



Re-Engineering Slum Redevelopment Using Geospatial Technology

Slum Redevelopment bodies often face the problem of fraud and lengthy disputes with the hutment owners during disbursement of compensation or benefits per the process of slum redevelopment. Lack of authentic database of the size of hutments and entitlement are the key obstacles. This results in tenure insecurity as only the notified slum dwellers could receive property titles/compensations.

To resolve the claim disputes, the client took to geospatial technology to gather accurate data of the hutments. Identifying and monitoring slum settlements with traditional approaches proved to be costly and time consuming.

An expert in enterprise GIS, Genesys proposed a solution involving development of a GIS based web application. Multitude of data acquisition technologies were deployed to acquire authentic and accurate data -

- High resolution Satellite Imagery (30cm) to demarcate the slum boundary and generate a base map.
- Backpack & Terrestrial LiDAR to measure hutment dimensions (rooftop)
- 360-Degree Panoramic Imagery to gather sufficient pictures of each slum hut/structure available in slum lane
- Tablet/Mobile based application to carry out door-to-door survey for collecting ownership, biometric and other details

The web application, **Slum Information Management System (SIMS)**, provides analytical tools to view, edit and query data. A flexible environment allows the user to generate reports as per the requirement.

Key benefits:

- First time ever the accurate spatial data of the slums was made available validated with evidential proofs
- Improved transparency which will minimize the discrepancies between ground reality and paper records combined
- Efficient situation assessment through ground reality information to formulate Slum Redevelopment model