

SUMMARY

Keywords: Geospatial Capacity, National Geospatial Policy

Spatial Data Infrastructure (SDI) is evolving worldwide. These developments gradually put in place elements that contribute to the realization of Global Spatial Data Infrastructure (GSDI). A body of literature has been compiled on national experiences. So far, the majority of this literature focuses on the technical aspects of spatial data infrastructure, and does not take into account the evolutionary nature of these infrastructures by focusing on geospatial capacity.

It is important to consider a life–cyclic perspective when establishing, maintaining and sharing geospatial data. This could identify the critical factors behind the establishment as well as the success or failure of a national spatial data infrastructure. In this way, knowledge could be used for the support of future strategies. Factors for consideration could be societal, for instance legal, economic, technological, cultural, environmental and institutional characteristics of a country.

Using a kind of a model measuring geospatial capacity, it might be possible to identify critical factors. Factors for consideration could be societal, for instance legal, economic, technological, cultural, environmental and institutional characteristics of a country. These factors could support coordinators and policy makers in the development of successful strategies for establishing and maintaining national SDIs. Moreover, knowledge based

on the measuring results of geospatial capacity could be used for supporting future strategies. In this way, the results could contribute to the enhancement of national SDIs in many countries.

The objective of this research is to propose a framework to identify critical factors measuring geospatial capacity of a society and to survey geospatial capacity of developing countries. For this, it was collected information to measure geospatial capacity of countries in Asia-pacific region. According to the survey results, geospatial technology capacity of developing countries was underbelly. Sharing capacity of geospatial information and institutional capacity were weak whereas producing and applying capacity were satisfactory. Methods developing geospatial capacity of emerging countries were GIS projects, training programs, international forums and so on. Since consecutive projects in the practices of Korea for international GIS cooperation were rare, it may need to consider a complement approach towards sustainable international cooperation for geospatial knowledge sharing. It may need to develop long-term international collaboration agenda by considering the evolution of geospatial capacity of developing countries, rather than focusing on a short-term geospatial project itself.

Based on the results of this research, it was proposed to establish a master plan of international collaboration for geospatial information which includes vision and strategies for international collaboration for geospatial information, international projects. Assessment system of the master plan to evaluate the achievement of a goal of the master plan and to see consistency of a policy. It was also proposed to establish an organizational structure for the international collaboration and amendment of Geospatial Industry Law in South Korea (Article 16). In addition, global GIS workforce programs should be provided depending on the level of expertise, for instance internship at international GIS-related organizations to beginners, intergovernmental expert exchanges to professionals,

dispatching overseas as policy consulting to retired professionals and so on.

Knowledge resulted from measuring geospatial capacity geospatial capacity could support policy makers to develop successful geospatial information strategies in the future and to develop international cooperation agenda.