

Web based GIS Integration of Primary Schools in Odisha

Business Context

Sarva Shiksha Abhiyan (SSA) is a programme by the Government of India aimed at the universalisation of elementary education across India. The programme is being implemented in partnership with state governments to cover the entire country. Odisha Primary Education Programme Authority (OPEPA) is the nodal authority for delivering primary education to a network of over 80,000 schools in the state of Odisha. OPEPA has comprehensive data bank of the schooling system in the state of Odisha, acquired over years (along with its latitude and longitude for each school) through a sustained implementation of the District Information System for Education (DISE), and the nationally acclaimed eShishu project. This comprehensive MIS framework enables OPEPA to monitor the delivery mechanisms for the SSA across the state of Odisha. However, OPEPA needs to identify those areas of the state where service delivery is not in conformity with the prescribed standards, so that pre-emptive and corrective actions can be prioritised and planned.

Challenges

Key challenges include:

- Accurately analyse and report the reach and quality of the education delivered to the children enrolled in the schools within this network
- Efficiently plan, implement and monitor the distribution of the resources at the disposal of OPEPA within local areas in compliance with the Right to Education (RTE) Act

Solution

A web-based GIS solution that integrates with the existing MIS platform enables OPEPA to:

- Visually analyse the MIS data in a geospatial context
- Perform impact analysis of its operations on the ground
- Accurately monitor and report the delivery of education in the schools within its network

The solution is driven by Esri's ArcGIS server and ArcGIS desktop software that powers the web-based GIS solution.

A GIS-enabled solution by Esri India has dramatically improved our visibility into the efforts towards driving the education initiatives in our state.

Krishna Gopal Mohapatra
State Project Director
OPEPA

GIS applications in use:

- Assets and Facility Mapping of all primary schools of Odisha
- Roads, Rivers, Forest boundary layers superimposed on school layers
- Geo-tagging of school's photographs for monitoring
- Tools created for queries such as:
 - Shortest distance between two schools
 - Inspection route chart of primary schools
 - Analysis on 'where to sanction schools'
- Linkage with Child Tracking System and District Information System for Education

Benefits

- Improved visibility in the effectiveness of the programme including better planning and utilisation of resources
- Reports generated provide information required for compliance with the RTE Act and to fulfil the planning, implementation and monitoring of the state level initiatives commissioned by the authority

Key Message

Ensure continuous and accurate delivery of school education to every child within the ambit of the RTE Act through effective utilisation of geospatial technology.

About Esri India

Esri India (NIIT GIS Limited) is an end-to-end Geospatial Information Systems (GIS) based solutions provider and enjoys a leadership position in India with a large customer base of Esri suite of software. Esri India also provides ArcFM Utilities solutions from Schneider Electric (Telvent), Network Engineer Telecom solutions from Ericsson (Telcordia), Cellular Expert from HMIT-Baltic, Cityworks from Azteca Systems and ENVI Image Analysis and Processing solutions from Exelis VIS to its customers.

Established in 1996, Esri India is a strategic joint venture between Esri Inc., USA and NIIT Technologies Ltd., India.

All types of schools are enabled for integration through GIS for a geographical analysis related to habitation needs, schooling facilities, infrastructure and location details along with its latitude and longitude of each school.

Contact

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