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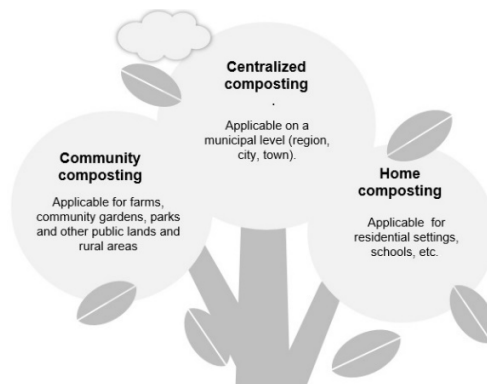
BIODEGRADABLE WASTE MANAGEMENT IN GEORGIA: PROBLEMS OF THE COMPOSTING SYSTEM INTRODUCTION

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Abstract – Biodegradable waste management, in particular the introduction and implementation of composting systems are among the major problems for Georgia. An increase in the volume of municipal waste has been recorded in the country; therefore, the volume of generated biodegradable waste is also increasing. In accordance with the National Waste Management Strategy 2016–2030 of Georgia, the municipal waste generated in 2021 amounted to 1 104.952 tonnes. It is worth noting that the largest part of municipal waste is organic waste – 54.7 %, while plastic waste is 13.8 %, paper and cardboard – 10.6 %, textiles – 4.1 %, and other waste. According to various studies, by 2030, waste generation is expected to increase from 0.6 % to 1.2 % annually, which should be the cause of significant challenges for national and local authorities, especially local municipalities, whose duties include municipal waste collection and transportation as well as the implementation of separate waste collection systems. Biodegradable waste management, including various composting systems, is of particular importance. The study shows that composting, as one of the best approaches for recycling biodegradable waste, is still not properly developed in Georgia. It is possible to name only a few successful experiences. Noteworthy among them is the Kutaisi Composting Center, which was established within the framework of the EU JOP “Black Sea Basin” in Kutaisi, Georgia. The Composting Center is designed for windrow composting of green waste (tree branches, leaves, grass). Its productivity is 2000 tonnes of compost annually. The Composting Center is one of the first in Georgia. It can bring very tangible benefits. In particular, the amount of municipal waste going to landfill sites was reduced by approximately 10 %; the expenditures of the municipalities connected to the maintenance of green facilities (received compost is used) have been reduced. Among biodegradable waste composting approaches, it is recommended to use such systems as: i) centralized composting, ii) community composting and iii) home (individual) composting. A centralized composting method can be used in municipalities where a large amount of biodegradable



Composting approaches recommended for introduction in Georgia.

waste is generated. It is especially favourable in regions, where the agricultural sector is developed, and large amounts of green waste are generated. The Kutaisi Composting Center is a good example of the centralized composting system. As experience shows, such large-scale composting is particularly effective for green waste composting. It is promising for Georgia to introduce community composting approaches that offer an optimal scheme for communities to get the maximum benefits of their potential. Composting is an approach used in the field of biodegradable waste management that has the greatest potential in Georgia and can make a significant contribution to both economic development and the protection of the social and natural environment.

Keywords – Biodegradable waste; centralized composting; community composting; individual composting; green waste; recycling; separation; waste management