RAPID ASSESSMENT OF REGIONAL DEVELOPMENT FOR PLANNING INITIATIVES: AN EXAMPLE FROM THE STUDY OF LAND RESOURCE POTENTIALS AND SOCIO-ECONOMIC CHARACTERISTICS OF A MICRO-WATERSHED IN TAMILNADU, INDIA

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Introduction and Objectives

Regional planning is approached by detailed study of various aspects of resources, human inputs, existing developmental status and financial implications. Such studies take either a longer time period or inappropriate modeling owing to poor availability of holistic information. Planning initiatives need not wait for a longer time if there is a rapid assessment of certain key factor of development made. The present methodology will be useful for the people in the region for better implementation rather than in the 'paper discussions'. Managing the watershed along with the socio economic development is certainly a better option of initiatives in the developing countries like India.

Nagalar Sub-watershed is a micro-watershed lying in the Varaha Watershed of Vaigai River Basin in southern Tamil Nadu, India. The areal extent of the watershed is about 338 Sq.km. The watershed comprises of 19 revenue villages, and an urban centre, Andipatti. People comprise mostly of farm labourers and underprivileged groups. The growth rate of population is moderate and the region is known for migrations and communal tensions.

Cropping is a seasonal affair depending on the monsoon rain. Since the income generated is mostly from the agricultural sector, this introduces seasonal unemployment, fluctuation of income, out migration and other socio-economic problems. Therefore, it is necessary to assess the limitations of the land and the backwardness of the people to initiate the planning process as quickly as possible on the basis of the rapid assessment for the development of region.

Methodology

The geo-informatics tools have been used to asses the natural resources and socio-economic characteristics of the study area. Different thematic maps have been generated from remote sensing data with inputs from collateral data obtained from the fieldwork. Thematic maps have been validated in the field and database has been created in the GIS environment. By assigning appropriate weightages for each category of the thematic content of the map, Water Potential (WP) and Land Potential

(LP) maps have been derived. Resource Potential Zone (RPZ) map has been derived from WP and LP maps. To understand the various degrees of resources utilization, RPZ map has been overlaid on the land use and derived a Resources Potential Utilization Zones (RPUZ) for optimum utilization of resources. Socio economic indicators has been derived and correlated with the RPUZ for action planning.

Results and Conclusion

Spatial pattern of Resources Potential Zones (RPZ) shows excellent degree (16% area) which is mostly associated with fallow lands found in the south and northeastern parts and double crop areas in the northwestern (flood plain area) parts. Very good (29.95%) and good (25.54%) resource potential zones are mostly associated with double crop areas, plantation and fallow lands in the south and central parts. Moderate potential zones (28.41%) are associated with forest area.

The RPUZ map shows the improper utilization of resources by the in situ people and gaining less productivity from their lands. It is observed that the lack of awareness, low level of literacy, selection of indigenous cropping system leads to less economic growth. Based on the RPUZ and socio economic parameters, an action plan map has been generated for proper utilization of resources and sustainable development planning in the study area.