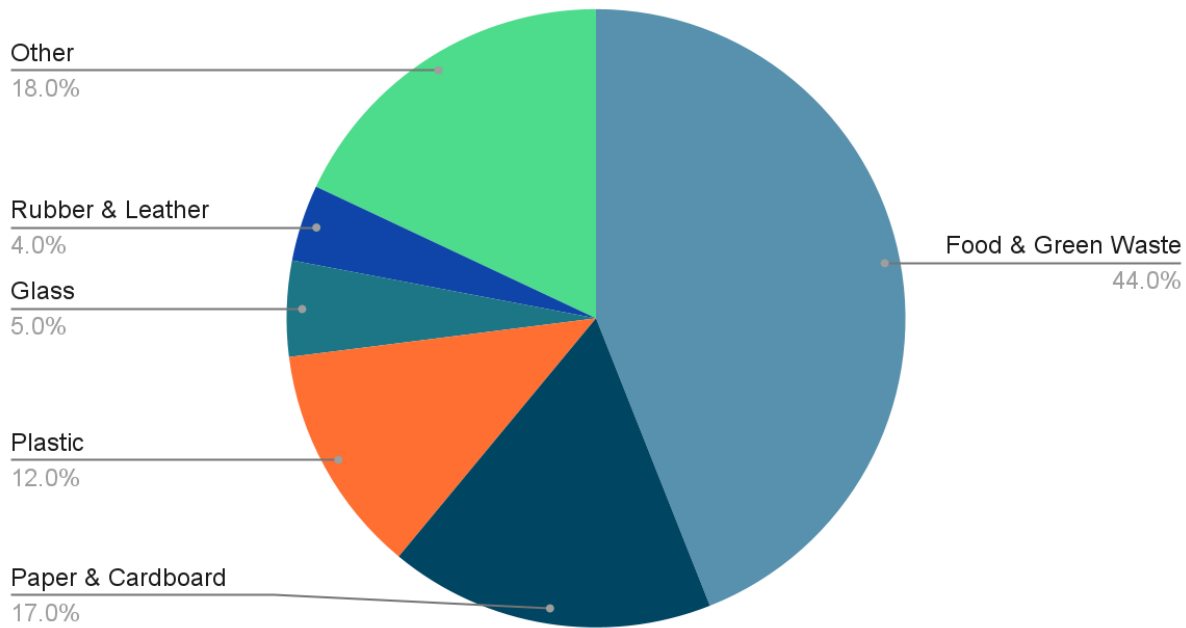


## I. INTRODUCTION

### 1.1 Background

These days, the world has been facing an issue related to municipal solid waste or known as MSW. By definition, municipal solid waste is an everyday item that is discarded after its primary use, making it unusable (Abdel-Shafy & Mansour, 2018). By 2050, it is predicted that there will be 3.4 billion tonnes of waste on the earth annually (Raut et al., 2023). Moreover, Aprilia (2021) stated that in Indonesia up to 8 tonnes of waste were generated every day. As mentioned by Brahme et al. (2023), the global waste composition contained green & food wastes (44%), metal (4%), glass (5%), plastic (12%), paper & cardboard (17%), and others (18%). Apart from waste accumulation and land use, waste problems also pose an issue related to land usage. Therefore, it is important to implement a waste management practice for every individual to minimize the challenges that come with waste (Rodrigo-Illarri et al., 2022).

## Global Waste Composition



**Source:** Brahme et al., 2023

**Figure 1.** Global Waste Composition

Waste management practice was conducted to promote efficient waste disposal (Elroi et al., 2023). In addition, waste management practice aims to increase the material life cycle and recover it when possible to minimize the amount of waste that goes to landfills (Aprilia, 2021). If the waste management system is not correctly handled, it might cause a significant impact towards the environment, health, as well as society (Astuti et al., 2024). Ironically, only a few countries that seem to have an awareness in managing waste such as Germany, Sweden, and the Netherlands have invested substantially in new recycling technologies, leading to Europe's greatest waste management rates (Laureti et al., 2023). While the rest may already start the waste management systems but have not been intensive. Especially if we focus on Indonesia, the

efficiency of the waste management systems is still low and needs to have significant improvement (Luthfiani & Atmanti, 2021).

Normally, the common practice of eliminating waste is just dumping it to the landfills which might lead to another problem. Evenmore, some individuals eliminate the waste by burying and burning it (Fadhullah et al., 2022). Waste dumping to the landfills not only causes environmental degradation, however, it might cause health and social issues too. According to Siddiqua et al. (2022), waste disposal to the landfill might disrupt the ecosystem through contamination, pollution, soil erosion and eventually biodiversity loss. In regards to human health, unmanageable waste disposal might lead to spread of diseases, respiratory illness, infection etc. Due to this condition, waste management practices should be conducted in order to prevent upcoming problems while also maintaining the wastes.

Nowadays, waste banks are one of the most notable waste management facilities in Indonesia considering that it provides a lot of benefits (Aviaska, 2023). Moreover, the implementation of the waste bank is not only to overcome the waste problem but also to promote a circular economy hence it is beneficial for the environment sustainability and community as well (Yusuf et al., 2025). In Indonesia, waste banks have been regulated by the Minister of Environment and Forestry Regulation Number 14 of 2021 Waste Management in Waste Banks (Aviaska, 2023). By this regulation, it is expected to activate more and more waste banks as a facility for waste management systems. Thus, the presence of waste banks as waste management tool need to be supported by the local communities, government, NGOs, educational institutions, or even media due to the fact that it poses a potential impact to Indonesia in handling waste problems (Magriaty et al., 2020).

This research aims to compare behavioral differences among communities that live near the waste bank and live without the waste banks. The behavioral aspects were analyzed from environmental awareness, segregation practices, education and attitudes. By analyzing these two communities, it can be concluded whether the presence of waste banks is able to change the individual's behavior or not. By the presence of a waste bank in the community it is expected to have significant benefits for the country in tackling waste problems (Magriaty et al., 2020).

## **1.2 Objectives**

This study aims to investigate the behavioral differences in terms of awareness, segregation practice, education and attitudes between communities residing in proximity to a waste bank and those located farther away or without access to such facilities.

## **1.3 Research Question**

1. Are there any behavioral differences between communities that live with and without the waste bank?
2. Does a waste bank in communities influence individual awareness about waste management?
3. Do waste banks in communities influence individual attitudes in waste management?
4. Does the presence of waste banks change the communities to implement waste segregation practice?

#### **1.4 Research Gap**

According to the research done by Widiyanto et al. (2023), although Indonesia have already implemented waste management practices, however, it poses a lot of challenges during the implementation considering that Indonesia has a large population, high urbanization rate and lack of public awareness. Therefore, the research is implemented to find out if there is a relationship between awareness, segregation practice, education level and attitude towards the presence of waste banks.

#### **1.5 Expected Outcome**

From this study, it is expected to promote waste management and sustainability development in communities through implementing waste banks. This study aims to increase awareness, attitude, and waste segregation practices of individuals through waste bank facilities.