

**MONGOLIA**

**GrCF ULAANBAATAR SOLID WASTE MODERNISATION PROJECT**

**CORPORATE DEVELOPMENT AND INSTITUTIONAL CAPACITY BUILDING IN  
SOLID WASTE SECTOR**

**TERMS OF REFERENCE**

**1. INTRODUCTION**

The City of Ulaanbaatar (the “City”) approached the European Bank for Reconstruction and Development (the “EBRD”, or the “Bank”) with a request to finance the priority investments in a solid waste sector (the “PIP” or the “Project”) to expand the existing landfilling capacity and improve solid waste management practices. The Project will be implemented by the Landscaping and Cleaning Service Department (the “Company”), which is a unit operating within the City. Total capex financing needs are estimated at USD 14.6 million comprised of the EBRD loan (USD 8.1 million) and a mix of capital grants and concessional loan of USD 6.5 million.

The City of Ulaanbaatar is the capital of Mongolia. The population of the City increased from 0.8 million in 2000 to 1.3 million in 2016 mostly due to migration from rural areas. About 60 per cent of the population live in so called “Ger Areas”, which represent the informal settlements on the outskirts of the City. Waste generation in Ulaanbaatar is estimated at 1.1 million tonnes annually. Waste is disposed of to one of three existing landfill sites, one of which is a sanitary landfill, (Narangiin Enger) the other two (Morin Davaa and Tsagaan Davaa) being dumpsites with limited engineering or management. Construction waste at the moment is dumped at the existing landfills without being crushed or recycled. The Company is in charge of managing the existing landfills. Transportation of solid waste is performed by 20 companies including seven private companies and 13 municipal companies. The tariff is currently set for collection and transportation (covering around 50 per cent of these costs) and there is no tariff for landfilling at the moment.

The Project will include two components: (i) construction of a solid waste landfill site (30 ha) in order to increase the landfilling capacity in the City (by adding filling capacity of 2.1 million cubic meters) and (ii) construction of a recycling facility for construction and demolition waste with a capacity of 90-120 t/h for the purpose of effective reuse of the waste increasingly generated in the Ulaanbaatar City. This capacity should be sufficient for the volume of the construction based on the forecast up to 2030. Machinery and equipment will also be acquired as part of the project both for the landfill and CDW operations.

The Project will play an instrumental role in the development and implementation of the Green Cities Framework (the “GrCF”) rolled out by the Bank in 2016. As one of the first sub-projects under the GrCF it will support this strategic and multi-project approach in order to identify, prioritise and address environmental challenges at the city level. This will be achieved via developing a Green City Action Plan financed with the technical co-operation funds.

In addition the Project will aim at increasing institutional capacity at the City level (and possibly at the Company level) and introducing the route to the institutional reform in the solid waste sector aided by the technical co-operation funds. For this purpose an experience consultancy firm (the “Consultant”) will be engaged by the City.

## 2. OBJECTIVES

The Consultant shall assist the City and the Company to improve the institutional set up and management practices in the solid waste sector and provide corporate development support. The following objectives will be targeted:

- Propose changes in the solid waste sector institutional set up including *tariff reform* to improve operational, financial and corporate governance aspects as well as enhance the overall efficiency and environmental and social soundness of solid waste management in the City and the Company.
- Advise on the measures and create a plan for dealing with *hazardous wastes and construction and demolition waste*.
- Develop a plan for raising *public awareness in order* to encourage source-separation, recycling and resource efficiency.

Additionally, the Consultant shall assist the City in the analysis of the baseline socio-economic situation of the vulnerable section of the population and the impact of the project on these groups, and in connection to this assess any impact of the project on the equality between men and women.

## 3. SCOPE OF WORK

In order to meet the objective of the assignment, the Consultant will undertake the following tasks:

### 3.1 SOLID WASTE SECTOR INSTITUTIONAL SET UP AND TARIFF REFORM

- Undertake an analysis of the existing government policies for the solid waste sector and regulation; description of the existing regulatory framework (including waste management strategies / plans at national and regional level), practices and outcomes of any measures undertaken by the government in the past (the latest 10 years) to foster the development of this sector. Special attention should be paid to the analysis of all changes and novelties in the tariff regulation.
- Provide critical assessment of the existing legislative and institutional sector setup against international benchmarks/best practices in cities with similar characteristics.
- Provide an overview of the existing solid waste management processes, actors and their roles and responsibilities. This will cover the quantities of solid waste collected (by source and type of waste), fees charged and collected for different waste generators (and (in case applicable) areas, housing type etc.) and (if applicable) for different waste types, collection and transportation companies and the type of collection / infrastructure in place and the contracting arrangements, other recovery / sorting / recycling / treatment and disposal (landfilling) operations and financing thereof.
- Undertake an assessment of the infrastructure and technical capabilities in the solid waste sector in the light of the current and future needs; proposing of information/inventory management system in order to provide a reliable and up to date asset management.
- Produce clear and detailed cost analysis by expense category separately for (i) collection and transportation and (ii) landfilling of solid waste (or other activities related to recovery / sorting / recycling / treatment of waste) in the City and any other that may apply (for example, Environmental, Health and Safety related costs). Provide a view on whether the

currently incurred expenses are sufficient or not (inter alia to ensure sufficient standards of landfills maintenance). In addition, an analysis of potential revenues shall be carried out: the Consultant shall assess potential options for generating revenues out of specific waste streams, e.g. based on market values for separated recyclables, demand for compost produced out of organic waste or reuse potential of processed construction and demolition waste. In addition, cost savings potentials shall be assessed and quantified.

- Discuss potential options and advise on the recommended solution as regards organising various stages of solid waste management such as collection, transportation, recovery, sorting, recycling, treatment and landfilling. Assess to what extent the private sector should/can participate. Advise on the optimal division in solid waste sector management between the private and public sector for the City of Ulaanbaatar.
- Undertake an analysis on potential smart solutions / technologies for improving waste collection services and other technical components in the waste system.
- Undertake analysis of the Company's role in the solid waste management. Assess adequacy of the scope of its responsibilities and sufficiency of allocated resources. Coordinate/feed in information in relation to the waste pickers from the Livelihood Restoration Programme being developed in parallel the by the consultants mobilised by the Bank: what role they play in the solid waste management.
- Provide assistance to the Company in preparation of a set of measures to improve organisational structure and corporate governance, financial, operational and environmental, social/labour and health and safety management, better control and maintenance of assets. Introduce the Company management to the best practices in the form of Management Information System, ISO standards and Public Service Contract (including setting KPIs and transparent subsidy mechanism). Identify training and capacity development needs for the staff. Conduct a comprehensive training to cover these areas.
- Undertake analysis of efficiency and incentive structure of the tariff regulatory framework and decision-making process, and its impact on sector development (efficiency, investment attractiveness, modernization, etc.). Analysis of strengths and weaknesses of the tariff policy and regulatory framework, and, as a result, opportunities and threats for the sector.
- Based on the collection systems in place for different waste types and generators, including informal collection network, the Consultant shall analyse tariff setting and how fees will be collected (e.g. gate fee when directly delivered in the case of construction and demolition waste).
- Identify key challenges, trends and prerequisites for the development/reform of tariff policy and regulatory framework for a sector. The Consultant will carefully review the existing legislation allowing to introduce a so called "uniform tariff" that will allow to recover all costs associated with the solid waste management (including collection, transportation and landfilling) thereby setting the grounds for the path to full cost recovery and sustainability in the sector. The Consultant shall calculate the full cost recovery "uniform tariff" and break it down in transportation and collection components for the analytical purposes.
- Analyse and propose a solution as well as a tariff structure/ approach as to whether the Construction and Demolition Waste (CDW) should be accounted for and included in the

uniform tariff calculation as part of the solid waste or if it should be accounted for and billed separately.

- Undertake qualitative and quantitative analysis: analysis of the current level of tariffs and what tariff change, if any, is required to attract investments.
- Undertake qualitative and quantitative affordability analysis (address subsidies for low income population, what subsidy schemes could be used, tariff setting based on consumption norms, etc.). In addressing subsidies, identify and assess them, where it is possible, describe necessary regulatory and administrative framework to be established in order to implement them. Specific attention should be paid to the construction and demolition waste and how affordability constraints might lead to circumvention of the official system (to prevent illegal dumping of different generators, e.g. construction companies).
- To achieve the purposes and objectives of the Report the Consultant shall draw up a Solid Waste Sector Action Plan (Deliverable 1). The Action Plan is an integral part of the Report and must define a set of administrative, economic, legislative, and various other measures/steps (such measures/steps should be in agreement with the project scope and goals). Required resources, responsible parties, completion of key legislative amendments, etc. and deadlines must be spelled out in the Solid Waste Sector Action Plan. The Consultant shall have the document endorsed by all stakeholders including the Government, the City, the Company, key NGOs active in the sector to be agreed with the Bank and the City and find consensus and the balanced solutions to various issues. The end result will target (i) actual changes in institutional and possibly regulatory set-up, (ii) introduction of the “uniform tariff” and a timeline for the full cost recovery in the sector and (iii) an agreed upon detailed action plan for the corporate governance, financial and operational improvement in the sector on the Company and the City levels. The Consultant will provide an on-going implementation support.

### **3.2 HAZARDOUS WASTE AND CONSTRUCTION WASTE MANAGEMENT**

#### **Hazardous waste**

- Undertake analysis of the existing government policies and regulations for dealing with the hazardous waste (considering legislation at regional, national and international level, e.g. transboundary movements of hazardous wastes etc.).
- Provide recommendations on the legislative steps to improve the management of hazardous waste.
- Lead on the effort and formalisation of an action plan to improve hazardous waste management in the City including (i) establishing a database of hazardous waste and assessing a national waste catalogue, (ii) propose a monitoring and recording system for hazardous wastes (waste tracking system), (iii) identification of better ways to handle collection and transportation of hazardous wastes, (iv) provide an analysis for proper storing / sorting /processing /treatment and disposal of hazardous wastes and advise on the site selection for such facility, (v) advise on potential options for treatment / disposal (incineration, autoclaves etc.) outside of the region / country.

#### **Construction and demolition waste (CDW)**

The Consultant shall:

- Screen national and international laws, regulations and best-practices in the CDW sector;
- Estimating quantities and composition of CDW generated and describe major types of generators for CDW and assess potential future changes in expected CDW quantities and composition;
- Advise on a feasible collection system for CDW (including the exploration of innovative solutions e.g. mobile phone applications for construction companies linking containers with CDW collectors (private or public));
- Assess potential training opportunities for informal waste pickers adversely impacted by the project to be formally employed in the CDW sector;
- Assess potential reuse / recycling options for CDW and assess disposal options for non-recyclables and hazardous components of CDW;
- Defining a monitoring and reporting system for CDW;
- Investigate potential impacts on tariffs (or gate fees), affordability and incentives to finance a CDW management system aiming at full cost recovery and collection efficiency;
- Explore options for private sector participation for the CDW management sector;
- Provide advice on legislative steps to improve the handling of CDW and ensure the best use and commercial viability of CDW plant to be built on the landfill site as part of the EBRD project. This would possibly include introduction of enforcement regulation that shall require use of recycled and processed materials by the construction companies; and
- Offer other recommendations that the Consultant may find appropriate for optimising the success of the Project, based on international best-practices.

The Consultant will summarise its findings in the *Hazardous Waste and Construction and Demolition Waste Action Plan (Deliverable 2)*. The document is to be agreed upon with all the stakeholders including the NGOs to be agreed with the Bank and the City. The Consultant will provide an on-going implementation support.

### 3.3 PUBLIC AWARENESS CAMPAIGN

Based on the Tasks 3.1 and 3.2, the Consultant shall:

- Develop and roll out public awareness campaigns aimed at enhancing public ownership of the EBRD project, instilling an understanding of the EBRD project goals (including environmental benefits, life quality, commercial aspects, sustainability, etc.).
- Define campaign measures that encourage source separation for recycling, reuse and safe disposal, increase public participation in the provision of sustainable waste management practices and raise public awareness on issues related to the project implementation and resource efficiency.
- Organise a series of tutoring seminars for selected stakeholders, other government agencies and sector companies to ensure the public buy in on the proposed changes in the solid waste sector management, new tariff methodology and more responsible way of dealing with solid waste.

The Consultant shall consider specific needs and values/attitudes/beliefs attached to solid waste when planning public awareness campaigns and training activities. The Consultant shall

carefully select specific methods (e.g. different use of media) suitable for public awareness raising campaigns and trainings. This shall be incorporated in Deliverable 3 and 4.

The Consultant will develop the *Public Awareness Campaign Action Plan (Deliverable 3)* and have it approved by the City and the Bank. Also, the Consultant will run a series of tutoring seminars (**Deliverable 4**)

### **3.4 ENVIRONMENTAL AND SOCIAL MANAGEMENT**

- Review the Environmental and Social Analysis and Audit Report, Stakeholder Engagement Plan (SEP), the E&S Action Plan (ESAP) and the environmental management practices currently in place to have an understanding of the current issues associated with the Project and the Company's activities;
- Review the Environmental and Social Impact Assessment, which will be completed by the external consultants and to ensure implementation of all recommendations into the Project and the Company's activities.
- Review and identify the resource requirements for the implementation of the ESAP and include them in the organisational structure and the budget as needed.
- Review the environmental, health and safety management systems/provisions currently in place and recommend and implement short and medium term improvements to bring the systems/provisions/framework towards (or in line with, if possible) the principles of ISO 14001 and OHSAS 18001 and in compliance with local and EBRD E&S requirements. This will involve but will not be limited to:
  - o Review the purpose, scope, objectives and targets of the management systems/provisions. If a system does not exist, develop an EHS management system/framework for the Company.
  - o Review flow charts for all Company core business functions and operational processes to include the E&S components as needed.
  - o Review, update and, where necessary, develop corporate policies, plans and procedures for environmental management and protection, health and safety, human resources, equal opportunities and tariff setting prepared by the PIU consultants.
  - o Review, update and, where necessary, prepare detailed Work Instructions to support E&S procedures as appropriate.
  - o Review, update and, where necessary, prepare pro-forma record forms and registers (aspects and permit registers for example) as appropriate.

The Consultant will develop the *Action Plan for Implementation of the Environmental and Management System to address all identified tasks above (Deliverable 5)* and have it approved by the Company and the Bank.

## **4. IMPLEMENTATION ARRANGEMENTS AND DELIVERABLES**

The Consultant will work closely with the designated City officials and the Company on all aspects of the assignment. The Consultant will also liaise with the designated local EBRD staff in Ulaanbaatar.

The Consultant shall provide all technical support, training and system development to the City and the Company necessary or advisable in order to achieve the objectives of this assignment. The Consultant is expected to remain reasonably flexible in terms of re-allocating resources or fine-tuning some of the tasks depending on findings and circumstances.

The draft findings from the assignment will be discussed with the City, the Company and the EBRD in a meeting.

It is envisaged that the assignment will last for approximately three years and will require ongoing Consultant support and interaction with the City and the Company.

The Consultant will report to the City designated officials and the EBRD. Key deliverables for the assignment are set forth in Table 1.

**Table 1**

| <b>Deliverables*</b>   | <b>Due date</b>                   |
|--|-----------------------------------|
| Solid Waste Sector Action Plan (Deliverable 1)   | 180 days after contract is signed |
| Hazardous Waste and Construction and Demolition Waste Action Plan (Deliverable 2)                | 180 days after contract is signed |
| Public Awareness Campaign Action Plan (Deliverable 3)  | 180 days after contract is signed |
| Series of tutoring seminars and trainings (Deliverable 4)  | 180 days after contract is signed |
| <i>Action Plan for Implementation of the Environmental and Management System (Deliverable 5)</i> | 180 days after contract is signed |

\* the Consultant will provide an on-going implementation support until the end of the contract

The key deliverables and target dates for the assignment are as follows:

**Table 2**

| <b>Deliverable</b> | <b>Draft Submitted</b>                | <b>Comments supplied</b> | <b>Final Submitted</b> |
|--------------------|---------------------------------------|--------------------------|------------------------|
| Inception report   | One month after contract start date   | Within 15 days           | Two months             |
| Quarterly reports  | 30 days after the end of each quarter | Within two weeks         | Not required           |
| Final report       | 60 days before assignment end date    | Within two weeks         | Two months             |

The following reporting requirements apply to the assignments generally:

- Within four weeks after signing of the Consultancy Contract, the Consultant will prepare an **Inception Report**. This shall include: (i) a summary of the initial findings and assessment regarding any unexpected problems of staffing, access to information, provision of counter-

party assistance; and (ii) provide recommendations, if needed, on amendments to the scope of work under this assignment or proposals for other initiatives.

- After the Inception Report, the Consultant will submit a **Quarterly Progress Report** covering activities during the reporting period. This report will set out the following: (i) progress on each sub-assignment and task defined in the Work Plan; (ii) budget and schedule performance as measured against the Work Plan; (iii) commentary on any issues or problems encountered or expected; (iv) progress in training and skills transfer, including summary of any training programmes and training documents; and (v) recommendations for any changes or amendments to the Work Plan or assignment scope.
- **Ad hoc reporting**, if needed, of any circumstances that may lead to delays or inability to fulfil objectives of this assignment. The causes shall be explained and remedial action proposed.
- At the end of the assignment, the Consultant will submit a **Final/Project Completion Report**. This will: (i) provide an overview of the overall assignment; (ii) summarise the results of each task, providing a comparison between targets set and actual achievements; (iii) offer a commentary on lessons learned; and (iv) provide recommendations, as appropriate, on future investment and institutional strengthening initiatives.

The Consultant shall prepare up to four hard copies of all reports and deliverables in Mongolian language and up to four hard copies in English language. In addition to the hard copies, the reports shall be provided electronically in Microsoft Word and Excel or PDF formats to all parties.

### **Donor Visibility**

Given the assignment is funded through the EBRD's donor funded technical cooperation programme; the Consultant will be required to support the client to ensure visibility of these resources. Support on these visibility aspects can be obtained from the Bank's Communications Department. Measures could include but not be limited to:

- All documents produced by the Consultant should mention donor support and bear the logo of the donor, when appropriate.
- Donor support to the project should be acknowledged in any public communication (press releases, launch of facilities).
- Local representatives of donors should be invited to any public event organised to promote the project (press conferences, inaugurations, possibly stakeholder participation programmes).

Please contact Lucia Sconosciuto (email: [SconoscL@ebrd.com](mailto:SconoscL@ebrd.com); tel: +44 20 7338 8155) for further information. Some donor visibility guidelines can also be provided by the Bank to the Consultants at the start of an assignment.

## **5. CONSULTANT PROFILE**

The Consultant should ensure that the appropriately qualified experts are available, as required, for each of the different tasks outlined above. It is expected that the assignment will be led by an appropriately qualified project manager with experience in the solid waste sector and in

implementing the key areas of this assignment, accompanied by both key and supporting experts. It is expected that short time input by key international experts be combined with local/regional expert input. The local/regional experts would secure presence in the field and continuity. The team should include the following Key Experts:

**a) Key Expert 1: Project Manager**

- Preferably 15 years or more of previous international professional experience in public engagement and social impact activities in countries of comparable conditions;
- Previous professional international experience of awareness raising and capacity building activities in the solid waste management sector;
- Experience in corporate development planning;
- Experience in waste management planning preferably with sound expertise in construction and demolition waste and hazardous waste management;
- Proficiency in written and spoken English.

**b) Key Expert 2: Technical expert / solid waste engineer**

- Preferably 10 years or more of experience in solid waste management planning, institutional set up and corporate development planning in the waste sector;
- Proven experience in waste management planning with sound expertise in construction and demolition waste and hazardous waste management planning.

**c) Key Expert 3: Financial expert**

- Financial specialist with knowledge of public financing and modelling and tariff setting.

**d) Key Expert 4: Gender expert, with**

- Advanced university degree related to gender issues – namely in Sociology, Anthropology, Political Science, Geography, Law, Communications etc.
- Preferably 5-10 years of previous professional experience working on gender issues, preferably in Mongolia
- Excellent communication and interpersonal skills, ability to engage effectively with stakeholders from diverse backgrounds
- Proficiency in written and spoken English and Mongolian

**e) Key Expert 5: Environmental Management System expert, with**

- 5-10 years of previous professional experience working in development and implementation of the Environmental Management Systems and Environmental and Social Impact Assessments for similar Projects, preferably including experience also working in Mongolia
- Knowledge and working experience in managing ESIA's in the EBRD's countries of operations and in compliance with EBRD PRs, with excellent communication skills;
- Proficiency in written and spoken English and Mongolian

**f) Key Expert 6: Public participation and institutional development expert, with**

- Preferably 5-10 years of previous professional experience in organisational capacity building at municipal, national or international civil society organisation level
- Preferably 5-10 years of previous professional experience in community engagement and capacity building of local and national CSOs
- Preferably with experience in working in participatory solid waste management and awareness raising

- Proven expertise of use of new information and communication technology (ICT) tools for public engagement and communication purposes
- Proven expertise in developing and implementing capacity building training programmes, including for online use
- Proficiency in written and spoken English and Mongolian.

The Key Experts will be supported by a local team as deemed most appropriate by the Consultant for successful implementation of the assignment but typically including:

- g)** Local Deputy Project Manager/Technical expert;
- h)** Local Finance Expert(s);
- i)** Environmental Expert(s);

The Consultant must set-out clear communication lines with the City and the Company, so that the City and the Company are able to draw on the support of the Consultant as required. It is envisaged that this will be best supplied through a combination of long-term and short-term expertise.