Impact Evaluation of the Iraq Transport Corridors

What is the impact of road construction and improvements on local economic activity in surrounding areas?

Iraq Transport Corridors Project

IMPLEMENTING AGENCY:
Ministry of Construction and Housing.

DIRECT BENEFICIARIES:
Road users of both Expressway 1 and Girsheen – Suheila Intersection along the North-South transport corridor.

COMPONENTS:
Road construction, maintenance and rehabilitation; Design and enhancement of road safety features; Institutional Strengthening and Capacity Building.

Context

In 2014, Iraq was in a transition phase before facing a violent armed-civil war which led to a weak and underdeveloped infrastructure sector. The poor condition of the road network has significantly affected mobility. At the macro level, it heightens cost of trade and commerce, impeding international and inter-regional mobility of...
goods and services. Poor quality roads create a barrier to firms in accessing labor and markets. Households face fewer employment and economic opportunities and have poor access to health and education services due to the underdeveloped road network. Rehabilitation of transport infrastructure is one of Iraq's top priorities.

Through the Iraq Transport Corridors Project, the World Bank supports Iraq’s Transport Sector Master Plan as part of the collaboration with the Ministry of Transport (MOT) towards laying the ground for establishing a modern and efficient national transport system.

In addition to this technical assistance, the Bank is financing the rehabilitation of a 257km segment of Expressway 1, a heavily travelled road for decades in the south-east of Iraq and the construction of a 23km segment in the North. With the help of the World Bank and other multilateral donors, the government prepared its National Development Plan (NDP) with transport infrastructure playing a key role. The NDP complements the Poverty Reduction Strategy (PRS) and as part of its Transport Corridors Project, the government expressed interest in an impact evaluation that will generate rigorous evidence to inform future corridor investments in Iraq.

**Impact Evaluation Research**

The primary goal of this impact evaluation is to examine whether transport investments increase economic activity in urban areas and lay-by areas near the road corridor. The evaluation focuses on the impact of the first two project components: i). Road construction, maintenance and rehabilitation; and ii). Design and enhancement of road safety features.

A randomized control trial (RCT) is not possible for the Iraq Transport Corridors Project, which has been underway for several years. There are additional research challenges working in a fragile, conflict-affected state like Iraq. Instead, to perform a rigorous evaluation, the research team is conducting a Geospatial Impact Evaluation (GIE), merging multiple sources of spatial data with quasi-experimental methods to determine the project’s impact.

This evaluation employs a panel framework with fixed effects based on the timing and location of road improvements to assess the impact of road construction and road improvements on economic activity within 10km of the improved road. Publicly available remotely-sensed nighttime lights data serve as a proxy for local economic development. One key advantage of this impact evaluation is that it takes advantage of widely available and existing spatial data.

**Policy Relevance**

There is very little research on the wider economic benefits of transport infrastructure in high fragility contexts—especially the resilience of economic agents when there is higher risk associated to the use of that infrastructure. This impact evaluation will be the first assessment of transport investments in Iraq. The knowledge generated through this activity will provide lessons for other fragile and conflict-affected countries and lower middle-income countries.

Moreover, although Iraq is a resource rich country and used to have one of the most advanced transport infrastructure in the region, extreme poverty exists, with spatial variations, and prosperity unequally shared. The poor condition of the road network has significantly affected mobility, particularly for the poor, and especially in rural areas. Most of the population is inadequately serviced by unpaved roads with the impact falling disproportionately on low income groups. This study will provide evidence that will help evaluate the contribution of the transport to the twin development goals of decreasing extreme poverty and promoting shared prosperity as well as progress in reaching the Sustainable Development Goals in education and health.

Finally, this evaluation can serve as a model for other projects that seek to use geospatial data to evaluate corridors, especially in high fragility or developing country contexts where data are often scarce.

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