

# **Spatial Data Infrastructure Funding Models: A necessity for the success of SDIs in Emerging Countries**

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## **ABSTRACT**

The early nineteen nineties saw an explosion in the interest of Spatial Data Infrastructure (SDI) spearheaded by the Clinton Executive Order 12906 of 1994 (Groot, 2001). This resulted in a number of research projects and publications on SDIs, the need for SDIs, SDI components and techniques for standardizing existing ad hoc spatial data related infrastructures. However, cursory reviews of SDI publications revealed limited in-depth studies and publications on the economic issues of SDI, especially in the area of financing (Rhind, 1999) (Groot, 2001)(Giff, 2000).

This area of SDI is extremely important and should not be ignored if SDI implementation is to be successful. Studies of the economic issues of SDIs would answer such questions as, what are the cost associated with the building of a SDI, cost vs benefits issues and where will the resources come from to fund the development and maintenance of a SDI, to name a few. The need to know the answers to these types of questions is even more important in emerging countries where resources are limited.

The condition of the economic environment of emerging countries makes it impossible for them to totally finance their SDIs. Therefore, additional funding must be obtained externally. The nature of the economies of emerging countries will eventually force SDI specialists to develop models capable of the following:

- (a) Promoting the benefits of a SDI to cash strap governments and funding agencies who requires tangible returns on their investment. These models should provide SDIs with the capabilities necessary to compete for funds against preferred areas such as health and education; and
- (b) Identifying resources for the implementation and maintenance of SDIs. Funding models for the implementation and maintenance of SDIs will differ from country to country base on Government Structure (Federal vs Centralized), the economic climate, prevailing legislation, predominant technologies, culture, maturity of available datasets and the size of the country to name a few. However, conceptual funding models can provide the framework from which individual countries can build specialized models.

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