

Potential Economic Impacts of the Proposed Development Corridor in Egypt: A Spatial CGE Analysis

Topic: Regional Model Building

Author: Michael L. LAHR

Co-Authors: Dina N ELSHAHAWANY, Eduardo Amaral Haddad, Moisés Diniz Vassallo

Egypt has proposed a development corridor. A main component is a desert-based expansion of the current highway network. This network is founded on a 1200-kilometer north-south route that starts at a proposed new port near El-Alemein and runs parallel to the Nile Valley to the border of Sudan. It also includes 21 east-west spurs that connect the main axis to densely populated cities on the Nile. The paper is a first attempt at an economic assessment of the impact of this proposed corridor. It uses an interregional spatial computable general equilibrium (CGE) model, which is integrated with a stylized geo-coded transportation network model to help quantify the spatial effects of transportation cost change due specifically to the efficiencies induced by the corridor. The paper focuses on the likely structural economic impacts that such a large investment in transportation could enable through a series of simulations, including some sensitivity analyses of the model's strongest assumptions. Results show the Corridor's presence yields strong positive effects on Egypt's economy. Both nationally and regionally, the measured impacts are positive, reflecting net gains in efficiency. The governorates located in south Egypt and west of the Nile River tend to obtain the most efficiency gains. Hence, It appears the project should lessen regional disparities among governorates.