

A review of potentialities and challenges of integrating remote sensing and GIS with socioeconomic data

ABSTRACT

The aim of this paper is to review the potentialities and major methodological challenges of integrating remote sensing (RS) and geographic information system (GIS) with socioeconomic data from published articles or book chapters. RS and GIS combined with social science (SS) (termed as geoinformation technology) serve many applications for sustainable management and monitoring of the environment. This combined approach gives more accurate results than the single one. It makes information available about the trend and pattern of land use and land cover change (LUCC) with socioeconomic variables like population, demographic or income. This combined study which links RS and GIS with socioeconomic data can also be used successfully for monitoring transmission rate of disease and mapping or preparing vulnerability index. For impact assessment and modelling, this combined technology provides better results than the single one. There are some methodological problems for the researchers to link completely two different disciplines as the object of study and observational unit is completely different. However, this interdisciplinary study is gaining popularity day by day to researchers from different disciplines as well as decision makers.

Keyword: Geoinformation; GIS; Integration; Land use and land cover change; Remote sensing; Socioeconomic