CURRENT STATUS OF GIS RELATED ACTIVITIES IN JAPAN

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ABSTRACT

In this paper, Japan's recent GIS-related activities are described in its entirety. The paper covers five topics. The first topic is digital map preparation, which was introduced about 25 years ago. At that time, there was no such concept as spatial database, and efficient map digitization was the main research problem. The second topic is a study for the promotion and dissemination of GIS in Japan. Two reports were published in this study and the summaries of the reports are provided. The third topic is recent GIS-related activities by the Japanese government. Information on current activities and the policy of Japanese government are presented in this section. The fourth topic is about the Spatial Data Framework, which was developed under the new concept of spatial database. The fifth topic is about related research activities in our organization.

The development process of GIS infrastructure in Japan can be explained in four phases. Phase I began in the middle of the 1970s when the government started preparation of digital geographic data for only limited users such as central and local governmental organizations and researchers at universities. Phase II arrived when the Geographical Survey Institute (GSI), Ministry of Land, Infrastructure and transport (MLIT) began to publish digital cartographic data sets in 1993. Phase III started in 1995 when the government reached a consensus that the active encouragement of GIS development was necessary. At present, Phase IV is approaching when the preparation of spatial database in accordance with a standard is important.

Today, the Japanese government is making great efforts towards the development and utilization of GIS, recognizing the necessity and important role of GIS in this highly advanced communications-oriented society.

In order to establish new strategies related to GIS, during 1995-96, the headquarters of MOC and GSI have jointly organized the GIS Research Committee which comprises of several professors.

GSI has prepared a new type of digital cartographic data sets called a Spatial Data Framework (SDF). There are two types of SDF. One is SDF2500, which is for city planning area for all of Japan, the other is SDF25000 which is for whole Japan.

Japan participated in ISO/TC211 from the beginning of this activity and contributed to the development of standards. The ninth plenary meeting was held in Kyoto on September 1999, and the twelfth plenary will be held in Lisbon on March 2001.

Based on the need to develop a GIS standard for Japan, which is in accordance with that of ISO/TC211, GSI started research on Japan's GIS standard in 1996.The research produced final draft in FY 1998. From FY 1999 GSI and thirty three private companies entered into the second stage of this research activity. The goal of second stage is to refine the draft produced in FY 1998 and make it available in practical use. The guideline for a product specification of GIS data is also being developed in this second stage. The target date of second stage is the end of FY 2001.

GSI developed a clearing house which adopts z39.50.

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