CASE STUDY

AGiSAC Facilitates Effective Governance in Himachal Pradesh using ArcGIS

Client
Aryabhatta Geo-informatics and Space Application Centre (AGiSAC)

Industry
Space

Organization Profile
Aryabhatta Geo-informatics and Space Application Centre (AGiSAC) has been set up under the aegis of the State Council for Science, Technology, and Environment, Himachal Pradesh.

The Centre envisages the development of low-cost software and web-based applications for the various government departments and stakeholders that facilitate administration in tracking, monitoring, and analyzing data.

Website
www.agisac.gov.in

Project
Decision Support System

Highlights
The geo-informatics applications developed by AGiSAC using ArcGIS aid the user departments in planning, monitoring capacity building measures, upkeeping existing infrastructure, and more. Further regional and sub-regional balance in all spheres get measured, monitored, and maintained effectively using these geo-informatics applications. The applications help the user departments to decide on establishing an asset/scheme/project based on geospatial analysis of various variables such as terrain and topography. A gap analysis of existing infrastructure coupled with inputs like user base, routes, etc. helps them to identify ideal locations for developing infrastructure.

Project Summary

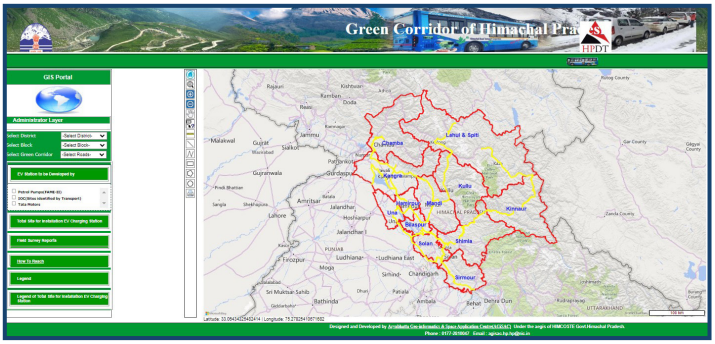
AGiSAC works to identify decision-making applications with the help of user departments and provides tailor-made GIS solutions for better decision-making in government departments using ArcGIS. It has developed web, desktop, and mobile applications for various state user departments such as rural development, public works department, irrigation and public health, forest, town and country planning, and environment to ensure efficient, effective, transparent, and accountable governance.

Solution & Benefits

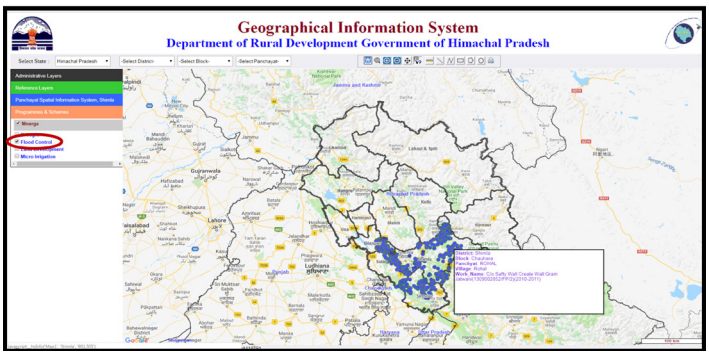
The geo-informatics applications developed aid user departments in human resource management, upkeep of existing infrastructure, visualizing gaps in the existing infrastructure, identifying ideal locations for establishing new facilities like educational and health institutions, fair-price shops, timber and non-timber plantations, finding nearest routes, action plan generation for MNREGA works, check duplicity of works, and measure and monitor distribution of beneficiaries and thereof regional and sub-regional imbalances.

The Decision Support System (DSS) is hosted on a web portal and efficient low-cost data gathering devices like GPS-enabled mobile phones are used for the automatic updating of the databases. The user departments provide validated databases to the Center. As all government departments are enjoined to subscribe to the Center, various databases are used seamlessly, and interdepartmental issues are tackled easily. The inputs used for the development of geospatial information include SOI (Survey of India) toposheets, cadastral maps, high-resolution satellite data, demographic data, departmental data, etc.

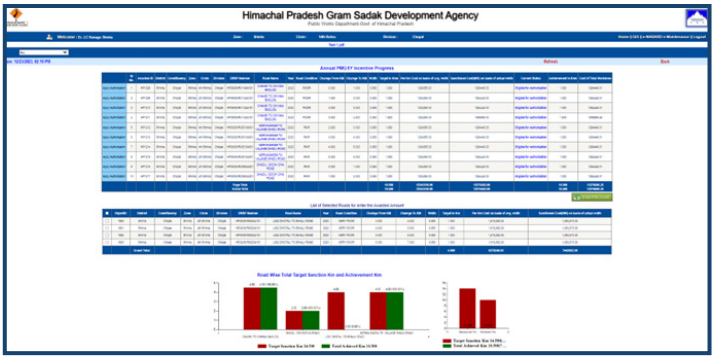
Esri's ArcGIS suite is helping AGiSAC achieve the desired outcomes through these applications. The technology facilitates viewing, editing, creation, and analysis of geospatial datasets. It allows users to explore data within a dataset, symbolize features accordingly, and create maps. By using the technology, AGiSAC could create and manipulate datasets to include a variety of information. The maps produced generally include features such as north arrows, scale bars, titles, legends, neat lines, etc. The ArcGIS suite also allows the users to use extensions such as 3D Analyst, Spatial Analyst, and Network Analyst.



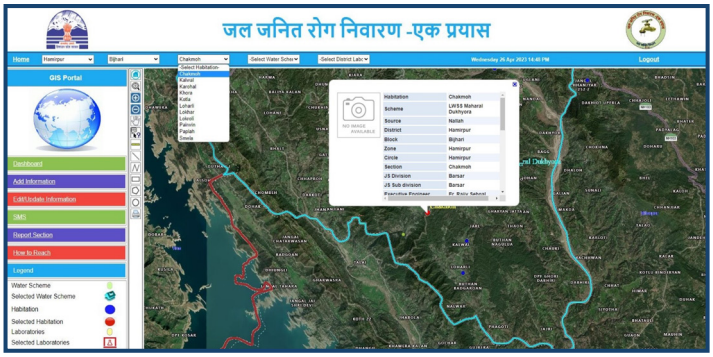
GIS Portal Showcasing Green Corridor of Himachal Pradesh



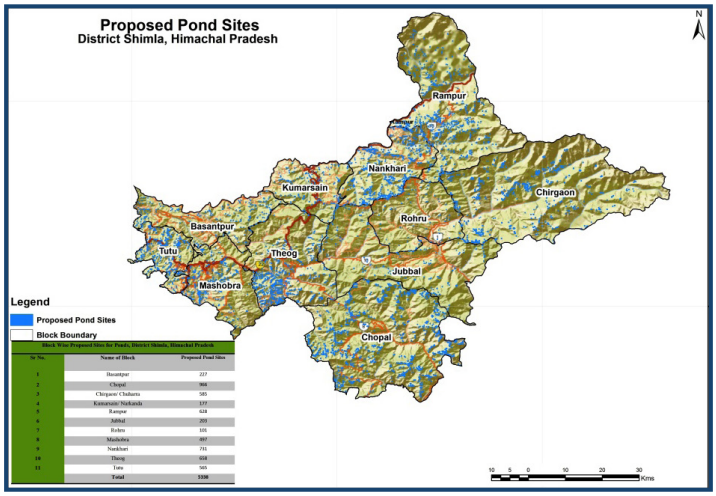
GIS System Showcasing Panchayat Level Development Plan for Rural Development Department



Annual PMGSY Incentive Progress for Public Works Department



GIS Portal used by Jal Shakti Vibhag



GIS-based Water Conservation Plan and Inventory of Water Bodies for Shimla District under Jal Shakti Abhiyan: "CATCH THE RAIN CAMPAIGN"

> ArcGIS effectively meets AGiSAC's GIS-based analytical requirements. By facilitating easier management of complex datasets, the technology enables officials to make quick, informed decisions. The DSS enhances collaboration, allows effective analysis of the developmental gaps, and works as an effective tool in spatial planning and decision-making processes.
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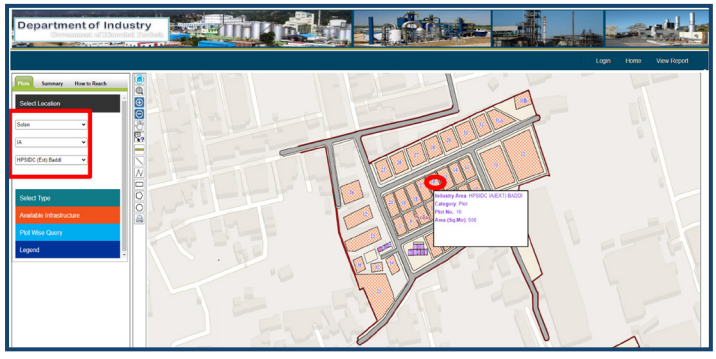
> **- Sh. D.C. Rana, IAS, Director cum Member Secretary, AGiSAC & Sh. Satpal Dhiman, HPFS, Joint Member Secretary, AGiSAC**



GIS Portal used by the Department of Industry