Abstract

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GIS APPROACH TO INVESTIGATE THE IMPACT OF DEVELOPMENT CORRIDOR ON THE GENERAL TRAFFIC CIRCULATION IN EGYPT

This study is based on the proposed development corridor project by Dr. Farouk El-Baz which attempt to expand the developed region westward throughout the Valley of River Nile. The aim of the current research is to investigate the impact of such a major super highway on the general movement of vehicle traffic in Egypt especially in the North – South direction. A Geographic Information System (GIS) Approach is ed for its suitability for such a problem at hand. Firstly, the ed alignment of the proposed developed corridor is digitized, and linked to the overall digitized national highway network of Egypt. The digitized process included the twelve branches highways throughout the River Nile Valley. The Scenario of With / Without Development Corridor is adopted to illustrate the impact of the project on different proposed expected journey linking Egypt between North regions [major harbors] and south regions [potential for development projects]. Also, the degree of development of the proposed super highway is considered in the study through varying design speed. The impact of the proposed project is presented in details on the Traveled Distance / Travelled time plot for different suggested Origin – Destination trips.