

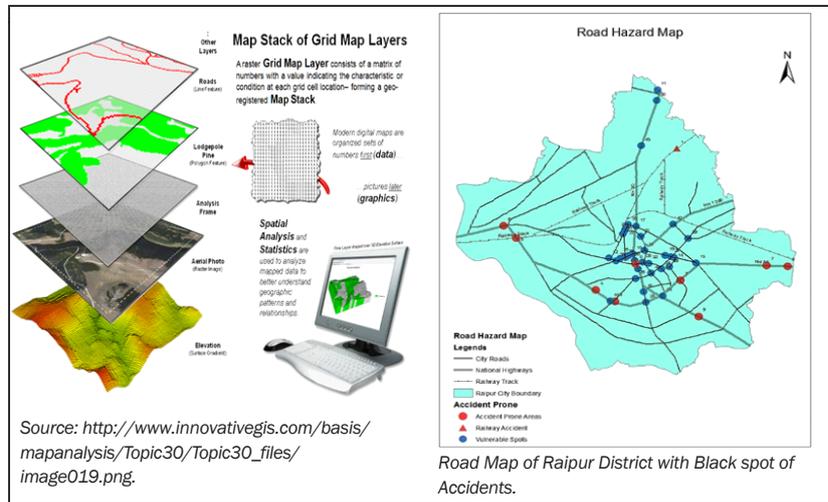
Disaster Risk Management: GIS Mapping and Governance

Reducing disaster risk in vulnerable areas and situations is vital to minimizing the adverse impacts of disasters. Thus, disaster risk management is altogether the application of risk reduction policies and strategies, to prevent new disaster risks, reduce existing disaster risks, and manage residual risks, contributing to the strengthening of resilience and reduction of losses.¹ GIS is an effective tool in DRM to tackle the disaster issues using advance technology. It is a computer system used for capturing, storing, querying, analysing and displaying geospatial data. Information and Communication Technologies (ICT) incorporate the roles and functions of GIS. Last year, an international conference of information and communication technologies highlighted the current scenario on GIS and e-Governance, some of the highlights from the conference are given below.

Disaster risk information is considered spatial in nature when it comes to geographical context. The use of earth observation (EO) products and GIS has become an integrated, well developed and successful tool in disaster risk management. Till today the local governance system is dependent on traditional method of data collection to resolve the disaster situation which creates discrepancies with actual situation. Thus, making efficient decisions would be possible using different GIS layers.

Digital India

Under Digital India, Ministry of Electronic and Information



Technology has started National Centre of Geo Informatics which gives the current and live spatial information by GIS maps to sector wise, state wise and hazard wise. For example the state of Telangana displayed the heat wave information in specific location within the state using multiple layers in GIS.

South Asia Satellite (SAARC Satellite)

The SAARC satellite benefits South Asian countries for providing communication and disaster support and connectivity among the state. The satellite will help in management and conservation of water resource by GIS driven watershed development. This will help in weather forecasting and preventing natural disaster.

UNISDR

The UNISDR also provides GIS training and assistance for Disaster risk management, the objective of training is to provide the participants with skills that help them to describe and utilize spatial data through manipulating it in the

phases of pre-disaster, during disaster and post disaster.

Governance in DRM:

Risk governance is risk communication, which is the interactive exchange of information about risks among risk assessors, managers, news media, interested groups and the general public. An important component of that is the visualization of risk. Since risk is spatially varying phenomenon, the integration of Geographic Information Systems (GIS) is supported and used in production and presentation of risk information.

With advancement in science and technology, the time has never been better to capitalize upon the innovative technologies, for making disaster assessment faster, evidence based, monitored and early preparedness to save lives and livelihood. To strengthen the capacity towards holistic approach in collating and consolidating information system for disaster risk management. ■

- AIDMI Team

1 <http://www.un-spider.org/risks-and-disasters/disaster-risk-management>