ABSTRAK

Dinas Lingkungan Hidup (DLH) berperan dalam menjaga kebersihan lingkungan melalui pengelolaan dan pengangkutan sampah bagi masyarakat PDAM maupun non-PDAM. Namun, layanan pengangkutan sampah masih menghadapi berbagai kendala, seperti jadwal pengangkutan yang belum rutin, pelaporan masyarakat yang masih menggunakan *WhatsApp* dan media sosial sehingga sulit dikelola secara sistematis, keterbatasan pemantauan aktivitas petugas Layanan Pengangkutan Sampah (LPS), serta pencatatan pembayaran tagihan yang masih dilakukan secara manual.

Penelitian ini bertujuan merancang dan membangun aplikasi berbasis *Android* sebagai sistem informasi pemantauan dan pelaporan pengangkutan sampah yang terintegrasi. Sistem ini menyediakan fitur pelaporan kondisi sampah, pemantauan aktivitas petugas LPS berbasis *Geographic Information System* (GIS), pengelolaan jadwal, pemantauan lokasi dan status pengangkutan, serta pencatatan pembayaran tagihan secara digital. Dengan adanya sistem ini, diharapkan proses pelaporan, pemantauan, dan pengelolaan pengangkutan sampah menjadi lebih efektif, efisien, dan terintegrasi sehingga dapat meningkatkan kualitas pelayanan DLH.

Kata Kunci: Sistem Informasi, Pengangkutan Sampah, *Geographic Information System* (GIS), *Android*, Dinas Lingkungan Hidup.

ABSTRACT

The Department of the Environment (DLH) plays a role in maintaining environmental cleanliness through waste management and collection for both PDAM (Regional Water Company) and non-PDAM (Regional Water Company) users. However, waste collection services still face various challenges, such as irregular collection schedules, public reporting still using WhatsApp and social media, making it difficult to manage systematically, limited monitoring of Waste Transportation Service (LPS) officer activities, and manual bill payment recording.

This research aims to design and develop an Android-based application as an integrated information system for monitoring and reporting waste collection. This system provides features for reporting waste conditions, monitoring LPS officer activities based on a Geographic Information System (GIS), schedule management, monitoring location and status of waste collection, and digital bill payment recording. With this system, it is hoped that the reporting, monitoring, and management of waste collection will become more effective, efficient, and integrated, thereby improving the quality of DLH services.

Keywords: Information System, Waste Transportation, Geographic Information System (GIS), Android, Department of the Environment.