Real time Application of Satellite Data for Natural Disaster Monitoring and Management.

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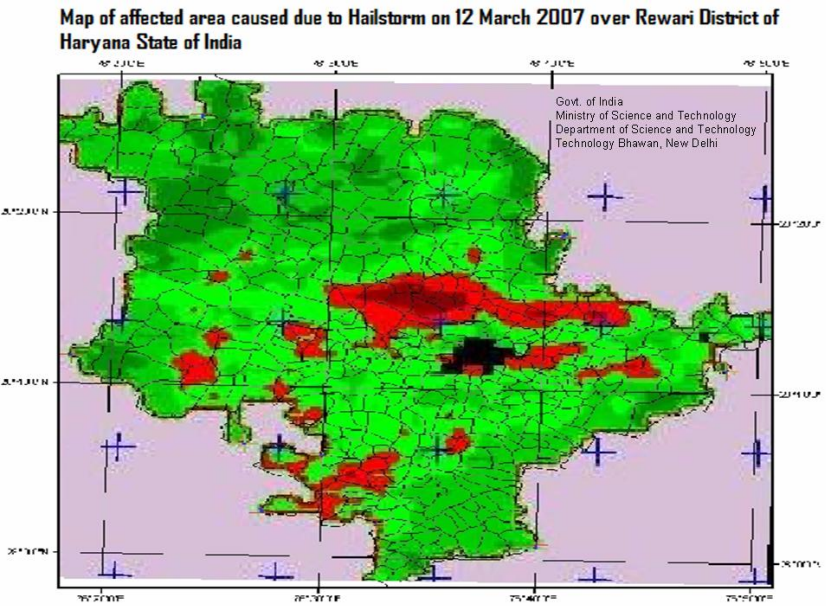
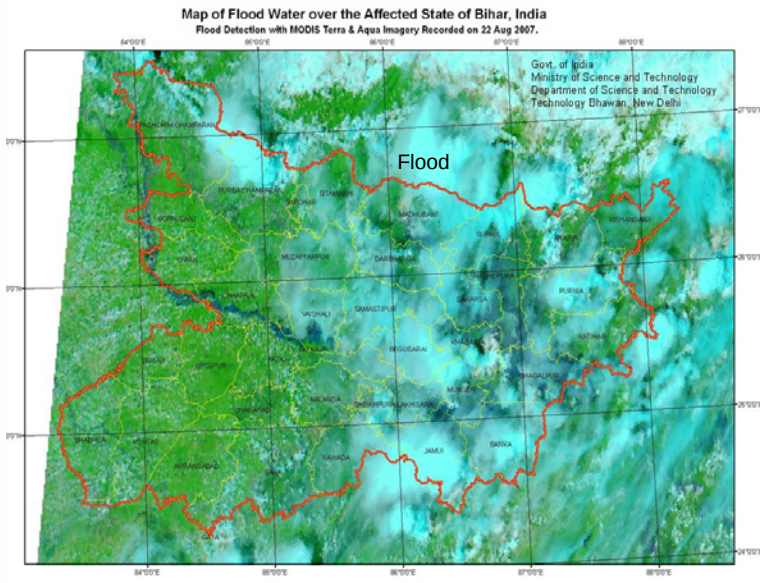
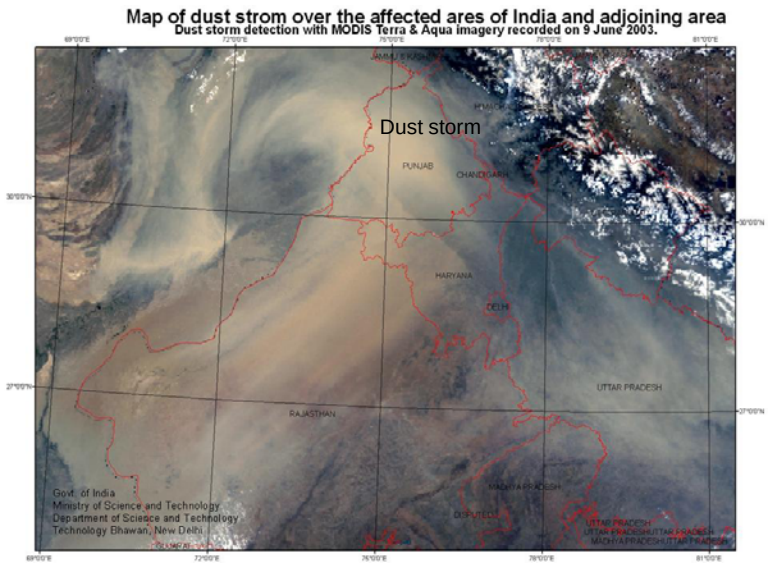
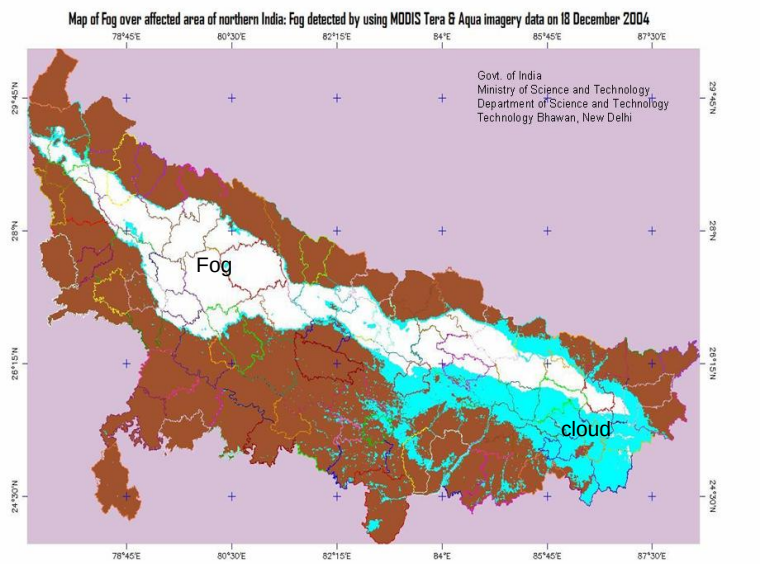
Abstract

Earth observation satellites data has been combined with other relevant data in a Geographical Information System (GIS) to generate potential weather hazard maps. During a calamity, usually many ground based infrastructures are not available; hence satellite data has provided an irreplaceable tool in disaster mitigation and relief operation. These maps during a disaster have provided valuable information for relief operations pertaining to drought, floods and damage assessment caused due to hailstorm. The accurate environmental information is made available to users to respond to these extreme events on a near real time basis in order to minimize their impact on society.









Summary

The potential application of EOS satellite data includes Drought management, Irrigation management of cropped area and flood mapping on a near real time basis. Also damage assessment due to severe weather conditions. Large areas can be monitored quickly and repetitively. Complement traditional land management procedures. Field based inventories, Ground monitoring techniques and Target areas for field inspections can be quickly identified. Subsequent action undertaken in a timely manner. Eliminates the problems of surface access that often hamper ground surveys. Images provide a perspective that is lacking for ground surveys.