Use of geospatial technology for landfill site selection.

ABSTRACT

Growth of population and extensive industrial development had increases solid wastes and pollutants in many parts of the world (superscript [1-2]). Due to the economic and technologic limitations not all waste can be easily turn to other sort of materials or energy. As a result so, we still have to rely on the common solution to bury as to excrete urban wastes. Selection of an appropriate site for this process in a big city like Mashad in Iran is an important task which needs a cautious, strategic planning and investigations at various levels. With regards to this issue it is necessary to have a comprehensive volume of spatial information ofthe surrounding area and a proper analysis and spatial exploration need to be done. The methodology being implemented utilized geospatial technology for the management and visualization of spatial data while fuzzy logic is used in searching the best location for site selection. In this paper the basic elements of the fuzzy logic methodology as well as its potential in the specific problem are described. A case study for Mashad city is elaborated. The results drawn up by fuzzy logic are compared with that of the traditional Boolean approach in the decision making process.

Keyword: Site selection; Geospatial; Landfill; Fuzzylogic; Solidwaste management.