

# *GIM INTERNATIONAL INTERVIEWS DR BRIG. SIVA KUMAR, HEAD NATURAL RESOURCE DATA MANAGEMENT SYSTEM, GOVT. OF INDIA*

## Immense Help to all Stakeholders

On 19th May 2005 the Union Cabinet of India approved within the framework of establishing a National Spatial Data Infrastructure (NSDI) a New National Map Policy. This involves production and dissemination of two kinds of analogue and digital maps: the first, to be produced and disseminated by Survey of India/Department of Science and Technology and open to everyone, is the Open Series Maps (OSM). The Ministry of Defence will determine the use of the second kind, Defence Series Maps (DSMs). We asked this month's interviewee, Dr Brig. Siva Kumar, to elaborate upon the vision, implementation and status of NSDI for India.

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*What is the concept and vision behind NSDI for India?*

NSDI is an information infrastructure that envisages providing spatial data to collate standardised information for many identified and selective sources following the standards, protocols and procedures accepted by the stakeholders. NSDI will also promote the generation of value-added data for diverse user applications, and for transaction of spatial data business between user bodies within an open-access public domain. In a nutshell, it will create a reliable and supportive infrastructure that will help in access to geographical data, using standard practice, protocols and specifications. The vision of NSDI endeavours to create a national infrastructure for the availability of and access to geospatial data and use of this infrastructure at community, local, state, regional and national levels for sustainable development.

*What is the present status of NSDI development and implementation?*

Government of India constituted a Task Force in the year 2000 to evolve NSDI. The Task Force completed its job and submitted its report in May 2006. Subsequently, the Cabinet approved creation of NSDI and constituted a National Spatial Data Committee and an Executive Committee with a lean secretariat to assist the two committees. The process of conversion of data from analogue to digital by various organisations has commenced, and many of these are ready with their digital datasets. DST is in the process of acquiring the requisite hardware and software for a geo-portal.

*Will the present policy framework enable availability of spatial data from all government departments, and what will be the pricing structure?*

Besides NSDI, Government of India has also brought in changes in the map policy, and National Map Policy 2005 enables the user to access data of all parts of the country. Thus it provides an opportunity for the user community to access maps data and other geospatial data. However, NSDI will handle only unclassified data, and if the data becomes classified it is to be handled in the manner prescribed. With respect to pricing structure: NSDI is not a profit-making body. It is only a mechanism for disseminating data from various sources. It will provide data to the stakeholders, who will price their products. NSDI may collect a small transaction fee to cover its operational expenses.

*What are procedures for sharing classified data through NSDI?*

Data that is classified and has security implications will not be part of the activities of NSDI.

*What about the costs?*

The cost of NSDI will presently be met from the budget of the Department of Science and Technology and Survey of India. The total cost involved is not much and the secretariat is lean, consisting of only ten persons. However, public-private partnership may be explored for the generation of data and products and providing services and solutions.

*How does the new map policy support NSDI vision?*

The present National Map Policy 2005 also allows direct dissemination of data. The policies will have to be fine-tuned to keep pace with advancement of technology and not through computer networks and web services. However, users can access metadata, framework data and services, and so on.

*How has the formalisation of policy on NSDI by the Govt. of India impacted and speeded up NSDI development?*

The approval of Cabinet, which has been conveyed in the form of a government resolution, formally recognises the need for NSDI and provides the requisite tools for its speedy implementation. The issues of metadata, standards, conversion and interoperability are being addressed and developments have been made with regard to converting the data of Survey of India into GML (geographic mark-up language). This will enable visualisation of data, with minor GIS queries on the web using Internet Explorer, thus saving expenditure on the purchase of expensive software by users. After completion of procurement of hardware and software, various nodes of stakeholders will be connected, which is likely to take three to six months.

*Who do you see as users of NSDI?*

The users of NSDI will constitute a broad spectrum, right from the common man to various departments of the Government of India. You might say that the understanding of spatial data among the common masses is minimal in India, and for this NSDI has a programme of outreach and efforts are also being made to educate people through seminars and conferences being held all over the country. In addition, a multimedia kit has been prepared for display at various locations. Furthermore, developments such as Google Earth and Microsoft Virtual Earth will enhance the requirement for vector geospatial data.

*Many users are not interested in data but in the final output. How do you cope with that?*

The ultimate aim of NSDI will be to provide the data. The users can simply log into the system and utilise the data available without buying any expensive software. There is a major thrust on application development. It will be different from the conventional practice of downloading data and use of expensive software to derive solutions. A user can log on to NSDI, download data and software, use computing facilities and application models to derive solutions. He will take out only the solutions and not data. This way he pays much less for finding solutions using geospatial data.

*How does NSDI plan to collaborate with similar initiatives elsewhere in the world?*

We are aware of the efforts in other parts of the world and we have been providing our expertise to the countries in this region. Except for Canadian Geo-connections, we have not found any working model. We have developed a prototype geo-portal in collaboration with natural Resources Canada in project mode.

*When will the NSDI have achieved its goals?*

The proof of the pudding is in the eating. We are sure that utilisation of the services of NSDI will be contemporary and will be appreciated by all the stakeholders, who will find it of immense help in speeding up the decision-making process.