Chapter 11
Planning Support Systems

ABSTRACT

The chapter describes the planning support systems. It presents the resurgence of development planning and its evolution from focus on poverty reduction to a renewed emphasis on structural economic transformation. What conclusions can be drawn from experiences of countries that have succeeded in transforming their economies? Constraints of the planning are examined with examples of usage of geographic information systems, geospatial data infrastructure, and geospatial decision support system, as support for planning support systems and collaborative spatial decision making. Usages for the design on territorial, urban planning, and selected national public policies are presented.

INTRODUCTION

Sustainable development requires continual and integrated consideration and analysis of social, environmental and economic issues, as well as their evaluation and prioritization against current and planned land uses in order for potential development conflicts among those three systems to be minimized. Therefore, planning of sustainable development alternatives and making decisions adjusted to sustainable development strategies and policies require technologies with capabilities for modelling and handling complex spatio-temporal phenomena.

Geographic information systems (GIS) as integrative information technology that include database management, spatial analysis, and map display capabilities to portray geospatial relationships in map form. Recent

advances in GIS technologies strengthen social interactions based on comments on online maps that have the potential to improve Public Participation GIS (PPGIS) practices.

Traditional methods of information management are hard to use in the planning process of Public Policies, GIS, GDI, GSDS provides the capability for dynamic query and analysis, display of information and a more understandable representation by the of analyse the social and infrastructure possibilities.

BACKGROUND

Planning is a future oriented activity and is a means for preparing for actions. It occurs through a process in which:

- Information is collected and analysed;
- Logical alternatives courses of actions are developed consistent with the goals of a constituency; and
- A course of action is recommended.

Information collection, management and analysis about past trends and present issues is pre-requisite of good urban planning & management. The more information available about people's actual needs and preferences, the better planners are able to satisfy them. Mostly planners require data from secondary sources from national to local level. But in many cases and specially in developing countries, this secondary information is not easily available in appropriate form reducing its utility.

Information requirements of urban planners and decision makers at local level and how they are able to accomplish their demands with modern Information & Communication Technologies (ICT) in the form of Spatial Data Infrastructure (SDI).

Development planning requires an effective approach to achieve the desired goals and objectives, evaluate alternative as well as control development programs that are in line with current and future prospects. In the quest toward urban sustainability planning, a support tool in the form of an information system is required for enhancing analyses and deriving rational decisions. Planning support system (PSS) and decision support system (DSS) are among the tools for achieving quality planning for optimum development. They

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