GIS FOR DISEASE SURVEILLANCE AND CONTROL

Nitin Kumar Tripathi

Asian Institute of Technology, Thailand

ABSTRACT

Geoinformation technology is increasingly being adopted in health sector at various levels. Geospatial data related to disease cases has given a scope to develop a surveillance strategy by the public health departments and also determine the hotspots of epidemic. Geospatial analysis have revealed the relationship of social, physical, environmental and climatic factors with various diseases. This gives an opportunity to public health department to develop strategies to control the chronic diseases and also work with local organisations to provide better healthcare in the events of outbreak. Geospatial data related to health is well organised in some countries but still it is not available in many countries. There is a need to make Public Health Organisations and Ministry of Public Health to make it mandatory to collect the disease records from all Public Health Centres and archive them at centralised organisation so that a better healthcare environment can be developed.

GNSS coupled with GIS Maps has been very useful in better management of ambulance survives and provide better trauma assistance. There are several case studies available from some countries where emergency medical services can be made available within few minutes in remote areas. RFID, GNSS and GIS integrated services can provide a better medical assistance information system for trauma assistance and can be integrated in general services of a Medical Centres and Hospitals.