

Analisis Pengurangan Timbulan Sampah ke TPA melalui Pemrosesan di TPS 3R Prima Harapan, Kota Bekasi, Jawa Barat = Analysis of Waste Reduction to the Landfill (TPA) through Processing at TPS 3R Prima Harapan, City of Bekasi, West Java

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Abstrak

Pengelolaan sampah di skala kawasan seperti Tempat Pengolahan Sampah Reduce-Reuse-Recycle (TPS 3R) menjadi salah satu strategi kunci dalam mengurangi beban Tempat Pemrosesan Akhir (TPA). Penelitian ini bertujuan untuk mengevaluasi kontribusi TPS 3R Prima Harapan dalam pengurangan timbulan sampah ke TPA serta menganalisis faktor-faktor teknis dan nonteknis yang memengaruhi kinerjanya. Metode penelitian yang digunakan meliputi pengukuran timbulan dan komposisi sampah, wawancara dengan pengelola, serta analisis kontribusi dan SWOT. Hasil penelitian menunjukkan bahwa densitas sampah yang masuk ke TPS 3R sebesar 145,86 kg/m³, dengan timbulan rata-rata 0,49 kg/orang/hari. Komposisi didominasi oleh sampah organik (60%) dengan komponen utama berupa sampah organik rumah tangga dan daun-ranting, serta anorganik seperti plastik (23%). TPS 3R mampu mengolah sekitar 70% sampah organik dan 55% sampah plastik bernilai ekonomi, dengan gabungan recovery rate mencapai 62,8 %, dari potensi reduksi timbulan sampah hingga 71,73% menurut pengamatan. Dari aspek teknis, kegiatan pengolahan seperti komposting dan pencacahan plastik berjalan secara rutin meskipun terbatas pada kapasitas tenaga kerja dan teknologi yang sederhana. Sementara itu, dari sisi nonteknis, dukungan kelembagaan, pembiayaan melalui APBD, serta partisipasi masyarakat melalui bank sampah menjadi faktor penting dalam menunjang aspek keberlanjutan TPS 3R. Penelitian ini merekomendasikan peningkatan kapasitas pengolahan, komersialisasi hasil olahan seperti kompos, penyusunan SOP, serta penguatan kemitraan dengan sektor swasta sebagai strategi keberlanjutan.

.....Neighborhood-scale waste management, such as Tempat Pengolahan Sampah Reduce-Reuse-Recycle (TPS 3R), is one of the key strategies to reduce the burden on landfills (TPA). This study aims to evaluate the contribution of TPS 3R Prima Harapan to waste reduction at the TPA level and to analyze the technical and nontechnical factors influencing its performance. The research methods included waste generation and composition measurements, interviews with facility managers, as well as contribution and SWOT analyses. Results show that the waste density received at TPS 3R reached 145.86 kg/m³, with an average generation rate of 0.49 kg/person/day. The composition is dominated by organic waste (60%), with the main components being food scraps and leaves/branches, as well as inorganic waste such as plastics (23%). TPS 3R is able to process around 70% of organic waste and 55% of economically valuable plastic, with a combined recovery rate of 62.8%, resulting in a potential waste reduction of up to 71.73% based on observations. Technically, the processing activities, such as composting and plastic shredding, are carried out routinely, although limited by manpower and simple technology. On the nontechnical side, institutional support, funding from the regional budget (APBD), and community participation through waste banks are key supporting factors related to TPS 3R's sustainability. This study recommends improving processing capacity, commercializing processed products such as compost, preparing standard operating procedures (SOP), and strengthening partnerships with the private sector to ensure long-term sustainability.