# Mapping and Enhancing Yekepa's Sewage Network: A Digital Approach for Sustainable Infrastructure and Urban Resilience

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**SUMMARY**

This paper presents the mapping and enhancement of Yekepa's sewage network, a project undertaken to support the sustainability and resilience of the town's urban infrastructure. Using advanced geospatial technologies, including GNSS equipment and orthophotos, the project successfully mapped the entire sewage system, comprising main lines, middle lines, and inner lines, extending from the central sewage plant to individual homes. The objective was to identify existing sewage infrastructure and provide a foundation for system enhancement, ensuring more efficient waste management and environmental protection. In collaboration with ArcelorMittal's environmental department, this project also highlights the role of geospatial data in supporting sustainable urban development and addressing key environmental challenges. The integration of innovative digital tools facilitated the accurate surveying of exposed sewage manholes and made possible the comprehensive redefinition of the town's sewage network. This paper explores the intersection of geospatial technology, urban resilience, and collaboration, demonstrating how these elements contribute to improving the sustainability and capacity of urban systems in developing regions such as Yekepa. The project serves as a good example for using digital tools to enhance urban infrastructure and environmental resilience, aligning with the global sustainability goals.

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