

Abstract

Bangladesh is considered to be a country miserably affected by recurring floods with devastating dimensions exposing the national economy in the hands of nature. Complete flood control in the geographical context, particularly in the deltaic form is not at all a feasible option. Structural method of flood protection are neither economically viable nor these are environment friendly. Therefore, non-structural methods are becoming popular in mitigating flood disaster.

Among non-structural methods, modern flood forecasting and the association with real time data collection have increasingly found favour with countries prone to flood hazards. Flood risk mapping is required to provide information concerning flood risk areas and to establish flood protection and evacuation system. It has been identified that, timely flood forecasts and warnings are key elements to aid disaster preparedness, which in turn will reduce flood damages and human sufferings in a great extent.

The existing of collecting information on floods extent and there effects are not very reliable. The system depends heavily on field information, which sometimes is erroneous and at times cannot even be collected until the recession of the floodwaters (EGIS, Dhaka, June 1998). Information from GIS can be used to extract, which are difficult to access by traditional methods.

Use of GIS provides supplementary data in hydrology for such analysis and will lead to easier interpretation and understanding of flood phenomena and characteristics. The digital elevation Model (DEM) can be effectively used for simulation to get a complete model of the study area.

Flood Management encompasses many environmental, social and engineering constraints. Decision making, although complex and difficult, can be greatly helped by using mathematical flood models and Geographical Information System. FMM unites these technologies as a first step towards a spatial decision support tool for flood management. This research attempts to find out the extent of the use of GIS in the flood management of Bangladesh. Bangladesh Government has applied very sophisticated tools having GIS to monitor and mitigate flood hazard of this country. With the help of remote sensing technology GIS can manage flood in a very effective way. If the ongoing projects can be finished the losses can be minimized in many sectors.