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7.1 Introduction to Sharing geospatial data

Author(s): Dr. Manzul Kumar Hazarika

Geospatial data plays a significant role in supporting economies, creating business opportunities, delivering more efficient and effective government services and enabling informed decision-making. With the increasing availability of geospatial data, many governmental organizations, academic institutions, international agencies, and private companies are now widely using and applying geospatial data in various areas. However, with this capacity also comes the potential for substantial duplication of effort or the underutilization of valuable information that often has been created at considerable cost and effort.

In most of the countries, geospatial data are created and maintained by primarily with the government agencies and they are the custodians of such data. A specific type of data may be created for use by an agency or ministry for very specific purposes. For example, property valuation data are collected by the agency responsible for the property tax in a country and they use it for tax assessment purposes. However, the same data are equally useful for risk assessment of a property or asset from natural hazards. Thus, a key component to disaster risk management strategies is the availability and sharing of geospatial data relevant to the risk assessment, which will be useful for planning and decision making for public infrastructure, engineering designs, physical development, and land use management.

Spatial Data Infrastructure (SDI) is getting popular for data sharing and this term used to summarize a range of activities, processes, relationships and physical entities that, taken together, provide for integrated management of spatial data, information and services. It covers the processes that integrate technology, policies, criteria, and standards necessary to promote geospatial data sharing. SDI provides an enabling platform helping to link services across national, state, and local jurisdictions, organizations, and disciplines. This cross-jurisdictional approach aims to provide users with the ability to access and utilize precise information in real time about both the built and the natural environments within the sphere of decision-making —something that is beyond the ability of single organizations to deliver.

The main objective of spatial data sharing is to increase benefits to society arising from the availability of spatial data. Benefits of data sharing include 1) avoiding duplication of effort in data collection, 2) enabling re-use of existing datasets, 3) curtailing waste of resources (time, financial and human), and 4) reducing data collection and maintenance costs. Further, wide use of the geospatial data by the various users may attribute to data quality improvement.

The World Bank had initiated a pilot project for data-sharing in 2011 in Dominica, Grenada, St. Lucia, and St. Vincent and the Grenadines in order to address the data sharing and management challenges. Under the project these countries had integrated geo-visualization platforms into their national data management strategies using the GeoNode. The initiative included capacity development for GIS analysts, land surveyors, and IT participants from related ministries, including physical development, environment, and public works. In this project efforts are made to sustain the GeoNodes already developed in in Dominica, Grenada, St. Lucia, and St. Vincent and the Grenadines along with the GeoNode available in Belize. A common GeoNode has also been established remotely under this project to share geo-spatial data until the pilot countries reach to a level where they can maintain their own GeoNodes.

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