

Aasthi - GIS based property tax system

Introduction

Land and Properties are considered as very important entities both by the citizen and the Government. For a citizen, the property is a very valuable personal asset and a strong sense of ownership is associated with this. For the Government, property takes a centre-stage for governance. Especially in the urban areas, which is growing rapidly, the information about properties is much needed for urban planning as well as for revenue generation. And, much of the citizen services of the urban are also linked to the property which serves as a base, for eg., the water connection, UGD under ground drainage connections etc.

One of the key components of the reforms, initiated by the State of Karnataka, to ensure sustainable urban centers, was the e-governance project covering *Property Taxation with Geographical Information System*.

The project was rolled across the state in a phased manner. In Karnataka there are 213 Urban Local bodies (ULB) which are categorised as City Corporation, City Municipal council, Town Municipal council & Town Panchayat. In these ULBs there are approximately 35 lakh properties (both assessed and unassessed). One of the key challenges in this project was the geographical distribution (the municipal bodies are spread all over the state of Karnataka) as well as the different sizes of the municipal bodies.

To begin a pilot study was first taken up at Ward No.4 of Byatarayanapura CMC in Bangalore District to evolve the process of project implementation. On learning's from the pilot project 49 ULBs were selected as part of Phase I under Nirmala Nagara Project (NNP) and subsequently, the same initiative was rolled out to the remaining 156 ULBs under Karnataka Municipal Reforms project (KMRP). This covers all the ULBs of Karnataka except BBMP. All these 213 ULBs are service delivery centers.

Issues

Issues faced by the ULBs

There were multiple issues faced by the ULBs. The rate of filing of property tax returns were very low and inaccurate resulting in high accumulation of arrears. The citizens were not penalized adequately for not filing their tax returns. There were a large number of unassessed properties which were not under the Tax net, causing a huge revenue loss to the ULB.

The taxation principles followed by the ULB were not in accordance to the Act. Given the lack of uniform procedure of taxation, properties were wrongly assessed and the details maintained by the ULB were inaccurate and inconsistent. The records maintained in manual DCB registers were also prone to tampering.

There was a delay in preparing the defaulters list and notices that timely collection of property tax was not possible.

Issues from the perspective of citizens/service users

The citizens were unable to get their property tax extract on time. The handwritten property tax notices by Bill Collector to the property owners were prone to a lot of calculation and clerical errors resulting in the frustration of the citizens. The citizens also complained about the tampering of property details entered in the manual form.

Issues faced by the government

The monitoring of collection efficiency across the 213 ULBs, which were geographically widespread was cumbersome. The figures reported by the ULBs were inconsistent and untimely, that the projections of property tax demand which is the main source of revenue to the ULBs was not possible. It was difficult to arrive at meaningful policy decisions, with credible data not being available to the government.

Reforms

Addressing all the issues mentioned above, beginning in 2001, the state of Karnataka adopted four major reforms to the system of property taxation in all ULBs across the state excluding Bangalore.

Assessment Method Changed from Annual Rental Value to Capital Value

Prior to fiscal year 2002-03, property tax amounts in Karnataka ULBs were calculated based on the annual rental value of the property. Rental values of properties were estimated every five years by ULB inspectors based on a set of internal guidelines and a visual inspection of each property.

To increase transparency in how property tax rates are calculated, at the end of calendar year 2001 the government of Karnataka replaced the annual rental value assessment method with one based on capital value. Under the new system, property value is determined using a specific formula which takes into account various factors such as the size of the land, the built up area, and the number of floors of the building (if not vacant). Initially, ULBs were provided general guidelines for assessing capital values of properties but were left to themselves to develop the specific formulas for how capital value is assessed. Amidst confusion from ULBs over how to design specific capital value formulas, in 2006 the government of Karnataka reversed this earlier decision and required all ULBs across the state to adopt a single capital value formula designed by state level authorities.

Responsibility for Assessment Shifted from City to Citizen

Along with the shift from rental value to capital value assessment, the state also shifted responsibility for calculating tax rates from city inspectors to property owners themselves. Under the new “self-assessment” system, property owners determine their own tax liability by filling out detailed “self-assessment surveys”. To ensure that property owners are honest in filling out the details of the self-assessment survey, 5% of all self-assessment surveys are randomly selected each year to be audited. By law, this government audit must be conducted within a year of the date the property owner files the self-assessment survey or the government waives the right to contest the details provided by the owner.

After filling out a self-assessment survey, property owners pay the amount indicated by the self-assessment survey at a bank and then hand over the filled self-assessment survey and a receipt for the payment to their local ward office. To provide an incentive for property owners to pay tax on time, property owners who pay tax in the month of April (the first month in which owners are allowed to pay) receive a 5% discount on their overall tax amount.

Survey of All Taxable Land

At the outset of the reforms, a significant hurdle faced by ULBs seeking to increase property tax revenue was that officials had little idea as to the total amount of property tax that should be paid. A substantial portion of taxable properties were not listed in official registers and for those properties that were in the official registers, only minimal, and often inaccurate, information was available.

Beginning in 2004, the state of Karnataka sought to rectify this by conducting a comprehensive survey of all taxable land in the 57 largest ULBs in the state (excluding Bangalore). Using GIS technology, digital maps were created to identify each and every property within the ULB boundary. Once identified, a new unique property id was assigned to each plot. Teams of inspectors then systematically surveyed each and every property identified through the mapping process, gathering detailed information on the size of the properties and the buildings constructed on the properties. Finally, data from the field survey was combined with existing data on prior collections for the properties.

The field survey was a long and intense process, taking almost 3 years in some ULBs. To ensure that officials devoted sustained effort to the field survey, a progress reporting system based on micro-level data was put in place and bureaucrats' official reviews were linked to their performance as measured by the progress reports.

A noteworthy aspect of the surveying process is that a letter was sent out to all property owners whose land was surveyed requesting them to confirm the details gathered during the survey. Thus, property owners who had failed to pay tax on a property previously were made aware that their property was now tracked in the ULB's database.

Implementation of New IT System

To better track and manage all property tax related information the state implemented a new IT system developed by the eGovernments Foundation. The IT system was designed to allow city officials to more easily determine whether tax had been paid for a property, to better monitor overall progress in property tax collection across each ward and the ULB as a whole, to allow for taxes to be paid via alternate channels such as at citizen service centres, and to aid in the process of generating accounting statements for the ULB as a whole.

To date, the property tax IT system has been implemented in 41 ULBs across the state. Out of these 41 ULBs, the system is fully live in all wards in 18 out of these 41 ULBs.

Solution and Features

The Field Survey has been done for all the properties in the ULB and digitized ward maps with individual properties have been prepared. Properties have been assigned a unique property ID Number. This has resulted in an accurate database of all the properties in the ULB.

The Web based application has made the platform more interactive from point of view of service delivery. This platform has enabled faster delivery of property tax extract which is generated automatically.

Computerized MIS database was created and frozen after having issued the citizen the details of field survey data. This data base has been given role based access and is a secure and fool proof

system which has helped to keep the documents safely and avoid tampering of details especially the dimensions, ownership details, creation of new property , transfer etc which is a regular grievance of Citizen against ULB functionaries in the manual system.

As it is a web-based application, where broad-band is used with very high speed connectivity, the time taken to process every transaction will be almost negligible . Accuracy of the output has increased. There is no delay in service delivery. Information about collection of property tax is available at any point of time. The status & stage of action on defaulters is available property wise to ULB officials at any given point of time.

Citizen friendly features

Automated online tax calculator, wherein the mandatory details can be entered by the citizen to generate a SAS form with calculations and print the same.

Citizens can use the GIS search to search and view their property details to cross-verify their transactions.

ULB friendly features

Automatic calculation of the property tax demand based on the CVS methods.

- Property tax Demand Calculation from 2005-06
- DCB report from the year 2005-06
- DCB Report at Different ULB Boundary levels
- Demand Adjustment due to Property Modifications
- Demand Adjustments due to any Write offs
- Auto Rebate and Cess calculation if any.
- Penalties are auto calculated.

Generation of Bank Deposit Challans and the Daily Collection reports.

Auto generation and issuing of Tax Paid details : FORM III ,over the counter to the citizens on demand

Auto generation and over the counter issuing of Khatha Extract to citizens any point in time

Easy Tracking of the Tax defaulters:

Automatic generation of demand notices and seizure notices

Information of various types of properties in each ULB for eg, Residential, Commercial, Public, Industrial

Can handle Office, Bank and Field payments, with the ability to integrate with Credit Card and ATM systems.

MIS reports at City, Ward, Street levels as decision support tools for the revenue department and citizens (e.g. Defaulters Report, Ward-wise collections).

Achievements

It has streamlined the process involved in property tax collection. It has improved the record keeping of properties, has increased tax compliance rates and has enabled the Govt. Officials to make informed decisions. This has also brought transparency in the Property Collection in ULBs. It is also GIS Enabled up to Property Parcel Level for better Tax administration, because of which an additional 30-40% of properties are brought under Tax net.

Overall the service delivery, performance & credibility level of Urban Local Body is looking up.

Centralizing of database has led to standardization of formats and processes that automatically drive economies of scale.

Moving forward

Currently the Mutation of the properties happen without workflow. The workflow the mutation of the properties, such as Complete Property Transfer, Bi-furcation, Amalgamation should be incorporated.

Mobile governance using SMS will help the ULB have a direct touch with the citizen. Citizen friendly updates like when to pay taxes, arrears due etc if implemented will have a huge impact.

Online payment gateway integration is another feature which will help Citizens pay online from anywhere.

Business intelligence tools with Dashboard feature will help the higher authorities analyse the data that's captured and tune their policies accordingly. These reports provide a way what-if scenarios and provide multiple views of the same data.