PARTICIPATORY GIS FOR RURAL DEVELOPMENT PLANNING

A CASE STUDY

A PROJECT REPORT PRESENTED BY

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ABSTRACT

Geographic Information Systems (GIS) is now recognized widely as a valuable tool for managing, analyzing, and displaying large volumes of diverse data pertinent to many local and regional planning activities. GIS is simply a part of an organization's information management system. It is the component that best manage data with spatial component and provide a platform from which data can be easily sourced, data quality can be verified, the decision making process can be made transparent and data gathering times can be significantly reduced. This work is an effort to develop GIS-based spatial planning and monitoring systems in participatory community development. It is easy to manage development activities using GIS as an effective tool for participatory community development. Attempt was made in this report; to explore how the participatory GIS can be used for community development.

This research report outlines the theory behind how GIS work, and the practical benefits and problems of their use on rural poverty alleviation projects. In particular, the methodology of project seeks to provide practical support for those considering using GIS. Topics covered in the project area include decision-making, data sourcing, data quality management, and GIS Project Management.

Throughout the module, there are real examples taken from across the villages to illustrate the benefits and potential problems associated with the use of GIS. Other aspects such as web, MIS links are also embedded into the module to other specialist GIS sites, including

data providers, GIS suppliers and other members of the GIS user community so that anybody can seek further information.

Simple Google Mapping techniques were used for village level participatory planning activities instead of social mapping on the earth. Participatory Rural Approach (PRA) tools improved with GIS technology and simplified for the communities to use in their village planning.

GIS is used mainly within the planning activities in the national level of the project. In this project, community participation is used as collaborative planning exercise and village level information published on web based system. Open source web GIS software (Map bender, Map server, Geo Server, PostGreSQL) were used for monitoring project activities. The project can thereby monitor what is happening now, what may happen in the future and who is to be benefitted from the project etc.

The survey results and spatial data are collected from the web to the central database that allows for querying and reporting so that the decision makers can understand trends and spatial variations across the country to develop policies towards achieving their goals. The Geographic Information Systems (GIS) tools and techniques further introduce decision makers how GIS can be used to help make better community development decisions.