

GIS for Ghana

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Key words:

ABSTRACT

I would define sustainable development as the efficient allocation of resources for the improvement and preservation of life. Life in its varied manifestations has an intrinsic spatial attribute and an infinite number of others.

GIS is a system in which Geographic/Spatial data can be captured in a digital format onto which other attributes can be attached. The system incorporates features which allow for processing, manipulation and collation of data: selective presentation, storage and efficient dissemination of data. GIS can therefore mimic some aspects of life.

This paper is an attempt at exploring the possibilities and usefulness of the capabilities of the GIS system in solving the myriad of developmental challenges facing a developing country like Ghana. Ghana has a per capital income of 400 US Dollars, a population of about 18,400,000 people and an economy dominated by agricultural production.

Presently, the NDPC (National Development Planning Commission) the apex national body responsible for planning would issue a working document dubbed GPRS (Ghana Poverty Reduction Strategy), which would be the guiding principle for all other agencies and institutions responsible for planning in the country.

Studies and research leading up to the production of this major document has exposed the need for accurate and extensive spatial information for effective and workable management and planning decisions.

Major problems of rural and urban development include lack of access to electricity; insufficient supply of potable water; poor planning and land tenure system remaining major constraints on the promotion of efficient and environmentally friendly settlements, flooding, erosion and siltation of drains.

These developmental problems obviously cannot be solved without the input of the appropriate and accurate spatial information.

GIS, which integrates spatial and attribute data is certainly one of the effective systems to employ in analysing and solving these problems.

Already there are institution with first-rate facilities, and personnel developing fairly sophisticated GIS systems in Ghana. Also a number of mapping organisation have the

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capability of producing/providing really quality spatial information in any required format for effective GIS system development.

The NDPC can create standard documentation for how a series of data types should be modelled in a geodatabase to facilitate interoperability of data sets between users.

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