

Using Open GIS Software to Boost Indian NSDI: A conceptual approach

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With the explosion in the area of Information Technology, the art of communication has gained a powerful tool. As on date the Information Technology Policy in India is all set to handle new concepts like e-governance and dissemination of important information like land records at a cheap price to the masses. In such a scenario it is important to look at the Technical Infrastructure of the Geoinformation Providers in India and also to consider the aspects of economy, availability of technological know-how and time constraints.

The Geoinformation providers (GIP) in India prepare their databases from Satellite Imagery (IRS, SPOT, IKONOS etc. to name a few), and the existing framework of Geoinformation in the form of Survey of India Topological Sheets and cadastral maps.

The cadastral maps are mostly old and are on cloth material commonly known as Lathas. In the scenario of the IT policy it would be imperative for the Government to convert this existing information into meaningful computerized GIS databases. Looking at the volume of work to be done, this task of conversion may be taken up by various GIP in India. Construction of such an information repository will not only require a huge bank of manpower and expertise but also a large financial backup. Since the availability of funds available to the various institutions vary largely, the choice of platforms and software obviously depends upon the budget and the expertise available.

One of the aims of constructing such a nationwide information repository would be to finally integrate them into the Indian NSDI. However, in such a scenario compatibility of the databases would also have to be ensured. But it is obvious that the existing infrastructure may not be able to sustain the pressure in terms of economical constraints. In this context, the use of affordable Open Source Software would be an added advantage. The open source initiative (<http://www.opensource.org/docs/definition.php>) assures free redistribution of the software and its source code, is not specific to a particular product, is technology neutral and does not restrict other software. The availability of large manpower in India who can really develop on the open source software gives a huge advantage in terms of the Indian NSDI. The initiatives to develop on more open source platforms have already taken place in India in the form of software like GRAM++ (Georeferenced Area Management) and on international scenario in the form of GRASS.

In this paper we propose a conceptual approach of integrating open source GIS software into the NSDI environment. The use of such source could not only ensure compatibility in such a database but also encourage useful software development thus generating employment

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