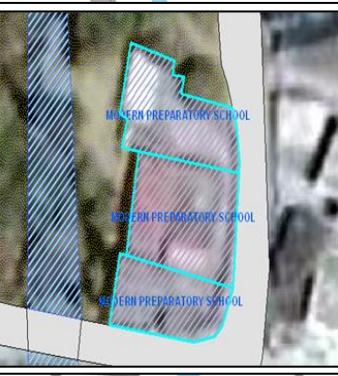


# GIS Base Property Tax Management



## Property Tax Management

Property tax is the single most important tax revenue source available to a urban and local bodies. Hence revenues from property tax have to show significant increase. However property tax systems are one of the mandatory reforms. To achieve this proper mapping of properties using a GIS system so that the ULB is able to have a full record of properties in the city and bring them under the net of tax department.

## Objective

- Tap the full potential of property tax as a source of own revenue of the ULB.
- Bring all properties into the tax net.
- Introduce system improvements to increase efficiency in house tax department
- Make the system of assessment transparent and simple so as to be easily understood and interpreted by all property owners.
- Enable property owners/occupiers to calculate tax liability on their own, file self assessment forms and pay tax on that basis, putting the onus upon the assesses to pay tax on time.
- Penalization on house tax defaulters.
- Have a proper information system for monitoring to ensure full coverage in assessment and full collection of tax dues.
- Introduce efficient mechanisms for speedy grievance redressal and dispute settlement on house tax.

## Scope Of work

- Development of GIS database at building level
- Field Survey to capture the house hold information and validate the information
- Integration of House holds survey information in GIS database.
- Calculation of house tax based on GIS database
- Data Integration form various local & urban bodies
- Evaluate the encroachments



**GIS Property Mapping for Assessment of Municipal Property Tax**

**Legend**

- RESIDENTIAL**: Residential, Residential Plus
- COMMERCIAL**: Commercial Others, Commercial Centers
- INDUSTRIAL**: Industrial, Industrial Plus
- INSTITUTIONAL**: Religious, Religious Plus, Educational, Educational Plus, Govt. and Semi-Govt. Office, Medical Facilities, Others
- UTILITIES**: Water Supply, Sewerage, Electricity, Gas, Other
- POWER HOUSE**: Power House
- PICTORIAL**: Other, Parks, Residential, Residential Plus, Residential Plus
- VEHICLE**: Car, Bike, Scooter, Other
- UNIDENTIFIED**: Open Space, Residential, Residential Plus, Residential Plus
- VACANT LAND**: Residential, Residential Plus, Residential Plus
- TRADE POPULATION**: Bridge, Postman, Road, Road Street

**Mined Block Area**

- WATER BODIES**: Lake, River, Reservoir, Water Tank, Wetland

**Public and Semi-Public**

- Public**: Airports, Educational Facilities, Govt. and Semi-Govt. Office, Medical Facilities, Others, Police Check, Police Check
- Semi-Public**: Airports, Educational Facilities, Govt. and Semi-Govt. Office, Medical Facilities, Others, Police Check, Police Check

**Dehradun Ward, Dehradun**

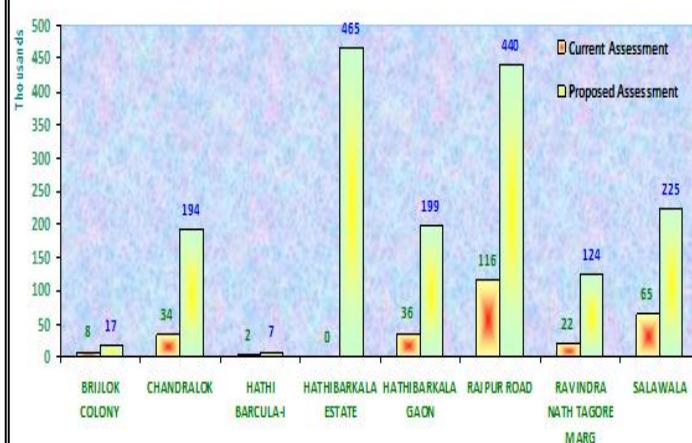
**Uttarakhand**

Scale: 1 cm = 73 meters

North arrow

Anticipated increase in property tax collection about 400%

Property Tax Assessment – Proposed Scenario



**Key functions and responsibilities to local bodies under Municipal GIS are:**

- Regulation of land use and construction of buildings
- Planning for economic and social development
- Roads and bridges
- Water supply for domestic, industrial, and commercial purposes
- Public health, sanitation, conservancy, and solid waste management and Fire services
- Slum improvement and up-gradation
- Provision of urban amenities and facilities such as parks, gardens, and playgrounds
- Public amenities including street lighting, parking lots, bus-stop, and public conveniences

## Challenges-

- Building/Floor level data extraction form high resolution Images
- Non cooperation of House holder to disclose the property information during field survey
- Data capturing of for un occupied houses
- Multiples times field survey due to non cooperation of holes holders

## Outcome of Municipal GIS

- Identification of un-authorized construction
- Increase in revenue by tax calculation using GIS database
- Identification of future development area
- Identification/relocation of slum areas for future development for better livelihood
- Finding the area under deficiency of basic amenities like water & sewerage