### Chapter 79

# Infrastructure Development as a Catalyst for Social-Economic Advancement

#### Neeta Baporikar

Namibia University of Science and Technology, Namibia & University of Pune, India

#### **ABSTRACT**

Government identifies scaling-up investment in infrastructure as one of the key enablers to achieve its development objectives - these include achieving high and sustained growth levels to reduce poverty, income inequality and high unemployment. The specific areas where infrastructure development is required include transport (road, rail, maritime and aviation), electricity, water, housing and ICT. This paper explores how infrastructure development acts as a catalyst for social-economic advancement with focus on Namibia. The paper will review the state of infrastructure in Namibia in relation to existing financing and regulatory environment and in particular delves into the understanding of and the need for systems approach to infrastructure development to ensure that the catalyst effect on social-economic development take place. The last part is the conclusion.

#### INTRODUCTION

The development of infrastructure networks is intimately connected with the process of economic growth. Infrastructure facilitates economic integration and trade and aims to link areas of production to areas of consumption. Policies for infrastructure development need to evolve alongside these changes, ensuring that infrastructure facilities act as strong contributor to economic development. In particular, although the focus in the past has been on reducing the infrastructure gap, a greater goal of these policies should be to address the accessibility gap where infrastructure and services join forces to help economies grow. The impact on citizenry and users stems from how the infrastructure is used and not from the infrastructure itself. For this, good policies are essential because they lead to do good to both – good infrastructure and good use of the infrastructure and for this systems approach to infrastructure development is crucial. Wider and new horizon needs to be envisioned specially in the areas of integration, connectivity, cohe-

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sion, urban mobility, accessibility and road safety. For instance, the 2012, DHL Global Connectedness Index ranked Namibia the 109th most globally connected country in the world out of 140 countries (Ghemawat, & Altman, 2012). This paper will explore how infrastructure development will act as a catalyst for social-economic advancement with focus on Namibia. The paper will review the state of infrastructure in Namibia, the existing financing and regulatory environment and in particular intends to develop an understanding for the need of systems approach to infrastructure development for ensuring higher bearing on social-economic development. The last part is the conclusion.

#### LITERATURE REVIEW

In the 1960, an approach to management appeared which try to unify the prior schools of thought. This approach is commonly known as 'Systems Approach'. Its early contributors include Ludwing Von Bertalanfty, Lawrence J. Henderson, W.G. Scott, Deniel Katz, Robert L. Kahn, W. Buckley and J.D. Thompson. They viewed organisation as an organic and open system, which is composed of interacting and interdependent parts, called subsystems. The system approach is top look upon management as a system or as "an organised whole" made up of sub- systems integrated into a unity or orderly totality. Thus, systems approach is based on the generalization that everything is inter-related and interdependent. So, the essential features of systems approach are:

- A system consists of interacting elements. It is set of inter-related and inter-dependent parts or sub-systems arranged in a manner that produces a unified whole.
- These sub-systems need to be studied in their inter-relationships rather, than in isolation from each other.
- An organisational system has a boundary that determines which parts are internal and which are external.
- A system does not exist in a vacuum. It receives information, material and energy from other systems as inputs. These inputs undergo a transformation process within a system and leave the system as output to other systems.
- An organisation is a dynamic system as it is responsive to its environment. It is vulnerable to change in its environment.

In the systems approach, attention is paid towards the overall effectiveness of the system rather than the effectiveness of the sub-systems. The interdependence of the sub-systems is taken into account. As discussed earlier, system approach has immense possibilities. A system view point may provide the impetus to unify various infrastructures and develop infrastructure management theory. Consequently, the systems approach may succeed where the process approach has failed to lead infrastructure development and management out of the theory of jungle and act as a catalyst for socio-economic development at a faster rate.

Systems theory is useful to infrastructure development because it aims at achieving the objectives and it views establishment/s as an open system. There is a need to keeping a balance between conflicting forces and events when it comes to infrastructure developments. A high order of responsible leadership makes this certainly more effective. A system by way of description is a holistic way of viewing things. It generates from the idea that a "whole" is made up of separate parts but each part works cooperatively

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