



Design and Sustainable Management of Liquid Wastewater Treatment Network using the GIS Tool and the Space-based Database (Geo-LD).

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Abstract

The objective of this paper is to show the design and the sustainable management of the liquid wastewater treatment network (LWTN) in under-equipped neighborhoods (Case of LAMKANS, south-west of Casablanca) using spatially referenced databases (SRD) and the GIS tool. This geo-localized information technology has become one of the most effective tools, ensuring better management of cartographic and alphanumeric databases.

This research will help you understand the importance of LWTN and the design of sustainable and innovative solutions. It actually contributes to the understanding and assimilation of the planned sewage treatment scheme for under-equipped neighborhoods, and downstream. It represents a guide that will demonstrate the impact of the sanitation scheme on the protection of wastewater the environment.

Keywords: SRD, Geo-LD, sustainable development, LWTN

1 Introduction

In most developed countries, investment in sanitation is still insufficient, especially in under-equipped neighborhoods and rural settlements. That is why sanitation efforts, respecting environmental standards, must be strengthened, especially for under-equipped neighborhoods.

The Moroccan public authorities give an important interest to the sanitation issue in agglomerations and under-equipped neighborhoods, given its paramount importance in both public health and the environment.

The design and the integrated management of the LWTN requires the comprehension of several data, which is to be managed, analyzed and processed. The grasp of this data is often difficult, which requires additional support aids.

Wastewater of various types must be collected and disposed of to the LWTN, and must be treated in accordance with environmental, health and hygiene standards. The measures taken in these areas contribute to improving the standard of living and the quality of life of the population.

The objective of this paper is to use geolocated information science technology for a technical-spatial evaluation of LWTN in sub-equipped Casablanca south-west districts. This technology has become one of the most effective tools, which ensures better management of cartographic and attributes databases.

GIS support is highly efficient tool for analyzing, interpreting, geo-localizing, managing and storing spatial and attributes data, for the implementation of innovative concepts and sustainable network solutions liquid sanitation, adapted to the local context of the city of Casablanca.