EVALUASI METODE KOMPARATIF PENGELOLAAN SAMPAH MAKANAN PENGGUNAAN METODE KONVENSIONAL DI PT X BOGOR DAN *BLACK SOLDIER FLY* (BSF) DI PT Y DEPOK TAHUN 2025

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Abstrak

Sampah makanan di Indonesia menjadi persoalan serius karena volumenya tinggi, mencapai sekitar 121 kg per kapita per tahun, serta berdampak pada lingkungan dan kesehatan masyarakat. Penelitian ini bertujuan mengevaluasi secara komparatif dua metode pengelolaan sampah makanan oleh dua perusahaan, yaitu metode konvensional oleh PT X yang mengolah sampah menjadi *Refuse Derived Fuel* (RDF) dan kompos, serta metode biokonversi menggunakan larva *Black Soldier Fly* (BSF) oleh PT Y. Evaluasi dilakukan menggunakan pendekatan PESTEL *(Political, Economic, Social, Technological, Environmental, and Legal).* Penelitian ini menggunakan metode deskriptif kualitatif dengan studi kasus. Data dikumpulkan melalui wawancara mendalam, *Focus Group Discussion* (FGD), dan observasi terhadap proses perencanaan, implementasi, dan evaluasi. Informan dipilih secara *purposive sampling*, meliputi teknisi, pimpinan, staf operasional, humas, dan warga sekitar. Hasil penelitian menunjukkan PT X unggul dalam aspek politik, ekonomi, sosial, dan legal, didukung kelembagaan, pendanaan stabil, lokasi aman, dan kepatuhan hukum. Sementara itu, PT Y menonjol dalam aspek teknologi melalui pemanfaatan BSF untuk pengolahan sampah makanan. Dari sisi lingkungan, keduanya memberikan kontribusi positif. PT X menghasilkan bahan bakar alternatif, sedangkan PT Y menghasilkan pupuk organik dan mendorong pemberdayaan masyarakat.Kesimpulannya, kedua metode memiliki kelebihan masing-masing dalam mendukung pengelolaan sampah makanan yang berkelanjutan. Hasil evaluasi ini diharapkan menjadi dasar penyusunan kebijakan integratif yang menggabungkan teknologi dan pendekatan lokal dalam pengelolaan sampah di Indonesia.

Kata Kunci: *Black Soldier Fly*, Metode Konvensional, PESTEL, Sampah Makanan

A COMPARATIVE EVALUATION OF FOOD WASTE MANAGEMENT METHODS THE CONVENTIONAL AT PT X BOGOR APPROACH AND BLACK SOLDIER FLY (BSF) UTILIZATION AT PT Y DEPOK IN 2025

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Abstract

Food waste in Indonesia has been a critical issue due to its high volume with approximately 121 kg per capita per year, and its adverse impacts on the environment and public health. This study evaluates comparatively two food waste management methods implemented by two companies: a conventional method employed by Company X, which processes waste into Refuse Derived Fuel (RDF) and compost, and a bioconversion method using Black Soldier Fly (BSF) larvae adopted by Company Y. The evaluation is conducted using the PESTEL framework (Political, Economic, Social, Technological, Environmental, and Legal). A qualitative descriptive method with a case study approach was performed through in-depth interviews, Focus Group Discussions (FGDs), and observations of the planning, implementation, and evaluation processes. Informants were selected using purposive sampling and included technicians, management personnel, operational staff, public relations officers, and local residents. The findings indicated that Company X excels in the political, economic, social, and legal aspects, supported by institutional backing, stable funding, a secure location, and legal compliance. In contrast, Company Y demonstrates technological superiority through the utilization of BSF larvae for food waste treatment. Reviewed from an environmental perspective, both companies contribute positively: Company X produces alternative fuel, while Company Y generates organic fertilizer and promotes community empowerment. In conclusion, both methods offer distinct advantages in supporting sustainable food waste management. The results of this evaluation are expected to serve as a foundation for formulating integrative policies that combine technology and local approaches in waste management practices in Indonesia.

Keywords: Black Soldier Fly, Conventional Method, PESTEL, Food Waste