

Management of National Resources through an Electronic Atlas Database: The Case Study of Nigeria

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Key words :

ABSTRACT

With an increased awareness of the finite nature of the earth's resources, coupled with population pressure, shortage of natural resources and degradation of the environment, it is a critical challenge to national governments to manage their resources. Environmental information including natural, human and technological resources can be located within a spatial framework so that their spatial inventory can be used in making crucial decisions for solving national problems. Of great importance to a national resource management is an electronic national atlas, which contains an inventory of national resources.

A vital component of the electronic atlas is the GIS database which establishes an organisational framework bringing together information in a variety of themes (often from unrelated sources) which cut across disciplines such as geography, geology, biology, forestry, statistics, education, religion, medicine and agriculture. The wealth of information contained in an electronic atlas describing the country's assets and economic potentials can be used by policy makers in policy formulation and implementation which will enable national government provide services effectively and efficiently.

This paper examines the management of national resources through an electronic atlas database using a prototype Electronic National Atlas of Nigeria (PEAN) as an example. Prior to the design of the database of the PEAN, a user requirement survey was conducted to identify the users needs. Based on the survey results, the database was designed and implemented. The atlas database being in digital form makes quantitative and qualitative comparison in the changes in resource development in the country possible using spatial analysis techniques. Recommendations are made as to how developing countries can use their electronic atlas database for efficient development and management of their national resources.

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TS3.8 Spatial Information Based Services

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