SDI Capacity Building Model for Developing Countries – Case Study: Colombia

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Key words:

SUMMARY

Development models for Spatial Data Infrastructures (SDI) differ from one country or region to another according to their own territorial characteristics, their priorities and conditions and relationship among their different actors. To assure the SDI's creation and maintenance, it is important to ensure governmental organizations have the capability to commence and continue such long-term projects, and that they are ideally isolated from external factors or changes of senior personnel or managers involved with the project.

Much of the technological modernization in developing countries has been based on, and still is based on, acquisition of equipment, requiring large investment, whether by international credits or technical cooperation programs. Unfortunately many of these have failed as the necessary strategies have not been created, such as capacity building for organizations, to ensure a real understanding and integration of technologies, which would help guarantee a projects sustainability. On the other hand, many SDI projects have been initiated but they have come to a stop, disappeared or have not advanced as much as desired, due to the lack of awareness of the importance of geographic information to support decision making processes within a jurisdiction.

For these reasons, a model of capacity building for the Colombian Spatial Data Infrastructure (ICDE) (www.icde.org.co) is presented, it involves three points of view or roles: the academic institution, the producer of fundamental data and the spatial data infrastructure promoter.

This model defines capacity building as the "creation and development of capabilities and capacities, individual and institutional, to solve problems on geographic information management and to accomplish the institutional mission in a long term form.

It supports elements such as *creation and transfer of knowledge* through training and research. In that sense, the main needs of training have been undertaken on technical aspects, but recognizes the importance of the total training of staff as managers, professionals and technicians. By doing so it means, they have, the capability to develop shared lines of action and to participate actively on information managing processes and in making decisions.

As well as these elements, it involves the necessity of creating opportunities to develop associations by means of key relationships and contacts among groups, organizations and members at national and international levels through technical cooperation.

Also it includes development of capabilities to formulate and to manage *organizational and functional models* for the governmental producers of spatial information to ensure increased efficiency and effectiveness.

As a conclusion, it can be said that a SDI implementation in an organization or jurisdiction implies, by definition, changes in spatial information management, updating or maintenance methodologies, processes, technical knowledge and skills and guidance and information to others in the information marketplace. In a globalized world, geographic information technologies are beneficial, as far as having the financial resources available to acquire the equipment, however real technological modernization can be achieved if persons, organizations and developing countries acquire appropriate capabilities to assimilate and to incorporate new technologies to enable them to face the new challenges imposed by the information society.

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