

Gis Database Creation for Impacts of Domestic Wastewater Disposal on BIDA Town, Niger State Nigeria

Authors : Ejiobih Hyginus Chidozie

Abstract : Geographic Information System (GIS) is a configuration of computer hardware and software specifically designed to effectively capture, store, update, manipulate, analyse and display and display all forms of spatially referenced information. GIS database is referred to as the heart of GIS. It has location data, attribute data and spatial relationship between the objects and their attributes. Sewage and wastewater management have assumed increased importance lately as a result of general concern expressed worldwide about the problems of pollution of the environment contamination of the atmosphere, rivers, lakes, oceans and ground water. In this research GIS database was created to study the impacts of domestic wastewater disposal methods on Bida town, Niger State as a model for investigating similar impacts on other cities in Nigeria. Results from GIS database are very useful to decision makers and researchers. Bida Town was subdivided into four regions, eight zones, and 24 sectors based on the prevailing natural morphology of the town. GIS receiver and structured questionnaire were used to collect information and attribute data from 240 households of the study area. Domestic wastewater samples were collected from twenty four sectors of the study area for laboratory analysis. ArcView 3.2a GIS software, was used to create the GIS databases for ecological, health and socioeconomic impacts of domestic wastewater disposal methods in Bida town.

Keywords : environment, GIS, pollution, software, wastewater

Conference Title : ICEBESE 2015 : International Conference on Environmental, Biological, Ecological Sciences and Engineering

Conference Location : Amsterdam, Netherlands

Conference Dates : May 14-15, 2015