



## Land Information System for Mining

Land acquisition for mining purpose involves great deal of compensation transactions. The time gap between land acquisition and actual mining requires continuous planning efforts to supervise the status of land at various stages.

A leading cement manufacturer intended to implement land Information System based on spatial database to manage multi-source heterogeneous data. The automation process was expected to demonstrate graphical visualization and analyze assorted data compositely. The project area included 25 mining sites covering an area of 500 sq. km.

As the one-stop-place of enterprise GIS, Genesys was involved in acquisition, assimilation, digitization of various data sources and development of a web-based application. The web application maintained information of about 20+ GIS layers with scale dependency. The data included Land parcels, Plant setup, Colony Setup, Mining Lease setup, Infrastructure, political boundaries and more. The application was embedded with functionalities to modify geographic entities, query, view, analyze and generate reports.

Preparation of land information database included collating data from satellite imageries, analog maps used by various departments, cadastral maps and DGPS data to create a unified homogenous geodatabase. Thematic visualization of data allowed better analysis for decision making.

**Key benefits:**

- Discovery of hidden information which gets obscured otherwise
- Real time editing of spatial data strengthening the operational processes
- Tools to allow automation of day-to-day common tasks to bring in efficiency
- More transparency in land dealings