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Decision Makers Needs: The Spatial Data Perspective

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Abstract

India, in the midst of transforming an agrarian economy into a modern, multi-dimensional economic power, and a traditional stratified society into an egalitarian community, strives to enthuse 'information democracy' for a balanced and equitable progress at this juncture. 'Information democracy', meaning 'information access' to all the stakeholders and communities, is at the core of country's priorities for development. Spatial dimension of information has particularly been unique in the sense that it connects every citizen with his/her geographical identities and natural resources to their native ecosystems, and brings in the principles of associations and co-existence in their original forms. Empowering the stakeholders and the community through spatial information infrastructure (SDI), thus, goes a long way in enabling the concept of 'information democracy' to work and strengthen the democratic institutions at the grassroots.

In India, the decision making processes pertaining to the development, though driven by several externalities, generally starts from the bottom, and get aggregated while moving upward. Participatory democratic institutions, the Panchayat Raj, the local NGOs, and the like, play catalytic roles in this process. Developmental planning, a top-down as well as bottom-up process, lays constitutionally higher emphasis on the concerns and priorities of the stakeholders down the line. The focus of developmental activities since starts from bottom, and goes up hierarchically. The real challenge therefore, lies in organizing the SDI that could produce the services useful to the stakeholders and the community. What the communities need is the content that is accessible; that speaks to their daily needs, that informs and enlightens them, and that provides the opportunities, that rectify the injustices and in the decision making processes at different levels. Thus, the SDI has to be community-centric, configured based on the high resolution satellite data, compatible to the local cadastral maps, and in conjunction with the household census and survey data; along with the mechanisms for value addition to generate the useful services, and finally, an efficient delivery system. All these could be synthesized and packaged through a Village Information Kiosk (VIK). Thus, it is that SDI that enables the VIK that holds the key.

The National Spatial Data Infrastructure (NSDI), the concept originated from the information-rich developed countries, envisages warehousing and integrating seamlessly the variety of hierarchal data and their attributes. While realizing that the NSDI needs strong digital infrastructure, compatible institutional mechanisms and enabling policies of the government; it is of considerable significance to harmonize the NSDI with the local level SDI that enables VIK. With this backdrop, the paper examines the NSDI through the prism of India's unique socio-political dynamics, which facilitate the decision making processes at various levels, empowering the stakeholders and the communities by absorbing the technological advances - including the developments in the Earth Observation (EO) technologies.

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