



# Concept Environmental and Social Review Summary

## Concept Stage

### **(ESRS Concept Stage)**

Date Prepared/Updated: 09/21/2019 | Report No: ESRSC00799



**BASIC INFORMATION**

**A. Basic Project Data**

Country	Region	Project ID	Parent Project ID (if any)
Mongolia	EAST ASIA AND PACIFIC	P170676	
Project Name	Ulaanbaatar Heating Sector Improvement Project		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Energy & Extractives	Investment Project Financing	1/23/2020	4/23/2020
Borrower(s)	Implementing Agency(ies)		

Proposed Development Objective(s)

The Project Development Objective is to enable access to and improve efficiency of heat supply in selected project areas.

Financing (in USD Million)	Amount
<b>Total Project Cost</b>	<b>41.00</b>

**B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?**

No

**C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]**

Building on past and ongoing engagement, the proposed project will mainly support the most urgently needed investment in the district heating network to improve services to existing customers and provide district heating access to new customers in urban and ger areas.

**D. Environmental and Social Overview**

D.1. Project location(s) and salient characteristics relevant to the ES assessment [geographic, environmental, social]

The project will be located in the urban and the near-urban ger areas of Ulaanbaatar, the capital of Mongolia.

Ulaanbaatar is an international city with a history of more than 300 years. It covers an area of 4704.4 km<sup>2</sup>, with



1.435 million permanent residents. At present, around 46% of the country’s population resides in the city, of which, youth comprise 74% of the total population. The proposed project areas are located in the north of the city. Expansion of the district heating network transmission under the project includes khoroos 7-11, which have been identified as potential priority areas. These ger districts house predominantly low-middle income families who have migrated to Ulaanbaatar over the last decade seeking employment opportunities. Apartment buildings are now being developed in these areas, as an alternative to ger housing for these households. Household vulnerabilities will be further assessed during the preparation of the social assessment by the client during preparation of the project prior to appraisal. In identifying opportunities to target the project to vulnerable people so as to achieve an inclusive development outcome, the social assessment will consider incomes and wellbeing as well as other drivers of vulnerability such as gender differentials and disabilities etc. Issues during implementation such as labor standards and community health and safety will also be addressed by the social assessment. The social impact assessment (SIA) will be prepared prior to appraisal and will describe the process of analysis and planning used by the Borrower to ensure the social impacts and risks of the project are identified, avoided, minimized, reduced or mitigated. Together, the SIA and the ESMP are the primary means of ensuring the project is environmentally and socially sound and sustainable, and will be used to inform decision making.

Ulaanbaatar is in the middle of the Mongolian Plateau and south of the Khan Hentii Mountain Range, with an elevation of 1351 m. It is an inland city dominantly influenced by continental climate, which causes extremely high temperature in summer being as high as 35OC, while extreme low temperatures occur in winter at -40OC. The summer season is very short with long cold winters and dry periods each year, while the annual temperature averages -1.5OC and the annual precipitation averages 280 mm.

**D. 2. Borrower’s Institutional Capacity**

The proposed project will be implemented by Project Management Office (PMO) under the Ministry of Energy. The PMO will be responsible for the preparation of environmental and social assessments and management plans to address project risks in accordance with the World Bank’s requirements, and preparation of periodical reports and their submission to the World Bank.

The Ministry of Energy has some experience with the preparation and implementation of Bank-funded projects, however the environmental and social framework (ESF) is very new to them. The staff of the PMO have limited technical capacity themselves. During implementation, substantial technical support is likely to be required, as such the PMO has allocated funds to hire environmental consultant and a social consultant to assist with conducting a safeguards assessment; stakeholder engagement; and preparing/updating ES documents (including SIA, ESMP, RP and RPF), ESCP and SEP. In addition to the consultants, the PMO has assigned qualified staff to work in the PMO to deal with environmental and social issues on daily basis throughout the project cycle. The Bank team will provide guidance and support on aspects of the ESF to the PMO during project preparation and implementation, and the Technical Assistance component of the project includes a capacity building activity which will further help enhance the PMO’s capacity for project management.

**II. SCREENING OF POTENTIAL ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS**

**A. Environmental and Social Risk Classification (ESRC)**

Moderate



**Environmental Risk Rating**

Moderate

The project will be located in the urban and near-urban ger areas of Ulaanbaatar, which have been already intensively developed for hundreds of years. Although the specific sites and alignment for the facilities to be financed by the project are not defined at present, it can be concluded that the ecological sensitivity of the project area is very low. Given the size of the investment, the project is of medium scale. The physical investment of the project will involve rehabilitating the DH transmission network in selected urban districts and expanding the network to selected near-urban ger areas. These activities will include replacement of poorly insulated and leaking pipes and expansion of loops; upgrading the existing and installation of new booster pumping stations; installation of substations at building level, as well as network expansion and reinforcement.

The physical activities to be supported by the project have some environmental risks and potential impacts related to construction, solid waste, wastewater, dust, noise, occupational hazards associated with asbestos, and traffic safety and disruptions during the construction stage. In the operation stage, the adverse environmental impacts are related to noise and vibration, and heat exposure to operating staff. In addition, environmental issues related to heating sources, e.g. the existing CHPs which have been retrofitted already or are being retrofitted - are not in anticipation of this project, including the flue gas and ash, etc. are to be assessed by the EA. There are no dam safety issues related to these CHPs, as they are using cooling and make-up water from groundwater aquifers. Because the pipeline alignment has not been determined at the current stage, cultural heritage sites in and near the project areas are to be screened and the impacts on legally protected cultural heritage sites are to be avoided in the project preparation stage.

The TA component will not generate any environmental and social impacts and this project will not support the implementation of the recommended actions of the TA. Implementation of the TA will be financed by the client itself and will reduce water consumption and improve the energy efficiency in the heating system, as well as enhancing the management capacity of the project.

The adverse environmental impacts are expected to be of limited magnitude given the overall size of the project. The environmental impacts are moderate, site-specific, predictable and/or reversible. These adverse impacts can be readily and reliably managed through the environmental mitigation hierarchy. Per the Environmental and Social Directive, the environmental risk for this project is classified as Moderate.

The client (Ministry of Energy) has experience and capacity in managing environmental issues associated with the district heating facilities commensurate with the size of this project. However, they are new to the ESF and will require capacity building in this area. The client will allocate adequate funds to hire professionals for preparing environmental and social instruments and assign qualified staff to work in the PMO to deal with environmental and social issues on daily basis during throughout the project. As such, the environmental and social risks associated with borrower capacity is considered moderate.

**Social Risk Rating**

Moderate

The proposed project activities under component 1 (investment in rehabilitation and expansion of the DH network) will generate positive social and health benefits by reducing air pollutant sources such as traditional stoves and HoBs in the ger areas and improving living conditions of the wider population. The activities are largely rehabilitation and maintenance to the existing network and expansion of the heating network into new near urban districts (anticipated to be under existing roads). Nevertheless, social risks and impacts may rise from project activities primarily associated with civil works. Based on current information, project sites are expected to be in densely populated areas with

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schools/kindergartens, shops and various public and private entities. For example, community safety during the construction phase, with disrupted pedestrian access and traffic for both the renovation of the existing network and the new network expansion. No land acquisition is expected from project activities, as pipelines will be laid under roads or within the existing right of way. Some small business kiosks and other assets (such as fences) in the right of way will be affected by refurbishment of the existing network and potentially impacted for the network expansion, which will be further assessed and confirmed prior to appraisal. Broader social risks and impacts will be identified during the SIA as well as consideration of other projects, which will be prepared by the PMO on behalf of the client prior to Appraisal. Attention will focus on access restrictions; potential displacement impacts, temporary traffic disturbances; workforce composition and influx; occupational health and safety for workers; cultural heritage provisions; implications for vulnerable groups with any potential tariff changes and livelihood implications on seasonal boiler room employees; as well as meaningful consultations. The ES documents will include and take into account coordination and consultation with project affected people and other interested stakeholders according to ESS10. The project level GRM will be established and operationalized throughout the project lifecycle, as part of a stakeholder engagement plan. Based on the above, the social risk is considered to be moderate.

## B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered

### B.1. General Assessment

#### ESS1 Assessment and Management of Environmental and Social Risks and Impacts

##### **Overview of the relevance of the Standard for the Project:**

The project will produce positive environmental and social benefits, such as reduction of air pollution emission, improved heating efficiency and reduced risk of respiratory illnesses. The physical activities to be supported by the project will may result in some environmental risks and impacts related to construction, solid waste, wastewater, dust, noise, occupational hazards associated with asbestos, and traffic safety and disruptions during the construction stage. During the operation stage, the adverse environmental impacts relate to noise, vibration and potential heat injuries for operating staff. There is potential for a small number of seasonal workers (temporarily employed during winter months) in boiler houses being laid off (if the project will replace these boiler houses with DH). The potential for livelihood impacts will be further assessed as part of the social impact assessment. In addition, the heating sources, e.g. CHPs, have already been retrofitted or are being retrofitted - not in anticipation of this project, should not be regarded as project associated facilities. However, the environmental performance related to the heating sources, including the flue gas and ash, etc. are to be assessed through the due diligence by the EA for the project. Based on the information provided, the CHPs do not involve any dam safety issues as they using water from groundwater aquifers for cooling and make-up. As the alignment of the pipeline is not confirmed at the current stage, cultural heritage sites in and near the project areas are to be screened and the impact on legally protected cultural heritage sites will be avoided during the project preparation stage. Local laws and practices regulating labor and working conditions will be assessed during the preparation stage and mitigation measures will be considered based on the findings.

The TA component will not generate any environmental and social impacts and this project will not support the implementation of the recommended actions of the TA. Implementation of the TA will be financed by the client and will seek to reduce water consumption and improve energy efficiency in the heating system, as well as enhance the PMO's capacity for project management.



There is the potential for some access restrictions (pedestrian and vehicle) during the construction period, which may need to be mitigated. No specific ethnic minority groups reside in the project sites (in Ulaanbaatar). Influx impacts are anticipated to be negligible given the project size and primarily local workforce, however due diligence will be undertaken and included in the social assessment. Heating pipelines will be constructed under roads potentially disturbing local traffic, increasing traffic volumes and traffic risks for roadside communities. Social risks and impacts will be further defined during the SIA, which will be prepared by PMO on behalf of the client prior to Appraisal, along with the stakeholder engagement plan.

Social risks and impacts will be identified during SIA preparation. The SIA will include an assessment of potential access restrictions; potential displacement impacts, temporary traffic disturbances; workforce composition and influx; occupational health and safety for workers; cultural heritage provisions; implications for vulnerable groups with any potential tariff changes and any livelihood implications on boiler room employees; as well as meaningful consultations. This work will – to the extent possible – identify measures (i.e. social screening criteria for priority locations) to target project benefits towards vulnerable people including the elderly and disabled etc. Details from recent Bank ASA work on tariffs which included poverty analysis will inform this work to ensure issues around ability and willingness to pay and social development uplift from project inclusion are properly assessed and managed. Secondary data will also be used to ensure the project complies with the Bank Directive on Addressing Risks and Impacts on Disadvantaged or Vulnerable Individuals or Groups. Methods for primary data gathering if necessary during implementation will also be defined by the SIA.

The ES documents, e.g. SIA, ESMP, ESCP, SEP, ESMF, RP and RPF will be prepared prior to appraisal. The ESMP will provide due diligence on the heating sources and include: a labor management procedure; a labor GRM; analysis of environmental and social risks and impacts; mitigation measures; an assessment of potential livelihood impacts on seasonal boiler room workers; monitoring activities and training programs. If locations for parts of the project cannot be determined prior to the appraisal, an ESMF will be prepared to guide the preparation of the ESMP for this civil work. A GRM will be included in the SEP. The SIA, ESMP, RP, RPF, ESMF, SEP and ESCP, as required, will be disclosed in UB while the SEP will be disclosed at the early stage of project preparation.

**Areas where “Use of Borrower Framework” is being considered:**

Although Mongolia has an established E&S Framework, and although this country system will be applied as far as applicable, the limited experience of the implementing agencies in implementing and managing environmental and social risks in a manner which would achieve good international industry practice, and therefore the objectives of the ESF and its associated environmental and social standards indicate that substantial reliance on country systems for this project may fail to achieve ESF objectives. A more comprehensive assessment of the borrower framework will be undertaken during project design.

**ESS10 Stakeholder Engagement and Information Disclosure**

The key stakeholders identified at present include the communities, households and institutions to be serviced and affected by the project; and potentially a small number of seasonal workers who may be laid from project interventions. Ger district stakeholders in locations for transmission expansion (households in apartment buildings, schools and other institutions) will benefit from the transmission expansion in the long term. Other interested parties may include government agencies responsible for management of environmental protection, cultural heritage, as



well as the labor district inspection department, occupational safety, district land department and the public health department and district traffic police. No specific ethnic minority groups reside in the project areas. Existing facilities including the CHP and distribution network operators will be regarded as technical stakeholders to the project. The list of key stakeholders and their areas of interest will be agreed between the Bank team and the assigned ESF staff in the PMO.

A Stakeholder Engagement Plan (SEP) will be developed and disclosed prior to appraisal. These key stakeholders will be engaged and consulted during project preparation by means of interviews, public meetings and questionnaires. Stakeholder feedback will be considered in the project design and preparation. The GRM will respond to complaints throughout the project lifecycle and be devised to promptly respond any project grievances. These may be construction related such as temporary restrictions to pedestrian and vehicle traffic but also more substantive aspects such as transmission expansion district targeting. The GRM to be designed prior to appraisal will define ways in which users can submit their grievances, which may include submissions in person, by phone, text message, mail, email or via a web site; will include a log where grievances are registered in writing and maintained as a database, publicly advertised procedures, setting out the length of time users can expect to wait for acknowledgement, response and resolution of their grievances, transparency about the grievance procedure, governing structure and decision makers; and an appeals process (including the national judiciary) to which unsatisfied grievances may be referred when resolution of grievance has not been achieved.

All ES documents, including the SEP, will be disclosed locally and at the website of the Bank before appraisal, and the SEP will be disclosed early in the project preparation process.

## **B.2. Specific Risks and Impacts**

**A brief description of the potential environmental and social risks and impacts relevant to the Project.**

### **ESS2 Labor and Working Conditions**

Based on available information, the project is expected to involve a limited number of direct and contracted workers. The exact numbers and source of the workforce will be confirmed during project due diligence activities. Labor management procedures and a labor GRM will be developed as part of the ESMP and incorporated into the ESCP.

These procedures will be in place and operating before the engagement of the first workers. The labor management procedures will be specific to exclude child labor and forced labor.

Asbestos is likely to be found in the process of dismantling boilers and replacing aging pipes and could affect the health of the workers on site and community members. An asbestos management plan will be prepared and incorporated into the ESMP and the ESCP to set up the procedure for identification, removal, storage, transportation and disposal of asbestos containing materials (ACM), while providing protection and training to operating workers on site and notification of risks for any community members who have the potential to be exposed to ACM. During the operation stage, heat exposure and related injuries could affect operations workers. OHS measures will be developed in the ESMP and incorporated into the ESCP.

### **ESS3 Resource Efficiency and Pollution Prevention and Management**



This project will not significantly increase water consumption albeit the project is in a drought area. Conversely, the project will help reduce water loss in the DH system which is now highly permeable (leaking) by replacing distribution pipelines. In addition, a water management program will be developed under the TA component which will include an assessment of groundwater depletion risks and the opportunity to improve efficiency. Although this project will use energy for district heating, the total energy consumption is to be reduced as this project may replace small heating only boilers (HOBs) and household stoves with energy efficient DH and will prevent boiler and stove use in the future. This project will not use or procure pesticides and will not produce toxic waste during the operation stage. Asbestos is likely to be found in the process of dismantling boilers and replacing aging pipes, which could affect the health of workers on site. An asbestos management plan will be prepared and incorporated into the ESMP and the ESCP. A GHG emission estimate for this project will be carried out.

#### **ESS4 Community Health and Safety**

A limited number of workers will be used for construction of the facilities given the overall size of the project. It is expected that all of the contracted workers will be from local communities, thus the impacts from influx of workers on local communities are anticipated to be negligible. The location of the project in a highly urbanized environment further reduces these risks. Notwithstanding this, influx will be further assessed and verified prior to appraisal and adequate controls proposed in the social assessment to address the assessed risks. The pipelines will be constructed on road alignments and existing transmission buried in some areas which will disturb local traffic (pedestrian and vehicle) during the construction phase. In addition, the increased number of vehicles transporting equipment and materials on the roads nearby the communities may pose a road safety risk. Thus a traffic management plan will be developed as an integral part of the ESMP and incorporated into the ESCP.

This project will not affect any ecosystem services that communities depend on. The project will not involve any production, storage, transportation and use of hazardous materials, apart from possibly asbestos. Asbestos management procedures will be in place to control health impacts on nearby communities. The morbidity due to respiratory diseases in Ulaanbaatar may be reduced by project interventions. Use of security personnel at the sites is very limited and will not cause a material threat to local communities. In addition, this project will not build or repair any dams, or use reservoir water.

#### **ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement**

Project activities will take place in various northern districts of Ulaanbaatar where land has been occupied for several decades. The main form of land use in these districts is ger residences, state service delivery such as schools, kindergartens, water kiosks, electricity supply networks as well as private business activities. The project expects to refurbish the existing transmission network and finance construction of additional heating transmission into a selected ger area (the priority districts suggested are khoroo 7-11). No physical displacement from residential structures or land acquisition is expected under this project. Activities under sub-component 1.1 -- rehabilitation of the district heating transmission network does not require any new land, a small number of business structures (kiosks) and private fences illegally in the transmission safety right of way (ROW – 10 meters) will be affected as parts of the network need to be buried. For sub-component 1.1. a Resettlement Plan (RP) will be prepared for these structures and assets, given alignments are known prior to appraisal. Expansion of the heating network into selected





ger areas (sub-component 1.2) will be transmission only, with approximately 1 kilometer of new transmission pipeline buried under existing roads, within the existing ROW. New distribution/connection to buildings will not be part of the project. Displacement impacts are not anticipated for sub-component 1.2, however the alignment is currently unknown. As such there is potential for commercial structures (i.e. kiosks) in the ROW which may need to be shifted for civil works; such impacts will be further defined during the appraisal stage. As such, a Resettlement Policy Framework (RPF) commensurate to the likely risks and impacts will be prepared for sub-component 1.2 prior to appraisal and disclosed in UB.

#### **ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources**

Given that the project area is urban and near-urban ger areas which have already been intensively modified by human activities for hundreds of years, the possibility of natural habitats and critical habitats is very low. However, Terms of Reference (TORs) for the ES instruments to be produced during project preparation will include the identification of modified habitats and natural habitats in the project area, an assessment of any potential risks the project might bring, and measures to avoid or minimize impacts on the modified habitats and avoid impacts on the natural habitats. In addition, this project will neither introduce alien species nor purchase and use natural products.

#### **ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities**

The proposed project areas are located in the north of Ulaanbaatar city, at this stage Khoroos 7-11 have been suggested for connection to the heating network. Given the projects location in Ulaanbaatar city, no specific ethnic minority groups are known to reside in these areas, nor will the project be sited on any traditional customary land. Thus, this ESS is not relevant.

#### **ESS8 Cultural Heritage**

Given that the specific locations/alignment of the facilities are unknown at the current stage, the presence of cultural heritage sites in and near project areas will be screened at the early stage of EA and the impacts on legally protected cultural heritage sites will be avoided. TORs for the ES instruments to be produced during project preparation include the identification of cultural heritage sites in the project areas, an assessment of any potential risks the project might bring to cultural heritage sites, and the production of a cultural heritage management plan, if required. In any case, a chance find procedure will be produced as part of the ESMP.

The SIA will also include identification of intangible cultural heritage and assess impacts from project activities and identify which, if any, instruments will be required to manage this aspect during implementation.

#### **ESS9 Financial Intermediaries**

This project will not involve any FIs.

### **B.3 Other Relevant Project Risks**



The environmental and social system in Mongolia related to this project will be reviewed through due diligence to identify and analyze the gaps in terms of OHS and CHS, etc. and seek the opportunity to improve and enhance the system of the borrower. The Bank team will work together with the client to help review and prepare the actions based on the ESF and the EHSs to improve their capacity and performance.

**C. Legal Operational Policies that Apply**

**OP 7.50 Projects on International Waterways** No

**OP 7.60 Projects in Disputed Areas** No

**III. WORLD BANK ENVIRONMENTAL AND SOCIAL DUE DILIGENCE**

**A. Is a common approach being considered?** No

**Financing Partners**

This project will be co-financed by the Asian Infrastructure Investment Bank.  
The ESF of the WBG will be applied.

**B. Proposed Measures, Actions and Timing (Borrower’s commitments)**

**Actions to be completed prior to Bank Board Approval:**

SIA, RP, ESMP, ESMF, RPF, ESCP, SEP will be completed prior to Bank Board Approval.

**Possible issues to be addressed in the Borrower Environmental and Social Commitment Plan (ESCP):**

- Updating and Implementation of SEP and GRM, particularly with people whose livelihood is to be affected;
- Updating and Implementation of the RP, RPF and ESMP;
- Updating and Implementation of asbestos management plan;
- Updating and Implementation of traffic management plan;
- Updating and implementation of labor management procedure and GRM;
- Commitment to prepare and implement the relevant instruments per ESSs’ requirements, including, if necessary, improvement on labor and working conditions for workers identified as required by ESS2.

**C. Timing**

**Tentative target date for preparing the Appraisal Stage ESRS** 31-Oct-2019

**IV. CONTACT POINTS**

World Bank

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**Borrower/Client/Recipient**

**Implementing Agency(ies)**

**V. FOR MORE INFORMATION CONTACT**

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**VI. APPROVAL**

Task Team Leader(s):	Yun Wu
Safeguards Advisor ESSA	Peter Leonard (SAESSA) Cleared on 30-Sep-2019 at 11:03:56 EDT