Property Taxation and Information Systems (PTIS) – The Aasthi
An e-Governance Project of the Govt. of Karnataka

Anjali K Mohan
Balaji Parthasarathy
About the Initiative

This publication is a part of the Capacity Building initiative under the National e-Governance Plan (NeGP) by NeGD with an aim to draw out learnings from various projects implemented in various States/UTs and sharing this knowledge, in the form of case studies, with the decision makers and implementers to benefit them, by way of knowledge creation and skill building, from these experiences during planning and implementation of various projects under NeGP.

Conceptualised and overseen by the National e-Governance Division (NeGD) of Media lab Asia/DeitY these case studies are submitted by e-Governance Practitioners from Government and Industry/Research Institutions. The cases submitted by the authors are vetted by experts from outside and within the Government for learning and reference value, relevance to future project implementers, planners and to those involved in e-governance capacity Building programs before they are recommended for publication. National Institute for Smart Government (NISG), working on behalf of this NeGD provided program management support and interacted with the authors and subject matter experts in bringing out these published case studies. It is hoped that these case studies drawn from successful and failed e-Governance projects would help practitioners to understand the real-time issues involved, typical dilemmas faced by e-Governance project implementers, and possible solutions to resolve them.

Acknowledgment

NISG sincerely thanks all the authors for documenting and sharing their rich experiences in terms of challenges and lessons learned and allowing us to publish and use these case studies in various training programs of NeGD and NISG. NISG also thanks all the external and internal experts who helped review the submitted cases, providing critical observations and for helping in articulating and presenting the case studies, both for class room use as well as a reference article.

Copyright License

This case study submitted by author/s and accepted for publication under the project of National e-Governance Division (NeGD), Ministry of Communications and Information Technology, Government of India by NISG, the program management agency, is governed by the following license of the Creative Commons. For any specific permission/feedback the publisher may be contacted.

(cc) Creative Common License - Attribution-Share Alike 2.5 Generic
The user is therefore free to make derivative works, with credit to the original author. http://creativecommons.org/licenses/by-sa/2.5/in/

Disclaimer

This publication is a work product produced by external authors with information sourced from their own sources as provided under reference in respective articles and is based on experiences with Projects undertaken directly or as research initiatives closely working with the project owners or with their consent to publish the findings. The authors have provided a plagiarism declaration as per project guidelines and National Institute for Smart Governance (NISG) has put in best efforts to validate the authenticity and learning value of the article submitted. NISG has acted mainly as a content reviewer with support from identified expert resources. NISG is not responsible for any plagiarism violations or copyright infringements and respective authors are fully responsible for the same as per respective declarations provided by them. The case study should not be used as a definite source of data.

The case studies are meant for use as a background and quick reference on the topic(s) by e-Governance practitioners, and should not be treated as a guideline and/or instructions for undertaking the activities covered under any e-Governance project/s. It may also be used in a classroom for discussion by the participants undergoing e-Governance related training programs. The document by no means has any commercial intention and is solely developed for the purpose of knowledge sharing.
# Table of Contents

1. Abstract ........................................................................................................................................... 1  
2. Keywords ......................................................................................................................................... 1  
3. Note to Practitioners ...................................................................................................................... 1  
4. Project Background ...................................................................................................................... 2  
5. Project Description ....................................................................................................................... 3  
   5.1 Objectives .................................................................................................................................... 3  
   5.2 Stakeholders ............................................................................................................................... 4  
   5.3 Services Offered ......................................................................................................................... 4  
   5.4 Outcomes and Benefits of the Project ....................................................................................... 7  
6. Issues and Challenges faced during Implementation ...................................................................... 7  
7. Key lessons ....................................................................................................................................... 9  
8. Methodology adopted for case writing ......................................................................................... 9  
9. References ....................................................................................................................................... 10  
   Author ............................................................................................................................................... 10  
   Project Case Fact Sheet ................................................................................................................... 11  
   Annexure ......................................................................................................................................... 11
1. Abstract

This case study documents the Property Taxation and Information Systems (PTIS), also referred to as the Aasthi. The Aasthi is a centrally-driven e-governance intervention currently being implemented (by the Government of Karnataka (as part of the Municipal Reforms Programme (MRP), in 213 urban local bodies (ULBs) in Karnataka, India. The programme, conceived in 2002-03, began implementation in 2005-06. It aims to further the decentralization agenda, by digitizing the revenue departments of the ULBs. The main objective is to strengthen municipal governments in their capacity to raise their own funds, Property tax being the single most important source of revenue for them. The assessment, enhancement and collection of property tax are the responsibilities of the revenue departments of the ULBs. Additionally, the Aasthi is also designed to provide citizens with a transparent and easy-to-access system for calculating and filing property tax. The experience of the Aasthi is valuable to the extent that it is a precursor to the Government of India’s National Mission Mode Project (NMMP) “Municipality” of the JNNURM. This NMMP advocates property tax assessment, enhancement and collection as a reform at the ULB level. The roll out of Aasthi in the state has got delayed for various reasons. Furthermore, in the local bodies where it has been implemented, there is a lack of ownership for and drive to implement Aasthi despite concerted efforts to enhance capacities of the concerned staff at the ULB level. The Aasthi, therefore provides a valuable learning experience for policy decisions on enhancing and strengthening the tax base of the ULBs as well as providing a transparent tax assessment and filing mechanism for the citizen. An understanding of the implementation process provides valuable insights to the possible issues that are likely to be encountered and therefore how these can be mitigated. This documentation will add to the much required experience for electronic service delivery at the local level.

2. Keywords

Property Tax, Information Systems, Urban Local Bodies(ULB), Revenue departments and e-Governance, Karnataka

3. Note to Practitioners

Given the larger urban decentralization agenda as envisaged through the 74th Constitutional Amendment Act (CAA) of the GoI, the Aasthi is a welcome move. It aims to transform ULBs into units of local self-governance. Towards this end, the 74th CAA advocates functional and financial devolution to the ULBS. Historically, local governments in India are a state subject. Consequently, the ULBs are weak institutions with the state often taking decisions on behalf of these governments. Furthermore, these units are also dependent on state grants to meet their basic needs. The Aasthi aims to strengthen the financial base of the ULBs by digitizing the functioning of the revenue departments, the main function of which is assessing and collecting property tax. For practitioners, what is important to comprehend from this
intervention is that the assessment, enhancement and collection of property tax process is a complicated one. The reform, like any other e-governance intervention requires acquiring new skills and perhaps a change in the day-to-day functioning of the ULBs and is often resisted. On one hand, the weak administrative base of the ULBs and on the other, the presence of strong centralised state governments has not allowed for a standard streamlined system of property tax assessment and collection. Any reform in this area not only needs to engage with weak administrative capacities, but also with legacy data maintained over the years by the ULBs and not always in a desirable format. Moreover, property tax reform is a political reform and therefore would also entail an interface with the local political representatives, thereby making reform implementation a complex and daunting task. Nevertheless, it is a much needed change and the experience of the state of Karnataka as a pioneer in introducing this reform is valuable.

4. Project Background

As per the 74th CAA, ULBs are required to function as units of self-governance. To do so they are expected to raise their own revenues. Property taxation is the single largest source of own revenue at the ULB level (Lall and Deichmann, 2006, NIUA, 2010, Mathur et.al. 2009). The Aasthi has been introduced to ensure an enhanced and comprehensive revenue collection by reforming the property tax assessment, enhancement and collection process. It entails the computerisation of the functions of the revenue department (responsible for the assessing and collecting property tax) of all the 213 Urban Local Bodies (ULBs) in the State.

Prior to the introduction of the Aasthi, ULBs in Karnataka calculated property tax as per the annual rental value (ARV) of a property. ARV is the annual gross rent that a property is likely to fetch. It varies across local bodies and is facilitated through government appointed “assessing officers” (Mengers, 1997, 101) responsible for revising the assessment, once in five years. The “assessment of the rental value and fixation of property tax, [is] often subject to negotiation between the official and owner of the property – at a certain price-, with the result that most properties were under-assessed or not assessed at all” (Ibid).

With Aasthi the government introduced self-assessment of tax as per the Capital Value scheme (CVS). The introduction of this scheme, to begin with, eliminates the assessing officers and the discretion they had in terms of assessing both the rental value of the property and subsequently the tax that can be levied. As per the self-assessment scheme, the onus of filing taxes rests with the property owner. Moreover, the CVS rationalizes the calculation of tax whereby it is levied as per the market value of the property, guided by a number of factors: location and usage (residential / commercial / industrial / public); occupancy (self-occupied/ tenanted); construction type; depreciation factor (age of the building). For the purpose of taxation the valuation is based on market value guidelines published under section 45B of the Stamp Act (taxable capital value of property).
Towards this end, the Government of Karnataka modified the Karnataka Municipalities Act, 1964 in 2002–03. The modification advocates tax assessment and enhancement (for commercial and residential buildings and vacant land) process as per the CVS. Section 101-2A advocates and stipulates tax enhancement by 15 percent commencing from the financial year 2005-2006 “provided that the Municipal Council may enhance such property tax upto 30 percent once in three years” The decision on how much to enhance in left to the respective municipal councils. With this, the GoK ensured a standard tax assessment and enhancement policy at the ULB level.

5. Project Description

Aasthi, a GIS based Property Taxation and Information Systems (PTIS), is an e-governance intervention currently being implemented by the Government of Karnataka’s (GoK’s), Directorate of Municipal Administration (DMA). Aasthi is implemented as part of the Municipal Reforms Programme – a programme that aims to further the decentralisation agenda of the Government of India (GoI). While conceived in 2002-03, implementation started in 2005-06 in all ULBs in the state (with the exception of the state capital i.e. Bangalore). The programme is being driven and monitored by the Municipal Reforms Cell (MRC), the technical wing of the DMA.

5.1 Objectives

The main objective of introducing Aasthi is to enhance the revenue base of the ULBs by expanding the tax net as well as to improve citizen’s access to a transparent and easy process of assessing and filing property tax. The project has three target beneficiaries i.e. the GoK as represented by the Department of Municipal Administration (DMA), the ULBs and most importantly the citizen. The utility of the reform varies across these beneficiaries. To the DMA, the utility of the reform lies in monitoring and analysing tax collection trends in various ULBs to ascertain the financial health of the ULBs.

To the local body, the utility lies in improved citizen service, increased accountability and financial soundness. More importantly, the utility lies in increased revenue of the local body as the tool allows local bodies to track tax defaulters as well as unauthorized and under taxed properties to enable an efficient tax management system. The tool provides the ULB an engine to compute the annual property tax for each property registered in the system, raise demand notices on the citizens on an annual basis, generate reports to help the ULB staff in their day to day operations and improve ease of operations by providing a web-based front-end.

Finally to the citizen, the utility lies in enhanced access to an improved service delivery and reduced corruption through a transparent system of property tax assessment and filing.
5.2 Stakeholders

- Implementing Agencies: Directorate of Municipal Administration (DMA) and the Karnataka Urban Infrastructure Development Finance Corporation through Urban Local Bodies.

5.3 Services Offered

To cater to all the three target groups (ULBs, citizens, government), the online tool automates property tax collection of ULBs through an IT system that manages properties and their taxation. It enables online property tax calculation and payment based on the CVS. The online tool is an end to end solution, and includes the following steps within the property taxation and collection process:

1. Calculating tax for a given property as per the SAS
2. Issuing "Form III" or tax paid receipt once the payment has been made in the bank
3. Compulsory Assessment by Local Body (CAL), when the property owner fails to file taxes as per SAS within a given time period
4. Generating an auto demand-collection and balance (DCB) statement for any given property at any point in time
5. Generating an auto demand notice to the property owner after the CAL notice is issued and not complied with
6. Recording property mutation in cases of new registrations, transfers, bifurcations and amalgamations also known as "Khata transactions"

Thus, Aasthi is a comprehensive reform that targets all aspects of property taxation and collection system i.e. valuation, assessment, tax collection and enforcement.

Figure 1: Aasthi: Online features

Source: Maddur TMC website
http://www.maddurtown.gov.in/aasthi/public/citizenIndex.jsp

While, the online application is fully developed with the exception of step 6 mentioned above, i.e. recording of property mutations, in the version that has been
deployed at the ULB level, the DMA has digitized only Form III (or an acknowledgement to the citizen for the property tax paid by the citizen based on a self-declaration). Although Form III “is not a legal document and does NOT confer ownership of the property to the property tax payer” (as printed at the bottom of the Form III), this step was digitized as it enables the ULB to capture property details in the online tool and make continuous updates to the property data as and when a new Form III is generated. The assumption is that the citizen, through a self-assessment, will automatically update any changes to his property and file taxes accordingly. This would allow the local body to maintain updated records of the property tax data. Form III carries important data pertaining to the following fields: i) name of the owner(s), ii) correspondence address, iii) name of the occupier, iv) property address including Khata Number, iv) assessment year, v) challan number and date of filing return, vi) location, vii) site number, viii) sital area of the property, ix) type of construction, x) plinth area of the building, xi) age of the building, xii) nature of use, xiii) whether it is self-occupied/tenanted, xiv) total property tax paid, xv) total cess paid, xvi) name of the bank where the tax has been filed and xvii) date of payment of tax.

Figure 2: Aasthi: Form III

Source: Municipal Reforms Cell, GoK.

For all other steps within the work flow process, the ULBs are forced to depend on the manual system or the paper system. In other words, the Aasthi tool in its current version covers two aspects of the entire PTIS i.e. the issue of Form III and an updation of the property database that supports the tool. Based on the number of
SAS filed, the amount collected, and Form III generated, the online tool generates reports which reflect the efficiency of the ULB in tax collection, in turn, reflecting the financial health of the ULB. These reports are available to officials at the ULB level to understand existing gaps in the tax assessment and collection process, and to the state level (mainly the urban development departments and the DMA) officials to supervise and ascertain the financial health of the ULBs.

1. As a process, to file taxes, the citizen as a first step is required to fill the SAS form (Refer Annexure 1a and 1b) for a given year along with 4 copies of a "bank challan". In the absence of a digitized facility at this level, the state government has through a Government Order (GO) allowed local bodies to appoint "tax advisors" to assist the citizen in filling the SAS forms and the challans. The government entitles the tax advisor to charge between Rs. 25 -.50 (as decided by the ULB) from the citizen for this service.

2. With this set of documents, the citizen approaches the bank to file taxes. The bank enters a bank challan number in all challans. The bank challan number is essential and is unique to the bank for a given year. It then retains two copies of the challan and returns the remaining two copies to the citizen along with the SAS form.

3. The citizen, while retaining one copy for his own records, returns the last copy of the challan to the bill collector in the ULB. The bill collector is required to locate the property in the online tool, update the property details as well as the collection details. If the property is not in the database, the bill collector creates a “new” property in the tool using the limited details as captured in the challan and enters the collection details. The bill collector must sign the bank challan to authorize the creation of new property. It also requires the citizen to put in a request to the ULB to update the GIS map accordingly.

4. If the property details as declared by the citizen do not match the database of the ULB, the citizen is either asked to correct the details and file a fresh SAS or is asked to give an application with the changes in property to the bill collector, who then does a “spot inspection” through a field visit to ascertain property mutations. It is only after this that the citizen can file taxes.

Prior to the deployment of the online tool, the citizen, after getting the challan stamped by the bill collector, would approach the records section to get the equivalent of Form III –also referred to as the “Khata extract.”

What needs to be kept in mind is that while Aasthi is not deployed in its entirety, the ULB also maintains the manual system. In reality, the bill collectors continue to look after the manual system. The online tool is being operated and managed by the IT
cell and the data entry operators employed by this cell. So once the citizen returns from the bank after filing his or her taxes, he/she approaches the bill collector who updates the manual register and stamps the challan copy. The citizen then approaches the IT cell where the IT staff locate the property in the online tool, update all the details and issue a Form III - the equivalent of the khata extract.

The process of calculating tax as well as filing the same in the bank as per this system requires a minimum of half a day or maximum of 24 hours. The reform advocates the location of a bank facility with the ULB premises. Not all ULBs have complied. Where the bank facility is integrated within the ULB premises, the citizen does not spend more than half a day as in the case of Bidar City Municipal Council (CMC). In Hassan, on the other hand, given the absence of the bank facility within the ULB premises, the citizen is required to go out of the premises. He may file the taxes and return the same day to collect form III or he may collect it the next day as per his convenience.

5.4 Outcomes and Benefits of the Project

With Aasthi deployed in only 60 ULB’s so far, the GoK claims that all these ULBs have shown an increase in property assets (the mapping exercise enabled unassessed properties to be brought within the tax net) and a corresponding increase in revenue. The DMA claims that 16,00,000 properties have been brought under the tax net throughout the state. More importantly, the decision to reform the revenue department has resulted in standardisation of property tax valuation, assessment and collection system. Not only is the assessment of taxes now based on a standard process, all properties, their physical attributes and their location has been systematically named and numbered as per the “Guide to Street Naming and Property Numbering" developed by the DMA.

6. Issues and Challenges faced during Implementation

The first challenge that the GoK faced was the standardising of tax assessment and enhancement across the 213 ULBs. Property tax enhancement and assessment is a politically unpopular reform. Most ULB municipal councils were against the decision to enhance tax. While the decision on the degree of enhancement (between 15% and 30% every three years as stipulated in the Act) was left to the respective municipal councils, the DMA, through the MRC successfully overcame this resistance through dialogue, awareness as well as negotiations with the councillors (via the bureaucrats). The MRC, in collaboration with the State Institute of Urban Development, Mysore, also conducted training and capacity building sessions for both the councillors as well as the bureaucrats.

Second, creating an up to date database of the properties within the ULB was also a challenge. It required vast surveys, preparation of digitized ward maps using GIS and assigning each property a unique Property Identification Number (PID) with a corresponding
MIS. Operationalizing Aasthi has “been the biggest challenge” (Initial discussions with the DMA staff) from amongst the basket of reforms. Once the GIS and MIS for a given ULB is completed, the two data bases are required to be matched, with a simultaneous digitization of and matching with manual records (maintained by the revenue department of the ULB prior to introduction of Aasthi) or the legacy data of the ULB to reduce errors and incompatibility. It is only after this laborious task that the online tool is deployed in the local body. While the property database is now ready for all the ULBs and captured in online reports (Refer to Annexure 2 ) as of June 2012, the online tool is deployed in only 60 local bodies. It is in these ULBs that the database is being updated as the SAS details are captured in the system and a computerized Form III is generated. The GIS and the MIS is being synchronized for the remaining 153 ULBs.

The third is that the property databases (through physical surveys) were constructed way back in 2004 – 05 for the larger towns in the state and 2008-09 for the smaller towns. ULBs where the generation of Form III was initiated within a year or two have managed to update their databases on an annual basis. However, ULBs where the tool was deployed after 2 years of survey, the property database is dated. With rapid urbanization, many properties, although visible in the GIS maps, are non-existent on the ground. Similarly, new properties have been created which do not figure in the maps digitized as per the physical survey. Since the tool has been deployed in only 60 of the 213 ULBs, for the remaining 153 ULBs, relevance of the data is a challenge.

The fourth challenge DMA faced while deploying the online tool was the degree of freedom to be given to the revenue department officials of the ULB to affect changes in the database supporting the online tool. The DMA does not allow the ULB to create new properties or make small changes (correction in the erroneous spelling, address etc.) in the online tool. They are recorded in the manual registers, compiled once a month and sent to the DMA for rectification. This slows down the overall process, thereby reducing the efficiency of this tool. The DMA maintains that the local body cannot be given the power to make these changes as it can lead to malpractice. This, in turn has hampered the robust functioning of the online tool.

Fifth, training and building capacities of the ULB staff of the revenue division to engage and interface with ICTs was, and remains a challenge. The existing staff has neither the will nor the skills to engage with technology. A key observation is that the reforms at the ULB level are driven by the Information Technology (IT) cells established in the ULBs, with most reform related work being done by the IT staff in the ULB. In other words, the IT staff is the only one engaging with the online tool. Consequently, not only are the tools not being used by those for whom these are designed (in this case the bill collectors and the other staff of the revenue section of the ULB), the level of engagement with and ownership of these reforms at the ULB level is dismal. Even after a decade of implementation, the DMA
continues to be the owner and driver of these reforms with little or no sense of ownership in the ULBs.

7. **Key lessons**

The implementation of Aasthi is a top-down process whereby the GoK implements through deployment of common standards and processes. In other words, the GoK uses centralization to strengthen revenue departments of the ULBs to facilitate decentralization. While centralization is often justified on grounds of standardization, the case of Aasthi demonstrates that it can also cause incessant delays – to the extent that it can result in the project or the programme not being implemented in its entirety. Supervising and monitoring 213 ULBs is a humungous task. Furthermore, the ULBs have their own socio-political contexts with specific requirements. The experience of Aasthi, calls for the need to balance the top-down implementation with a parallel bottom-up, flexible approach that allows local governments to define and cater to their own requirements.

Secondly, with the online tools not being used by those for whom these are designed in the first place, not only is the tacit knowledge of the ULB staff, critical to refining and driving the interventions, not being employed anywhere in the system, but the integration of these reforms in the day-to-day working of the local body has not happened. This also has impacted the ownership of reforms by the ULBs and the drive to make these reforms successful. Ownership of reforms is critical to ensure that the reforms are implemented effectively. With the ULBs neither using the online tools nor adopting them fully, the reforms continue to be the baby of the DMA.

With the online tool catering to only one step within the entire tax assessment and collection system, the ULBs are forced to maintain a parallel paper-based system. There are two important observations that merit mention here. To begin with, while the tax advisors are a crucial interface between the citizen and the state, they also constitute a new breed of middlemen. The presence of these individuals provides opportunities for exploiting citizens. Two, while Form III is the only step that is digitized, we found out that in some of the ULBs we visited (mainly Bidar and Hassan CMC) there are not many citizens who approach the record section for this document. This raises questions on the relevance of Form III, at least from the perspective of the citizen. While the digitization of Form III helps the ULB to create a robust property database and thereby allows it to get a handle on the potential revenue, it does not assist the citizen to an easy access to file taxes. Digitizing the property tax calculator simultaneously would probably have reached the benefits of this intervention to the citizen.

8. **Methodology adopted for case writing**

The case study documentation is based on field work carried out initially, in 2010 and subsequently, as a more focused activity from February 2012 to May 2012. Field visits while
concentrated in the various state government offices in Bangalore, also included site visits to some of the local bodies in the state. These include, Hassan, Bidar, Mysore, Chanraypatna and Gulbarga. Using a combination of methods such as semi structured qualitative interviews; participant observation, and secondary data review, efforts were made to understand the reforms and their implementation. Field work was concentrated largely in Bangalore, covering key personnel in the DMA and its technical wing the Municipal Reforms Cell (MRC). Interviews were done mainly in Kannada and at times in English. Most interviews were recorded, though at times there were requests for the recorder to be switched off. Finally, in-depth interviews were also conducted with the elected representatives at the local body level. Care was taken to interview councillors from all the political parties represented within the council.

9. References


Author

Case Authors: Anjali K Mohan, PhD scholar, Urban e-governance, IIIT-Bangalore anjalikmohan@iiitb.ac.in and Dr. Balaji Parthasarthy, Professor IIIT-B pbalaji@iiitb.ac.in
Project Case Fact Sheet

- Project name: Property Taxation and Information Systems (PTIS) also referred to as Aasthi
- Funding: Initially by the ADB covering 49 local bodies. Currently being funded by the WB covering 164 local bodies.
- Completion Date: March 31st 2014
- Lending Instrument: Specific Investment Loan
- Implementing Agencies: Directorate of Municipal Administration (DMA) and the Karnataka Urban Infrastructure Development Finance Corporation through Urban Local Bodies.
- Project initiation Year – 2002-2003
- Number of ULBs with computerized basic municipal functions, except PTIS - 213
- Number of ULBs where the online tool has been deployed: 60
- Number of ULBs where the physical survey required for GIS mapping is complete: 213
- Number of ULBs where GIS and MIS validation and matching is being done: 153
- The project got an extension for two year on March, 2012
- Project completion Year – 2013-14

Annexure

- SAS 2011-12 for Building_Annexure 1a
- SAS 2011-12 for Vacant_Annexure 1b
- KMRPRankingReport08-01-2013_Annexure 2