World Academy of Science, Engineering and Technology International Journal of Environmental and Ecological Engineering Vol:11, No:02, 2017

Sustainability Assessment of Municipal Wastewater Treatment

Authors: Yousra Zakaria Ahmed, Ahmed El Gendy, Salah El Haggar

Abstract : In this paper, our methodology to assess sustainability of wastewater treatment technologies in Egypt is presented. The preliminary list of factors to be considered, as well as their ranking listed. The factors include, but are not limited to pollutants removal efficiency and energy consumption under the environmental dimension, construction cost, operation and maintenance costs and required land area cost under the economic dimension and public acceptance, noise and generating job opportunities for local residents. This methodology is intended to be a user-friendly screening tool to support the decision making process when investigating different wastewater treatment technologies in Egypt. Based on the research work results presented in this paper, it can be generally concluded that the categorization of some of the social and environmental aspects of sustainability is subjective and highly dependent on the local conditions and researchers' background.

 $\textbf{Keywords:} \ \text{sustainability, was tewater treatment, sustainability assessment, Egypt}$

Conference Title: ICEPSD 2017: International Conference on Environmental Protection and Sustainable Development

Conference Location : Amsterdam, Netherlands **Conference Dates :** February 07-08, 2017