



TSUULL Waste Management Plan (TWMP)

The Waste Management Plan (WMP) addresses management of all solid and liquid refuse, including hazardous and non-hazardous waste, produced as a result of different activities within Alisher Navo'i Tashkent State University of Uzbek Language and Literature.

The TWMP covers the construction and operational phases.

PURPOSE

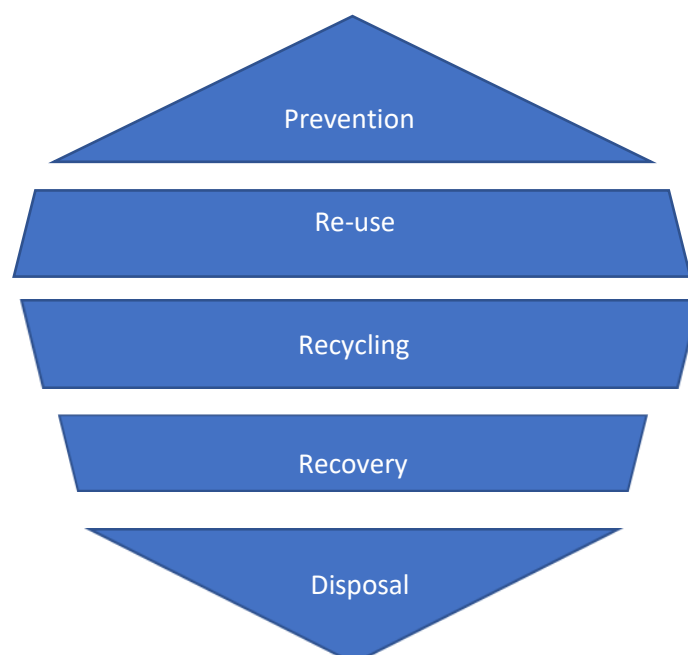
The TWMP aims to provide guidelines on waste reduction, segregation, collection and disposal practices in accordance with international best practices, to avoid deterioration of the natural environment and negative impacts on the health and safety of communities in the Project Area.

The Project is committed to apply the waste hierarchy and will seek to be a zero waste discharge facility. This plan is the primary tool to guide employees towards waste management.

WASTE MANAGEMENT OPTIONS - WASTE

HIERARCHY

The waste hierarchy presents waste management stages commencing with the most preferable option to the least preferable option. Waste prevention is the most preferred option, followed by reuse, recycling, recovery including energy recovery and as the last option is safe disposal, see Figure 1.



PREVENTION

Universities should be required to strictly manage purchasing of raw materials in order to ensure there is minimal wastage. The focus is to prevent raw materials, ingredients and products from becoming waste in the first place. Enterprises should be committed to avoiding the generation of waste and not using hazardous materials. Where the use of hazardous materials is unavoidable, efforts should be made to identify replacement materials that are non-hazardous through continued research and development.

RE-USE

TSUULL ensures that all equipment is regularly checked and maintained and refurbished or repaired. In addition, university should seek to sell and buy used items, donating them for free or exchanging them.

RECYCLING

University should seek to turn waste into a new substance or product, such as composting of organic wastes to a standard that meets quality controls. This compost could be sold or given to farmers outside the boundary of the sites to facilitate improvements in soil conditions and hence their production levels.

RECOVERY

Recovery of waste is usually most successful when done in bulk. Therefore, a centralised recovery facility is preferable. Forms of recovery include anaerobic digestion, incineration with energy recovery, gasification and pyrolysis which produce energy (fuels, heat and power) and materials from waste. It is recommended that the solid waste management system be modified and improved to make it compatible with the requirements of the proposed bio-methanation technology.

DISPOSAL

Disposal is deemed the last resort and must occur in an environmentally responsible manner. Disposal results in waste going to landfill or to incineration without energy recovery and is the least preferred environmental option. However when wastes must go for disposal this must occur at a suitably designed sanitary waste disposal site.