(d) Promoting initiatives of aimag local governments on wildlife corridor and local protected areas concepts; and

(e) Increasing public awareness and public involvement in establishing wildlife corridors.

Recommendations for MINCAP

Should the government elect to do so, support to establish regional development bodies, which might address the movement of wildlife, would be provided under the MINCAP.

ENVIRONMENTAL MANAGEMENT GUIDELINES FOR MONGOLIA: OIL & GAS DEVELOPMENT

Summary of Study

A profile of oil and gas development in Mongolia, as well as the sector’s general environmental impacts and the various wastes produced, is provided in this report. It examines the sectoral policies, regulations and standards governing EIA screening procedures, and makes recommendations to manage and monitor environmental impacts.

The report notes that the main impacts of oil and gas developments are: (i) atmospheric emissions; (ii) the use of water supply and creation of wastewater; (iii) noise generated by the operations; (iv) the need to manage waste and toxic hazardous substances; and (v) construction of
infrastructure, including roads, storage facilities, oil and gas pipelines, etc.

The main environmental wastes associated with onshore oil and gas production are drilling-waste fluids or muds, drilling-waste solids, produced water and volatile organic compounds, liquid waste and gaseous waste (fired equipment, vents, flares and fugitive emissions).

Under current legislation, all proposed oil and gas development projects of any size should be subjected to a full (detailed) Environmental Impact Assessment. In addition to the laws governing EIAs, oil and gas projects are subject to special legislation through the Petroleum Law and are subject to associated Petroleum Regulations that specify measures to safeguard the Mongolian people, animals, nature, national resources and land surface (Article 7, Para 10, Petroleum Law). These measures include:

- a plan of restoration works and budget for restoring natural land surface areas used in operations;
- plans and precautions to protect the safety of the Mongolian people, contractor’s personnel, animals, wildlife and the ecology during operations;
- plans and precautions to prevent pollution to the air, surface and subsurface waters and land surface related to operations; and
- in the case of new operations near the territories within which petroleum operations are prohibited, concrete measures to protect these territories.

The report also defines achievable levels and standards for pollution associated with onshore oil and gas development. These include levels and standards for air emissions (greenhouse gas emissions, on-site thermal power plants, ozone-depleting substances), noise, liquid effluents, toxic chemicals and radio-active materials.

Summary of Recommendations

Recommendations contained in the report to strengthen operations in the oil and gas sector include:

- Minimizing wastewater discharges, and reducing the impacts;
- Minimising oil spills and reducing the impacts;
- Minimising soil contamination, and reducing the impacts; and
- Minimizing air emissions.

More specifically following measures are recommended:

- In drilling operations, the use of fresh water should be minimized by maximizing the use of drilling mud pond decant water;
- Sour gas emissions should be eliminated by sweetening and reuse;
- Leakages and venting of greenhouse gases (methane, carbon dioxide and H₂S) should be minimised.

Environmental impact management needs to focus on ‘key issues’ of production and control practices in order to lead to compliance with emissions requirements. Therefore it was recommended that:
- Drilling should maximize the use of freshwater gel-based mud systems;
- Disposal of drilling muds should be in a manner that minimizes environmental impact;
- Invert (diesel-based) muds should be re-used;
- Drilling-mud pond decant water should be re-used;
- Reuse water produced from steam generated for using to stimulate reservoir production;
- Gas flaring should be minimized, and
- Sour gases should be scrubbed to remove hydrogen sulphide and mercaptans.

The report also recommends that a reclamation and closure plan be an integral part of the detailed EIA and that it lists specific activities in accordance with national standards.

**Recommendations for MINCAP**

None of the recommendations in this report would be addressed by the MINCAP.

**COMPARISON OF MONGOLIAN AND WORLD BANK ENVIRONMENTAL POLICIES**

**Summary of Study**

This paper investigates the elements in the legal provisions, decision making, and management approaches of Mongolian environmental assessments (EA) and compares it with World Bank policy. It discusses: (i) whether Mongolian EA legislation ensures effective decision-making related to proposed development projects; (ii) the historical development of EA in Mongolia, comparing mainly Mongolian EA law to World Bank Operational Policy 4.01 (OP 4.01); and (iii) the implementation of EA legislation in Mongolia.

The report, which was produced in the late 1990s, concludes that the Mongolian EA policy generally corresponds with World Bank policy, though there are some disparities between the two.

A key difference includes the definition of the EA process under Mongolian Law on EA and the Bank’s environmental policies. The Mongolian Law defines EIAs as the “identification” of any possible adverse effects and “determination” of measures to minimize and mitigate such adverse impacts. This is different from Bank policy, which regards the EIA as a “process” whose breadth, depth, and type of analysis depends on the nature, scale and potential environmental impact of the proposed project.

Another difference is public participation and consultation during the EA process and public access to EA reports. Provisions in the Mongolian Laws do not clearly define ways in which the public can be involved in EA process. Although public hearings and consultations are officially required before investors submit their EA reports, these activities take place at a formal level. The law does not require EA reports to be available in a public place, or to the project affected groups and local NGOs.

With regard to Environmental Management Plans (in Mongolia they’re called
Environmental Protection Plans), Mongolian EMPs do not have sections on capacity building and training, or on institutional measures to be taken during implementation and operation to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels (WB, OP 4.01, 1999).

**Study Recommendations**

Several recommendations were made in the report that include: (a) EAs should be integrated into the decision-making process by altering the entire decision-making system and mechanism of Mongolia; (b) EA regulations in Mongolia should include clear screening criteria; (c) monitoring and follow-up work should be carried out to see how the forecasts made in initial studies compare with actual impacts; (d) capacity building for EAs; and (e) improve the quality of the EA reports.

**Recommendations for MINCAP**

It should be noted that this report is a bit dated and some of its conclusions and recommendations have already been taken up by recent amendments to environmental laws and procedures for implementing EIAs. As stated in previous sections, funding is available under the MINCAP to build capacity in a variety of sectors and activities, including the EIA process.
Annex 2: Initial Screening Form for Potential Environmental & Social Safeguards Issues

This form is to be used by the Ministry of Environment and Green Development (MEGD) for initial screening of potential environmental and social safeguards issues. It is meant to facilitate the determination of applicable World Bank safeguards policies, as well as those relevant to Mongolian legislation. This initial screening shall be conducted by environmental staff in the Department of Environment and Nature Resources of MEGD and during their General Assessment process as mandated by Law. The completed form will be submitted to the World Bank task team for confirmation.

<table>
<thead>
<tr>
<th>Project Name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Location</td>
<td></td>
</tr>
<tr>
<td>Project Proponent</td>
<td></td>
</tr>
<tr>
<td>Project Type/Sector</td>
<td></td>
</tr>
<tr>
<td>Estimated Investment</td>
<td></td>
</tr>
<tr>
<td>Start/Completion Date</td>
<td></td>
</tr>
</tbody>
</table>

Screening for Mongolian environmental regulations

- A full/detailed EIA is required: Yes:__ No:__
- Permit granted with conditions: Yes:__ No:__
- Rejected: Yes:__ No:__

Screening Checklist for World Bank Environmental and Social Safeguards

<table>
<thead>
<tr>
<th>Questions</th>
<th>Answer</th>
<th>If Yes WB Policy triggered</th>
<th>Documents requirement if Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are the project impacts likely to have significant adverse environmental</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>impacts that are sensitive, diverse or unprecedented? Please provide</td>
<td>yes</td>
<td>OP 4.01 Environmental</td>
<td>Environmental Impact</td>
</tr>
<tr>
<td>brief description:</td>
<td>no</td>
<td>Assessment Category A</td>
<td>Assessment</td>
</tr>
<tr>
<td>Do the impacts affect an area broader than the sites or facilities</td>
<td></td>
<td></td>
<td>EIA</td>
</tr>
<tr>
<td>subject to physical works and are the significant adverse environmental</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>impacts irreversible? Please provide brief description:</td>
<td></td>
<td>OP 4.01 Environmental</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assessment Category A</td>
<td></td>
</tr>
<tr>
<td>Is the proposed project likely to have minimal or no adverse environmental</td>
<td></td>
<td></td>
<td>No action needed</td>
</tr>
<tr>
<td>impacts? Please provide brief justification:</td>
<td>yes</td>
<td>OP 4.01 Environmental</td>
<td></td>
</tr>
<tr>
<td></td>
<td>no</td>
<td>Assessment Category C</td>
<td></td>
</tr>
</tbody>
</table>

4 Examples of projects where the impacts are likely to have significant adverse environmental impacts that are sensitive, diverse or unprecedented are large scale infrastructure such as construction of new roads, railways, power plants, major urban development, water treatment, waste water treatment plants and solid waste collection and disposal etc.

5 Examples of projects likely to have minimal or no adverse environmental impacts are supply of goods and services, technical assistance, simple repair of damaged structures etc.,
<table>
<thead>
<tr>
<th>Question</th>
<th>Category A</th>
<th>Category B</th>
<th>Category C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the project neither a Category A nor Category C as defined above? Please provide brief justification:</td>
<td></td>
<td>OP 4.01 Environmental Assessment</td>
<td>EIA or EMP</td>
</tr>
<tr>
<td>Are the project impacts likely to have significant adverse Social impacts that are sensitive, diverse or unprecedented? Please provide brief description:</td>
<td></td>
<td>OP 4.01 Environmental Assessment</td>
<td>EIA Social Assessment</td>
</tr>
<tr>
<td>Will the project adversely impact physical cultural resources? Please provide brief justification:</td>
<td></td>
<td>OP 4.11 Physical Cultural Resources</td>
<td>Addressed in EIA</td>
</tr>
<tr>
<td>Will the project involve the conversion or degradation of critical or non-critical natural habitats? Please provide brief justification:</td>
<td></td>
<td>OP 4.04 Natural Habitats</td>
<td>Addressed in EIA</td>
</tr>
<tr>
<td>Will the project involve the significant conversion or degradation of critical natural habitats?</td>
<td></td>
<td>OP 4.04 Natural Habitats</td>
<td>No eligible</td>
</tr>
<tr>
<td>Does the sub-project construct a new dam or rely on the performance of an existing dam or a dam under construction?</td>
<td></td>
<td>OP 4.37 Dam Safety</td>
<td>Dam Safety Plan</td>
</tr>
<tr>
<td>Does the project procure pesticides (either directly through the project, or indirectly through on-lending, co-financing, or government counterpart funding), or may affect pest management in a way that harm could be done, even though the project is not envisaged to procure pesticides?</td>
<td></td>
<td>OP 4.09 Pest Management</td>
<td>Addressed in EIA (Pest Management Plan)</td>
</tr>
<tr>
<td>Does the sub-project involve involuntary land acquisition, loss of assets or access to assets, or loss of income sources or means of livelihood? Please provide brief justification:</td>
<td></td>
<td>OP 4.12 Involuntary Resettlement</td>
<td>Resettlement Action Plan</td>
</tr>
<tr>
<td>Are there any ethnic minority communities present in the project area and are likely to be affected by the proposed sub-project negatively or positively? Please provide brief justification:</td>
<td></td>
<td>OP 4.10 Indigenous People</td>
<td>Ethnic Minority Development Plan</td>
</tr>
</tbody>
</table>

6 Projects that do not fall either within OP 4.01 as a Category A or Category C can be considered as Category B. Examples of category B sub-projects include small scale in-situ reconstruction of infrastructure projects such as road rehabilitation and rural water supply and sanitation, small schools, rural health clinics etc.

7 Examples of physical cultural resources are archaeological or historical sites, including historic urban areas, religious monuments, structures and/or cemeteries particularly sites recognized by the government.

8 Critical natural habitats include those habitats that are legally protected, officially proposed for protection, identified by authoritative sources for their high conservation value, or recognized as protected by traditional local communities.
Will the project have the potential to have impacts on the health and quality of forests or the rights and welfare of people and their level of dependence upon or interaction with forests; or aims to bring about changes in the management, protection or utilization of natural forests or plantations? Please provide brief justification:

<table>
<thead>
<tr>
<th>Question</th>
<th>Category</th>
<th>Addressed in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will the project have the potential to have impacts on significant conversion or degradation of critical forest areas or other natural habitats?</td>
<td>OP4.36</td>
<td>Forestry</td>
</tr>
<tr>
<td>Will the project develop feasibility studies for projects in disputed areas?</td>
<td>OP7.60</td>
<td>Projects in Disputed Areas</td>
</tr>
<tr>
<td>Will the project involves any river, canal, lake or similar body of water that forms a boundary between, or any river or surface water that flows through two or more states? Or any tributary of above mentioned waterways?</td>
<td>OP7.50</td>
<td>Projects on International Waterways</td>
</tr>
</tbody>
</table>

### Conclusion and Safeguards Instruments Required:

The project is classified as a Category ________ project as per World Bank OP4.01, and the following safeguards documents will be prepared:

1. _____________________________________________________________
2. _____________________________________________________________
3. _____________________________________________________________
4. _____________________________________________________________
5. _____________________________________________________________

<table>
<thead>
<tr>
<th>Initial Screening Completed by</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEGD staff</td>
</tr>
<tr>
<td>Confirmed by World Bank EAP Safeguards Secretariat</td>
</tr>
<tr>
<td>Environmental Specialist</td>
</tr>
<tr>
<td>Social Specialist</td>
</tr>
<tr>
<td>Task Team Leader</td>
</tr>
</tbody>
</table>
Annex 3: Involuntary Resettlement Instruments

1. This annex describes the elements of a resettlement plan, an abbreviated resettlement plan, a resettlement policy framework, and a resettlement process framework, as discussed in OP 4.12, paras. 17-31.

Resettlement Plan

2. The scope and level of detail of the resettlement plan vary with the magnitude and complexity of resettlement. The plan is based on up-to-date and reliable information about (a) the proposed resettlement and its impacts on the displaced persons and other adversely affected groups, and (b) the legal issues involved in resettlement. The resettlement plan covers the elements below, as relevant. When any element is not relevant to project circumstances, it should be noted in the resettlement plan.

3. Description of the project. General description of the project and identification of the project area.

4. Potential impacts. Identification of
   (a) the project component or activities that give rise to resettlement;
   (b) the zone of impact of such component or activities;
   (c) the alternatives considered to avoid or minimize resettlement; and
   (d) the mechanisms established to minimize resettlement, to the extent possible, during project implementation.

5. Objectives. The main objectives of the resettlement program.

6. Socioeconomic studies. The findings of socioeconomic studies to be conducted in the early stages of project preparation and with the involvement of potentially displaced people, including
   (a) the results of a census survey covering
      (i) current occupants of the affected area to establish a basis for the design of the resettlement program and to exclude subsequent inflows of people from eligibility for compensation and resettlement assistance;
      (ii) standard characteristics of displaced households, including a description of production systems, labor, and household organization; and baseline information on livelihoods (including, as relevant, production levels and income derived from both formal and informal economic activities) and standards of living (including health status) of the displaced population;
      (iii) the magnitude of the expected loss—total or partial—of assets, and the extent of displacement, physical or economic;
      (iv) information on vulnerable groups or persons as provided for in OP 4.12, Para. 8, for whom special provisions may have to be made; and
      (v) provisions to update information on the displaced people's livelihoods and standards of living at regular intervals so that the latest information is available at the time of their displacement.

   (b) Other studies describing the following
(i) land tenure and transfer systems, including an inventory of common property natural resources from which people derive their livelihoods and sustenance, non-title-based usufruct systems (including fishing, grazing, or use of forest areas) governed by local recognized land allocation mechanisms, and any issues raised by different tenure systems in the project area; 
(ii) the patterns of social interaction in the affected communities, including social networks and social support systems, and how they will be affected by the project; 
(iii) public infrastructure and social services that will be affected; and 
(iv) social and cultural characteristics of displaced communities, including a description of formal and informal institutions (e.g., community organizations, ritual groups, nongovernmental organizations (NGOs)) that may be relevant to the consultation strategy and to designing and implementing the resettlement activities.

7. Legal framework. The findings of an analysis of the legal framework, covering 
   a.
      (a) the scope of the power of eminent domain and the nature of compensation associated with it, in terms of both the valuation methodology and the timing of payment; 
      (c) the applicable legal and administrative procedures, including a description of the remedies available to displaced persons in the judicial process and the normal timeframe for such procedures, and any available alternative dispute resolution mechanisms that may be relevant to resettlement under the project; 
      (d) relevant law (including customary and traditional law) governing land tenure, valuation of assets and losses, compensation, and natural resource usage rights; customary personal law related to displacement; and environmental laws and social welfare legislation; 
      (e) laws and regulations relating to the agencies responsible for implementing resettlement activities; 
      (f) gaps, if any, between local laws covering eminent domain and resettlement and the Bank's resettlement policy, and the mechanisms to bridge such gaps; and 
      (g) any legal steps necessary to ensure the effective implementation of resettlement activities under the project, including, as appropriate, a process for recognizing claims to legal rights to land—including claims that derive from customary law and traditional usage (see OP 4.12, para.15 b).

8. Institutional Framework. The findings of an analysis of the institutional framework covering 
   (a) the identification of agencies responsible for resettlement activities and NGOs that may have a role in project implementation; 
   (b) an assessment of the institutional capacity of such agencies and NGOs; and 
   (c) any steps that are proposed to enhance the institutional capacity of agencies and NGOs responsible for resettlement implementation.

9. Eligibility. Definition of displaced persons and criteria for determining their eligibility for compensation and other resettlement assistance, including relevant cut-off dates.

10. Valuation of and compensation for losses. The methodology to be used in valuing losses to determine their replacement cost; and a description of the proposed types and levels of
compensation under local law and such supplementary measures as are necessary to achieve replacement cost for lost assets. 1

11. Resettlement measures. A description of the packages of compensation and other resettlement measures that will assist each category of eligible displaced persons to achieve the objectives of the policy (see OP 4.12, Para. 6). In addition to being technically and economically feasible, the resettlement packages should be compatible with the cultural preferences of the displaced persons, and prepared in consultation with them.

12. Site selection, site preparation, and relocation. Alternative relocation sites considered and explanation of those selected, covering
   (a) institutional and technical arrangements for identifying and preparing relocation sites, whether rural or urban, for which a combination of productive potential, locational advantages, and other factors is at least comparable to the advantages of the old sites, with an estimate of the time needed to acquire and transfer land and ancillary resources;
   (b) any measures necessary to prevent land speculation or influx of ineligible persons at the selected sites;
   (b) procedures for physical relocation under the project, including timetables for site preparation and transfer; and
   (c) legal arrangements for regularizing tenure and transferring titles to resettlers.

13. Housing, infrastructure, and social services. Plans to provide (or to finance resettlers' provision of) housing, infrastructure (e.g., water supply, feeder roads), and social services (e.g., schools, health services); plans to ensure comparable services to host populations; any necessary site development, engineering, and architectural designs for these facilities.

14. Environmental protection and management. A description of the boundaries of the relocation area; and an assessment of the environmental impacts of the proposed resettlement and measures to mitigate and manage these impacts (coordinated as appropriate with the environmental assessment of the main investment requiring the resettlement).

15. Community participation. Involvement of resettlers and host communities, including
   (a) a description of the strategy for consultation with and participation of resettlers and hosts in the design and implementation of the resettlement activities;
   (b) a summary of the views expressed and how these views were taken into account in preparing the resettlement plan;
   (c) a review of the resettlement alternatives presented and the choices made by displaced persons regarding options available to them, including choices related to forms of compensation and resettlement assistance, to relocating as individuals families or as parts of preexisting communities or kinship groups, to sustaining existing patterns of group organization, and to retaining access to cultural property (e.g. places of worship, pilgrimage centers, cemeteries); and
   (d) institutionalized arrangements by which displaced people can communicate their concerns to project authorities throughout planning and implementation, and measures to ensure that such vulnerable groups as indigenous people, ethnic minorities, the landless, and women are adequately represented.

16. Integration with host populations. Measures to mitigate the impact of resettlement on any host communities, including
   (a) consultations with host communities and local governments;
(b) arrangements for prompt tendering of any payment due the hosts for land or other assets provided to resatters;
(c) arrangements for addressing any conflict that may arise between resatters and host communities; and
(d) any measures necessary to augment services (e.g., education, water, health, and production services) in host communities to make them at least comparable to services available to resatters.

17. Grievance procedures. Affordable and accessible procedures for third-party settlement of disputes arising from resettlement; such grievance mechanisms should take into account the availability of judicial recourse and community and traditional dispute settlement mechanisms.

18. Organizational responsibilities. The organizational framework for implementing resettlement, including identification of agencies responsible for delivery of resettlement measures and provision of services; arrangements to ensure appropriate coordination between agencies and jurisdictions involved in implementation; and any measures (including technical assistance) needed to strengthen the implementing agencies' capacity to design and carry out resettlement activities; provisions for the transfer to local authorities or resatters themselves of responsibility for managing facilities and services provided under the project and for transferring other such responsibilities from the resettlement implementing agencies, when appropriate.

19. Implementation schedule. An implementation schedule covering all resettlement activities from preparation through implementation, including target dates for the achievement of expected benefits to resatters and hosts and terminating the various forms of assistance. The schedule should indicate how the resettlement activities are linked to the implementation of the overall project.

20. Costs and budget. Tables showing itemized cost estimates for all resettlement activities, including allowances for inflation, population growth, and other contingencies; timetables for expenditures; sources of funds; and arrangements for timely flow of funds, and funding for resettlement, if any, in areas outside the jurisdiction of the implementing agencies.

21. Monitoring and evaluation. Arrangements for monitoring of resettlement activities by the implementing agency, supplemented by independent monitors as considered appropriate by the Bank, to ensure complete and objective information; performance monitoring indicators to measure inputs, outputs, and outcomes for resettlement activities; involvement of the displaced persons in the monitoring process; evaluation of the impact of resettlement for a reasonable period after all resettlement and related development activities have been completed; using the results of resettlement monitoring to guide subsequent implementation.

Abbreviated Resettlement Plan

22. An abbreviated plan covers the following minimum elements:  
   (a) a census survey of displaced persons and valuation of assets;
   (b) description of compensation and other resettlement assistance to be provided;
   (c) consultations with displaced people about acceptable alternatives;
   (d) institutional responsibility for implementation and procedures for grievance redress;
   (e) arrangements for monitoring and implementation; and
   (f) a timetable and budget.
1. With regard to land and structures, "replacement cost" is defined as follows: For agricultural land, it is the pre-project or pre-displacement, whichever is higher, market value of land of equal productive potential or use located in the vicinity of the affected land, plus the cost of preparing the land to levels similar to those of the affected land, plus the cost of any registration and transfer taxes. For land in urban areas, it is the pre-displacement market value of land of equal size and use, with similar or improved public infrastructure facilities and services and located in the vicinity of the affected land, plus the cost of any registration and transfer taxes. For houses and other structures, it is the market cost of the materials to build a replacement structure with an area and quality similar to or better than those of the affected structure, or to repair a partially affected structure, plus the cost of transporting building materials to the construction site, plus the cost of any labor and contractors' fees, plus the cost of any registration and transfer taxes. In determining the replacement cost, depreciation of the asset and the value of salvage materials are not taken into account, nor is the value of benefits to be derived from the project deducted from the valuation of an affected asset. Where domestic law does not meet the standard of compensation at full replacement cost, compensation under domestic law is supplemented by additional measures so as to meet the replacement cost standard. Such additional assistance is distinct from resettlement measures to be provided under other clauses in OP 4.12, para. 6.

2. Provision of health care services, particularly for pregnant women, infants, and the elderly, may be important during and after relocation to prevent increases in morbidity and mortality due to malnutrition, the psychological stress of being uprooted, and the increased risk of disease.

3. Negative impacts that should be anticipated and mitigated include, for rural resettlement, deforestation, overgrazing, soil erosion, sanitation, and pollution; for urban resettlement, projects should address such density-related issues as transportation capacity and access to potable water, sanitation systems, and health facilities.

4. Experience has shown that local NGOs often provide valuable assistance and ensure viable community participation.

5. OPN 11.03, Management of Cultural Property in Bank-Financed Projects.

6. In case some of the displaced persons lose more than 10% of their productive assets or require physical relocation, the plan also covers a socioeconomic survey and income restoration measures.
Annex 4: Guidelines on Ethnic Minority Development Plans

1. The Ethnic Minority Development Plan (EMDP) is prepared in a flexible and pragmatic manner, and its level of detail varies depending on the specific project and the nature of effects to be addressed.

2. The definition of the ethnic minority used in this framework in a generic sense refers to a distinct, vulnerable, social and cultural group possessing the following characteristics in varying degrees:
   - Self-identification as members of a distinct indigenous cultural group and recognition of this identity by others;
   - Collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories
   - Customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture, and
   - An indigenous language, often different from the official language of the country or region

3. The EMDP includes the following elements, as needed:
   (a) A summary of the information baseline information on the demographic, social, cultural, and political characteristics of the affected ethnic minority communities, the land and territories that they have traditionally owned or customarily used or occupied, and the natural resources on which they depend.
   (b) A summary of the social assessment.
   (c) A summary of results of the free, prior, and informed consultation with the affected ethnic minority communities that was carried out during project preparation and that led to broad community support for the project.
   (d) A framework for ensuring free, prior, and informed consultation with the affected ethnic minority communities during project implementation
   (e) An action plan of measures to ensure that the ethnic minority peoples receive social and economic benefits that are culturally appropriate, including, if necessary, measures to enhance the capacity of the project implementing agencies.
   (f) When potential adverse effects on ethnic minority peoples are identified, an appropriate action plan of measures to avoid, minimize, mitigate, or compensate for these adverse effects.
   (g) The cost estimates and financing plan for the EMDP.
   (h) Accessible procedures appropriate to the project to address grievances by the affected ethnic minority communities arising from project implementation. When designing the grievance procedures, the project proponent takes into account the availability of judicial recourse and customary dispute settlement mechanisms among the ethnic minority peoples.
   (i) Mechanisms and benchmarks appropriate to the project for monitoring, evaluating, and reporting on the implementation of the EMDP. The monitoring and evaluation mechanisms should include arrangements for the free, prior, and informed consultation with the affected ethnic minority communities.
Annex 5: Sample Terms of References for Environmental Impact Assessment

I. BACKGROUND

1. The Mining Infrastructure Investment Support Project (MINIS), a World Bank financed technical assistance project, will facilitate investment in infrastructure to support mining activities, including downstream, value-added processes, and to build local capacity to prepare large-scale projects, regardless of funding source. It is likely that infrastructure projects that are transacted under the MINIS will generate potentially moderate to significant environmental and social impacts when they are transacted under subsequent agreements between the Government of Mongolia and investors.

2. According to the World Bank’s safeguards policies, as well as Mongolian national laws and regulations, environmental impact assessments (EIA) are to be conducted for proposed infrastructure projects following the Environmental and Social Management Framework (ESMF). The EIA should identify potential environmental and social impacts, and environmental management plans should be prepared to avoid, minimize, mitigation or otherwise compensate those impacts.

3. These generic terms of reference, which are provided as a sample, should be viewed as a tool of the ESMF and a guide to the preparation of project-specific EAs for all projects, including PPP transactions, under the MINIS. Once projects have been selected, these sample TORs should be modified and tailored to specific project requirements, and used as a requirement for the private entity contracted to develop EA documents.

II. EA APPROACH

4. The environmental impact assessment is required to be conducted by licensed EA consultant in Mongolia, following the national environmental regulations, guidelines and standards. Meanwhile, it shall also comply with the requirement of the World Bank’s Safeguards Policies.

5. An initial environmental screening will be (has been) conducted by PMU and approved by the World Bank. It is concluded that the proposed project would have substantial environmental and/or social impact, and warrant a Category A classification according to the World Bank Operational Policy 4.01 Environmental Assessment (or the project is a category B project given its moderate and less impact compared to those of Category A projects). According to the Mongolian EA classification, the project is subject to full/detailed EA.

6. The following EA documents shall be prepared, and submitted to the Ministry of Environment and Green Development for review and approval before commencement of construction activities.
   - Environmental Impact Assessment Report
   - Environmental Management Plan

III. SCOPE OF WORKS

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7. The contents of the EA documents shall follow the requirement of Mongolia Law of EA and the World Bank Operational Policy 4.01 Environmental Assessment (Annex B and C). An example Table of Contents (TOC) is attached at the end of this Annex for references. Modification may be needed to adapt to actual project situation.

8. The following aspects need special attention and should be adequately addressed during preparation of EIA and EMP. These include:

Identification of environmental sensitive sites and key issues

9. The EIA shall carefully identify and determine the project area of influence first, and identify all the environmental, social and cultural sensitive sites within the project influence areas locally and regionally, with special attention to critical and non-critical habitats, protected areas, physical cultural resources, and human settlement areas and associated facilities etc.

10. Adequate baseline survey on ecological environment must be conducted through field visit, data collection and consultation with relevant government agencies, NGOs and local public during EA preparation, to identify presences of critical and non-critical habitats, protected areas, protected and endangered wildlife, and key migration routes of wildlife. Any project that may lead to significant conversion or degradation of critical natural habitats (either directly or indirectly) shall be rejected, and alternative locations or alignments must be sought.

11. Careful screening for physical cultural resources shall be conducted through field survey, consultation with local communities and relevant authorities. Special attention should be paid to archeological and paleontological sites that are considered sacred or have spiritual significance to the local or regional communities, or geological landscapes with special visual aesthetics, and local shrines. Some of them may not have an official protection title, nevertheless, they are considered as physical cultural resources and need to be adequately addressed in EA though proper consultation with stakeholders involved, evaluation of significance, assessment of potential impacts and development of necessary mitigation measures in EMP.

12. Residential areas are also sensitive to the potential impact of noise, dust, wastewater, safety, social disturbance and induced development, therefore, warrant careful and thorough investigation, impact assessment and adequate protection in EA process.

Alternative analysis

13. Alternative analysis shall be conducted for the project strategy (e.g. groundwater or surface water pipelines, road or railway), project site (e.g. power plant, wastewater treatment plant) or alignment (road or railway), technologies adopted (e.g. environmental friendly technology for power plant, or construction methods), etc. Comprehensive comparison shall be carried out for all the alternatives from technical, environmental, social and economic perspective. The final selection should be based on overall optimum consideration among all these factors.

Impact Assessment and Mitigation Measures

14. As standard practice, the EIA will assess all potential environmental and social impact during project construction and operation, and develop feasible mitigation measures for all proposed works.
15. Major environmental and social impact shall be given adequate attention of assessment, for which necessary mitigation measures shall be developed in EMP. These issues include (but not limit to) the following:
   - Potential conversion or degradation of critical or non-critical natural habitats;
   - Segregation of natural habitats;
   - Loss of surface vegetation and biodiversity;
   - Blocking of wildlife migratory routes;
   - Lowering and/or depletion of groundwater;
   - Land degradation and desertification;
   - Loss or access restriction to livelihood of local herders;
   - Social and cultural impact on local communities from project operation as well as from induced development;
   - Noise, dust impact from transport corridor on local communities and wildlife;
   - Wastewater discharge impact and potential pollution of groundwater;
   - Road safety concerns for local communities and wildlife;
   - Public health (e.g. HIV/AIDS) impact due to influx of workforce and induced development;
   - Induced urbanization impact management
   - Cumulative impacts
   - Regional Impacts
   - Direct and indirect impacts
   - Other environmental issues related to the operation of the infrastructure (e.g. air emission from power plant).

16. Construction related impacts shall also be fully captured by the EA and adequate mitigation measures be developed in the EMP. These include (but not limit to):
   - Construction nuisance of noise and dust impact on construction workers, local communities and wildlife;
   - Temporary disturbance of wildlife habitats and migratory routes;
   - Borrow pits and quarry impact and restoration/reclamation;
   - Construction wastewater impact and management;
   - Water and soil conservation
   - Traffic disturbance and safety for local communities;
   - Hygiene and health concerns of worker camps;
   - Social impact of influx of workforce, e.g. cultural conflict, STD/HIV/AIDS;
   - Potential impacts on any physical cultural resources, and development of chance-find procedures

17. Besides development of mitigation measures for implementation, environmental assessment shall provide valuable input for better project design to avoid or minimize potential environmental and social impact upfront. Though the feasibility study and design has considered a series of environmental, social and technical factors, it is valuable for EA to assess and if necessary recommend to improve the project design in line with the following principles:
   - Avoid or minimize the need for resettlement of population;
   - Avoid valuable natural habitats;
   - Avoid physical cultural resources;
   - Provision of proper crossing for wildlife migration;
   - Provision of convenient crossing for herders livelihood;
   - Safety design for local community life and livelihood activities;
   - Reclamation and restoration plans prior to construction;
Environmental enhancement design included in the main project, e.g. creation of offset natural habitats

Environmental Management Plan (EMP)
18. An Environmental Management Plan (EMP) is to be developed in the EIA or as a stand-alone document, serving as a convenient and efficient tool for environmental management manual during project implementation and operation. The EMP shall include the following contents:

- **Mitigation measures.** The EMP shall include all mitigation measures such as avoidance, prevention, reduction, integration, optimization and compensation measures (with as much as possible specifics) for project design, construction and operation stages with clear indication of responsibility for implementation/supervision, monitoring indicator and frequency, and implementing schedule and budget estimates.

- **Environmental management and supervision structure.** The EMP shall clearly identify the environmental management and supervision setup, with clear description of environmental management responsibility for all the involved parties, i.e. project management office, project implementing agencies, design institutes, contractors, supervision engineers etc.

- **Institutional capacity.** Appropriate training programs should be designed and incorporated into the project EMP, especially the safety training plan for the CNG station operation staff prior to commencement of operation.

- **Integration of EMP measures and budget into project implementation contracts**

Public consultation and information disclosure

19. Public consultation is an integral part of EIA/EMP preparation, as required by both Mongolian environmental laws and the World Bank policies. For category A projects, two rounds of public consultations are required, i.e. (1) public consultation before finalization of TORs of EIA; and (2) consultation after draft EIA report is available. Public consultation shall be conducted through both formal and informal presentations and meetings with the project affected people, NGOs and relevant aimag and soum government agencies, individual interviews and an opinion survey. For the first round of consultation, the EA consultant/Project owner shall present brief description of the proposed project, potential environmental and social issues, and EA approached to address these concerns; for the second round of consultation, the EA consultant/project owner shall present to the public the key findings of EIA and recommendations of mitigation measures to get feedback from public. The EIA should include a chapter that summarizes (i) the dates and venues of consultation events; (ii) the organizations or stakeholder groups consulted; (iii) the main comments provided, particularly regarding the perceived adequacy of mitigation and monitoring measures; (iv) how the comments and recommendations were or were not taken into account in finalizing project designs; and (v) feedback mechanisms, including provisions for future consultations throughout project implementation. For category B project, at least one round of public consultation is needed.

20. The EIA report shall be locally disclosed in places with free accessibility to local public (open offices of city governments, libraries, or internet), with meaningful announcement of such disclosure through local newspaper, or radio/TV, bulletin board posters etc.

IV. DELIVERABLES AND TIMETABLE

V. QUALIFICATIONS
The following example TOCs is only for reference purpose, and could be adjusted subject to project-specific situation and provisions of national and/or local regulations.

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