

GIS based solid waste management information system for Nagpur, India: SWIS-GIS

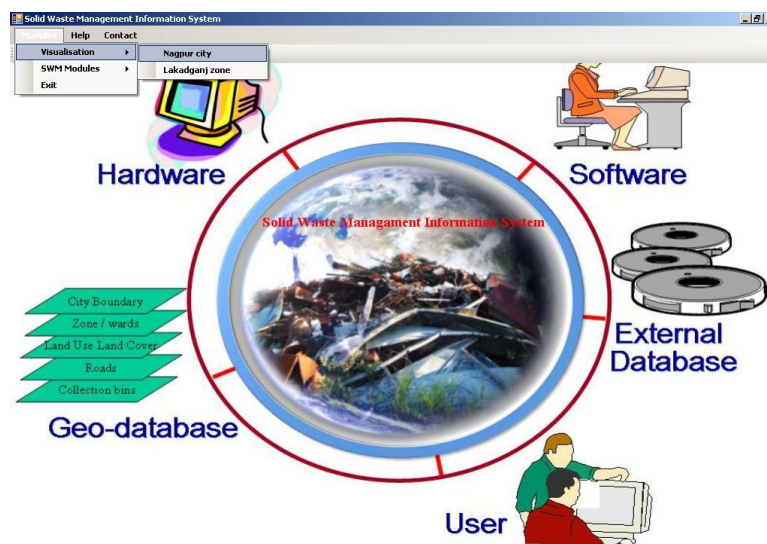
* Correspondence

Ritesh Vijay and Dr. R. A. Sohony

Environmental Systems Design and Modelling Division,
National Environmental Engineering Research Institute
Nehru Marg, Nagpur 440020, Maharashtra, India
Tel: +91-712-2249990, Fax: +91-712-2249900

r_vijay@neeri.res.in

Solid waste management is one of the major problems of today's world and need to be addressed by proper utilization of technologies and design of effective, flexible and structured information system. Therefore, user-friendly, standalone and platform dependent GIS based solid waste management information system (SWIS-GIS) is designed and developed as a decision making and planning tool for regulatory and municipal authorities. The system integrates geo-spatial features of the city (boundary, zones, wards, railways, roads, landuse, location of collection bins, disposal site, population density, income group) and database of existing solid waste management of Lakadganj zone of Nagpur city. GIS based information system facilitates modules of visualization, query interface, statistical analysis, report generation and database modification. It also provides modules like solid waste estimation, collection, transportation and disposal details. A high resolution imagery of the city is integrated with the application so that user can easily view the geographical features with real locations on high zoom levels. SWIS-GIS is designed and developed in flexible manner so that it could be applied in any city with related geo and solid waste database.



Main menu of solid waste management information system