

Harnessing Geospatial Value for Inclusive Growth

Barring a few setbacks, world economies in the last three decades have leveraged their resources very efficiently to achieve an impressive growth rate and improved the prosperity of their people. The Indian economy too had a great run with an enviable GDP growth. Taking huge strides across the economic sectors, India rapidly rose the ranks. Having emerged as the world's 'fastest growing, free world democracy', India is expected to be one of the top three world economic powers in the next decade.

Geospatial Technologies: Driving Growth Like Never Before

Geospatial applications are improving efficiencies and productivity through spatial data and insights. Playing a critical role in planning, monitoring & analysis, stakeholder collaboration, operational readiness, asset management, improved customer services, and so geospatial technologies have become an integral part of the business workflows. Citizens are looking for location-rich insights that can help with a better understanding of the situations and aid in better decisions and in-turn make better use of their time and resources.

By fostering inclusiveness, participation, and collaboration of stakeholders, geospatial knowledge is empowering ecosystems with actionable intelligence for informed decisions, strengthening governance and citizen welfare.

From an Indian context, geospatial technologies have architected an ecosystem of their own. Over the last five decades, the geospatial industry in India has seen significant growth in size and sectorial adoption. From mapping and cartography in the 1980s, today advanced geospatial technologies are driving digital transformation initiatives by providing enhanced situational awareness and actionable intelligence for informed decisions. The geospatial value chain today covers - data acquisition, data processing and analysis, workflow integration and dissemination for different sectorial applications contributing to local, regional, and national economies, benefitting every segment of society. Increasing adoption and technological advances are triggering the rapid expansion of this Geo-ecosystem, fueling demand for manufacturing and services across the value chain. The benefits of geospatial technologies can be grouped as:

- a. **Operational Benefits** – Direct/Indirect benefits to business/government operations resulting in improved planning, efficiency and productivity, enhanced decision support, reduced labor, cost savings and cost avoidance.
- b. **Consumer Benefits** – Direct/Indirect benefits to the consumers through the use of geo-information and/or spatial analytics resulting in improved transparency, enhanced convenience, time savings and better quality of life and mobility.
- c. **Societal Benefits** – Direct/Indirect benefits in terms of employment generation, sustainable natural resource management, environmental conservation/restoration, better response to disasters and minimizing collateral and financial impact and community empowerment for timely informed decisions.

- For Environmental capital, GVI is measured as a change to the environment through the effect of socio-economic activities and natural events to the components of the environment covering air, water, soil, ecology, ecosystems, biodiversity, and pollution.

Today, as a critical input, geospatial knowledge adds value across all economic activities and is progressively becoming indispensable. The proliferation of location rich data and advanced geospatial technologies are providing newer opportunities to augment the geospatial value impact. Be it for supporting economic profit growth, ensuring equal opportunities, reducing inequalities, improving living standards, reduced climate risk or strengthening the policy framework, GIS plays a vital role in facilitating the creation and maintenance of harmonious conditions for the coexistence of human society and nature in the pursuit of economic growth. By exploiting the untapped potential of ever-increasing geoinformation, Geospatial Value Impact can be doubled in the next five years making a profound impact on India's growth story. It is for us to capitalize and not let this golden opportunity slip away.

Geospatial Value Impact (GVI)

Geospatial Value Impact (GVI) can be defined as the fiscal benefit derived by governments, businesses, or consumers/citizens directly, indirectly or in an induced form by the use of Geospatial Knowledge.

- For Economic capital, GVI is measured as changes in operational efficiencies, business revenue, profits, employment and wages.
- For Social capital, GVI is measured as change in education, inequality, community safety, social support and human well-being.

Want to understand the concept of 'Geospatial Value Impact' better? Don't miss the other articles in this issue!