

Mega Trash, Mega Leak

Plastic Leakage on Megacity's Garbage Mountain

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Background

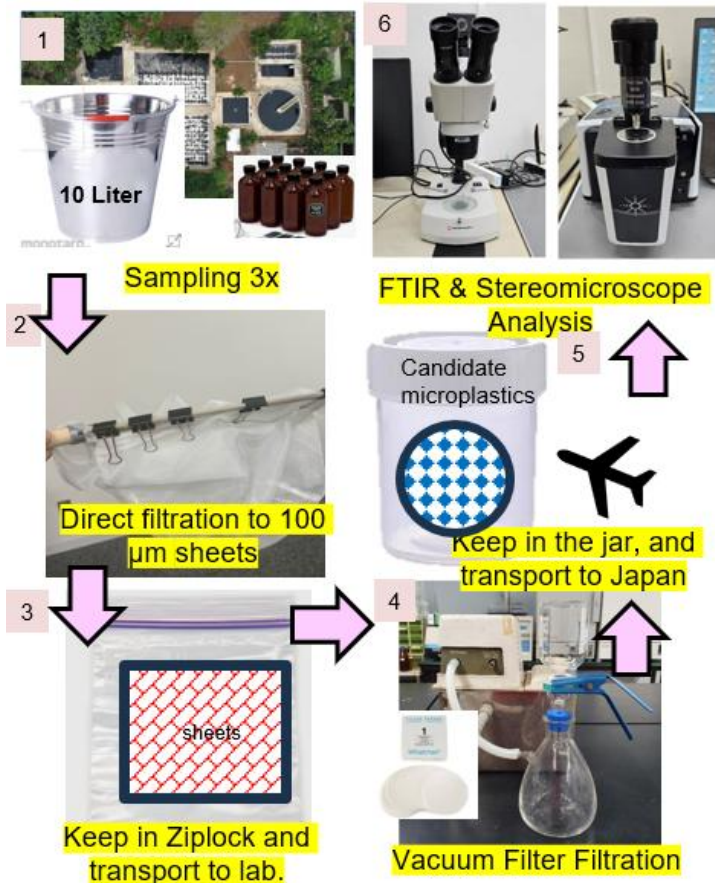
The first study on Bantar Gebang Integrated Waste Final Disposal receives around 7,700 TPD from the Jakarta Megacity. 25% plastic, 86% of the waste is landfilled, posing a high risk of environmental pollution.

~Equals to  X1,300/day

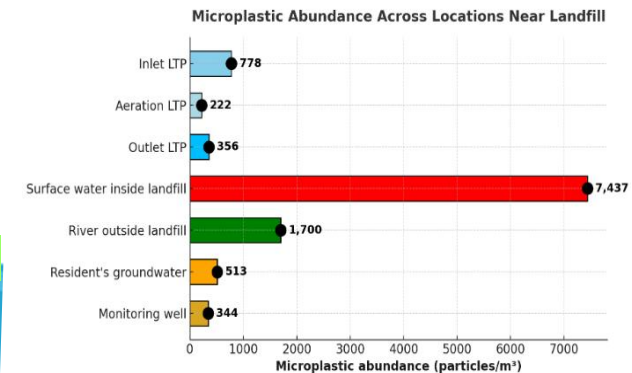
Objective

Microplastic pollution in surface water & groundwater surrounding the Final Disposal Facility, Bantar Gebang

Methodology



Result & Discussion



- Landfill & unmanaged waste is the MPs source.
- Wastewater treatment partially removes MPs
- River and groundwater are impacted, suggesting leachate migration and potential exposure risk.
- Groundwater contamination indicates potential public health concerns if used for drinking.

References

- Dinas Lingkungan Hidup Jakarta. 2025
- Ministry of Environment Japan. 2021