

THE ROLE OF TECHNOLOGY NEEDS ASSESSMENT PROCESS IN TRANSFORMATION OF THE WASTE SECTOR OF UKRAINE

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Abstract

Technology Needs Assessment process in Ukraine (TNA in Ukraine) was launched in 2019 covering Waste, Agriculture and Water sectors. In the Waste sector, the main objective of TNA in Ukraine is to facilitate wide diffusion of modern climate mitigation technologies into national waste management system through three implementation stages: 1) *Technology prioritization*; 2) *Barrier analyses and enabling framework*; 3) *Technology action plan development*. Two stages have been already completed, corresponding reports have been approved and became publicly available. Due to COVID-19 third stage is planned to be executed with certain delay by mid of 2021.

During *Technology prioritization* stage six waste management technologies were identified as highly attractive to be disseminated in Ukraine including methane capture at landfills and waste dumps for energy production, mechanical-biological treatment of waste with biogas or SRF/RDF production etc. During *Barrier analysis and enabling framework* stage the following types of barriers for the wide dissemination of selected technologies were identified: economic and financial; legal and regulatory; networking; institutional and organizational capacity; human resources; social, cultural and behavioural; information and awareness; technical ones paying attention to gender aspects. The measures to overcome corresponding barriers were proposed. Concrete action plans to disseminate specific mitigation technologies in Ukraine will be developed at the third stage of the project.

The already achieved results of the TNA in Ukraine have been used in the 2nd Nationally Determined Contribution (NDC 2) reports for the Waste sector. Thus, technology prioritization report was used for formulation the projection scenarios of the NDC 2 scientific documentation, as well as for evaluating the costs needed to implement proposed scenarios. Barrier analysis and enabling framework report was used for formulation the measures to achieve significant GHG reduction in the Waste sector, which were further proposed to the Government of Ukraine.

Successful realization of the third stage of the project will facilitate climate investment inflow in the Waste sector of Ukraine.

Keywords: Technology Needs Assessment (TNA), waste management technologies, landfill, methane, biogas, SRF, RDF, GHG reduction.