

Management Information Systems for Fire Risk Services in Lagos Metropolis, Nigeria

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ABSTRACT

Fire incidences in urban centres are often devastating resulting in the terrible loss of lives and properties. There is a worldwide understanding of the importance of creating a database for the assessment and analysis of fire hazards / risks. However, in some major cities in Nigeria, this process is in a stagnant phase and databases are not at all existent. Lagos Metropolis is characterized by a large population, frequent traffic jams and the presence of many slums, therefore the effects of a major fire breakout will be disastrous and the damage will run into heavy loss of lives and property running, oftentimes, into huge sums of money. In this project, a Management Information System (MIS) for the fire stations in Lagos Metropolis was developed. This was achieved by making use of the GIS technology in storing, processing and presenting the data acquired so as to develop a user friendly interface that makes it easy for the fire fighters to use. The location of fire stations, public hospitals and past fire incidents were observed using a hand held GPS, and the points were superimposed on the street network of the study area. Analysis shows that the fire stations are not enough to cover the study area and this delays the response of the fire stations to fire hazards. The database was structured in a format that would allow easy query, updating, retrieval and interpretation in order to assist concerned authorities in decision making. Sample query results are presented in this paper to demonstrate the usefulness of MIS for the management of fire hazards/risks in Lagos metropolis.

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