



Request number: (Allocated by the Czech Development Agency)

## Expert Request Form

Title:

## Industrial wastewater treatment process development and optimization

Expected field of expertise:

Industrial waste water treatment technology expert

Region/town/locality: Partner country: Mongolia Ulaanbaatar city Expected Start and End Dates: Total amount of days in the From March 2019 to November 2021 field: 90 days Expected Czech ODA Estimated co-financing from the partner institution (financial financial contribution (EUR): contribution in EUR/ in kind in 20.000 detail)

Applicant / Partner Institution:

Name, type, mail and web address of partner institution; name and position of responsible manager/contact person, phone, fax, e-mail.

Water supply and sewerage authority Of Ulaanbaatar city,

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CONTEXT AND RATIONALE

## Context:

Problem analysis. Please explain current situation and why the expert is requested (what is his/her added value).

The industrial waste water treatment plant Khargia receives wastewater from 28 leather, tannery and wool factories with heavy pollutions (even some industries wastewater has higher pollution than the standard MNS5582:2006 which named the raw wastewater from the leather processing industries before the primary treatment effluent treatment plant. Technical requirement). Due to old technologies and installations it is impossible to remove highly concentrated contaminants, such as heavy metals and suspended solids. After insufficient treatment, wastewater which could not meet the national standard MNS 6561:2015 (Effluent water quality for sewerage network) entering the main sewer pipe causes difficulties in the biological process of the central wastewater treatment plant. Therefore, we are requesting to involve an expert in the study to



optimize the process of industrial wastewater treatment, including the assessment of the construction of pre-treatment facilities for all factories in the area and the rehabilitation of the industrial wastewater treatment plant.

Expected outputs and outcomes:

Please, explain, what is expected from the expert in detail (elaboration of analysis, seminar, forum, etc.) and when and how those outcomes will be used.

First of all, Expert should conduct a detailed facility survey in terms of treatment efficiency, equipment condition, influent pollution concentration and flow demand, which is causing soil and groundwater pollution. Based on detailed survey Expert should submit report in short term recommendations on optimization of the treatment plant operation, maintenance and required chemical reagents for treatment process. In addition, in long term, rehabilitation and renovation plan for the industrial waste water pre-treatment plant-Khargia. The Expert study result shall be the basis of initiating project for rehabilitation and renovation of the Khargia industrial waste water pre-treatment plant. Moreover, the recent 10 year issue of effluent wastewater pollution load of central wastewater treatment plant of Ulaanbaatar shall be reduced and treatment efficiency shall be improved.

Role of the applicant/partner organisation and roles of other key partners:

Please describe briefly the roles and responsibilities of key project stakeholders and their relation towards the expert (towards his/her work).

During the data collection stage Water supply and sewerage Authority /USUG/ will provide all necessary data including chemical analysis and water flow of waste water from factories. Also, USUG will closely cooperate with Expert on facility survey and share all possible information to achieve excellent result of study and follow recommendations on optimization and operational action. Meetings with related governmental agencies and companies entry permissions to the protected company's territories will be organized according to Expert request. During the field work USUG will provide to the Expert office and transport within the Ulaanbaatar city.

Complementarity:

Analysis of other relevant development interventions executed by the government (or) in co-operation with other donors, complementarity of the requested intervention with activities carried out so far.

N/A

Date and Signature

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