Chapter 5
Spatial Data Infrastructures in Morocco (From the Diagnosis to the Success of the Implementation)

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ABSTRACT

A spatial data infrastructure (SDI) is a platform for coordinating the exchange and sharing of spatial data between several producers or users of spatially referenced data. In Morocco, there is a massive production of spatial data and several generally public administrations are starting to feel the need for geographic information governance through a mechanism of exchange and management of data to optimize their efforts and avoid a redundant production. The purpose of this chapter is to draw up an inventory of the state of the art of geo-spatial data, systems, and tools existing in the central administrations in Morocco in relation with the collection, management, storage, and dissemination of geographical information. Through this study, it was found that the problem is more a question of global governance, and that the current context has assets for the establishment of a spatial data infrastructure in Morocco.

INTRODUCTION

This paper is part of a general assessment to prepare the necessary elements of an academic research that seeks to build a spatial data infrastructure in Morocco's Rabat-Salé-Kenitra region (RSK region). The SDI aims to promote data sharing through a common platform that takes into account the producers and users of spatial data. The study area is located in the north-west of the country and involves several data producers who have created their own geographic information system to meet their specific needs.

However, the existing systems are neither compatible nor interoperable. In order to attain the objectives of the study, it is necessary to touch upon the current state of the art and the available knowledge on spatial data infrastructures and establish a national benchmark on the implementation of spatial data platforms.

For the time being, spatial information in Morocco is used in many fields. After being used primarily to produce paper maps, techniques and representation tools of the geographical space have evolved over time. In this respect, cartography is now facing new challenges mainly related to technological advances in the field of geomatics (Ibannain and Donnay, 2012).

The analysis of the current situation made it possible to identify new needs in terms of the administration of geographic information. In other words, attention should be directed to establishing the necessary arrangements for the possible pooling of geographic information, which could lead to the establishment of a national data infrastructure. But the question is: do we have in Morocco the main components of SDI as defined in the literature (Ibannain and Donnay, 2012).

The SDI concept (Spatial Data Infrastructures concept) continues to develop as it becomes a basic infrastructure that supports economic emergence, environmental management and social stability in developed and developing countries. Because of its dynamic and complex nature, it is still a fuzzy concept for many, with practitioners, researchers, and governments adopting different perspectives according to their needs and circumstances (Williamson, et al, 2003).

Since the 1990s, the development of SDI concept has been underlining the need expressed at the international level to have access to, exchange and share spatial information held by many producers in order to best use and manage it. The SDI-recommended information sharing between organizations is essential to understand the complexity of environmental and human phenomena. "Taken in isolation, no organization has the information and the know-how to reach this goal" (Craglia, 2010).

Presentation of the Study Area

The indispensable and ambitious project of "advanced regionalization", in which Morocco has recently embarked, is characterized by the advent of two major concomitant factors as far as country planning and socioeconomic development are concerned.

The adoption of a new division of the national territory, which has increased the number of Regions from 16 to 12, gave rise to various spatial reconstructions of varying importance in the configuration of new regional entities.

In this redistricting operation, the case of the new RSK region is rather peculiar, since it results from the pure merger of the two former regions of Rabat-Salé-Zemmour-Zaer(RSK), on the southern side, and Gharb-Chrarda- BniHsene, on the northern side.

The new RSK region, which extends over almost 17,800 km², extending over some 200 km from North to South and more than 100 km from East to West, enjoys a privileged geographical location that locates it in the heart of North-West Morocco. In other words, the region, by its economic dynamism and its population density, comes second, after the Casablanca-Settat region (HCP, 2016).

Made up of three prefectures (Rabat, Salé and Skhirate-Témara) and four provinces (Kenitra, Khemisset, Sidi Slimane and Sidi Kacem), the new RSK region is currently home to 4 580 866 inhabitants (HCP, 2016). It represents the second mass regional population of Morocco, after that of Casablanca-Settat (about 7 million), and also 13.5% of the population of the country as a whole, while it covers only 2.5% of the total area of the country.

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