

## **Modeling accessibility and availability of geospatial data for successful implementation of China-Pakistan Economic Corridor**

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### **Abstract**

The objective of this paper is to develop a set of interoperable system models for ensuring smooth and quick supply of multiple geospatial datasets demanded by Pakistan's Ministry of Planning Development and Reform to implement China-Pakistan Economic Corridor (CPEC). The datasets are urgently needed by the ministry for which efforts were started in the early 2015 but so far no significant progress has been made. We find that all relevant stakeholders of geospatial data groups were not involved in envisioning spatial needs of CPEC. For example in a meeting held on May 11, 2015 at the ministry only four public sector departments including Survey of Pakistan (SoP), SUPARCO, NESPAK and Pakistan Bureau of Statistics (PBS) were taken onboard while ignoring Geological Survey of Pakistan (GSP), Pakistan Agricultural Research Council (PARC), Soil Survey Departments, National Highway Authority and stakeholders of academia as well research institutions etc.

This is the first reason that all the needed datasets have not been shared with the ministry. The second reason is, no mechanism for sharing the datasets has been devised. Indeed it is a healthy sign that geospatial data speedily clutches the extraordinary concentration from citizens as well as organizations as producers, consumers and policy makers for socio-economic development projects like CPEC in Pakistan. But the fact is, numbers of public and private sector organizations as well as non-governmental organizations (NGOs) and volunteers are producing diverse nature of geospatial information that can be benefited not only for CPEC but also for various other purposes ranging from disaster management to forestry, transport, education, health, environment, energy and so on. Efficient exploitation of geospatial information in above mentioned domain areas in addition to CPEC necessitates the need to have a reliable system to ensure accessibility and availability of the datasets. The dilemma is, no such system exists so far at the ministry. We argue, for the effective planning, development, management and monitoring of CPEC, there is eminent requirement of reliable, updated and complete multiple geospatial datasets along with a system as a platform for sharing and exchanging standardized and interoperable geospatial information. The system models prepared in the study focus not only the specific needs of CPEC but can also be benefited by the geospatial researcher community of the country for exchanging standardized and interoperable geospatial information.