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The Demand Side of the Space Economic Equation: Understanding and Evaluating the Changing Market
Dynamics in Space Activities (3)

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DEMAND ASSESSMENT OF RS AND GI IN INDIA – OPPORTUNITIES FOR INDUSTRY SERVICES

Abstract

There is a new scenario developing with the advances in the Earth Observation, Positioning and Geographical Information (GI) domain – as observed in different parts of the world and even in India. On the one hand, the power of "EO and GI" is changing the way governance, commerce, resource management, environmental protection, aviation, security and even a citizen's life is impacted. On the other hand, the images of the earth are now being collected from variety of easily-operable platforms – satellites, aircrafts and Unmanned Aerial Systems (UAV) or Drones owned by both government and private actors. Till the mid-2000s almost all of EO and GI data holdings were mainly in government domain in India – but now large number of private-sector EO and of GI data holdings are a reality. MapMyIndia, Google and many EO and GI solution enterprises have emerged as solution-providers, offering value-addition to EO images and developing down-stream GIS applications.

This shift of a government- and private-ownership of EO and GI applications; the availability of the high resolution EO images (presently 0.3m from satellites and even 0.1m from UAV platforms) in the commercial domain; high-level Positioning services across the globe and easy fusion of geo-tagged GIS data is bringing in a new paradigm. Even while Indian EO data are "subsidised" and costs are low, there are demands and preferences for commercial EO data whose costs are high but offer better capability. Another change is the progressive blurring of divide among the "free access" societal EO and GI requirements for supporting developmental activities; the "commercial access" of EO and GI for enterprise and business applications and the "restricted" security requirements for human security and intelligence applications.

Seamless fusion and integration is becoming easy on hand-held devices - interoperability, integrity, reliability and better positioning and location accuracies are driving EO and GI into every citizen's hands and also bringing greater efficiency in governance, society, commerce and improved public and private decision making – thereby boosting demand.

There are also important policy issues emerging such as protection of privacy and access rights to EO and GI data held by the government. National security considerations will still be important – even as use of EO/GI information could be thwarted by improper or highly restrictive policies.

This paper discusses several of these current demand related, technological and policy issues in India – specifically their impact on the EO and GI commercial opportunities.