PT. Great Giant Pineapple

WASTE MANAGEMENT REPORT

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Introduction

Waste Management

We believe that producing agricultural product should go hand in hand with protecting the environment, which is why we are committed to achieving net zero waste across all our operations. Guided by the principles of a circular economy, we strive to minimize waste, reuse resources, and support the regeneration of nature. Through our integrated plantation in Lampung, we apply a closed-loop approach where by-products from agricultural processes are converted into renewable energy, organic fertilizers, and other useful materials, helping to reduce our environmental footprint while enhancing operational efficiency. We also work closely with local farmers to share sustainable practices, improve crop yields, and support the well-being of surrounding communities. At GGP, zero waste is not just a goal—it is a long-term vision that shapes how we grow, produce, and contribute to a more sustainable future.

Waste audits to identify opportunities for improving waste performance

At PT. Great Giant Pineapple, we conduct a waste assessment or waste audit once a month, and the results are reported to the Board of Directors regarding waste performance. Based on this waste performance data, we evaluate opportunities that can arise from improving waste performance. GGP is also certified by ISO 14001.

Currently, PT. GGP also implements a circular economy model as a key principle in waste management, which ensures that the waste sent to landfills is minimal. For the management of special waste, such as hazardous and toxic materials, GGP collaborates with a third-party hazardous waste management company to handle this waste properly. GGP also regularly witnesses the activities of the hazardous waste management to ensure that the waste distributed to the waste manager complies with the applicable regulations for hazardous waste management in Indonesia.

Waste Reduction Action

Waste Target

In 2030, GGP have **long term target** as follows:

Objective	Key Performance Indicator	Target
Zero waste	Amount of food loss and waste send to landfill	0%

Action plans to reduce waste generation

In order to achieve the established objectives and targets, several improvements related to energy efficiency have been implemented. These improvements are based on identified savings opportunities from both the Energy Team and the results of previous energy audits. The various initiative that have been undertaken to meet the set targets that can be seen in below:

Bio-plastic Experimentation

Developing environmentally friendly plastic alternatives made from biomass sources, aimed at decreasing the reliance on conventional plastics that are difficult to decompose. This Bio-Plastic experiment uses waste from pineapple core fiber and pineapple liquid waste, which undergoes liquefaction and solidification processes to become plastic.

Biochar Production

Creating biochar from organic waste, which can be used as fertilizer or carbon sequestration, helping to improve soil quality while reducing greenhouse gas emissions.

Waste to Energy

Converting waste into energy through processes such as incineration or gasification, which can produce electricity or fuel, while also minimizing the volume of waste generated.

Integration of recycling programs to reduce the waste sent to landfill

PT Great Giant Pineapple has integrated a recycling program aimed at reducing the waste sent to landfills, following the principles of a circular economy. This approach is a significant aspect of the larger business framework of PT Great Giant Pineapple, specifically within Great Giant Foods.

At PT Great Giant Pineapple, several by-products from canned pineapple production are repurposed into high-value items:

1. **Pineapple stem waste** from the canning process is transformed into bromelain enzyme, which serves as a chemical ingredient in pharmaceutical products.
2. **Pineapple skin waste** generated during production is utilized as livestock feed in one of the business units within the Great Giant Foods holding.
3. **Liquid waste** produced during the canning process is converted into energy at the biogas plant.
4. **Plastic angle** We utilize plastic waste by recycling it into plastic angle for supply chain needs as supporting materials to export our canned pineapple to overseas markets. (based on 2023 data we recycled 9.6 tons of plastics for plastic angle)

Waste reduction training provided to employees

At PT Great Giant Pineapple, we regularly conduct training sessions for employees on how to reduce waste in their daily lives. This initiative is supported by our ISO 14001 certification, which requires us to consistently provide capacity development for our staff regarding waste management.

Additionally, the company has established a green building that serves as employee accommodation. In this green building, we prioritize energy conservation and the separation of organic and inorganic waste for residents. We also offer training to teach them how to create compost from organic materials.

Investment in innovation or R&D to minimize waste

This aspect seeks to understand if a company has allocated monetary, workforce or other resources to investigate new ideas or technology aimed at minimizing waste generation from business operations. This might include sharing which waste-specific projects its research and development team is working on or the creation of working groups or other initiatives to address waste reduction. In 2024, PT. Great Giant Pineapple invests around three to four billion rupiah for research and development on minimizing waste that consist of Bio-Plastic Experiment, Biochar Production, Pineapple leave fiber to textile.

Waste Performance

Waste Disposal

	Amount of Waste (Metric tonnes)				
	2021	**2022**	**2023**	**2024**	**Target FY 2024**
Total Waste Generated	95,026	174,673	213,086	225,800	-
• **Total Waste Recycled/Reuse**	94,492	170,073	210,923	223,640	-
• **Total Waste Disposed**	534	4,599	2,163	2,160	1,950
• Waste Landfilled	534	4,599	2,163	2,160	1,950

Waste Performance

Non-Hazardous Waste & Hazardous Waste

	Amount of Waste (tonnes)			
	2021	**2022**	**2023**	**2024**
Non-Hazardous Waste	93.81%	93.47%	95.16%	93.60%
Hazardous Waste	6.19%	6.53%	4.84%	6.40%

Food Loss & Waste

	Amount of Food Loss (Metric tonnes)				
	2021	**2022**	**2023**	**2024**	**Target FY 2024**
Total weight of all food loss & waste	36,276	25,712	17,024	34,109	35,000
Total weight of food loss & waste volumes used for alternative purposes	31,048	21,658	14,620	31,983	30,000
Total food loss & waste discarded	5,228	4,054	2,404	2,126	1,950