Documentation of Best Practices

Volume 2: Urban Reforms
Under
Peer Experience And Reflective Learning (PEARL)
JnNURM

National Institute of Urban Affairs
December 2009
PEER EXPERIENCE AND REFLECTIVE LEARNING (PEARL)

DOCUMENTATION OF URBAN REFORMS
Under JNNURM

Volume 2: Urban Reforms

Submitted To
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Government of India

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DOCUMENTATION OF URBAN REFORMS
Under
JNNURM

Volume 2: Urban Reforms

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Preface

To meet the challenges of rapid urbanization, the Government of India has launched the Jawaharlal Nehru Urban Renewal Mission (JNNURM) in 2005 with an overarching objective to strengthen and empower urban local bodies/municipalities and to catalyze investment, both public and private, for urban infrastructure and amenities.

However, knowledge support and knowledge sharing amongst JNNURM cities for project implementation, urban reforms and city governance has emerged as a key area for capacity building of ULBs to achieve objectives of the JNNURM. In response to the emerging need, the MoUD approved launch of the Peer Experience and Reflective Learning (PEARL) network on 31st January 2007, under the JNNURM, to provide knowledge support to the cities for project implementation, reforms and city governance. The main objective of the PEARL is to create an effective network of JNNURM cities for cross learning and sharing knowledge on urban reforms, city governance and urban infrastructure projects so that objectives of the Mission can be successfully achieved to make cities more livable, economically vibrant and environmentally sustainable.

Over a short span of three years, several State Governments and Urban Local Bodies (ULBs) have come up with innovative ideas to plan and implement reforms. These urban initiatives are being documented for horizontal learning among cities under PEARL.

The compendium of Best Practices on Urban Reforms is an initiative to highlight some of the commendable work being done by the ULBs. The documentation is expected to serve as a source of learning and sharing of experiences. We are thankful to the Ministry of Urban Development for this opportunity of being the National Coordinator for the PEARL Programme.

Prof. Chetan Vaidya
Director
NIUA
Acknowledgement

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Prof. V.K. Dhar
HUDCO Chair Professor &
PEARL Project Coordinator
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<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ARM</td>
<td>Additional Resources Measure</td>
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<tr>
<td>AMC</td>
<td>Ahmedabad Municipal Corporation</td>
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<td>ARV</td>
<td>Annual Rental Value</td>
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<td>ADB</td>
<td>Asian Development Bank</td>
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<td>AMRV</td>
<td>Average Monthly Rental Value</td>
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<td>BCC</td>
<td>Bangalore City Corporation</td>
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<td>BMP</td>
<td>Bangalore Mahanagara Palike</td>
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<td>BCP</td>
<td>Baseline Change Proposal Number</td>
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<td>BPL</td>
<td>Below Poverty Line</td>
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<td>BMC</td>
<td>Bhubaneswar Municipal Corporation</td>
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<td>BMPC</td>
<td>Bombay Provincial Municipal Corporations Act, 1949</td>
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<td>BBMP</td>
<td>Bruhat Bengaluru Mahanagara Palike</td>
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<td>CVS</td>
<td>Capital Value System</td>
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<td>C-DAC</td>
<td>Centre for Development of Advanced Computing, Pune</td>
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<td>CFC</td>
<td>Citizen Facilitation Center</td>
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<td>CMC</td>
<td>City Municipal Council</td>
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<td>CARD</td>
<td>Computer-aided Administration of Registration Department</td>
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<td>CAA</td>
<td>Constitutional Amendment Act</td>
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<td>DPO</td>
<td>Data Processing Officers</td>
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<td>DCR</td>
<td>Development Control Rules</td>
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<td>DPA</td>
<td>Development Permission Application</td>
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<tr>
<td>DMA</td>
<td>Directorate of Municipal Administration</td>
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<td>DEAS</td>
<td>Double Entry Accrual Based Accounting System</td>
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<tr>
<td>EC</td>
<td>Encumbrance Certificate</td>
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<td>FSI</td>
<td>Floor Space Index</td>
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<tr>
<td>FBAS</td>
<td>Fund Based Accounting System</td>
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<tr>
<td>GDCR</td>
<td>General Development and Control Regulations</td>
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<td>GIS</td>
<td>Geographical Information System</td>
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<tr>
<td>GISDA</td>
<td>Geographical Information System For Dynamic Administration</td>
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<tr>
<td>GOI</td>
<td>Government of India</td>
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<td>GOK</td>
<td>Government of Karnataka</td>
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<td>GOO</td>
<td>Government of Orissa</td>
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<td>GHMC</td>
<td>Greater Hyderabad Municipal Corporation</td>
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<td>GDP</td>
<td>Gross Development Production</td>
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<tr>
<td>GV</td>
<td>Guidance Value</td>
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<tr>
<td>IIT</td>
<td>India Institute of Technology</td>
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<td>ICT</td>
<td>Information and Communications Technology</td>
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<tr>
<td>IT</td>
<td>Information Technology</td>
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<tr>
<td>JNNURM</td>
<td>Jawaharlal Nehru National Urban Renewal Mission</td>
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<td>KESCO</td>
<td>Kanpur Electric Supply Company</td>
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<tr>
<td>KMC</td>
<td>Kanpur Municipal Corporation</td>
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<tr>
<td>KMA BR</td>
<td>Karnataka Municipal Accounting &amp; Budgeting Rules</td>
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<tr>
<td>KMA M</td>
<td>Karnataka Municipal Accounting Manual</td>
</tr>
<tr>
<td>KPS C</td>
<td>Karnataka Public Service Commission</td>
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<tr>
<td>MR &amp; TP</td>
<td>Maharashtra Regional and Town Planning Act</td>
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<tr>
<td>MIS</td>
<td>Management Information System</td>
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<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
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<tr>
<td>MLD</td>
<td>Million Litres per Day</td>
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<tr>
<td>MOHUPA</td>
<td>Ministry of Housing and Urban Poverty Alleviation</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>M O U D</td>
<td>Ministry of Urban Development</td>
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<tr>
<td>M C C</td>
<td>Moradabad City Corporation</td>
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<tr>
<td>M C H</td>
<td>Municipal Corporation of Hyderabad</td>
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<tr>
<td>M R C</td>
<td>Municipal Reforms Cell</td>
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<tr>
<td>N E G P</td>
<td>National e-Governance Plan</td>
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<tr>
<td>N I C</td>
<td>National Information Centre</td>
</tr>
<tr>
<td>N I U A</td>
<td>National Institute of Urban Affairs</td>
</tr>
<tr>
<td>N G O</td>
<td>Non-Governmental Organisation</td>
</tr>
<tr>
<td>O &amp; M</td>
<td>Operation &amp; Maintenance</td>
</tr>
<tr>
<td>O M C</td>
<td>Orissa Municipal Corporation</td>
</tr>
<tr>
<td>P C M C</td>
<td>Pimpri Chinchwad Municipal Corporation</td>
</tr>
<tr>
<td>P T I N</td>
<td>Property Tax Identification Number, Public Grievances &amp; Redressal System</td>
</tr>
<tr>
<td>P G R</td>
<td>Public Key Infrastructure</td>
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<tr>
<td>P K I</td>
<td>Pune Municipal Corporation</td>
</tr>
<tr>
<td>R C U E S</td>
<td>Regional Center for Urban and Environmental Studies</td>
</tr>
<tr>
<td>R C C</td>
<td>Reinforced Cement Concrete</td>
</tr>
<tr>
<td>S A S</td>
<td>Self-Assessment System</td>
</tr>
<tr>
<td>S M S</td>
<td>Short Message Service</td>
</tr>
<tr>
<td>S T P I</td>
<td>Software Technology Park of India</td>
</tr>
<tr>
<td>S T Q C</td>
<td>Standardization, Testing and Quality Certification</td>
</tr>
<tr>
<td>S R O</td>
<td>Sub Registrar Offices</td>
</tr>
<tr>
<td>S U D A</td>
<td>Surat Urban Development Authority</td>
</tr>
<tr>
<td>T S P</td>
<td>Team Software Process</td>
</tr>
<tr>
<td>T A S A</td>
<td>Technical Advise Support Agency</td>
</tr>
<tr>
<td>T M C</td>
<td>Town Municipal Council</td>
</tr>
<tr>
<td>U A V</td>
<td>Unit Area Value system</td>
</tr>
<tr>
<td>U I D S S M T</td>
<td>Urban Infrastructure Development Scheme for Small and Medium Towns</td>
</tr>
<tr>
<td>U L B</td>
<td>Urban Local Body</td>
</tr>
<tr>
<td>U R I F</td>
<td>Urban Reforms Initiative Funds</td>
</tr>
<tr>
<td>V Z</td>
<td>Value Zone</td>
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Introduction

Background

The Jawaharlal Nehru National Urban Renewal Mission (JNNURM), launched by Government of India in 2005, is aimed at facilitating cities to take financially sustainable initiatives to improve service levels. The objective is to create economically productive, efficient, equitable and responsive cities. The Mission focuses on: integrated development of infrastructure services; securing linkages between asset creation and maintenance for long term project sustainability; accelerating the flow of urban sector investments; planned development of cities; renewal and re-development of inner city areas; and universalisation of urban services. Under the Mission, an investment close to Rs. 100,000 crore is planned for the period 2005 – 12, to be pooled by national government, state governments and Urban Local Bodies (ULBs). JNNURM has two sub-missions: Urban Infrastructure and Governance (UIG) and Basic Services to the Urban Poor (BSUP), and these are being implemented by Ministries of Urban Development (MoUD) and Housing and Urban Poverty Alleviation (MoHUPA), Government of India (GoI), respectively.

JNNURM links investments with policy reform to make cities work more efficiently and effectively. The expected outcomes from the reforms are: (i) universal access to a minimum level of services; (ii) establishment of city wide framework for planning and governance; (iii) modern and transparent budgeting, accounting and financial management systems at the municipal level; (iv) financial sustainability for municipalities and other service delivery institutions; (v) introduction of e-governance in the core areas of municipal governance; and, (vii) transparency and accountability in urban service delivery and management. The state governments and the cities have given their commitment to implementing these reforms in order to receive JNNURM funds for urban investments.

Urban Reforms

Reforms in the urban sector are not new in India, and during the last two decades, a number of initiatives to implement reforms at the urban level have been undertaken in the country. The enactment of the 74th Constitutional Amendment Act is itself a major reform effort to strengthen urban administration and to decentralize powers and functions to the third tier of governance.

Introduction of double entry accounting system across all local bodies in Tamil Nadu and introduction of e-governance across all the local bodies in Andhra Pradesh are examples of initiatives taken by some of the states. Similarly, issue of municipal bonds in Ahmedabad, streamlining and simplification of issue of building permissions in Pune and Mysore, and introduction of self-assessment system of property taxation in Hyderabad are examples of city level reform initiatives.

Most of these reforms have been individual initiatives, often project based, at respective city and state level, without a common framework for integration at national level. The JNNURM synthesized these reform initiatives of the past and designed a comprehensive urban reform agenda which forms a part of the tri-partite Memorandum of Agreement (MoA) between Ministry of Urban Development (MoUD), the state government and the urban local body. The states and the cities have committed to a specific timeline for implementing these reforms within the Mission period of 7 years.

The main objective of the reforms under JNNURM is to provide an enabling environment for the growth of the cities by improving urban governance, enhancing effective urban service delivery and augmenting civic infrastructure. Financial
sustainability of ULBs and para-statal agencies such as Water and Sewerage Boards, Public Health Engineering Departments, Public Work Departments, Development Authorities etc can be brought about through reforms in property tax, improved accounting practices, and levy of appropriate user charges. The enhanced role of the ULBs would also warrant administrative and structural changes along with process re-engineering of the key work streams such as municipal accounts, collection of taxes and levies, approval of building plans, citizens centric services such as issues of birth and death certificates, citizens’ grievance redressal etc.

Types of Reforms

The Reform Agenda comprises a set of “Mandatory” and “Optional Reforms” to be implemented at the State and ULB level. The twenty three reforms are further classified as State level and ULB level reforms; however this nomenclature is merely for ease of categorisation since most of the reforms require close co-ordination between the local and state government. eg. the ULB reforms such as E-governance and Municipal Accounting also require state intervention in the initial stages of implementation.

The following section lists the reforms mandated under JNNURM.

Mandatory Reforms

<table>
<thead>
<tr>
<th>Table 1: State Level Reforms</th>
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<tbody>
<tr>
<td>Implementation of 74th Constitution Amendment Act.</td>
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<td>Integration of City Planning and delivery functions</td>
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<td>Rent Control reforms.</td>
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<td>Rationalisation of Stamp Duty to bring it down to no more than 5% within next seven years.</td>
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<td>Repeal of Urban Land Ceiling and Regulation Act (ULCRA)</td>
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<td>Enactment of Community Participation Law to institutionalize citizen participation and introducing the concept of Area Sabhas in urban areas.</td>
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<td>Enactment of Public Disclosure Law to ensure preparation of medium-term fiscal plan of ULBs/Parastatals and release of quarterly performance information to all stakeholders.</td>
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</table>

Progress in implementation of the reforms is different in various states and the JNNURM cities. JNNURM has incentivized strengthening of local governance through implementation of 74th CAA. In Jharkhand, municipal elections have been held after a gap of 22 years. Legislation has been enacted for establishment of ULBs in Sikkim, Arunachal
Pradesh and Mizoram. The public transportation function has been transferred to the city governments in Punjab. Punjab state government has also constituted Punjab Municipal Infrastructure Development Fund for raising resources by tapping capital markets. The city of Faridabad has taken Community Participation to the next level by involving the community in monitoring project progress from tendering to the execution stage. Rajasthan has come up with a comprehensive land titling legislation. Surat was the first city to set up a dedicated Urban Transport Fund followed by Pimpri-Chinchawad. Metropolitan Urban Transport Authorities have been established in the mission cities of Hyderabad, Jaipur, Chennai, Bangalore and Mumbai. Nagpur has successfully implemented pilot projects for continuous water supply systems. Many cities like Ranchi, Bodhgaya, Nagpur, Nanded, Nashik, Thane, Asansol have committed to provide 100% metering of water supply. The reform commitments under JNNURM have facilitated Mission cities like Vadodara to revise their water tariffs to more sustainable levels. Mission Cities are also leveraging private sector expertise and capital in implementing projects. Kolkata, a comprehensive sewerage and water supply scheme is being implemented under the PPP model with JUSCO. Madhaya Pradesh is in the process of establishing Water Regulatory Authorities in the state, while Orissa and Rajasthan have proposed to establish Water Boards. In order to ensure equity in service delivery, ULBs are ensuring access to water to slum dwellers.

**Peer Experience and Reflective Learning Network (PEARL)**

The JNNURM aims at transforming urban policies and city management practices for creating dynamic and sustainable cities that would result in improvement in quality of life in cities. The challenges in achieving the objectives of the Mission are: (i) wide coverage both in terms of cities and population; (ii) wide scope in terms of programme components and urban reforms being implemented; and (iii) limited capacity in the state and ULBs to implement the programme.

The state and city governments have limited capacities to access JNNURM funds for infrastructure investments and to undertake the mandatory urban reforms. Knowledge support and knowledge sharing amongst JNNURM cities for project implementation, urban reforms and city governance has emerged as a key area for capacity building of ULBs to achieve objectives of the JNNURM. It was felt that cities identified under JNNURM, for financing urban infrastructure and other aspects of urban development, can network amongst themselves for cross learning and sharing knowledge, hence effectively manage their cities. “Peer Experience and Reflective Learning” (PEARL) is an initiative under JNNURM to support cities to actively pursue activities in implementation of projects and reforms.

**Objectives of PEARL**

The main objective of the PEARL is to create an effective network of JNNURM cities for cross learning and sharing knowledge on urban reforms, city governance and urban infrastructure projects so that objectives of the Mission can be successfully achieved to make cities more livable, economically vibrant and environmentally sustainable. Focus of PEARL activities are on installing various processes and achieving outcomes of JNNURM - projects and reforms. It would provide a forum for sharing knowledge and experiences in implementing urban reforms and city governance, and the challenge would be to sustain the networks beyond the Mission period.

**Grouping of Mission Cities**

JNNURM cities are organized into 5 Groups/Networks having similar socio-economic profile, complexities of urban problems and issues, size and urban growth patterns, along with natural affinity to peer pair were formed. The ‘peer-pairing’ for cities in JNNURM is on the basis of:

- Socio-economic profile and key economic drivers
- Size of the city
- Urban growth pattern
- Urban character/complexities

Therefore, under PEARL, the Mission Cities have been categorized into 5 groups on the basis of their urban character and urban issues facing them and these
groups are (a) Mega Cities; (b) Industrial Cities; (c) Mixed economy; (d) Heritage Cities; and (e) Cities of Environmental Importance.

The role of the mission cities is to use the networks for cross learning and sharing knowledge on successful urban projects, best practices, reforms and city governance – key challenges, key processes and strategies for removing roadblocks and impact so that objectives of the mission can be successfully achieved.

Progress So Far

This flagship programme has achieved the following key milestones:

- PEARL network was launched on January 31, 2007 at Hyderabad. Over 100 delegates spreading across 63 JNNURM cities and 20 Indian States participated in the event.
- The MoUD identified Network Convener and Potential Knowledge Managers (KMs) for these groups. National Institute of Urban Affairs (NIUA) was identified as the National Network Coordinator for PEARL activities.
- Review Meeting of PEARL Network was held on March 3, 2008 to identify key activities of the five groups of Mission Cities. Issues like sustaining PEARL beyond JNNURM, opportunities to fill the knowledge gaps and mid course correction for cities that are lagging behind were raised and discussed.
- This was followed by another review in July 2008 that highlighted the need to focus on outputs and outcomes of reforms and investments under JNNURM.
- First Roundtable of KMs and mission cities was held on December 4, 2008 at NIUA, New Delhi. The main objective of the roundtable was to discuss contents of the proposed PEARL website – India Urban Portal (www.indiaurbanportal.in), which is the gateway to the 65 cities under JnNURM and linked to the main

Table 4: Peer Pairing to Form Network for PEARL, JnNURM

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Regional Workshop on Heritage, Culture and Religion was held on February 2, 2009 at Madurai. The main objective of the workshop was to share and discuss various initiatives being taken under the 15 identified JNNURM Cities falling under this Group. Key issues at the ULBs level that included lack of linkage between urban planning and heritage development; lack of comprehensive guidelines and clear road map for action to protect the heritage cities were discussed.

Regional Workshop on Mega Cities was held on July 4 2009 at New Delhi. The main objective of the workshop was to discuss on the JNNURM Urban Reforms, PPP and the innovative initiatives taken in this regard in the respective cities of the Mega cities Group.

National Workshop on PEARL was held in Hyderabad on November 6 2009. The major objectives of the workshop were to identify success stories, issues and way forward for the PEARL program.

PEARL website (India Urban Portal – www.indiaurbanportal.in) is operational and linked with JNNURM website (Annexure 1).

Documentation of best practices in planning and implementation of urban infrastructure projects, reforms, innovations, among others is in progress and is disseminated for cross learning among cities.

Newsletter for PEARL, one of the major activities of the project is being carried out – Three Issues of “PEARL Update” has been circulated.

NIUA and the Internet Business Solutions Group, CISCO systems Inc. has signed a Statement of Work on February 9, 2009 for capacity building initiatives for making PEARL an effective network among JNNURM cities.

Cities Alliance is likely to support Knowledge Network Support Unit for PEARL.

USAID and DFID had extended support to PEARL.

Water and Sanitation Program will help PEARL to analysis, document and disseminate communication material on urban reforms.

Asian Development Bank (ADB) will provide knowledge products to the network.

World Bank Institute will provide support on capacity building for urban officials and KMs.

Documentation of Best Practices

State Governments and ULBs have initiated reform processes to improve the level of urban governance. While numerous ULBs are introducing change initiatives some of which are extremely progressive and impressive, these are being taken in isolation and without sharing the benefits of their experiences with others. These urban initiatives are being documented for horizontal learning among cities under PEARL.

The first best practices report “Documentation of Best Practices” Volume 1, under PEARL, has been published and disseminated among important stakeholders. The select Best Practices included in the first document include a cross-section of categories such as Sectors/ Services (Water Supply, Solid Waste Management, Sewerage/ Drainage, Roads/ Flyovers, and Public Transport System), Urban Reforms, Public Private Participation (PPP), Urban Poverty, Disaster Management and Environment (Annexure 2).
This publication is the second report designed to document Urban Reforms initiated under JnNURM. These are select Best Practices that are structured in the standard format as developed under PEARL (Annexure 3). This covers a brief summary, key dates, situation before, the new approach, strategy to develop the initiative, the process, results achieved, sustainability, lessons learnt, recognition and replicability.

At the eve of the fourth anniversary year of JnNURM, this document is a tribute to the successful achievements made by the Mission Cities in achieving the goals under this flagship programme.

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The motivation has been to focus on Best Practices in Urban Reforms at State and City Level. This includes case studies from State level (Karnataka, Andhra Pradesh, Orissa, and Tripura) to ULB levels (Ahmedabad, Surat, Pimpri Chinchwad, Bangalore, Hyderabad, Kanpur and Pune) to have optimum level of convergence and synergy from JnNURM cities. Some of the case studies have also been taken up from other cities, which makes this documentation much more enriched in achieving the desired goal of PEARL.
Municipal Reform Initiatives:

- Municipal Reform Cell: Government of Karnataka

The main objective of the reforms under JNNURM is to provide an enabling environment for the growth of the cities by improving urban governance, enhancing effective urban service delivery and augmenting civic infrastructure. Many State Governments as well as cities have implemented these reforms to bring about an overall progress in the work process. The Municipal Reforms Cell (MRC) created under the Directorate of Municipal Administration, Government of Karnataka (GoK) is also one of the initiatives to bring about better governance in Urban Local Bodies (ULBs) through the use of technology and business process reengineering.
Title of the Reform:

Municipal Reforms Initiatives
Government of Karnataka

State/City: Karnataka
BP Code: URF-##-####-14##-1109

Previous Situation

The Municipal Reforms Cell (MRC) was created in 2005 under the Directorate of Municipal Administration, Government of Karnataka (GoK) to bring about better governance in Urban Local Bodies (ULB) through the use of technology and Government Process Reengineering. It focuses on creating robust database of records in various departments like revenue, engineering, accounting, health etc and has the day-to-day administration of the ULB based on accurate data, well defined processes and more efficient service delivery to citizens by using Information Technology (IT) /Communication tools and technologies.

Initially, the ULBs in Karnataka were using manual systems for collecting taxes, processing of accounts, issue of birth and death certificates etc. For property taxation, they were following Annual Rental Value (ARV) system of taxation. Assessing officers did assessment of Tax where in they exercised considerable discretion in the revision of assessment. As the property tax details were maintained in hard copy form it was difficult for the ULBs to track the tax defaulters and to trace unauthorized and under taxed properties thus resulting into poor coverage of properties, low revenue and inefficient tax management system. As part of its urban reforms process, GoK introduced Capital Value Based Property Taxation System along with schematic GIS and MIS of all properties in ULBs of Karnataka.

ULBs were also maintaining their accounts under single entry cash based system. This was an incomplete accounting system wherein ULBs were not aware of what they own and what they owe. There were no financial reports generated by the accounting system for fund management, resource mobilizations and budgetary control. As part of its reforms process, GoK initiated implementation of Fund Based Double Entry Accrual Accounting System along with Computerization of Accounts in the ULBs of Karnataka.

Public complaints were received in hard copy form or through telephone calls by the ULBs. It was difficult for the public to register the complaints. It was equally difficult for the ULBs to track the complaints and hence timely redressal of the complaints was difficult. As part of its reforms process, GoK introduced the Public Grievance Redressal System in the ULBs of Karnataka.

Maintaining the Birth and Death information in hard copy form were another critical area. Registration was being done manually. The issuance of Birth and Death certificates used to take more time on account of manual searching of entries and writing the certificates. As part of its urban reforms process, GoK introduced the system of computerizing the Birth and Death records, online registration of Births & Deaths and issuing of computerized certificates in the ULBs.
Information regarding municipal services delivered, tenders, financial information, Council and municipal staff details etc. were not available to public. There was no system to make this information readily available to the public. As part of its urban reforms initiatives, individual ULB websites were created that hosts all the information of ULBs.

**The Reform**

GoK with assistance from the Asian Development Bank (ADB) and World Bank has launched Reforms in Service Delivery and Accounting along with Computerization in all 213 ULBs of Karnataka to bring transparency and accountability in administration and to improve better municipal citizen interface.

The reforms initiative proposes to upgrade all ULBs from the existing manual system to Computer based systems. This has helped ULBs streamline their Municipal systems through process re-engineering and use of IT tools and Technologies, which will bring in transparency and ensures smoother delivery of services to the citizens of Karnataka. As a part of Accounting Reforms initiative, all ULBs are proposed to switch from Single Entry Cash Based Accounting System to Double Entry Accrual Based Accounting System.

**Objectives**

- Improve the governance of the ULBs.
- Enhance and augment tax revenues and make the ULBs self-reliant.
- Bring in better management of funds and improved disclosure of financial performance by the ULBs.
- Easy registration and certification of Births and Deaths.
- Have citizen friendly complaint registration and tracking system.
- Enable the Citizens and other city stakeholders to understand the city’s problems better and constructively participate ULB governance.
- Create a map linked database of all the properties in the ULB.

- Ensure availability of data for all the Government departments to use it for further value addition.
- Bring transparency into affairs of ULBs and make them more accountable.
- Develop all the municipal software application on a web based module on a centralized architecture.

**Implementation Strategies**

These Reform initiatives involve implementation of following activities:

**Phase-I**

- Website
- Public Grievance and Redressal
- GIS Based Property Tax Information System
- Double Entry Accrual Based Accounting System
- Birth & Death Registration & Certification

**Phase-II**

- Water Tax
- Trade License
- Ward Works and Assets Management
- Building Plan Approval
- e-Procurement

**Implementation of Reforms involved the following components**

A. Website: For each city, a website has been launched which provides

- Basic information sharing about the city with the citizens
- A portal for the Government-Citizen Interface
- Information on City Finances
- Details of elected staff
- Details of Municipal staff
- Sharing of useful forms with the citizen
- A gateway to the web based Public Grievance Redressal, Property Tax Information System, Accounting System, Birth & Death applications, etc.
B. Public Grievances & Redressal System (PGR):

- PGR is a system that enables citizens to register their complaints / suggestions with their ULB
- Easy to register complaints and track the complaint through its lifecycle
- Multiple access channels - Internet, Phone, Email and Paper Form
- Productivity tools in the form of auto-assignment, complaint forwarding, auto-escalation etc for the administrators to improve complaint redressal rates
- Provides structured feedback to the Government and Citizen on the nature of complaints
- Citizen-friendly Geographical Information System (GIS) reports
- Brings accountability to the complaint handling process.

This helps in Field Survey of all the properties in the ULB
Preparation of ward maps with individual properties marked on the map with roads etc.
Every property will have a unique property ID Number
Digitization of ward maps and integrating with field survey data
Easy to track the tax defaulters
Database of all the properties available with ULB
Automatic calculation and generation of demand receipts of property tax based on the Capital Value System (CVS) method
Generation of Bank Deposit Challans and other reports
Supports Property Registration/ Transfer / Bifurcations / Amalgamation
Easy Office, Bank and Field payments, with the ability to integrate with Credit Card and ATM systems
GIS is enabled till PropertyParcel Level
MIS reports generated at City, Ward, Street levels as decision support tools for the revenue department.

Property Tax Software application computerizes the revenue department of the ULB and provides an entire IT system that manages properties and their taxation. The Property Tax collection System aims to streamline the process of property tax collection, improve the record keeping of properties, increase the tax compliance rates, enable the Government Officials to be informed about the decisions, bring transparency to the Property Collections in the ULB and enable the citizens to pay taxes in an easy and convenient manner.
D. Accounting Reforms – Double Entry Accrual Based System:

Accrual Based is a method of accounting where the transactions & events are recorded as & when the right to receive or the obligation to pay it is established. Karnataka Municipal Accounting and Budgeting Rules 2006 and Karnataka Municipal Accounting Manual in line with National Municipal Accounting Manual are published to implement the Double Entry Accrual Based Accounting System in ULBs. This helps in capturing of every transaction & events of financial nature, at least in part thereof, under Debit and Credit simultaneously. The Individual Balances under each heads gives the ready summary of that head of account at any time. Recording also takes care of Assets & Liabilities.

Uses of this method help in:
- Matching the Income & expenditure occurred in a particular period.
- Monitoring the efficacy of the Receivables.
- Differentiating between Capital & Revenue items.
- Bringing about the accuracy in the Accounting.
- Measuring the Performance through the Preparation of Balance Sheet periodically.

Accounting software supports Double Entry Accrual Based Accounting System. The product features include:
- Fixed Asset Management: Asset definition, depreciation, disposal, sale and transfer of assets.
- Revenue Management: Receipt accounting with computation of Cess, including reversals.
- Expenditure Management: Work Orders, Bills Accounting, Sub-ledger payment, Standard Deductions.
- Budgeting: Decentralized budgetary planning, budgetary controls.
- Standard MIS and statutory reports, Bank Reconciliation.

E. Birth & Death Registration & Certification System:

- Easy Birth and Death Registration & Certification.
- Online or offline registration through hospital or registered doctor with an automated computer-generated Registration ID.
- Generation of Reports of Birth, Death, and Still Born registered and certificates issued.
- National and state registrar office can access local databases of new births and deaths to analyze population census.
- Reporting format on births, cause of death, stillbirths, parent’s literacy / education status and other demographic data.

Institutionalising of Reforms: Municipals Reforms Cell, Directorate of Municipal Administration

Administrative Support

- The Government of Karnataka has created a reform-focused office called MRC. The duty of the officers appointed for MRC is to implement and oversee the progress of reforms in the state.
- Cadre and Recruitment Rules have been amended and Senior/Junior Programmers posts have been created prescribing minimum qualification of B.E (CS/IT)/MCA for Senior Programmers and B.Sc (IT)/BCA for Junior Programmers.
- For the first time IT Engineers posts in ULBs were filled up through competitive exams.

Professional Support

- Survey of India has been appointed as Technical Advise Support Agency (TASA) by the Directorate of Municipal Administration (DMA) for implementation of GIS program and Software Technology Park of India.
(STPI) have been appointed as consultants for setting up of Karnataka Municipal data center at Bangalore and for carrying out the Operation & Maintenance (O&M) of the same.

Technical Support

- Web based applications have been developed free of cost with the support of an Non-Governmental Organisation (NGO) called e-Governments Foundation. All the ULBs data are stored in the central servers maintained by the MRC at Bangalore. Thus, an ULB IT Engineer or other municipal Staff based on their roles with user ID and password can access the ULB e-Gov applications in any Computer system with Internet connection.

Project Outcome

The above innovative process has resulted in a foolproof system of reforms implementation with following outcomes -

- GIS based Property Tax Management System has enabled ULBs to identify the un-assessed properties and bring them under tax net. This has resulted in identifying 30-40% un-assessed properties.
- The Fixed Assets worth crores of rupees otherwise unnoticed have been physically identified, enumerated and brought into records.
- Each ULB has a comprehensive Website provides not only information but also the transaction capabilities. The Websites are designed to provide:
  - City Financials
  - City council and staff
  - Land use, Water and SWM Statistics
  - Citizen friendly Pie charts and GIS Reports
- Web based applications has enabled the Government in centralized monitoring of ULB progress, implementation of various projects and also to monitor proper discharge of their duties.
- The Public Grievance & Redressal module introduces transparency & accountability. Complaints can be prioritized and assigned to the appropriate official. This system is not only useful to redress individual citizen’s complaints, but also useful to understand “what kind of problems occur at which parts of the city and during what time of the year”.
- Further, e-Governance has resulted in higher transparency, general awareness about ULB administration and increased accountability.
- Institutionalization of reforms has enabled grooming of in house experts who have conducted numerous training for ULB staff regarding e-Governance applications and their role and responsibility.

The implementation of e-Governance System is mandated by both State and Central Government, and made applicable to ULBs under the project. In the first phase of Computerization, City Corporation and City Municipal Councils are covered which started in February 2004. The same has been extended to the next level of ULBs, i.e. Towns Municipal Councils in the second phase of the project from 1st April 2007. Town Panchayats is covered in the third phase, which started in September 2008.

Sustainability

As explained above these reforms have been institutionalized. Hence they are system driven. The following frameworks of reforms are highly sustainable and replicable

1. Municipal Reforms Cell: The various officers appointed in MRC shall ensure effective implementation of E-Governance modules. They offer online/onsite technical assistance to ULBs to sort out various implementation issues.
2. State Level GIS Agency: Survey of India has been appointed as a TASA for implementation of GIS in all the ULBs.
3. IT Engineers appointed to implement the project: The IT Engineers appointed in the ULB are assigned the task of implementation and further maintain E-Governance modules in their respective ULBs and coordinate with ULB, Field
Level staff and Municipal Reforms Cell for this purpose.

4. District Urban Development Cells and Nodal Officers: Project Directors and Nodal Officers positioned in the District Urban Development Cell attached to the respective DC office have to handhold the ULBs in implementation and maintenance of e-Governance initiatives taken-up by the State Government.

Achievements/ Results

A. GIS Based Property Tax:

GIS was implemented in 49 ULBs of Karnataka under Nirmal Nagar during 2004. 100% progress has been achieved in 13 towns. Implementation in other ULB’s is under progress. Moreover, during 2007-2008, GIS was implemented in 74 ULBs of Karnataka under Karnataka Municipal Reforms Project, Phase I and 90 ULB’s under Karnataka Municipal Reforms Project, Phase II during 2008-09

- Field Level Training for 164 ULB staffs was given and the survey work has already started. Implementation under remaining 200 ULBs will be fully completed at the end of 2010.
- Out of estimated Rs.35 lakhs properties, physical survey of Rs. 22.75 lakhs properties have been completed
- Out of 5028 wards the complete property tax system is working in 794 wards
- 100% works have been completed in 13 ULBs
- Out of 5028 wards, 1297 digitized ward maps have been created.
- More than Rs. 6 lakhs un-assessed properties have been identified during the survey

B. Fund Based Accounting System (FBAS):

Implementation of Fund Based Accounting System in 51 ULBs of Karnataka under Nirmal Nagar from 1st April 2006 and 4 ULBs of Karnataka under Nirmal Nagar from 1-4-2007 have taken place. Implementation of FBAS has also taken place in 69 ULBs of Karnataka under Karnataka Municipal Reforms Project from 1st April 2007, 4 ULBs under Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) from 1st April 2008 and 85 ULBs from 1st April 2009. With this all the ULB’s in Karnataka have been covered.

- Therefore, FBAS is introduced in all 213 ULBs in phased manner
- Opening balance sheet of 55 ULBs have been completed capturing Rs. 2050 Crores worth of assets of phase I towns
- Opening Balance Sheet, receipts & payment account, income & expenditure account, Balance Sheet & city management reports generated by 55 ULBs in phase - I
- Opening balance sheet of 69 ULBs has been completed in phase II towns
- New accounting system is fully operational in all the ULBs of Karnataka.

C. Computerisation of Birth and Death Registration:

Birth and Death registration has been made computerized in 48 ULBs under Nirmal Nagar project and 83 ULBs under Karnataka Municipal Reforms Project.

- Therefore, on a whole, 131 towns have computerized for birth and death registration. Action is also being taken for completion of computerization of Birth & Death registration for remaining 82 towns before December 2009 onwards. Training were provided for the Officers / staff of all the computerized ULB’s
- Computerized registration of Birth & Death with an automated computer generated registration ID is generated.
49,22,165 Birth and Death records are in electronic format already.

D. Computerisation of PGR:

Computerization of PGR is launched in 49 towns under Nirmal Nagar and 57 towns in Karnataka Municipal Reform Project. Computerization of PGR in remaining 107 towns is under progress.

- Training was provided for officers / staff of PGR computerized ULB’s.
- PGR is fully functional in 106 ULBs
- For the year 2009-10, 63337 Complaints have been received out of which 47566 have been redressed.

E. ULB Website:

49 ULB website is launched under Nirmal Nagar and 155 ULB website is launched under KMRP. Remaining 9 ULB website is under progress. Action is taken to complete the remaining at the end of December 2009.

Replicability

The implementation of reforms and computerization of municipal functions is mandated by both State and Central Government and made applicable to ULBs under different projects. In the first phase of Computerization, City Corporation and City Municipal Councils are covered which started in February, 2004. All modules have been completed except GIS based property tax which is 80% completed. The same modules have been extended to the next level of ULBs, i.e. Towns Municipal Councils from April 2007 in the second phase and implementation is under process. In the last phase Town Panchayats are covered and the implementation has been started from September 2008.

Impact of the Reform

- GIS based Property Tax management System has enabled ULBs to identify the un-assessed properties and bring them under tax net. This has resulted in identifying 30-40% un-assessed properties.
- The Fixed Assets worth crores of rupees otherwise unnoticed have been physically identified, enumerated and brought into records.
- Each ULB has a comprehensive Website providing not only information but also transaction capabilities. The Websites are designed to provide:
  - City Financials
  - City council & staff
  - Land use, Water and SWM Statistics
  - Citizen friendly Pie charts and GIS Reports
- Web based applications has enabled the Government in centralized monitoring of ULB progress in implementation of various projects and also to monitor proper discharge of their duties.
- The Public Grievance & Redressal module introduces transparency & accountability. Complaints can be prioritized and assigned to the appropriate official. This system is not only useful to redress individual citizen’s complaints, but also useful to understand “what kind of problems occur at which parts of the city and at what time of the year”.
- Further, reforms and e-Governance has resulted in higher transparency, general awareness about ULB administration and increased accountability.
- Public participation in budget preparation process
- Physical verification of fixed assets and Identification of assets
- Preparation of Financial statements at any given point of time.
- Greater transparency in accounting and disclosure.
- Readily available financial information for the ease of decision making.
- Yearly preparation of Balance sheet, Receipt and payment account, income and expenditure account etc
- Inherent internal controls and internal checks to safeguard the ULB from frauds and errors.

Documentation of Reforms process is under preparation.
Contact:

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<th>Mr. Anjum Parwez, Commissioner Municipal Administration, Karnataka.</th>
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<tr>
<td>Address of the Organization/Agency:</td>
<td>MUNICIPAL REFORMS CELL, Directorate of Municipal Administration1-4, 6th Floor, IT Park, Industrial Estate, Bangalore – 560 010</td>
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<tr>
<td>Telephone No.:</td>
<td>080-23003100; 080-23003111</td>
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Rationalisation of Stamp Duty:

Rationalisation of Stamp Duty: Orissa State

JNNURM requires states to rationalize Stamp Duty to less than 5% including levies and surcharges, to lead better compliance and eliminate distortions in the market. Many States have taken steps to reduce the stamp duty rates so as to ensure registration of properties at actual or market values. The Orissa Government has reduced stamp duties from 8% to 5% on residential and commercial projects in the State.
Previous Situation

Earlier, stamp duty in the State was 11% (8% plus 3% additional surcharge) in town areas and 8% in rural areas. Now it has been fixed at 5% for all areas with a view to discourage under-valuation of properties at the time of sale. The Orissa cabinet approved a proposal of the revenue and disaster management department to reduce the stamp duty on apartments and multi-storey buildings from existing 8% to 5%. This has brought uniformity among the individual house and apartment owners in the state. The new rate of stamp duty has been effective from 5 August 2008.

Before implementation of the programme the rate of the stamp duty to be paid at the time of registration was not attributed on a higher side. So that the registrant public were registering their deeds usually without facing any problem. When the market value of all types of land (movable/immovable) were decided to cover under the benchmark valuation guideline fixing the correct market value plot wise, kissam wise, the reform for reduction of stamp duty from 8% to 5% had been decided in the meeting chaired by Honorable Chief Minister in the shape of Additional Resources Measure (ARM) on dated 22.03.06 as well as taking into account the resentment of the people. In this context, an Memorandum of Understanding (MOU) had been signed by the state govt. to take a mandatory reform under JnNURM and Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT).

An amendment to the Orissa Development Authority Act and Orissa Town Planning and Improvement Act, waiving the imposition of additional 3% town area surcharge collected at present, was approved by the cabinet. While 5% stamp duty collected in rural areas will go entirely to the State Government. In the urban areas, 2% out of this 5% stamp duty will devolve to the urban development authorities. However, the 2% registration fee on the land deals will continue as before.

Though the cabinet, in one of its earlier decisions, had decided to reduce the stamp duty in the state to 5% from 8%, however, the State Government was unable to declare it due to the imposition of the model code of conduct for the general elections in the state.

The Reform

The Orissa Government has therefore reduced stamp duties from 8% to 5% on residential and commercial projects in the State. The stamp duty reduction would be applicable to real estate projects in the state, both residential as well as commercial with retrospective effect from February 16, 2008, the date of notification of reduction. Property transactions in the city are expected to double following the stamp duty reduction and also the repeal of additional surcharge of 3% on land and apartments.

Fig 5: Orissa Government Decides to Reduce Stamp Duty
Goals of the Reform

To promote registration of properties, investments in real estates, gain revenue and boost industrial development; Orissa State Government reduced the stamp duty from 8 % to 5 %. This was also implemented as a mandatory reform under JnNURM.

Implementation Strategies

High rates of the levy of stamp duty are after argued to generate/sustain the problems of the registrant. In order to avoid such problems, State Govt. aimed to achieve a peak rate of 5 % and accordingly the approval of Honorable Chief Minister had been obtained to bring necessary amendment in Orissa Stamp Amendment Rules. Thereafter, the proposal was approved by the state cabinet for implementation of the scheme.

Budgetary Implications

The Revenue and the Disaster Department of the State got Rs.504 crores in the first phase in the financial year 2007-08 on this reform.

In the year 2008-09 (up to July), the total collection was Rs.99, 89, 50,000. But in the year 2009-10 (up to July), the total collection was Rs.74, 70, 80,000. From the above it is clearly seen that the collection of stamp duty was reduced significantly due to the rationalization of stamp duty to 5 %.

Again it is noticed that in the year 2008-09, the target for the collection was Rs. 400 Crores, against which the collection was Rs. 472 Crores. But in the year 2009-10, the target is Rs.400 Crores, but according to the revenue dept. estimation; it is very difficult to touch the collection up to Rs. 200 Crores as the reduction of stamp duty has reduced the revenue generated. And this loss will be borne by the Central Government. This is the only challenge before the state govt.

Reform Outcome

- The stamp duty cut will be applicable to real estate projects, both residential as well as commercial, from the date of notification of reduction.
- This has brought uniformity among the individual house and apartment owners in the state.
- The cut from 8 % to 5 % will encourage fair play in land and property transaction.
- People will now voluntarily disclose the real value of the property they are buying.
- The steps taken by the state government is in sync with the guidelines of JnNURM to rationalize the stamp duty structure throughout the country. At this time of economic recession, such steps of the government will certainly help stabilize the real estate sector in the state.
- This would also generate more revenues for the state exchequer and help curb the black money market, as earlier people used to keep property on ‘Power of Attorney’ basis or in reduced value price due to high stamp duty.

Impact of the Reform

- The measure will ensure higher revenue with minimum hassles.
- It will also be effective in increasing overall revenue from registration of properties in the state.
- The sale-purchase ratio (of property) will be 3-4 times higher now.
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Accrual Based Accounting System:

- Improved Financial Management of Bhubaneswar Municipal Corporation
- Accounting Reforms in Urban Local Bodies of Karnataka

ULBs have traditionally followed the practice of cash basis of accounting. The Government of India has been advocating reforms in municipal accounting systems focusing on double entry based systems to facilitate integrated financial management and transparency of municipal accounts. The thrust of this reform is to ensure that ULBs become financially sound and sustainable for undertaking new programmes. The Bhubaneswar Municipal Corporation and ULBs in Karnataka have undertaken accounting reforms with for adopting the Accrual Based Accounting System.
Title of the Reform:
Improved Financial Management of Bhubaneswar Municipal Corporation

State/City: Orissa / Bhubaneswar
BP Code: URF-###-###-2140-1109

Previous Situation

Over the decades, the Bhubaneswar city has grown enormously in terms of population size and territory. In view of the rapid growth of the city, the Municipal Corporation failed to provide the minimum urban basic services to the citizens of the city. With the growing demand to provide infrastructure and better services in the city, there was a felt need to generate and mobilize more financial resources within the Municipal Corporation to meet its requirements. Financial information of the Municipal Corporation was generally incomplete, inconsistent, un-confirmed and un-reconciled.

Some major problems that was being faced by the Bhubaneswar Municipal Corporation (BMC) were:

- BMC was following cash-based single entry accounting system for maintaining the municipal accounts. Accounts were maintained manually. All the limitations of the single entry accounting system were prevailing in the current scenario. Revenue and capital items were not distinguished. Receivables, payables, non-cash items of expenditure were never considered;
- Budgeting was done on an incremental basis and there was no scientific methodology of forecasting both revenue and expenditure. There was no proper system of budget encumbrances for works done at the sanction stage. Hence there was a regular problem of overshooting the budget cap and requests for re-appropriation of the funds were normal;
- There were no consolidated asset records in place. Information in regard to various assets were scattered;
- BMC had not adopted the Orissa Municipal Corporation (OMC) Act, 2003 in its entirety, as it lacked well drafted and classified rules and the 2004 rules seem to be inadequate;
- The accounts department was working merely as the final bill approval authority and cheque issuing authority. No finance functions per se were handled by the department;
- There was too much of reliance on Octroi compensation received from the State Government; and
- The pay-roll accounting and the stores/inventory were outside the accounts department;
- Accounts section did not have information about the demand raised by holding tax section, market section, license section and engineering sections.

The Reform

74th Constitutional Amendment Act (CAA) required the state governments to initiate a process of reforms in ULBs. Government of Orissa (GoO) embarked on a programme of municipal reforms in its ULBs. The government requested FIRE-D for pursuing a multi-track program to help ULBs in Orissa.
to improve delivery and management of urban services and enhance their creditworthiness. FIRE-D agreed to support the above activities for ULBs in the State of Orissa. The pilot project was introduced at BMC. FIRE-D subsequently agreed to support the following activities for ULBs in the State of Orissa:

- Develop a municipal accounting manual for state-wide application;
- Improve resource mobilization and creditworthiness in BMC; and
- Introduce and implement Double Entry Accrual Based Accounting System (DEAS) for improved financial management in BMC.

This programme focuses on one of these activities, i.e., to provide technical assistance to BMC to improve its resource mobilization and creditworthiness. Based on preliminary analysis, FIRE-D project agreed to carry out a rapid assessment of the financial situation of BMC, identify areas of intervention, and support BMC in implementation of identified intervention. The main tasks under the programme included:

- Reviewing of the organizational structure of the revenue department of BMC;
- Analyzing past revenue and expenditure trends of BMC;
- Reviewing present methods of tax and non-tax assessment, billing and collection, asset inventory, management information system, budgeting, accounting, auditing, and other operational aspects of financial management;
- Identifying a menu of potential short-term interventions required to strengthen revenue base and expenditure management of BMC;
- Organizing a study visit of officials to cities that have successfully implemented financial management reforms;
- Organizing consultation workshops to discuss various measures identified to improve revenue base; and
- On basis of the consultation workshop, developing a short-term action plan (one year) for BMC for improving its revenue base.

The timing of this initiative was particularly relevant in context of the ongoing reforms agenda of Ministry of Housing and Urban Poverty Alleviation (MoHUPA) and Ministry of Urban Development (MoUD), Government of India (GoI) for improved service provision and governance in ULBs in India through recently launched Jawaharlal Nehru National Urban Renewal Mission (JNNURM). Bhubaneswar is one of the select cities under the reform mission. Municipal reforms are mandatory under the JNNURM.

**Goal of Reform**

- To develop a State Municipal Accounting Manual for Orissa; improve resource mobilization and creditworthiness in BMC; and introduce and implement double entry accrual...
based system and improved financial management in BMC.

- The components of such reforms included improving organization structures, financial management systems and working out ways for revenue enhancement from own resources.
- Train the staff of BMC to continue DEAS on their own after the exit of the consultants.

**Implementation Strategies**

The reform was implemented in two phases:

**Phase – I**

- Assessment of prevailing situation of accounting in BMC: Review and assess the current situation with respect to the introduction of double entry accounting and identify and recommend activities to be implemented in the two Municipal Corporations.
- Review and Assessment of the prevailing situation of financial management: Review the current situation with respect to financial management and identify areas of improvement in expenditure management, cash management, receivables management, budgeting, costing of services, internal controls, maintenance of asset registers, and auditing, and other operational aspects of financial management in the MCs. Help with design of improved financial management practices and identify activities to be implemented.

**Phase - II**

- Implementation of accrual accounting manual: To support the implementation of the double entry accrual accounting system by providing training to the municipal employees, commencing with the development of the opening balance sheet. To ensure that an opening balance sheet is prepared in accordance with the norms and guidelines for the preparation of opening balance sheets lay down in the Government of Orissa manual by the start of the April 1, 2006 fiscal year. To assist the respective municipal staff in understanding and implementing the new accounting system manual and carry out on-the-job training, as well as formal training programs, on specific elements of the new accounts manual.
- Implementation of improved financial management: To support the Municipal Corporations in the implementation of improved financial management systems and provide handholding support and training to the municipal employees.
- To support and ensure the finalization of the first fiscal years financial statements under the new accounting system.
- To support and ensure the finalization of the first fiscal years statements under the new improved financial management system.

The following strategy was used to achieve the desired goals:

- Review of functions and structure of revenue and accounts department of BMC;
- Rapid municipal financial appraisal by review of existing financial management system including analysis of financial records and statements to know about past revenue and expenditure trends of BMC;
- Identification of areas of intervention through consultative process with administrative and elected officials of BMC, and other stakeholders including community to decide on the process/short term action plan, to identify menu of potential short-term interventions required to strengthen revenue base and expenditure management of BMC ; and
- Support to BMC for implementation of the action plan by providing handholding support to BMC for a period of 12 months to implement the action plan, and also providing training to staff on DEAS.
A team of a national consultant and local consultant was appointed by FIRE-D to carry out the following activities.

- Review and assessment of the financial situation with respect to introduction of double entry accounting was been done;
- Review of the current situation with respect to financial management was done and new areas of improvement with regard to expenditure management, cash management, receivables management, budgeting, costing of services, internal controls, maintenance of asset registers, auditing, and other operational aspects of financial management were identified;
- Modern accrual-based, DEAS which is mandatory requirement under the Municipal reforms under JNNURM was introduced and implemented at BMC.
- Training to 25 officials of BMC was provided. They were given thorough training on accrual based system of accounting and Tally 9.0, etc. As a part of capacity building FIRE-D organized a five-day study tour for four employees of BMC to Thane Municipal Corporation, Maharashtra. A new DEAS cell was formed in BMC and four staff members were designated to that cell to independently do the accounting entries for the year 2009-10.

Challenges / Constraints Encountered

The following are the major constraints:

- Delay in flow of accounting information due to long drawn business processes. The delay also results from reasons like inadequate skill base, apathy of staff/officials to divulge information, etc.
- As there was no compulsion to prepare neither the financial statements nor Management Information System (MIS) reports, they were not readily available. In addition, trained staff was not available to prepare such statements; and
- Resistance to adopt the new system was a major bottleneck in the process of implementation.

Project Outcome

A state-level Orissa Municipal Accounting Manual has been developed in accordance with stipulations of the MoUD’s NMAM.

Provisional opening balance sheet as on 01.04.2006, financial statements for the year 2006-07 & 2007-08 were prepared and published.

The finalization of the financial statements for the year 2008-09 is going on.

Staff & officials of DEAS cell of BMC are doing the accounting of BMC for the year 2009-10 with Tally 9.0 software on their own without support of local consultants.

Achievements/ Results

- Continuous monitoring and good support and active participation of officers and staffs of various departments like finance & accounts, cash, audit, engineering, property tax, vehicle, market, license of BMC along with Commissioner, Deputy Commissioner.
- Appointment of good national and local consultants.
Contact:

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<th>Contact Person:</th>
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</tbody>
</table>
Title of the Reform:  
**Accounting Reforms in Urban Local Bodies of Karnataka**

**State/City:** Karnataka State  
**BP Code:** URF-###-####-1400-1109-2

***Previous Situation***

The Urban Local Bodies (ULB) in Karnataka, were maintaining their accounts under single entry cash based system. This was an incomplete accounting system wherein ULBs were not aware of what they own and what they owe. There were no financial reports generated by the accounting system for fund management, resource mobilizations and budgetary control.

The general need for an improved accounting system emanated from the following:

- **74th Constitutional Amendment:** The status of ULBs had been raised to Institutions of Local Self Governance with the devolution of additional functions and funds. The ULBs responsibilities thus stood increased requiring an improved reporting system of the financial activities and financial positions.

- **Mandatory Reform under JNNURM and UIDSSMT Projects:** Implementation of Double Entry Accrual Based accounting system in the Urban Local Bodies has been made mandatory under JNNURM and UIDSSMT Projects.

- **ULBs as new Investment Centers:** With growing populace ULBs are turning to be major socio-economic growth centers. The contribution of urban centers is known to be as high as 40% of the country’s Gross Development Production (GDP) and this contribution is growing. The incomes of ULBs mainly in the form of property tax, water tax, advertisement tariff, trade license, etc. have got the tremendous potential of turning them into self-reliable and financially sound position. However, to account for these incomes and ascertain proper financial positions, their accounting system, were needed to be upgraded to double entry accrual based method.

- **Enabling Participatory Budgeting:** Each ULB needs to prioritize its investments in various projects/works. Whether it is construction or maintenance of proper roads, regular water supply, improved civic amenities, higher sensitivity to public grievance etc. Public confidence could be won if budget allocation was made based on the feedback received from general public. However, such budget allocation and its implementation could be achieved only with a strong financial accounting and reporting system.

***The Reform***

Government of Karnataka (GoK) with assistance from the Asian Development Bank and World Bank launched the Accounting Reforms in ULBs of Karnataka to bring transparency, accountability, better management of funds and improved disclosure of financial performance and status of ULBs.

The main objectives were:

- Review the existing accounting rules and revise the same.
- Build the capacity accounting staff of ULBs.
- Provide professional assistance to ULBs for switch over from single entry cash based accounting system to double entry accrual based accounting system.
Maintain the accounts of assets, liabilities, incomes and expenses of ULBs.
Generate financial reports for disclosure true and fair view of financial performance and status of ULBs.
Bring more transparency into the accounting system by publishing the annual accounts of ULBs.
Ensure proper fund management with citizen participation in budgeting of annual receipts and payments.
Generate additional revenues for ULBs through proper resource management backed up by strong financial records.
Make ULBs self-sustainable in the long run.
Have web enabled accounting system for centralized monitoring by the State.

Implementation Strategies

The approach that was adopted for the implementation of the accrual based double entry system was:

- Implementation in 55 ULBs with effect from 2006 & in 69 ULBs from 2007.
- Accountants (B.Com graduates) appointed through Karnataka Public Service Commission (KPSC).
- State Level Consultant for technical support.
- Field level Consultants (CA Firms) for every ULB.
- Training modules developed.
- e-Governance Financial software deployed in 124 ULBs.

Achievements/Results

The achievements and result of launching Accounting Reforms in ULBs (The state of Karnataka has got 213 ULBs) was an improved, efficient and transparent system of fund management and financial performance of the ULBs with well maintained –

- Opening Balance Sheet
- Receipts and Payment Account
- Income and Expenditure Account
- Balance Sheet and
- City Management reports generated by 51 ULBs.

Replicability

This system has been successfully launched in 55 ULBs with effect from 2006 and in 69 ULBs from 2007 of the whole state of Karnataka.
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</tr>
</tbody>
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Property Tax:

- Ahmedabad, Gujarat
- Bangalore, Karnataka
- Kanpur, Uttar Pradesh
- Hyderabad, Andhra Pradesh

The property tax reforms under JNNURM aim to establish a simple, transparent, non-discretionary and equitable property tax regime resulting in higher coverage as well as improved collection of property tax. Under the Mission, most ULBs have undertaken steps to reform various aspects of property tax like in Ahmedabad and Kanpur. The self-assessment model has been introduced in many cities like Hyderabad and Bangalore.
Title of the Reform:
Property Taxation
Ahmedabad Municipal Corporation

State/City: Gujarat/Ahmedabad
BP Code: URF-###-###-0812-1109

Previous Situation

The Ahmedabad Municipal Corporation (AMC) governs the city of Ahmedabad. AMC is the seventh most populous city as per Census 2001. The AMC’s limits have expanded to almost 464 sq. kms in 2006 and the Municipal Corporation boundary houses a population of almost 50 lakh. AMC is divided into 6 zones and 54 wards for better administration. AMC is divided into 6 zones and 54 wards for better administration.

The AMC’s system of property tax assessment prior to 2001-02 was very complicated and in many ways irrational. Being based on notional rental value of properties, the assessed values were very low. These could not be revised due to the constraints of the Rent Control Act and related judicial decisions. Consequently, the AMC could only raise the tax rates, which stood at 73% of the annual ratable value in the case of residential properties and 83% for non-residential properties. These high rates had a psychological impact on the property owners, which lowered their willingness to pay the tax.

Another undesirable outcome of the low assessment of property values was that 72% of the total number of residential properties in Ahmedabad and 31% of the commercial properties were exempted from paying the general property tax. There was also enormous disparity between assessment of self-occupied and tenant-occupied properties. The ratio of tax burden was 1:15 in favor of the former. The end result of this irrational structure of the property tax system was that people perceived the system to be grossly unfair and non-transparent. It also led to corrupt practices in the tax department of AMC and

the system was commonly described as “Inspector Raj”

In terms of financial health, the AMC is considered to be one of the strongest ULBs in India. However, before 1993, AMC was a loss-making ULB with accumulated cash losses of Rs. 350 million and bank overdraft to the extent of Rs 22 crore.

During a deteriorating financial situation in 1994, AMC launched a major effort to strengthen its capacity to develop commercially viable projects. As a result, AMC was able to wipe off the cash losses in just five months, cleared all overdrafts, and became a surplus city by the end of 1994-95. In 1995-96 a surplus of Rs. 60 crores and in 1996-97 a surplus of Rs. 70 crores was registered by the corporation which helped in leveraging large funds, turn around its financial position and achieve a closing cash surplus of Rs. 2,142 million in March 1999.

The Reform

Property tax is the second most important source of revenue for AMC. Especially after the elimination of Octroi tax, property tax has become a very important source of revenue generation for the corporation. In order to utilize this source to the maximum of its efficiency, AMC administration understood the deficiencies of the existing system of property taxation and replaced it with an alternative more rational system.

AMC initiated reforms in a phased manner to accommodate and minimize the legal and administrative challenges that are usually attached to reforms of this nature. In the first phase of reforms, a number of effective steps were taken to increase property tax collection with immediate effect. First, the municipal records of properties were
updated and a large number of previously unrecorded properties were added. Next, all existing properties whose assessed value was grossly inadequate were reassessed. Finally, a number of punitive actions were taken against property tax defaulters. These included disconnection of water supply and drainage services; attachment of movable and immovable properties; and occasionally auction of properties for tax recovery.

In the second phase of reforms, the AMC decided to evolve an "Area-Based Property Tax System" to replace the existing system based on annual ratable value. The groundwork for the same began in 1999. It was an elaborate exercise involving large-scale survey of properties throughout the city and computerization of data. Nearly one million properties were surveyed. Corporation appointed teams of a practicing valuer and a helper who measured the property carried out this survey. As far as the policy matters were concerned, certain amendments had to be made to the Bombay Provincial Municipal Corporation Act (applicable to Gujarat) to accommodate the new system. Also, AMC became the first Municipal Corporation in India to adopt the amendment.

This again was a very comprehensive exercise consisting of special task group meetings, brain storming, publication of special notices and bills to the property owners, conducting hearings to receive objections, and piloting the proposed changes through the standing committee and finally seeking an approval of the state government.

The entire process was completed in about two years and the new system was introduced in the second half of 2001-02. AMC has amended the Act instead of making a permanent change to it, which gives it an option of switching to the old rent based method as well. Thus, property tax can either be collected under Section 129 for Rateable Value based system or under Section 141B for Carpet Area based system. Under the new formula, the property tax is computed by applying a per unit tax rate to the total carpet area of the property and adjusting for location, age, type of use and whether the property is owner or tenant occupied.

**Implementation Strategies**

The new assessment mechanism was adopted in the year 1999 through the Gujarat Act 3 of 1999. All the details related to property were computerized by the AMC in the year 1994. Section 141-B (1) of the Bombay Provincial Municipal Corporations (BMPC) Act, 1949 (amended in Gujarat Act 3 of 1999) provides that property tax shall be levied annually on buildings and lands on the basis of the rate per square meter of the carpet area. Multiplying factors giving weight age for:

- **Location**: (4 gradations based on land value)
- **Age**: (5 gradations)
- **Residential Properties: Type of building** (5 gradations)
- **Non-Residential Properties: Use of building** (6 gradations)
- **Occupancy**: (Self Owned / Tenant)

Any addition to building treated as separate unit for assessment.

\[
\text{Property Tax} = \text{Area} \times \text{Rate} \times \text{Location factor} \times \text{Age factor} \times \text{Type of building or use factor} \times \text{Occupancy factor}.
\]

**Updation**

In order for the new system to work effectively, it is very important that the property records and other guidance values are updated at a regular interval.

- Owing to this, the property records are updated periodically. The last update happened in the year 2004 and currently, a zone wise updating of property records is being carried out.
- The guidance values were last revised in the year 2005 and it is decided that they would be revised every four years.
- However, recently the Govt. of Gujarat has adopted the method of revising land value records every year. Hence,
frequency of revision of guidance value would be done on annual basis. However for doing so an amendment in the provisions of the BPMC Act will be required to be carried out.

- AMC has town planning & development department, which sanctions plans for new building constructions as well as addition/alteration in existing buildings.
- Moreover, town-planning department issues Building Use Permission to the new constructions. One copy of building plan approval as well as building use permission is sent to Property tax department for the purpose of assessment.
- Change of ownership / occupation is captured whenever any amendment for taxpayer’s details is applied for.
- Also, the land values are usually identified from the “Jantri” (the year 2000) i.e. the ready reckoner used for the assessment of stamp duty on property transactions.
- Due to the very recent revision of “Jantri”, the new values have not been amended in the property tax bills for year 2008-2009, the new land values are expected to be used from the next billing cycle i.e. from April 2009.

Factors of Success:

The various initiatives of AMC for increasing property tax revenues have shown impressive results.

- The initial drive to increase the properties in the tax net and actions against defaulters produced immediate results. The tax revenue income doubled within two years and has increased steadily since then.
- Another major jump came in 2001-02 when the new area based system was introduced.
- The property tax was de-linked from the Rent Control Act, which was thought by the citizens as a very complex and irrational method to calculate property tax.
- Dispute of assessment was totally removed among old and new buildings.
- Self-assessment is possible and hence discretion availed by lower level staff and corrupt practices can be easily curbed.
- There are several tangible advantages of the new system. First being, the number of exempted properties came down drastically from 62% to 28%.
- The disparity between owner-occupied and renter occupied properties also went down from 1:15 to 1:2.
- In addition, there was an increased flexibility in increasing the tax rate every year.
- The most impressive of all these being, the number of litigations has become nil because of increased level of transparency.

Due to rationalization of the property tax assessment system, the zone wise demand of property tax too went down with the implementation of the new system.

**Table 5: Zone wise Demands during 2000-02-AMC**

<table>
<thead>
<tr>
<th>Name of Zone</th>
<th>Demand of 2000-01</th>
<th>Demand of 2001-02</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Zone</td>
<td>6261.14</td>
<td>4498.52</td>
</tr>
<tr>
<td>East Zone</td>
<td>1758.70</td>
<td>1452.86</td>
</tr>
<tr>
<td>North Zone</td>
<td>1725.66</td>
<td>1723.15</td>
</tr>
<tr>
<td>South Zone</td>
<td>2547.67</td>
<td>2107.68</td>
</tr>
<tr>
<td>Central Zone</td>
<td>2865.16</td>
<td>2865.46</td>
</tr>
<tr>
<td>Head Office</td>
<td>1485.80</td>
<td>1577.14</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16644.13</strong></td>
<td><strong>14224.81</strong></td>
</tr>
</tbody>
</table>

Source: Ahmedabad Municipal Corporation

As far as use of modern technology is concerned, e-governance as a tool for Self Assessment of Property Tax and an Aid in Billing and Collection has played a very important part in the success of the property tax reforms carried out by AMC and hence, it forms an integral part of the system. In order to provide a very transparent process of assessment of property tax and hence avoid any discretion and litigation, AMC provides a tool on its website.
This tool helps the citizens in self-assessment of the property tax on their individual properties by plugging in very basic information. The user friendliness of the website and ease in navigation has made this a widely accepted initiative among the citizens. The following screen shots from the AMC website (www.egovamc.com) illustrate this tool. Apart from this, the citizens can also get the amount of property tax on their property assessed by going to any one of the 25 civic centers. Not only in the assessment of property tax, has E-governance also played an important role in billing and collection of the same. The tool available on the website also helps in generating the annual bills and keeps the records of bills paid and those that are due. The use of same database throughout the entire system has also lead to increased amount of ease in data maintenance and management.

Apart from these, the AMC has already initiated efforts for mapping the properties using Geographical Information System (GIS) for property tax collection. AMC plans to start a full-fledged GIS powered property tax database by 2009-2010. The city civic centers and Kalupur Bank branches spread throughout the city have gone a long way in ensuring increased convenience to the taxpayers.

For the newly merged areas into AMC in 2006, the Gujarat Municipal Finance Board already surveyed most of the properties. This was done under the initiative to implement area based property tax assessment systems in all ULBs of Gujarat. For the municipalities, wherein the survey was not conducted, AMC conducted surveys. It was decided to offer a gradual increase in property taxes to these newly merged areas. If tax calculated as per new formula was more than what the property owners were paying earlier, the owners were given an option of paying the difference over three years time period. 25% of the difference could be paid in the first and second years respectively and remaining 50% of difference could be paid in the third year.

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**Fig 9: GIS Based Property Tax Collection System**

**Fig 10: Property Tax Online Report Details**

**Achievements/ Results**

- **Self-Assessment System (SAS)**

All the records of property tax in the system have already been placed on AMC website (www.egovamc.com) where any citizen can find out details for not only his property but those of his neighbour also. AMC has also placed a ready reckoner for the calculation of property tax explaining various factor values and calculation thereof. Thus, method of tax assessment is way beyond self-assessment. It is almost an auto-assessment for any property.

- **Collection Ratio**
The collection ratio for last three year (2005-06 to 2007-08) shows increase in the property tax collection after the new carpet area based method adopted by AMC. Last three years figures show that growth in property tax collection is more than 100% of the demand indicating high efficiency in collection of current as well as arrear collection.

**Table 6: Property Tax Collection vs Demand-AMC**

<table>
<thead>
<tr>
<th>Type of Property (In Cr.)</th>
<th>Residential</th>
<th>Commercial</th>
<th>Industrial</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand Raised 2005-06</td>
<td>37.43</td>
<td>101.78</td>
<td>16.54</td>
<td>155.75</td>
</tr>
<tr>
<td>Demand Collected 2005-06</td>
<td>42.62</td>
<td>134.84</td>
<td>23.17</td>
<td>200.63</td>
</tr>
<tr>
<td>% Collected vs demand raised</td>
<td>113.87</td>
<td>132.48</td>
<td>140.08</td>
<td>128.82</td>
</tr>
<tr>
<td>Demand Raised 2006-07</td>
<td>40.89</td>
<td>122.32</td>
<td>18.36</td>
<td>181.57</td>
</tr>
<tr>
<td>Demand Collected 2006-07</td>
<td>49.78</td>
<td>158.01</td>
<td>28.43</td>
<td>236.22</td>
</tr>
<tr>
<td>% Collected vs demand raised</td>
<td>121.74</td>
<td>129.18</td>
<td>154.85</td>
<td>130.10</td>
</tr>
<tr>
<td>Demand Raised 2007-08</td>
<td>43.12</td>
<td>152.37</td>
<td>23.05</td>
<td>218.54</td>
</tr>
<tr>
<td>Demand Collected 2007-08</td>
<td>51.94</td>
<td>215.91</td>
<td>30.88</td>
<td>298.73</td>
</tr>
<tr>
<td>% Collected vs demand raised</td>
<td>120.45</td>
<td>141.70</td>
<td>133.97</td>
<td>136.69</td>
</tr>
</tbody>
</table>

Source: Ahmedabad Municipal Corporation

The coverage ratio for the year 2004-05 was 44% for residential and 38% for industrial and commercial properties. AMC had anticipated the same to be around 70% in the year 2008.

**Replicability**

Many cities in India are continuing with the property tax system based on notion standard rent or ratable value of properties. They are also facing the same problem that AMC did. Based on AMC’s experience it is safe to say that the new area-based system is a very viable alternative. It has already been implemented in some other cities of Gujarat and Maharashtra State is looking at implementing the same. Kolkata Municipal Corporation has already formed a committee with Deputy Commissioner Tax for AMC as one of the team members for property tax reforms in its jurisdiction.

The prospects of sustainability are exceptionally good keeping in mind the response that the new system has received. The fact that the number of litigation against assessment has almost reduced to nil is a proof of the wide acceptability of the new system. The ease and convenience to the taxpayers is what would go a long way in making this system sustainable in a long term.

**Impact of the Reform**

The property tax reforms at AMC show that a rational, equitable, and transparent system of property taxation can be more acceptable to taxpayers while generating higher revenues for the ULB. To administer the system, an excellent database is essential. It is very important to ensure that the taxpayers are not inconvenienced by the procedures and facilities for obtaining information or making payments. There should be clear policies and rules to deal with tax defaulters and corrupt staff and these should be strictly enforced.
**Contact:**

<table>
<thead>
<tr>
<th>Contact Person:</th>
<th>Shri Utpal C. Padia, Deputy Municipal Commissioner, Ahmedabad Municipal Corporation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address of the</td>
<td>Ahmedabad Municipal Corporation</td>
</tr>
<tr>
<td>Organization/Agency:</td>
<td>Sardar Patel Bhawan, Danapith, Ahmedabad: 380001</td>
</tr>
<tr>
<td>Telephone No.:</td>
<td>91-79-25354989; 91-79-25359114</td>
</tr>
<tr>
<td>E-mail:</td>
<td><a href="mailto:utpalpadia@egovamc.com">utpalpadia@egovamc.com</a></td>
</tr>
</tbody>
</table>
Title of the Reform:

**Property Taxation**

Bruhat Bengaluru Mahanagara Palike

**State/City:** Karnataka /Bengaluru  
**BP Code:** URF-###-###-1424-1109

### Previous Situation

The Bangalore City Corporation (BCC) as it was earlier called was established in the year 1949 by merging two municipalities, ‘The City Area’ and ‘The Cantonment Area’. At the time of creation of the Corporation the population of the city was 7.5 lakh. From 87 wards prior to 1991 the number of wards increased to 100 with the addition of new areas and the name from BCC it came to be called Bangalore Mahanagara Palike (BMP). The jurisdiction of Bangalore was further increased in the year 2007, with the merger of neighboring 7 City Municipal Councils (CMC), one Town Municipal Council and 110 villages around Bangalore. With the addition of these periphery areas the Bangalore Mahanagara Palike came to be called Bruhat Bengaluru Mahanagara Palike (BBMP) from 16 January 2007. The number of wards increased from 100 to 147 wards. With an estimated population of 75,00,000 in 2009, Bangalore is the third most populous city in India and the 28th most populous city in the world.

Most cities introduced the Area-Based System during the year 1999 and 2002. However, after this first revision of property tax none of the Urban Local Bodies (ULBs) have been successful in revising the property tax assessment except Bangalore. BCC has shown a way how the area-based system can be as effective and revenue productive as in a system under capital valuation.

With Octroi being abolished in the year 1979, the main source of revenue to BBMP is the Property Tax and Grants from the State Government under the State Finance Commission recommendations. There was significant gap in the revenue receipts and revenue expenditure, which had led to severe stress on the fiscal position. Heavy debt-servicing expenditure, pay scale revisions as per the recommendations of the pay commission, and narrow tax base, were the major reasons for the continued fiscal imbalances.

### The Reform

Like most cities in India Bangalore set in motion the property tax reforms in the year 2000 when it first brought the Optional Self Assessment of Property Tax Scheme. Under the scheme the location of the property was classified into zones based on the published guidance value notified by the Department of Stamps and Registration. For each of the Zones the rental rates per square foot were pre-determined linking building to location, type and quality of construction and age of the buildings. The zone, here, refers to a land value category rather than to a contiguous area and hence, a street could fall in any zone in the municipal jurisdiction depending on the rental value assigned. A handbook has brought out the zoning of the city for the purpose of assessment to tax. The division of the city into zones was in effect the first level of reform to revalue properties on an annual rental base, but used an approach that features an assessment under a capital value system.

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
<th>Growth Rate</th>
<th>Year</th>
<th>Revenue</th>
<th>Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995-96</td>
<td>400.00</td>
<td></td>
<td>2000-01</td>
<td>1570.00</td>
<td>33.05</td>
</tr>
<tr>
<td>1996-97</td>
<td>600.00</td>
<td>22.45</td>
<td>2001-02</td>
<td>1630.00</td>
<td>3.82</td>
</tr>
<tr>
<td>1997-98</td>
<td>850.00</td>
<td>41.67</td>
<td>2002-03</td>
<td>1670.00</td>
<td>2.45</td>
</tr>
<tr>
<td>1998-99</td>
<td>980.00</td>
<td>15.29</td>
<td>2003-04</td>
<td>1950.00</td>
<td>16.77</td>
</tr>
<tr>
<td>1999-00</td>
<td>1180.00</td>
<td>20.41</td>
<td>2004-05</td>
<td>2000.00</td>
<td>2.56</td>
</tr>
<tr>
<td>2005-06</td>
<td>2300.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: BBMP
Table 8: Bangalore Municipal Corporation: Selected Measure of Property Tax Revenue Performance

<table>
<thead>
<tr>
<th>Year</th>
<th>Assessed Properties</th>
<th>Property Tax Collections per property</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent Increase</td>
</tr>
<tr>
<td>1995-96</td>
<td>303,393</td>
<td>...</td>
</tr>
<tr>
<td>1996-97</td>
<td>338,178</td>
<td>11.5</td>
</tr>
<tr>
<td>1997-98</td>
<td>353,618</td>
<td>4.6</td>
</tr>
<tr>
<td>1998-99</td>
<td>380,956</td>
<td>7.7</td>
</tr>
<tr>
<td>1999-00</td>
<td>388,983</td>
<td>2.1</td>
</tr>
<tr>
<td>2000-01</td>
<td>404,500</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Source: Rao and Ravindra, 2002

In the year 2000 when Bangalore brought about the reforms it did not bring it through any amendment of the existing provisions of the Act, as any amendment would take considerable time for enactment. Instead it made the scheme optional to avoid any legal challenge. Those who opted for the scheme could assess their property in manner prescribed under the scheme and those who did not opt for the scheme would be inspected by the Revenue Officials and assess the property to tax in the same manner prescribed under the scheme. The objectives of the scheme was simple and straightforward - to get property owners to voluntarily declare their property tax liability and to make timely payment. The inducements are to free property tax payers from harassment by tax collectors and to lower the compliance costs of tax payments.

The self-assessment and revaluation reform processes were also politically sensitive. A cap on the property tax increase was set at 2.5 times the existing tax liability. This cap on the net increase in the tax payable also contributes to the taxpayer’s success since the taxpayer’s acceptance of the scheme as there was a certainty that he was made aware that irrespective of the net increase by the new valuation method, he would not pay beyond 2.5 times that tax paid previously. About two-thirds of all taxpayers reached this cap.

Under the present system, the gentle art of tax dodging would be difficult for property owners. The BBMP has begun a scheme to pursue evaders, including those who undervalued property tax while assessing under the self-assessment scheme and those who have not paid for the financial year 2008-2009. The corporation has prepared a database of all properties within the city’s municipal limits through GIS mapping. Prepared with the help of satellite imagery as also physical verification of each property, the database assists the BBMP staff in issuing notice to those property owners who have undervalued their taxes. The details submitted by property owners would be compared and verified with the details already in the database.

“it will be easy to tally the actual facts furnished by property owners. Each property would be identified with a particular number in the database. If the details turn out to be accurate and match with our database, the slot for that property would show up in blue. If the facts were not genuine, the slots would turn red. The slots for properties for which tax has not been paid would remain blank,” mentioned the Commissioner.

Those who have filed wrong information would end up paying double the taxable amount evaded, besides a 2 % interest per month. If a property owner has paid Rs 2,000 less than what he should have paid the penalty would be Rs 4,000 plus 2 % interest.

The BBMP would simultaneously plug loopholes in the tax laws so that its employees do not have the temptation to seek bribes for undervaluing properties. The BBMP officers do not enjoy the liberty to change the dimensions of property. Those who paid before March 31 enjoyed 5 % rebate and they were allowed to file returns without being penalized until April 30. A glance at the colored slots of properties clearly shows how many property owners have paid tax in each locality. The Palike will take measures to collect taxes from those who have not paid so far this fiscal year. Superior officials will instruct officers’ in-charge of each ward and approach owners of such properties and ensure that they pay.
Implementation Strategies

In keeping with the suggestions of the property taxpayers of BBMP, the Government has amended the Karnataka Municipal Corporation (KMC) Act to introduce property tax assessment under Unit Area Value (UAV) system. The new system of UAV was advertised through public campaign, sticking handbills in public places, through media (television, radio and newspaper). The opinion about the self-assessment system was taken from citizens at large and published in local newspapers on a regular basis. Under the earlier SAS (ARV) system property was assessed on the basis its location, quality of construction, usage, occupancy and the age of the building. All these physical and usage features of the property were taken together and the ARV per square foot per month was determined.

In the KMC Act a new Section 108A has been inserted with corresponding Rules for property tax assessment on the basis of UAV. The UAV under this section is defined as:

Unit Area Value (UAV): “an average rate of expected returns from the property per sq.ft., per month determined by the Commissioner, Bruhat Bangalore Mahanagara Palika on the basis of the average market rate determined through mass appraisal method or real estate market information or any other reliable source or combination of these sources that he may considers it as sufficient and reasonable having regard to the location, type of construction of the building, parking area of vehicles in non-residential building where it is charged and such other criteria as may be prescribed. Different rates may be determined for different area or street by classifying into zones, different nature of use to which the vacant land or building is put and for different class of buildings and vacant lands”.

Like in the earlier property tax scheme, the city of Bangalore has been classified into 6 value zones on the basis of the guidance value published by the Department of Stamps and Registration. The published guidance value was adopted as a basis for zone classification as this would prevent any official discretion and thus avoid complaints of subjectivity in the classification.

In the year 2002, KMC Act pertaining to the method of assessment of property was amended to bring in the Capital Value System (CVS). While the amended property tax assessment by capital value method law was introduced in all the ULBs. The taxpayers of Bangalore protest against its implementation as they feared that a valuation by market value would increase the property tax abnormally and several resident welfare associations and trade bodies represented to the government to amend the law to bring in an area based system of property tax for Bangalore similar to the optional scheme introduced in the year 2000.

Fig 11: Website of BBMP

With this merger of BMP and BBMP, a new problem arose. While the erstwhile City Municipal Councils (CMC) and Town Municipal Councils (TMC) were collecting property tax under the CVS scheme, the erstwhile area under BMP, ARV system was being followed. With the merger of the erstwhile CMCs and TMCs with BMP, there cannot be two methods of property tax administration, CVS for the newly added zones and SAS for the old BMP area. Hence there was an urgent need to bring in uniformity in tax administration. Since there was resistance from the taxpayers from moving into CVS the Government was forced to concede to the people’s request and amended the law to bring in an area based system of property tax assessment.
for the whole of BBMP jurisdiction. The Bangalore property tax collection that stood at Rs.440 crores during 2007-08 short up to Rs.780 crores during the year 2008-09 and is expected to touch Rs.1000 crores by the end of the year. This clearly shows how Bangalore was successful in revising the property valuation and paved for its revenue potential.

Table 9: Bangalore Municipal Corporation: Selected Measures of Property Tax Revenue Performance

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue Collected</th>
<th>Assessed properties</th>
<th>Property tax collected per prop</th>
<th>Amour in Crs</th>
<th>% Increas</th>
<th>Numbe</th>
<th>% Increas</th>
<th>Propert tax collectic per prop</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002-03</td>
<td>167.00</td>
<td>450743</td>
<td>3705</td>
<td>167.00</td>
<td>0</td>
<td>450743</td>
<td>0</td>
<td>3705</td>
</tr>
<tr>
<td>2003-04</td>
<td>195.00</td>
<td>504872</td>
<td>3862</td>
<td>195.00</td>
<td>0</td>
<td>504872</td>
<td>0</td>
<td>3862</td>
</tr>
<tr>
<td>2004-05</td>
<td>200.00</td>
<td>547354</td>
<td>3654</td>
<td>200.00</td>
<td>0</td>
<td>547354</td>
<td>0</td>
<td>3654</td>
</tr>
<tr>
<td>2005-06</td>
<td>230.00</td>
<td>588791</td>
<td>3906</td>
<td>230.00</td>
<td>0</td>
<td>588791</td>
<td>0</td>
<td>3906</td>
</tr>
<tr>
<td>2006-07</td>
<td>347.00</td>
<td>668535</td>
<td>5190</td>
<td>347.00</td>
<td>0</td>
<td>668535</td>
<td>0</td>
<td>5190</td>
</tr>
<tr>
<td>2007-08</td>
<td>449.00</td>
<td>900000</td>
<td>4988</td>
<td>449.00</td>
<td>0</td>
<td>900000</td>
<td>0</td>
<td>4988</td>
</tr>
</tbody>
</table>

Source: Bruhat Bangalore Mahanagara Palike

- Adopting the Area-Based System

It is well established that property tax is normally based either on the capital value of land and building or the rental value it could hypnotically fetch. Alternatively, the property tax base could be derived extracting the essence of both CVS and ARV to arrive a fair valuation basis. This hybrid principle adopted the following pragmatic methods for valuation:

- Pre-determined value per square foot of build up area depending on location of the property.
- Cost of construction of building depending on roof type or its usage.

This method was defined as “Unit Area Value” (UAV) as the unit of valuation is on square foot basis, depending on the location. It means the average expected market rate per square foot/square meter per month that a property would command in a given locality, on the basis of the quality of the building, age and such other criteria.

The Act provided the Commissioner to fix the average market rate for different area or street and for different classes of building as well as vacant land by a mass appraisal method (gathered through real estate market information or any other reliable source) that he considers as reasonable and sufficient.

The provisions of the Act only replaced what was done under the optional SAS scheme introduced in the year 2000. Taxpayers accepted the new tax policy that was legislated as they found that the new system was not in essence different from the old SAS of 2000.

- Valuation Process

The fair valuation for each area has to be determined in an objective manner. One of the accepted manners of valuation is to fix value bands based on the published Guidance Value (GV) of the Department of Stamps and Registration. Each value band then becomes a Value Zone (VZ).

On this basis 6 value zones within the BBMP jurisdiction was finally notified after seeking public objection, if any to the classification of zones.

The average expected returns (lease/mortgage/rental rates) were fixed based on the roof type or usage. Under residential use 5 categories of were notified:

- Reinforced Cement Concrete (RCC) or Madras terrace buildings.
- Tiled or sheets of all kinds.
- RCC/or tiled houses with the flooring is entirely of red oxide.
- Housed built/allotted for the poor.
- Special category for the newly added villages.

Similarly, all commercial and non-residential properties were categorized based on VZ. However, 11 categories of non-residential buildings fall outside the VZ, which will have unit rates based on the kind of usage mentioned below:

- All commercial properties provided with escalators (high value properties).
- Commercial properties with central air-condition and one occupier having more than 5000 sft space (High Value).
- All star hotels.
Other Boarding & lodging hotels based on rental fixed per day.
Vacant land.
Cinemas theatres (not being malls).
Kalyana Mantapa (based on charges per day).
Industrial Units.
Nursing Homes (on bed strength and year of commencement).
Building where hoarding/billboards have been erected.
Building where telecommunication towers have been erected.

Tax Rate

The tax rate was not altered from the previous rates and was maintained at 20 percent for residential and 25 percent for non-residential. The 2.5 times cap that existed in the earlier SAS 2000 scheme was removed and all property owners had to pay as per the rates fixed.

Fixing of Unit Area Value

To make the new policy acceptable to the taxpayers and secondly the erstwhile CMC/TMC were under the CVS system, to establish a base rate for the base year 2008-09, a conscious decision was taken not to increase the rental rates for any of the categories fixed during the year 2000. However, new categories were carved out depending on the usage and type of construction:

- Air-conditioned building.
- Building with escalator.
- Building that have let for erecting telecommunication tower.
- Building that have let for erecting hoarding.
- Commercial Building where the parking is charges.

Table 10: Average expected Market rate per square foot / square meter per month

<table>
<thead>
<tr>
<th>Zonal Rate</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Owner</td>
<td>2.50</td>
<td>2.00</td>
<td>1.80</td>
<td>1.60</td>
<td>1.20</td>
<td>1.00</td>
</tr>
<tr>
<td>Owner</td>
<td>10.00</td>
<td>7.00</td>
<td>5.00</td>
<td>4.00</td>
<td>3.00</td>
<td>1.50</td>
</tr>
</tbody>
</table>

The rental rates fixed in the year 2000 for both residential and Non-residential remained same. If an area/street as per present (2008) classification has moved to more than one higher zone then such change in zones shall be restricted to the value (rate) of the immediate next higher zone.

Source: Bruhat Bangalore Mahanagara Palike

A rebate of 5% was provided in the Act for early payment and those who paid late a penal interest at 2% per month is charged. Owner occupied properties will get 50% rebate. This rebate is not available for non-residential properties though occupied by owners. Depreciation was provided for the age of the building and the maximum depreciation available is 55%.

Mandatory Filing of Returns Annually

Under the Act it was mandatory for all property owners to file returns in the prescribed form every year and declare whether they have made any further improvements in the building or changed it usage. If there was no change in the extent of the built up area or its usage a simple return was prescribed. In an event there were changes a separate return form has to be filled up and submitted.

All building whether they were lawfully built or not and all vacant plots whether lawfully formed or not had to file returns and pay the tax, without there being any prejudice for any action that may be taken against any violation under the law against the owners of such properties. All returns filed would be automatically accepted. However, there would be random check of 15 % of the returns filed.

Revision of Property Valuation

The Act has made it mandatory for the Commissioner to revision of valuation of all properties once in 3 years by 15%. The Council could however revise unto 30 % for any class of property. The revision will be on the base year 2008-09. Hence, the taxpayers need not worry about the steep increase in value in a particular area. In fact they can anticipate the maximum increase. The mandatory revision for the block period will thus ensure buoyancy and secondly
taxpayers will receive automatic bill informing them of the enhancement.

- **Evaluation of the Reform**

There are many ways to evaluate the success of this new system. The most obvious is revenue yield. The tax collected the year prior to the reforms (2007-08) and after the reform (2008-09) is made available in the following tables.

**Table 11: Coverage and Tax Collected 2007-08**

<table>
<thead>
<tr>
<th></th>
<th>5 New Zones</th>
<th>Old BMP area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of properties in the cadastral</td>
<td>200,000</td>
<td>600,000</td>
<td>800,000</td>
</tr>
<tr>
<td>Property Tax collected (in crores)</td>
<td>110</td>
<td>320</td>
<td>430</td>
</tr>
</tbody>
</table>

Source: Bruhat Bangalore Mahanagara Palike

**Table 12: Coverage and Tax Collected 2007-08**

<table>
<thead>
<tr>
<th></th>
<th>5 New Zones</th>
<th>Old BMP area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of properties in the cadastral as on July 2009</td>
<td>358484</td>
<td>423133</td>
<td>781618</td>
</tr>
<tr>
<td>Property Tax collected (in crores)</td>
<td>210</td>
<td>540</td>
<td>780</td>
</tr>
</tbody>
</table>

Source: Bruhat Bangalore Mahanagara Palike

Therefore though there was no increase in the rental rates fixed during the year 2000, BBMP was able to increase its property tax collection as several properties shifted from a lower zone to a higher zone. The minimum increase in such shift from a lower zone to one zone higher would increase property tax by 15%-20%. Over 10,000 streets moved from a lower zone to one zone higher in both residential and non-residential property. This zone classification was made as scientific as possible and every street in the jurisdiction was physically tracked and the zonal location was fixed. After completing this elaborate exercise the zone classification was banded into 6 value zones and then notified calling for objections and suggestion. After this opportunity the final zone classification was published. Therefore when the property tax increased for some people they knew that this increase was due to the shift in the zone and hence was not taken by surprise.

- **Reasons for Increased Revenue**

Though the property tax rental rates were not increased but retained at the same level as during the year 2000, the property tax collection registered an all time record of over 100% increase over the previous year. There are many reasons for this increase. The primary reason is the shift from lower zone to the higher zone. Therefore despite nearly 30% of the property owners in the erstwhile BMP area are still to file their returns, there is an increase in the tax collection.

While the rental rates remained same for all categories listed in the year 2000, the rental rates for the new categories (mentioned earlier) were consciously made higher as such building have the potential for higher rent or earning rent.

Another area that the new law brought to tax net are exempted properties. The new law prescribed that all these properties exempted from property tax under the Act were obliged to pay service charges at 25% of the rates fixed for such properties.

Another factor that added for increase in revenue emerged from the provision that made it mandatory for all unlawful properties to file their returns and pay property tax without prejudice for any action that may be taken against such buildings. Over 1, 50,000 unlawful properties have filed their return during the year 2008-09. There may be another 2, 00,000 more such properties that is still to come under the tax net.

- **Media Campaign**

BBMP invested in media campaign by seeking personality endorsement. All satisfied taxpayer who called BBMP to tell that the system was easy to understand became BBMP's personality endorsement and their statement was carried with their photo in leading dailies. Several know personalities like retired Chief Justice of India, sport personalities, film stars, ordinary
vegetable venders, representatives of resident welfare associations etc. became the spokesperson for the scheme.

Besides media campaign, the media itself campaigned for the scheme as they too felt that this was good for the citizens. Since the media believed in the scheme, it became easy to convince the taxpayer his duty to pay tax.

- GIS Mapping of Properties

BBMP undertook a simple GIS mapping of all the properties within its 800 square kilometer. All properties were clearly identified and they were given GIS numbers. The GIS map has identified 17 lakh properties. However, nearly 3 lakhs properties are identified either as slums, State and Central government buildings.

BBMP has used the GIS map to place all the returns particulars in the geo-reference in the base map. Hence those properties that remained blank in the GIS map, automatic notices can be generated. This exercise of identifying the geo-reference with the returns filed is currently being carried out. The fact that BBMP is carrying out extensive GIS mapping of properties has been made known to taxpayers and being aware that BBMP has devised simple and scientific method to cover all properties encouraged them to file their returns. This also resulted in the increase in property tax collection. Hence the combination of the shift to one zone higher, service charges for exempted properties, mandatory filing of returns by all property owners and the aid of GIS mapping have contributed for the increase in property tax revenue.

The total tax collected prior to the revision was Rs.320 Crores for the erstwhile BMP area and Rs.110 Crores in the new zones. Under the reform measure the total tax collected as on July 2009 is Rs. 780 Crores Rs.780 Crores of this about Rs. 250 Crores came from the newly added 5 Zones and Rs.530 Crores from the erstwhile BMP area.

A comparison of the coverage and the revenue potential shows that while the new applicants have increased by 1,50,000, nearly 2,00,000 property owners are yet to file their returns. Therefore considering that nearly 4 lakhs property owners are yet to file their returns it can be estimated that the property tax revenue could reach about Rs.1000 to 1200 Crores.

It must be noted that the new policy came to effect only from 10th February 2008 for the tax period 2008-09. This late commencement has resulted in incomplete coverage. Secondly, the tax collection for the year 2009-10 has commenced from July 2009. For the citizen to pay the tax twice within the same year has posed a problem and has directed reflected in the coverage. However with the aid of the GIS map, it is possible that the revenue department will be able to complete the coverage as now they have a basis for issue of notices to specific properties and tax administration can also oversee the coverage on a day-to-day basis.

Factors of Success

The immediate effect in the change of assessment was to increase revenues significantly. In fact, the very first year of its introduction, showed encouraging results. In its first year Bangalore’s property tax increased by 33%. It is not just the increase in revenue that mattered. The taxpayers finally understood the norms how property is assessed to property tax and thus heightened their satisfaction and the acceptance of the new system.

Another success of the reform is a reduction in compliance costs. Taxpayers were relieved from harassment from the officials, who under the cover of the earlier opaque system of assessment, forced taxpayers into ‘negotiated’ property tax liability. The self-declaration system reduced compliance cost. The Bangalore City Corporation offered its taxpayers a lower cost of compliance in return for a higher payment. Most taxpayers were prepared to pay two-and-half times of the tax paid previously, since they did not feel the need to ‘negotiate’ with officials any longer.

Another reason for its success was that there was a well-designed education program as part of the marketing plan for this reform. Senior officers met with various interest groups to convince them that the
benefits of this program would outweigh the increased tax costs. The entire Revenue wing had set up several help centers to educate them of the new system. The media also backed the scheme and several leading dailies carried a column for the citizens’ doubts about the scheme and the City Corporation answered these.

**Replicability**

BBMP has shown that even in an area based system there can be revenue potential. It is not necessary to move into a capital value system of assessing the property as in recalibrating the zone will yield sufficient buoyancy to the tax. While most of the states are grappling how to revise the tax base, BBMP has shown that it is possible to do so with the taxpayers accepting the revised valuation. So long as the taxpayers accept a system as being fair and so long as the City Corporation’s tax base and revenue keeps increasing it should be a win-win situation for both the taxpayer and the city corporation. This could become a perfect example to replicate in other cities.

**Impact of the Reform**

The property tax reform did achieve some success. It helped built the taxpayers’ confidence that the City Corporation would bring about transparency in tax administration. The fact that the scheme clearly specified the rates applicable for the various zones and they use of property was in itself an eye opener to the taxpayer. This completely removed any discretion that the revenue staff exercised.

However, for the reform to sustain over time there are several actions to be taken. First and the foremost are to have a long-term strategy for property taxation. The Self-assessment scheme was rolled out as an optional scheme due to contingency. But to continue to keep the scheme optional will complicate the tax system and hence should be made mandatory by passing suitable legislation.

Any object of reform is to increase coverage and collection efficiency. To achieve this revenue department must be set reasonable a reasonable of coverage and collection. At present there is no evidence the target being set that can be called reasonable.

A physical mapping exercise is a high priority, in order to establish a cadastre. Crosschecking with other registration systems (e.g., water, electricity) could also increase the coverage of the property tax, and could enhance the updating of the cadastre.

Tax enforcement must be a priority. The self-declared property tax liability should be randomized for inspection. The gross negligence in not conducting verification has resulted in loss of revenue that the Corporation can ill-afford. There should be two levels of auditing self-declared returns—one a sample and another detailed verification especially high value properties.

Once when the property tax details are computerized, it is easy to generate false returns. A proper system of record keeping and reporting does not presently exist, and should be developed to support the new system, which would allow a monitoring of the performance of the property tax.
Contact:

<table>
<thead>
<tr>
<th>Contact Person:</th>
<th>Shri U.A.A Vasanth Rao, Deputy Commissioner (Resources), Bruhat Bengaluru Mahanagara Palike</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Bruhat Bengaluru Mahanagara Palike Narsimha Raja Square Avenue Road Bangalore 560002</td>
</tr>
<tr>
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</tr>
<tr>
<td>E-mail:</td>
<td><a href="mailto:dcres@bbmp.gov.in">dcres@bbmp.gov.in</a>, <a href="mailto:uavasanthrao@gmail.com">uavasanthrao@gmail.com</a></td>
</tr>
</tbody>
</table>

------------------------------------------------------------
Title of the Reform:

**Property Taxation**

Greater Hyderabad Municipal Corporation

**State/City:** Andhra Pradesh / Hyderabad

**BP Code:** URF-###-0101-1109

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**Previous Situation**

In 1956, Hyderabad became capital of Andhra Pradesh after the state was formed. From April 2007 onwards it became Greater Hyderabad Municipal Corporation (GHMC) based on notification released on 16th April 2007 by the State Government of Andhra Pradesh. The city was divided into (5) Zones (including North, South, Central, East and West) and 17 circles to provide better services and the city has now grown from 175 sq. km to 625 sq. km after having merged 12 municipalities. The present population is over Rs. 75 lakhs.

Hyderabad is currently ranked as the sixth largest urban agglomeration in the country. It is not only the administrative capital, but also the economic and financial capital of Andhra Pradesh. It is the largest contributor to the state's GDP, state taxes and excise revenues. It is divided into 5 taxation zones (south, central, east, west and north) for the assessment of Property tax, which is further divided into 18 circles, which is again subdivided into taxation main zones and sub zones.

**The Reform**

Property Tax is the main source of income of GHMC and is levied and collected on all the lands and buildings within the municipal corporation limits as laid down under Section 197 and 199 of Hyderabad Municipal Corporation (HMC) Act, 1955 (Hyderabad Act –II of 1955). The slab rates of taxation are being adopted only in respect of residential buildings w.e.f 1-4-1982, while non-residential buildings are being levied at the flat rate of 30% of the Annual Rental Value (ARV) in respect of their slab rates. As per Section 264 of HMC Act, Property Tax shall be payable on half yearly basis.

The scheme of self-assessment of property tax was introduced during the year 1999-2000. The information is self-assessment form is called as a written return based on the requisition made by the Commissioner, under Section 213 of the HMC Act of 1955.

For residential buildings, an elaborate procedure of determination of Annual Rental Value (ARV) and assessment of Property Tax is in vogue vide G.O issued on 20-11-2006. The ARV is determined on the basis of 10 parameters that, among others, include nature of usage, classification based on type of construction etc. However, the new system of tax envisages fixation of ARV based on location, type of construction, nature of use, plinth area and age of building, at 20% of ARV.

**Table 13: Composition of Property Tax**

<table>
<thead>
<tr>
<th>Range of ARV (Rs.)</th>
<th>General Tax</th>
<th>Conservancy Tax</th>
<th>Lighting Tax</th>
<th>Drainage Tax</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2%</td>
<td>9%</td>
<td>3%</td>
<td>3%</td>
<td>17%</td>
</tr>
<tr>
<td>601-1200/-</td>
<td>4%</td>
<td>9%</td>
<td>3%</td>
<td>3%</td>
<td>19%</td>
</tr>
<tr>
<td>1201-2400/-</td>
<td>7%</td>
<td>9%</td>
<td>3%</td>
<td>3%</td>
<td>22%</td>
</tr>
<tr>
<td>2401-3600/-</td>
<td>15%</td>
<td>9%</td>
<td>3%</td>
<td>3%</td>
<td>30%</td>
</tr>
<tr>
<td>Above 3600/-</td>
<td>Exempted from payment of property tax</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Greater Hyderabad Municipal Corporation

The above slab rates are in vogue from 01-04-1974 under section 197 & 199 (2) of the HMC Act, 1955 graded slab rates of taxation are being adopted only in respect of residential buildings with effect from 01-04-1982, while non-residential buildings are being taxed at a flat rate of 30% of the ARV irrespective of their slab. This system ensures a continuous increase in property tax collection due to identification of un-
assessed properties and assessing them for tax.

Assessment of Vacant Land Tax

In the erstwhile Municipal Corporation of Hyderabad (MCH), the open land tax is being levied at the rate of 0.5% based on the market value of the land located in respective areas. Taxes will be levied relatively based on infrastructure facilities and commercial importance basis. Parity will be achieved gradually among the zones.

Elaborate Procedure for Assessment

Sections 197 to 238 and Sections 264 to 289 of the HMC Act, 1955 and the HMC (Assessment of Property Tax) Rules, 1990 as amended in G.O. Ms. No. 596 MA&UD Department dt. 20-11-2006 has provided an elaborate procedure for determination of ARV and Assessment of Property Tax as detailed hereunder:

- Division of Municipal Corporation into Territorial Zones.
- Classification of buildings based on construction: 6 categories.
- Further classification of buildings based on nature of usage: 22 categories.
- Gathering of prevailing Rental Value of 20% of Rented Buildings – arriving at Average Monthly Rental Value (AMRV) for each category of building to be fixed per sq.ft of Plinth Area in each zone.
- Issue of draft notification indicating AMRV per sq.ft of Plinth Area in respect of various categories of all buildings for all zones and calling for objections and suggestions from the public.
- Issue of final notification indicating AMRV per sq.ft of Plinth Area in respect of various categories of buildings for all zones after considering objections and suggestions from the public.
- Preparation of Assessment list of buildings gathering, among others, plinth area, nature of construction, nature of usage for all buildings.
- Calculation of property tax and preparation of special notices.
- Service of special notices.
- Disposal of complaint petitions.

Factors for Determination of Annual Rental Value (ARV)

- Location of building.
- Type of construction.
- Nature of use.
- Plinth area.
- Age of building.

Rate

Property tax is levied 30% on ARV of Non-residential buildings.

Table 14: Demand and Collection (Rs in Lakh)

<table>
<thead>
<tr>
<th>Year</th>
<th>Arrears</th>
<th>Demand</th>
<th>Total Demand</th>
<th>Arrears</th>
<th>Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000-01</td>
<td>2887.78</td>
<td>9006.80</td>
<td>11894.58</td>
<td>2634.12</td>
<td>6146.27</td>
</tr>
<tr>
<td>2001-02</td>
<td>5494.40</td>
<td>9420.96</td>
<td>14915.36</td>
<td>3901.06</td>
<td>9102.48</td>
</tr>
<tr>
<td>2002-03</td>
<td>5869.41</td>
<td>11073.16</td>
<td>16942.57</td>
<td>4597.33</td>
<td>10727.10</td>
</tr>
<tr>
<td>2003-04</td>
<td>3807.59</td>
<td>18698.34</td>
<td>22505.93</td>
<td>4825.63</td>
<td>11259.79</td>
</tr>
<tr>
<td>2004-05</td>
<td>8727.91</td>
<td>13988.74</td>
<td>22716.65</td>
<td>4992.20</td>
<td>11648.46</td>
</tr>
<tr>
<td>2005-06</td>
<td>9647.50</td>
<td>16088.19</td>
<td>25735.69</td>
<td>5615.98</td>
<td>13103.96</td>
</tr>
</tbody>
</table>

Source: Greater Hyderabad Municipal Corporation

The above system of tax collection reveals that there is continuous increase in property tax collection from one year to another, due to identification of un-assessed properties and assessing them for tax. The following exemptions/concessions U/s 202 are allowed as per HMC Act:

- 100% exemption for the properties occupied by Ex-servicemen. (As per G.O.ms. No.83, MA&UD (TC) Dept. Dt. 15-03-1997.
- 50% vacancy remission U/s 233 would be granted for vacant premises on field report by the Tax Inspector.
- 100% exemption for religious places of worships/charitable institutions/education institutions U/s 202 (b) (Upto Xth class).
- The Government may exempt any residential building occupied by the owner from the property tax where the
ARV of the same does not exceed Rs. 600.

- Rebates / concessions under G.O.Ms. No. 86 MA & UD, department, dated 03-03-2006 in payment of property tax.

Major issues in the property tax system are related to the assessment in revision of non-residential property tax, which has come into force from October 2007. As per GO Ms.No.635 dated 27.8.2007, revision of property tax on non-residential properties has been initiated. GHMC has taken steps for revision of tax subject to provisions and instructions of the government and certain rates have been notified for revision based on the 20% rental value gathered through GIS survey. The non-residential properties for the convenience of this revision have been classified into 6 major types based on construction and 21 categories of usages.

**Implementation Strategies**

General revision of Property Tax as contemplated under HMC Act, 1955 was not done in the then HMC for the past few decades. In the absence of this, property owners continued to pay taxes as levied decades ago causing heavy financial loss to the then HMC. The highest property tax collection of Rs. 58 crores was made during the year 1998-1999. Attempts to revise and improve the property tax base made earlier were caught in legal problems.

Keeping the above points in view, the scheme of self-assessment of property tax was introduced during the year 1999-2000. This scheme was introduced by taking the advantage of provisions under section 213 of HMC Act in which commissioner is empowered to call for information pertaining to the property from owners/occupiers. The information in self-assessment form is called as a “Written Return” based on the requisition made by the commissioner, under section 213 of HMC act 1955. The Return is to be filed with the signature of the owner of occupier of property.

- To ensure complete transparency and openness in levy and collection of Property Tax and to enable citizens/Taxpayers to understand the basis of taxation and to calculate the tax by themselves.

- To build a computerized Property Tax Data Base with each property in the twin cities by assigning un unique Property Tax Identification Number, (PTIN) so as to enable the tax payers to have information of their property tax online and to pay property tax at any e-Seva centers/citizen service centers/circle offices.

- Bench marking of rate per sq.ft. Both for residential and non-residential properties to eliminate discretion, in the levy and collection of tax and to avoid questionable intention and harassment.

- To minimize prolonged disputes between taxpayers and HMC, pending since 10-15 years.

- To establish a healthy relationship between HMC and Tax Payers/Residential welfare associations.

- To link services with tax payment so that tax payers get value for money (Quality services) and also feel proud of contributing their mite to the development of their own city.

- To assist their fellow citizens living in slums and poor localities, to gain access to basic civic amenities.

**Introduction of Area Based Unit Rate System for Non-Residential Properties**

As per the orders issued in G.O. Ms.No.635, MA & UD Department (TC) dated: 27-08-2007 GHMC has initiated the process of revision of property tax on Non-Residential buildings w.e.f. 01-10-2007. A draft notification was published on 26th, December 2007 by GHMC, proposing monthly rent per sq. ft. of plinth area in respect of non-residential buildings duly calling for objections and suggestions from the public in this matter.

Objections and suggestions were received from the public. After thorough consideration of objections and suggestions, final notification showing the division of GHMC into tax zones and monthly rent per sq. ft. of plinth area for various types of construction and usages of buildings in respect of Non-Residential Buildings was finalized on 29th January, 2008.
The Government has issued orders restricting the hike of property tax to 50% on existing tax on 30-09-2007. The revised property tax on non-residential properties has come into force w.e.f. 01-10-2007.

Accordingly, one GHMC has taken steps for Revision of Tax subject to the provisions and instruction of the Government and certain rates have been notified for revision based on the 20% rental value gathered through GIS survey.

GHMC has been divided into 5 territorial zones and 115 property zones and further divided into 344 sub-zones. The non-residential properties for the convenience of the revision of property tax is classified into 6 major types based on the constructions and 21 categories of usages based on the non-residential type usage. Based on the area development the rates are proposed and a gist of notification showing minimum and maximum rate for each category and type of usage was published.

**Achievements/ Results**

- Computerization of all property tax assessments.
- Identification of un-assessed properties and bring them to tax net.
- Identification of under-assessed properties and their rationalization.
- Identification of properties where there is a change in usage i.e. from residential to non-residential and their rationalization.
- Collection of tax through self-assessment system.
- Linking of property tax database to e-Seva Centers/citizen.
- Service centers/Circle offices.
- Computerization of Demand Bills.
- Serving of Demand Bills through courier agencies/postal department.
- Making wide publicity for payment of taxes.
- Facilitating for payment of property tax through e-seva centers, citizens’ service centers, GHMC circle offices AP on line services delivery points, State Bank of Hyderabad (SBH) Branch offices, Debit interface/credit card and collection staff.
- Serving of Demand Notices on defaulters.
- Issue of Legal Notices to defaulters.
- Issue of Legal Notices for realization of bounced cheques.
- Issue of warrants and attachment of movable properties of defaulters.
- Collection of penal interest at the rate of 2% per month on belated payments.
- Fixing daily targets locality wise on collection staff.
- Monitoring the performance of collection staff by conducting weekly review meetings.
- Service of Demand Notices and legal notices on defaulters-section 268 of HMC Act.
- Execution of warrants of distress and seizing of movable articles and put them to auction for realization of tax dues under section 269 of HMC Act.
- Filing of suits for recovery of tax dues under section 278 of HMC Act.

**Fig 12: Property Tax Payers Lucky Draw Show**

The GHMC announced a unique programme of rewarding the prompt and honest taxpayers with attractive incentives and cash prizes without spending any amount from GHMC funds. The cash prizes’ amounting to Rs. 10.00 lakhs is sponsored by State Bank of Hyderabad. At circle level, the Deputy Commissioners are conducting programmes to honor the prompt and honest taxpayers. The exemptions are allowed within the provisions of HMC Act Corporation as a whole and not locality wise. Dispute redressal mechanism: It works efficiently in GHMC (fully online service) and depending on the nature of complains is...
addressed within 24hrs to 7 days. GHMC has a unique programme of honoring prompt and honest taxpayers through attractive cash awards from lucky draw conducted in every circle/zone. SBH sponsors this award. 2% penalty per month is imposed on defaulters.

Fig 12: State Bank of Hyderabad (SBH) Sponsors the Property Tax Payers Lucky Draw Award

Impact of the Reform

In general, the property tax collection would be spent for providing basic civic amenities and infrastructure development for the betterment of people, keeping in mind the basic purpose of the enhancement such as: to evolve a scientific method in the assessment and levy of property tax, to fix the assessments uniformly for similar buildings used for similar purposes and situated in the same locality, to reduce the element of discretion and to avoid arbitrariness in the assessment of tax and also to simplify the procedure of assessment and to make it transparent and citizen friendly.

Contact:

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                    Additional Commissioner (Finance), Greater Hyderabad Municipal Corporation |
|-----------------|--------------------------------------------------------------------------------|
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                                         Hyderabad: 500063 |
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-----------------------------------------------------------------------------------------------------------------------------
Title of the Reform:

**Property Tax Reform**

Kanpur Municipal Corporation

State/City: Uttar Pradesh / Kanpur
BP Code: URF-###-###-2857-1109

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**Previous Situation**

One of the main problems of the Kanpur Nagar Nigam (City Corporation) and Kanpur Jal Sansthan (Kanpur Water Company) has been the extremely low tax revenues. Kanpur Municipal Corporation (KMC) used to do survey in the gap of every five years and additional properties were marked upon to collect property tax. Due to Annual Rental Value (ARV) method, citizens had to face lot of problems on the assessment basis and rates of payment.

The ARV method was quite subjective and depending upon the understanding of laws by the municipal staff, citizens had to face the non-conformity of the standard rate. Database of the houses were not adequate to take all the properties under tax net. Due to rise in the number of the properties, the demand for services were also increasing which had created too much of animosity between the citizen and administrative wings of KMC.

There were differential rates of property tax for both the industrial and non-industrial buildings though located in the same location. This used to be the bone of contention between citizens and Kanpur Municipal Corporation. Though, citizens used to pay taxes but they were not very regular in payment and thus it finally resulted in to litigation cases.

Property tax reforms in KMC established the system of scientific, transparent and self assessed system of tax collection, based on rational parameters which are now acceptable by the citizens. This reform has worked in way that the whole system became responsive to citizens as well as to the service provider. Base data generated during this reform has been used by the KMC at different fronts which includes citizen centric initiatives to make government more responsive for development purposes. This has also been used for:

- KMC for planning and revenue generation.
- Delimitation of KMC Wards - 2006.
- Below Poverty Line (BPL) Survey - 2007
- For planning, design/implementation of water supply and sewerage projects under JNNURM.
- By Kanpur Electric Supply Company (KESCO) for power distribution planning and revenue generation.

**The Reform**

To streamline the whole process, KMC took the initiative of property tax reforms in its jurisdiction as property tax contributes around 80% of the KMC’s direct tax. Therefore, KMC has to provide better services to its citizens.

To start the process, KMC required the latest and accurate database so that they have the exact number of properties. The previous data available was ten years old and additional properties had been constructed. These new constructions were mostly not paying any tax and most of them were illegal and therefore, the municipal authorities were not able to collect property tax from them which resulted in tremendous loss of revenues for KMC.

KMC took an initiative to involve India Institute of Technology (IIT) Kanpur in this reform process. After a series of meetings with IIT Kanpur, it was decided that GIS mapping of the property can sort out this
issue for KMC. Funds available under Urban Reforms Initiative Funds (URIF) were used to kick start the reform.

Fig 13: Website of KMC

Goal of the Reform

The goal of this reform was the improvement of the performance of property tax system, tapping the potential, and making it an important source of revenue for financing and maintaining municipal services and infrastructure. This was attempted to achieve by fulfillment of some of following objectives:

- Modernization of property tax system by linking GIS and property data base.
- Reassessment of all properties on unit area basis.
- Improving rentals of municipal properties by amendment of Rent control Act.

Implementation Strategies

No proper map of the Kanpur city or the areas of tax collection were available. Nobody actually knew how many taxable property units were there in Kanpur because of constant construction work. The tax collectors (Revenue Inspectors) had minimum training to use any computer assisted methods and the present assessment method was extremely tedious resulting in a growing number of un-assessed property. To implement the reform and to get the revenue collection on a systematic track, it was necessary to agree on the following:

- A new base map was needed to make it possible to identify all taxpaying units (houses).
- A method of identification of the taxpaying units needed to be developed.
- A supporting Geographical Information System (GIS) Base was needed to be developed.
- The revenue collection needed to be reorganized to utilize the GIS application.
- The staff needs to be trained to utilize the new system.

KMC issued notice and tender regarding this reform, conventional method of preparing a base map was adopted and survey was started with enthusiasm to know the existing situation of the city.

Once the survey was in its initial stage, there were protests and agitations from the citizens which took place because a message went to citizens that the Government is trying to set up a new mechanism wherein the tax will increase manifold. This wrong impression resulted in snatching of instruments from surveyors and other forms of aggression and non-cooperation from the people. Though mass awareness programmes were taken up through the mass media, the survey had to be stopped resulting in loss of instruments and injuries to the surveyors.

Even the elected wing of MPs and MLAs opposed the tax reforms and survey done by KMC but KMC tried to convince them with logic and broaden their vision for future profit and thus, the survey restarted. This time with police protection and with the help of mass media, the surveyors reached every nook and corner of the city. Extensive media campaign was done which helped in eliminating the communication gap between the KMC and citizens, and finally citizens were assured that this reform is in their favour.
Slowly but steadily mass awareness resulted in citizens’ cooperation. It was being strategically decided that in all government forums, every officer will at least speak for support irrespective of the occasion, issue and the department. A poster campaign was initiated to reach out to the citizens to eliminate miscommunication and rumors circulated regarding the project. In the poster campaign, KMC made sure that the guideline information is citizen friendly so that people do not feel hesitant to ask questions, gather information and in contacting KMC.

Phone booths were established during the survey where citizens could complain about the survey if they felt it was not going well or something was wrong with the process, and such complaints would get recorded and the person present in that area (on duty surveyor) had to rush to the reporting office for clarification. These booths were operational from 8 am to 8 pm.

When the survey process was in its full swing, digitization process was also started with a great tempo to match up with the speed of survey. A team of professionals, who were involved in this process, had given their suggestions which were incorporated in every sheet. A new cell was established which looked after tax collection requirements.

Challenges / Constraints Encountered

During the time of the survey, there were agitations and protests by the citizens against the KMC policy and a misconception was spread that the government is trying to increase the tax manifold. It was a big challenge for the government and the KMC to convince the citizens. To overcome this problem, KMC started a mammoth mass awareness programme through media campaign and finally, it achieved its goal to make people understand the whole process of property tax reform.
Outcome of the Reform

The outcome of the reform was very productive as the number of properties covered under the tax net increased manifold and added to the revenues of the KMC. The increased revenue was used for infrastructural development.

Achievements/Results

This reform became a huge success in Kanpur to create an umbrella effect for covering large number of properties under it. The data below gives out an outlay of the assessed properties after GIS Survey:

- **Increase in number of Properties**

**Table 15: Increase in number of property under tax net after GIS Survey**

<table>
<thead>
<tr>
<th>Zone</th>
<th>No. of Assesses before GIS survey (Year-2007-08)</th>
<th>No. of Property assessed after GIS Survey till 31/01/2009</th>
<th>No. of Assesses added after GIS survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>22,313</td>
<td>48,390</td>
<td>28,077</td>
</tr>
<tr>
<td>2</td>
<td>1,04,889</td>
<td>1,12,818</td>
<td>7,929</td>
</tr>
<tr>
<td>3</td>
<td>22,710</td>
<td>67,988</td>
<td>45,278</td>
</tr>
<tr>
<td>4</td>
<td>11,609</td>
<td>32,662</td>
<td>21,053</td>
</tr>
<tr>
<td>5</td>
<td>70,522</td>
<td>76,526</td>
<td>6,004</td>
</tr>
<tr>
<td>6</td>
<td>42,162</td>
<td>88,509</td>
<td>46,347</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,74,205</strong></td>
<td><strong>4,26,893</strong></td>
<td><strong>1,54,688</strong></td>
</tr>
</tbody>
</table>

Source: KMC Tax Department

The table shows that, the number of properties increased from 2, 74,205 to 4,26,893 which means that after the survey 1,54,688 properties were added into the tax net. Hence, the new reform is beneficial for both government and the KMC.

- **Costing of the project**

This project has cost Rs 140 lakhs to KMC, Rs 70 lakhs were of URIF funding and the remaining money was raised by the KMC from its own resources.

- **GIS Kanpur**

Use of GIS has opened a whole new horizon to the KMC for database preparation and assessment of property through this very proficient technique.

Property tax is an important, possibly the most important revenue source for local governments and GIS, in this case proved to be a very efficient technique in preparing data source for assessment of the properties and tapping revenues.

**Replicability**

This reform is very much replicable and property tax reform through Municipal GIS is to be initiated in other towns in the State like Ghaziabad, Meerut, Agra, Moradabad, Lucknow, Gorakhpur, Bareilly, Varanasi, Allahabad and Aligarh.
Impact of the Reform

This reform has still not received any remarkable recognition from any agency or institution. However, the additional Revenue Generated by the project has left a major impact by KMC on other municipalities. Due to the new technique and use of proper survey method with efficient and skilled professionals, the property tax revenue generation increased manifold from Rs. 3349.531 to Rs. 12613.175 lakhs. In fact, there is increase of three times of the collection for KMC from Rs. 3349.531 to 9264.3394 lakhs. KMC has already issued notices and additional revenues are expected this year.

Table 16: Additional Revenue Generation

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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<tr>
<td>1</td>
<td>587.471</td>
<td>2024.1993</td>
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<td>892.477</td>
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<td>1990.6049</td>
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<td>474.564</td>
<td>2389.9228</td>
<td>1915.3588</td>
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<tr>
<td>Total</td>
<td>3349.531</td>
<td>12613.175</td>
<td>9264.3394</td>
</tr>
</tbody>
</table>

Source: KMC Tax Department

Contact:

| Contact Person: | Shri U.N.Tiwary, Kanpur Municipal Corporation, |
| Address of the Organization/Agency: | Kanpur Municipal Corporation, Motijheel, Kanpur Uttar Pradesh; Pincode-208002 |
| Telephone No.: | 0512-2531215, 2546194; 0512-2531662 |
| E-mail: | kanpur_nagar.nigam@yahoo.co.in, kanpurnagarnigam@gmail.com |
Levy of User Charges:

User Charges for Water Supply: Pune, Maharashtra

ULBs have been predominantly dependent on Government grants and collections from property tax and other sources of income for meeting their expenses. Cost recovery through user charges on some basic services e.g. water supply, solid waste collection, etc. have been targeted as additional sources of revenue by various ULBs in the country. The idea behind levying user charges is to charge based on consumption and bring in the discipline for usage. The introduction of user charges is a challenge for any ULB but the Pune Municipal Corporation has committed to achieve it during the mission period.
Title of the Reform:

User Charges for Water Supply
Pune Municipal Corporation

State/City: Maharashtra/ Pune  
BP Code: URF-##-####-1635-1109

Previous Situation

Water is the day to day need of each human being. The Pune Municipal Corporation (PMC) through its Water Supply Department look after the water supply needs of the citizens.

Protected water supply to Pune is in existence since year 1750. The first scheme was based on the Katraj tank on Ambil Odha. The Swargate Water Works came into existence in the year 1873. Water from Mutha Right Bank Canal was picked up at Swargate, treated and supplied to the city. After Pune reached the status of Municipal Corporation in year 1950, a project of 45 Million Litres per Day (MLD) was developed on the Mutha Right Bank Canal, for supply to the city and the cantonment. Another scheme, with 110 MLD capacities in the year 1975, was constructed at Parvati in year 1968. It was augmented to 270 MLD capacity and further expanded to its present capacity of 470 MLD in two more stages in 1980 and 1990.

For the water supply, meter system was introduced from 01/01/1980. At that time fixed rates were there for usage of water both for domestic and non-domestic. In the metering system water was supplied through the rates as that of the domestic rates.

The problem with this system was water is supplied with uniform rates without considering the usage.

To differentiate in the water usage and to get additional revenue from the water supply, from 01/01/1982 the rates for water supply was revised and different rates for non-domestic water usage were introduced. In this system there were separate rates for domestic usage and non-domestic usage, the advantage was that, the revenue from the water gets increased.

There were several disadvantages of this system for the revenue collection from the users as:

- The water supply charges were based on the water meter system, the meter reading process was tedious, complicated and not suitable for citizens.
- The meters were faulty and broke down once or twice in two months.
- The meters were faulty or of no use due to dust interpretation or over pressure in the system.
- If the meter is faulty or broke down then the charges were applied based on the quota basis, in which were higher than the actual usage, so there were complaints from the citizens.
- Citizens refuse to pay water charges as they were higher than actual
- No revenue collection from the shut down meters.
- No revenue collection from the illegal connections as, they were not trapped in the water charge system as meter was not there. And if trapped then they will have to pay based on the quota system.
- Sometime properties have closed meters, so readers cannot take the meter reading and the charges based on quota system were applied, which user refused to pay.
- Citizens were not interested in water charges based on the meter reading.

The Reform

At present the water is supplied through the Khadakwasle Dam through Kahdakwasla – Parvati pipeline and the mutha right Canal.
Fig 19: Khadakwasla Dam at Pune

From 01/04/2000 for domestic use water charges were introduced. This user charges were linked with the Property and according to the property type water tax was collected. Previously due to metering faulty bills were prepared or due to some problem with the meter or non-working of meter, water charge was collected with some fixed rate based on quota system at that time, without considering the property type and actual number of users in that particular property.

The present reform says that, the water charges will depend on the property. So it was decided by PMC that, the water charges should be linked with the Property tax.

Table 17: Water Charges linked with Property Tax

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Domestic property taxable amount</th>
<th>Present water charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 to 1000</td>
<td>900</td>
</tr>
<tr>
<td>2</td>
<td>1001 to 3000</td>
<td>1000</td>
</tr>
<tr>
<td>3</td>
<td>3001 to 5000</td>
<td>1100</td>
</tr>
<tr>
<td>4</td>
<td>5001 onwards</td>
<td>25% or Rs 2500 whichever is minimum</td>
</tr>
</tbody>
</table>

Note: the charges are applied on the yearly property tax amount.
Source: PMC

Goal of the Reform

This reform was introduced with the goal of generation of more revenue from the water supply. The main objectives of for the reform were:

- Increase in coverage of users
- Improvement in method of measurement of service
- Improvement in billing and collection efficiency
- 100% cost recovery
- User friendly tax collection system
- Cut down the cost
- Single window clearance for the user charge

Implementation Strategies

Due to this reform there is substantial increase in revenue collection from 2001. Due to introduction on user charges for water supply, the revenue was increased.

The implementation of User charges for water supply was an administrative decision and discussed in the General Body and passed with the majority approval, and the citizens accepted it as it was more suitable for them to pay the charges with the property tax.

Budgetary Implications

The most important implication of this reform is water charges gets collected with the property tax. The work for the meter-readers gets reduced, and they can concentrate on the Non-domestic meter reading and collection from the same.

The cost on the administrative expenditure i.e. on stationary, printing and bill delivery gets reduced.

Some institutional modifications were done for this initiative, so no external cost incurred.

A smart decision was done by the PMC to collect the water supply user charge with the property tax; officials don’t need to visit the property in every two month for meter reading.

Sustainability

The reform was initiated by the Political wing i.e. the General Body of the PMC. The citizen also wants the user friendly system.
for the tax submission, so the system is sustainable. The increase in revenue collection is the positive result for the sustainability of the reform.

**Project Outcome**

**For Citizens**
- Value of money for the citizens as rational tariff coupled with optimum service
- Economic tariffs empower the users to demand quality services that force ULBs to ensure accountability.
- In the long run, users pay rational charges for a financially sustainable service.

**For ULBs/Parastatals**
- Improved cost recovery and generation of financial resources helps sustain, upgrade and expand services on a timely basis to meet the ever-increasing demand.
- Freeing up of financial resources for social services like education, health and nutrition.
- Overall improvement in service delivery, accountability and urban governance.

**For State/Central Governments**
- Reduced financial dependence of ULBs/parastatals on higher-level governments frees up financial resources for other priority areas of development.

Ensuring transparent subsidies to needy ULBs requires continued support due to their location or environment disadvantages.

**Achievements/Results**
- Single window bill collection for both property tax and water tax.
- The service delivery gets reduced.
- Previously the water bill has to be prepared in every 2 months now it can be prepared once or twice in a year.
- Stationary cost, printing cost and bills delivery cost gets reduced.
- The system is friendly for citizens

In 1999-2000 the revenue from the water supply was 38.5 Crores. It increased in 2007-2008 to 91.33 Crores.

**Replicability**

No external cost need to be incurred in the reform, just the water tariff based on the property area need to be finalized and the water charges can be applied to the said property. So the system can easily be replicated in any city in India. Other ULB's can approach PMC to explore the possibility of user charge reform.

The old system of meter reading based on water charges had various bottlenecks, which could be minimized through User charge based on property tax.

**Impact of the Reform**

The reform on user charge for water supply showed positive impact on citizens and PMC for overall improvement of delivery of services and revenue collection.

**Fig 20: Water Charges Collected at PMC (1999-2008)**

Source: Discussion with officials in Water Supply Department, PMC
Table 18: Water Charges Collection through Property Tax at PMC

<table>
<thead>
<tr>
<th></th>
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<tr>
<td>New Villages Included</td>
<td>10,050,425</td>
<td>7,094,977</td>
<td>6,594,799</td>
<td>30,527,080</td>
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<td></td>
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<tr>
<td>Total</td>
<td>65,659,876</td>
<td>233,463,838</td>
<td>240,152,129</td>
<td>320,206,554</td>
<td>420,048,247</td>
<td>420,206,082</td>
<td>451,909,352</td>
<td>503,891,196</td>
<td>519,412,514</td>
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Source: Discussion with officials in Water Supply Department, PMC

Contact:

<table>
<thead>
<tr>
<th>Contact Person:</th>
<th>Mr. Pravin Ashtikar, Pune Municipal Corporation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address of the Organization/Agency:</td>
<td>Pune Municipal Corporation, Shivaji Nagar, Pune, Pincode 411005</td>
</tr>
<tr>
<td>Telephone No.:</td>
<td>020-25501000</td>
</tr>
<tr>
<td>E-mail:</td>
<td><a href="mailto:praveen.ashtikar@punecorporation.org">praveen.ashtikar@punecorporation.org</a></td>
</tr>
</tbody>
</table>

---------------------------------------------------------------------------------------------------------------
e-Governance:

- E-Suvidha, Online Tendering Application, SMS and Web Based Complaint Monitoring System: Pimpri Chinchwad, Maharashtra
- e-Governance Initiatives: Ahmedabad, Gujarat
- GIS Survey of Moradabad Nagar Nigam

The objective of deploying e-governance in ULBs is to improve the overall system of governance using IT applications in order to make them more efficient in delivering services to the citizens. The implementation of e-governance will also result in administrative efficiency in the delivery of municipal services through simplification of procedures, efficiency in managing finances and improved planning and decision making. Several mission cities have already taken significant steps towards implementing e-Governance. Ahmedabad and Pimpri Chinchwad have on-line grievance redressal and online tendering systems. Moradabad has developed GIS based property tax system.
Title of the Reform:
E-Suvidha - e-Governance Initiatives
Pimpri Chinchwad Municipal Corporation

State/City: Maharashtra/ Pimpri Chinchwad
BP Code: URF-###-####-1670-1109

Previous Situation

Pimpri–Chinchwad, one of the most important cities in Maharashtra and in the country, has been growing exponentially in recent years. Developed as a supporting township for Pune, Pimpri-Chinchwad has emerged as an alternative in its own right with strong auto and auto-ancillary industries at its core. The growth drivers of the city are slowly getting diversified and steadily shifting towards new clusters such as Chakan, Hinjewadi, Talegaon, and Talawade IT Park from Pune city.

As a growing city and considering changing requirements of the city, the major change was required in a way the Pimpri Chinchwad Municipal Corporation (PCMC) used to operate. It was felt that the way PCMC serve its citizens is required to be changed. The vision was aimed at ensuring the economic development of the city by improving the quality of life of the citizens of Pimpri-Chinchwad. This improvement and the focus on maintaining the economic momentum also involves the achievement of providing universal access of municipal services to the urban poor, improvement in the standard of education, providing an efficient civic administration among others.

The Reform

To efficiently realize this vision, PCMC has embarked on the development of an integrated e-Governance Programme that will result in improved transparency, efficiency and will lead to building citizen centric governance. PCMC has not only proposed to deliver online services but going much beyond reducing citizen footfalls in corporation’s offices.

For efficient implementation, PCMC has integrated the e-Governance infrastructure. The implementation of e-governance also gave new set of responsibilities to PCMC’s employees. This project has involved around eleven corporation departments, which are computerized. Citizen Facilitation Center (CFC) is the most successful project, which provides services to citizens with more than 99% efficiency. Another Innovative project is PCMC@home, which provides services of corporation directly at home through PCMC personnel. Currently PCMC is delivering following services online to its citizens:

- Property and Water Revenue Management
- e-Tendering
- Building Permission Management
- Dashboard for Works Management
- Citizens Facilitation Center(CFC)
  - Birth- Death Certificates
  - Property Tax Collection
  - Water Tax Collection
  - Collection of various applications
  - Delivery of Appropriate Certificates & Documents
- SMS-based complaint monitoring system
- Solid Waste Management with Vehicle Tracking
- Geographical Information System For Dynamic Administration (GISDA).

Implementation Strategies

Geographically, all these services have been implemented for the entire PCMC covering an area 182 sq.kms. This covers the four Prabhags (Division offices) and 15 zonal offices serving a population of approximate Rs. 14 lakhs falling under 105 electorate wards. PCMC provides different citizen centric services through five CFC’s. These CFCs will be expanded to 15 CFCs,
for various zonal offices and also install information kiosks in 105 electorate wards with complaint monitoring system.

The initiative under E-Suvidha has considerably reduced the hassles and burdens faced by the citizens. Citizens take minimum time and cost for availing these services. Citizens avail the facility on a mouse click from home or office or any remote location-avoiding visit to Corporation office or division office. Payment of charges and taxes directly online through payment gateway facilities reduces the traveling cost and valuable time. Citizens save about 3 – 4 hours of time through availing E-Suvidha facilities and in some cases citizens save days by availing the online facilities of the PCMC.

Kiosks set up different wards, zonal offices and other public places have helped the citizens who are not proficient with net banking and who are not able to avail web based facilities. Visit to Kiosks at the nearest point helps the citizens to avail the facilities, services and payment of different charges, taxes and bills.

GISDA, the web based application helps the citizens to locate their properties for assessment details and for payment of taxes online. GISDA, with all the utility mapping has helped the PCMC to monitor the delivery of essential services such as water supply, drainage lines, roads, street lights, garbage bins, etc. This has increased the overall service delivery improvement to provide services and identify the areas which do not avail these services and utilities.

The following sections provide details about the services provided under E-Suvidha initiative.

❖ Property & Water Revenue Management

For citizens the property assessment details and water charges are available online with online payment facility. This has reduced number of visits by the citizens to the corporation office.
Fig 22: Process of Building Permission with the Help of Auto DCR

- **Citizens Facilitation Center (CFC)**

PCMC’s Citizens Facilitation Center provides 79 different citizens centric services for over 12 departments of Corporation. The various CFCs work on single window basis to provide one stop service to the citizens for PCMC. CFC’s also provide services of the District Collectorate like caste certificates, Domicile Certificate, Ration card, and also provides value added services of Road Transport Office like learning licenses and Collection of Maharashtra State Electricity Board bills, Collection of BSNL bills, Collection of Insurance premiums and Railways ticket booking. A list of Citizen Centric Services at CFC’s for various departments and the services undertaken is given in a table at the end of this documentation.

- **SMS-based complaint monitoring system**

To reduce the difficulties of citizens to send a complaint to PCMC, a SMS based complaint system has been initiated. Citizen sends a complaint by SMS and Scrutiny of received complaints happens through PCMC Administration. A SMS as well as an email immediately goes to the related officer for addressing the complaints. This has reduced PCMC’s response time considerably.

- **Solid Waste Management with Vehicle Tracking**

PCMC has started GPS vehicle tracking system. This GPS system has been integrated with an interface, which will assign waste, pick up job and duty management. The system also monitors and registers the auto job picks up adherence via geo reference and stop at pick up bin location. Vehicles Trip/job report gets generated for number of trips per vehicle per driver and as well as contractor. Pick up adherence report, exception report on missed bins also gets generated for the authority to monitor the collection of solid waste form bins. Tracking report, stoppage,
over speed reports and detentions reports and idle reports are getting generated for continuous monitoring of collection and transportation of vehicles.

Enterprise Resource Planning (ERP) with its own sources of revenue.

The next phase of the E-Suvidha project will be developed to bring all services on

Fig 23: The Vehicle Management System Works as shown in the Flowchart

Geographical Information Systems

PCMC has as GIS mapping of 182 sq. kms area. This has been done through geo-referencing of the Quick Bird satellite map of 0.6 meters resolution map. This mapping has been developed for GISDA by Science and Technology Park (STP) and on terms integration with various databases and application services. GISDA runs from a centrally located system, which can be accessed through web.

GISDA applications are enabled with Payment Gateway and digital signature wherever required. GISDA provides core web technology and a GIS platform that is used by all other applications to provide Web-GIS based Citizen Centric Services.

Sustainability:

PCMC ensures the sustainability of the initiative through following measures:

- PCMC has expedited the initial phase of the E-Suvidha project like GISDA, a single platform
- PCMC’s CFCs run on the PPP model. PCMC will implement the Wimex project of providing Wi-Fi connectivity throughout the PCMC limits on a PPP model.
- PCMC has a pool of strong in house staff for the technology maintenance supported by regular trainings. PCMC takes the support of a single technology consultant, Science and Technology Park, Pune University for the technology maintenance. Apart from this, STP of India has been appointed for web server maintenance.
- Disaster Recovery Center has been set up by PCMC. The location of the center is in a Hospital Premises maintained by the PCMC. The center gets the data backup of all the applications and the servers update the data online basis.
- PCMC has staff strength of 65 in its computer and IT department.
- Regular project assessment and feedback on changes and best practices to be followed.
**Achievements/ Results**

Stakeholder wise services and benefits of ICT/e-Gov interventions at PMC are:

- **Property & Water Revenue Management**

  Through this service:
  - Citizens can view their bills online
  - Taxes can be paid online from home
  - High level of transparency is achieved
  - Strong MIS and administration control
  - Citizens can pay or use any office of corporation as well as CFS
  - Easy Property Registration for tax assessment
  - Ability to create/copy rate profile for different tax years
  - Property Tax calculations tax type wise financial year wise
  - Configurable Property tax calculation rules
  - Self-Assessment of Property Tax
  - Provisional Tax and Notice generation.

- **e-Tendering**

  This facility helps:
  - All the Departments publish tenders online
  - Bidders can view/download tenders online
  - Bidders pay SD/EMD fees online
  - Bidder bid online using digital signature
  - Bidding is controlled through parameters like bidding capacity
  - Tenders only opened by Tender committee using digital signatures online
  - Lowest financial bids (L1/L2) are published online to all bidders
  - The Bidder registration is one time process
  - Tender-Committee can be defined per tender
  - Department wise Bidder Registration as well as common Bidders
  - Bidding Capacity and Tender limits are configurable with Rate Contracts
  - Integration with Accounting
  - Generation of comparative statement as well as identification of L1
  - Facility to define multiple manufacturers for single item and bidders can bid for multiple manufacturers for single item
  - The comparative statement is and L1 is generated for all manufacturers as well as manufacturer wise
  - The EMD and Tender Fees are auto-calculated based on Tendering Rules.
  - Bidders can pay the EMD and Tender Fees online through online payment gateway.

- **Building Permission Management**

  The broad uses of the Building Permission management system are:
  - Creation of New Projects and Associates for the developed drawings and project attributes.
  - The Auto DCR system reads the drawing and extracts the geometrical information of layouts and building plans.
  - Single Window to get all N.O.C. The application is integrated internally with all departments.
  - Integrated with digital signature key – The applicant signs the application digitally and then it is encrypted.
  - Based on the project attributes the graphical object information is mapped to the relevant development control rules.
  - Final detailed rules verification report is produced, indicating Passed/Failed status for each rule.
  - Reduces the Architect's/Authority’s effort for drawing and calculations.
  - Permission status is available online to the applicant
  - Eliminates the Human Errors & Manipulation and produces accurate reports.
  - Tremendously reduced the time cycle of approval
  - Escalation of Alerts on unnecessary delays
  - Standardize the drawing process.
  - Detailed User Friendly dynamic reports.

- **Dashboard for Works Management**

  This facility offers following services:
Every work has unique identification number generated by the system this will be used for all purposes.

- Budget is loaded in the system as source of the works information.
- The work flow of various stages of the work is configured in the system.
- At every stage the person who is in charge of that work needs to update its status.
- It is linked to e-tendering application.
- The work flows through various stages of approval. Once it is approved and work order is issued it can be commenced.
- Work in progress can be tracked for its completion, bills raised, payments made and funds allocation.

**Solid Waste Management with Vehicle Tracking**

The system includes benefits like:

- Bin wise service efficiency report
- Business specific alerts via SMS/email
- Vehicle being dispatched to trip
- Vehicle reaching assigned waste bins locations
- Unloading at land fill site
- Vehicle stoppage time in various locations and breakdown.

**Geographical Information Systems for Dynamic Administration (GISDA)**

GISDA has been integrated with different modules and applications such as property tax, water charges, project monitoring systems, building permission giving all the services online to the citizens. Utilities mapping has been completed for the entire 182 sq.kms such as water supply lines, drainage lines, roads and flyovers, projects, sewage treatment plants, water treatments plans, hospitals, schools, water bodies, garbage bins, land use patterns, street lights, grounds and stadiums, swimming pools, markets (commercial and vegetable), hotels, etc.

**Impact of the Reform**

The initiative under E-Suvidha has drastically reduced the hassles and burdens faced by the citizens. Citizens take minimum time and cost for availing the services. Citizens avail the facility on a mouse click from home or office or any other location rather than traveling to Corporation office or division office. Payment of charges and taxes directly online through payment gateway facilities reduces the traveling cost and valuable time. Citizens save nearly 3 hours – 4 hours of time through availing E-Suvidha facilities and in some cases citizens save days by availing the online facilities of the PCMC.

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GISDA, the web based application helps the citizens to locate their properties for assessment details and for payment of taxes online. GISDA, with all the utility mapping has helped the PCMC to monitor the delivery of essential services such as water supply, drainage lines, roads, street lights, garbage bins, etc. This has increased the overall service delivery improvement to provide services and identify the areas which do not avail these services and utilities.
Table 19: List of Citizen Centric services at CFC’s for various department and the services undertaken

<table>
<thead>
<tr>
<th>Sub. No</th>
<th>Sr. No.</th>
<th>Department Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>Sky Sign &amp; Industrial License Department</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>(1) Industrial License (Fabrication, Welding, Molding, Chemical etc.)</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>(2) Industrial License (Except Sr. No.1)</td>
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<tr>
<td></td>
<td>3</td>
<td>(3) Industrial / Trade License Renewal.</td>
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<tr>
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<td>4</td>
<td>(4) Trade License</td>
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<td>(5) Store License</td>
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<td>6</td>
<td>(6) Store License Renewal</td>
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<td>2</td>
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<td>Medical Department</td>
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<td>(1) Food License</td>
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<td>(6) Private Traders License</td>
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<td></td>
<td>27</td>
<td>(3) Sanction Development Project</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>(4) Set Back Checking</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>Property Tax</td>
</tr>
<tr>
<td></td>
<td>29</td>
<td>(1) Property Tax Registration</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>(2) Registration for New Property (Objection Received &amp; type of objections)</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>(3) Registration of Increase Area (Objection Received &amp; type of objections)</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td>(4) N.O.C. For Property Tax arrears</td>
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<tr>
<td></td>
<td>33</td>
<td>(5) Property Transfer (Objection Received &amp; type of objections)</td>
</tr>
<tr>
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<td>34</td>
<td>(6) Property Transfer to nominee</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>Self Assessment Project</td>
</tr>
<tr>
<td></td>
<td>35</td>
<td>(1) Self Assessment’s Application</td>
</tr>
<tr>
<td></td>
<td>36</td>
<td>(2) Documents of Self Assessment</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>Slum Improvement &amp; Rehabilitation Department</td>
</tr>
<tr>
<td></td>
<td>37</td>
<td>(1) N.O.C. For Electric Connection</td>
</tr>
<tr>
<td></td>
<td>38</td>
<td>(2) N.O.C. For Water Connection</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>Building Permission Department</td>
</tr>
<tr>
<td></td>
<td>39</td>
<td>(1) Architect License</td>
</tr>
<tr>
<td></td>
<td>1. Building Permiision/Commencement Certificate</td>
<td></td>
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<tr>
<td>40</td>
<td>(2) Plinth Checking</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>(3) Completion Certificate</td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>(4) Building Permission Plan Renewal</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Garden Department</strong></td>
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</tr>
<tr>
<td>44</td>
<td>(1) Tree Cutting (Total removing/ Branches Cutting)</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>(2) N.O.C. Of Tree Plantation for Building Permission</td>
<td></td>
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<tr>
<td>46</td>
<td>(3) N.O.C. Of Tree Plantation for Building Completion Certificate</td>
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</tr>
<tr>
<td>47</td>
<td>(4) Tree Plantation Deposit Refund</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Fire Brigade Department</strong></td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>(1) N.O.C. For Theater, Public Hall etc.</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>(2) N.O.C. For Marriage Hall</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>(3) N.O.C. For Video Center</td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>(4) N.O.C. For Petrol Pump</td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>(5) N.O.C. For L.P.G. Agency Godown</td>
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</tr>
<tr>
<td>53</td>
<td>(6) N.O.C. For Hardware Shop</td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>(7) N.O.C. For Paint, Oil, Grease, Chemical, Fertilizer Shop</td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>(8) N.O.C. For Sweet Shop</td>
<td></td>
</tr>
<tr>
<td>56</td>
<td>(9) N.O.C. For Kerosene Storage &amp; Sale</td>
<td></td>
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<tr>
<td>57</td>
<td>(10) N.O.C. For Hotel</td>
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<tr>
<td>58</td>
<td>(11) Theater, Auditorium, Public Hall etc. Renewal</td>
<td></td>
</tr>
<tr>
<td>59</td>
<td>(12) Marriage Hall Renewal</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>(13) Video Center Renewal</td>
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<td>61</td>
<td>(14) Petrol Pump Renewal</td>
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<td>62</td>
<td>(15) L.P.G. Agency/Godown Renewal</td>
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<tr>
<td>63</td>
<td>(16) Hardware SMP Renewal</td>
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<td>64</td>
<td>(17) Paint, Oil, Grease, Chemical, Fertilizer Shop Renewal</td>
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</tr>
<tr>
<td>65</td>
<td>(18) Sweets Shop Renewal</td>
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<tr>
<td>66</td>
<td>(19) Kerosene Storage &amp; Sale Renewal</td>
<td></td>
</tr>
<tr>
<td>67</td>
<td>(20) Hotel Renewal</td>
<td></td>
</tr>
<tr>
<td>68</td>
<td>(21) N.O.C. for Circus</td>
<td></td>
</tr>
<tr>
<td>69</td>
<td>(22) N.O.C. for Touring Theater</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>(23) N.O.C. for Exhibition</td>
<td></td>
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<td>71</td>
<td>(24) N.O.C. for Pandal (Hall)</td>
<td></td>
</tr>
<tr>
<td>72</td>
<td>(25) N.O.C. for Standby Duty</td>
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<tr>
<td>73</td>
<td>(26) N.O.C. for Water Distribution</td>
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<td>74</td>
<td>(27) N.O.C. for Training/Practical</td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>(28) Fire N.O.C. for Company</td>
<td></td>
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<tr>
<td>76</td>
<td>(29) Renewal of Fire N.O.C. of Company</td>
<td></td>
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<td>77</td>
<td>(30) Temporary N.O.C. for Building Plan</td>
<td></td>
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<tr>
<td>78</td>
<td>(31) N.O.C. for Building</td>
<td></td>
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<tr>
<td></td>
<td><strong>Slum Renewal Department (Civil)</strong></td>
<td></td>
</tr>
<tr>
<td>79</td>
<td>(1) License of Slum Maintenance to Authorized Slum</td>
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</tbody>
</table>

*Source: Pimpri Chinchwad Municipal Corporation*
Contact:

<table>
<thead>
<tr>
<th>Contact Person</th>
<th>Shri. Asheesh Sharma, Commissioner, Pimpri Chinchwad Municipal Corporation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address of the Organization/Agency</td>
<td>Pimpri Chinchwad Municipal Corporation, Pimpri - 411 018, Pune (India).</td>
</tr>
<tr>
<td>Telephone No.:</td>
<td>020-27425511; 020-27425600</td>
</tr>
<tr>
<td>E-mail:</td>
<td><a href="mailto:pcmc@vsnl.com">pcmc@vsnl.com</a></td>
</tr>
</tbody>
</table>
Title of the Reform:

**Online Tendering Application: e-Governance Initiatives**

Pimpri Chinchwad Municipal Corporation

(State/City: Maharashtra/ Pimpri Chinchwad  
BP Code: URF-###-####-1670-1109-2)

Previous Situation

Pimpri Chinchwad city is managed and governed by the Pimpri Chinchwad Municipal Corporation (PCMC) and is responsible for providing infrastructure services to the citizens of the city. The city has an area of 171 sq. km with an estimated population of over Rs.12.5 lakhs. For administrative purposes, the entire city is divided into four wards. With a high growth of around 100% in the last two decades and more than 150% in the previous decades, the city’s service levels have been severely strained. This pressure is expected to intensify; since the population of Pimpri Chinchwad is expected to grow at a high rate in the subsequent three decades due to the all round economic development of the Pune region. Accordingly, the population of the city is estimated to reach Rs. 15.07 lakhs and Rs. 21.50 lakhs by 2011 and 2021 respectively. To service this increased population efficiently, PCMC has taken steps towards implementing various urban reforms and e-governance being one of the prime focus areas of PCMC.

The Reform

The e-Tendering application is an online tendering system implemented at PCMC for all the projects and procurements. Submission on tenders, documents, EMD’s, security deposits and tenders are available through online and e-banking facilities.

e-Tendering is a web application that allows registered bidders to bid online for the tenders published by the corporation. For this they have been assigned with a login ID and password as well as Digital Signature based on Public Key Infrastructure (PKI). Once the bidders have submitted the bids in the stipulated time, the tender opening committee members (Authorized signatories Employees of the corporation) use their digital signatures along with username and passwords to open the tender. For PKI we use PKI infrastructure provided by e-Lock http://www.elock.com/.

At the time of bidding the bidder have to use the online payment gateway to pay the EMD and form fee. PCMC has integrated with Bill-desk (http://www.billdesk.com) for the online payment gateway.

Features

- Bidders can view/download tenders online
- Bidders pay SD/EMD fees online
- Bidders bid online using digital signatures
- Bidding is controlled through parameters like bidding capacity
- Tenders only opened by Tender committee using digital signatures online
- Lowest financial bids (L1/L2) are published online to all bidders
- The bidder registration is one time process
- Tender committee can be defined per tender
- Department wise Bidder Registration as well as common bidders
- Bidding capacity and tender limits are configurable with Rate Contracts
- Integration with Accounting
- Generation of Comparative statement as well as identification of L1
 Facility to define multiple manufacturers for single item and bidders manufacturers for single item.

Implementation Strategies

All the Departments publish tender online. Bidders can view/download tenders online. Bidders pay EMD fees online. Bidders bid online using digital signatures. Bidding is controlled through parameters like bidding capacity. Tenders only opened by Tender committee using digital signatures online. Lowest financial bids (L1/L2) are published online to all bidders. The Bidder registration is one time process. Tender Committee can be defined per tender Department wise. Bidder Registration as well as common Bidders. Bidding Capacity and Tender limits are configurable with Rate Contracts. Integration with Accounting Generation of comparative statement as well as identification of L1 Facility to define multiple manufacturers for single item is done. Bidders can bid for multiple manufacturers for single item. Comparative statement and L1 is generated for all manufacturers.

The EMD and Tender Fees is auto calculated based on Tendering Rules. Bidders can pay the EMD and Tender Fees online through online payment gateway.

Security and Integrity

The e-Tendering application developed and implemented at PCMC is highly secured. Following are the security measures taken while designing this system.

 Secure Bidder Registration Process.
 PKI Digital Signatures to Bidders with 3-way security.
 PKI Digital Signatures to Tender Committee Members with 3-way security.
 Opening of tenders by all digital signatures of committee members.
 Highly secure Online Payment gateway through bill desk (Hypertext Transfer Protocol Secure [HTTPS] based).
 Addition of Biometric Card level security for bidders and tender committee members for additional security.
 Standardization, Testing and Quality

Fig 24: The Workflow of e-Tendering Application from Tender Definition to Opening of Tenders
Certification (STQC) security certification in process.
- Password expiry policy.
- Web Password policy.

Statistics:

<table>
<thead>
<tr>
<th>Table 20: Number Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Departments</td>
<td>40</td>
</tr>
<tr>
<td>Number of Users</td>
<td>440</td>
</tr>
<tr>
<td>Number of Members of Tender Committee</td>
<td>34</td>
</tr>
<tr>
<td>Number of registered bidders</td>
<td>2989</td>
</tr>
<tr>
<td>Number of Tenders</td>
<td>7800</td>
</tr>
<tr>
<td>Number of Tender Documents Published</td>
<td>1233</td>
</tr>
<tr>
<td>Number of Tenders Published Online</td>
<td>1233</td>
</tr>
<tr>
<td>Online Bids Submitted</td>
<td>1105</td>
</tr>
<tr>
<td>Number of Banks connected online</td>
<td>37</td>
</tr>
<tr>
<td>Number of Cards (Credit / Debit) accepted</td>
<td>All</td>
</tr>
</tbody>
</table>

Source: Pimpri Chinchwad Municipal Corporation

<table>
<thead>
<tr>
<th>Table 21: Value Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of Works managed online through e-Tendering</td>
<td>Rs. 2000 Cr.</td>
</tr>
<tr>
<td>Amount of EMD and Form Fee collected online</td>
<td>Rs. 29 Cr.</td>
</tr>
<tr>
<td>Maximum Amount of a single Tender cost managed through e-Tendering Online</td>
<td>Rs. 75 Cr.</td>
</tr>
<tr>
<td>Maximum amount of EMD paid online by a Single Bidder for a single tender</td>
<td>Rs. 75 Lakhs</td>
</tr>
</tbody>
</table>

Source: Pimpri Chinchwad Municipal Corporation

<table>
<thead>
<tr>
<th>Table 22: Performance Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Time taken to open 156 tenders at one go (it used to take 25 days earlier)</td>
<td>3 hours</td>
</tr>
<tr>
<td>Level of Accuracy</td>
<td>100%</td>
</tr>
<tr>
<td>Time taken to open one tender</td>
<td>1 sec</td>
</tr>
<tr>
<td>Level of Transparency</td>
<td>Very High</td>
</tr>
</tbody>
</table>

Source: Pimpri Chinchwad Municipal Corporation

Conference Room Tender Opening

PCMC follows a very innovative process of tender opening. It is called as Conference Room Tender Opening. This initiative is one of the very first radical changes that has instilled in India by a municipal corporation. The tender opening is very transparent, all bidders and corporation officials come together in a conference room, where the tender opening process and software is displayed on a big screen. The Tender officer use announcements to declare the proceedings. After due scrutiny of technical eligibility by the competent authorities, the commercial bid is opened in front of everyone and instantly comparative statement is flashed on the screen. This brings high levels of transparency and confidence in procurement process.

- Satisfied and Happy Citizens, Legislators, Administrators, Engineers, etc.
- Most of the tenders opened through e-Tendering have been resulted into bids actually lower than PCMC’s estimated costs. This is due to the competitiveness of the procurement process. It has resulted into huge savings to the Corporation.
- Speed of Process and processing.
- Removal of manual errors and mistakes.
Achievements/Results

- High level of accuracy in the whole procurement process.
- High level of transparency.
- The tender opening is done in a hall with loudspeakers and on a large screen the comparative statement is displayed online.
- Online Payments makes the EMD transfer easy and seamless.

Contact:

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</tr>
</tbody>
</table>
Title of the Reform:
**SMS and Web-Based Complaint Monitoring System**
Pimpri Chinchwad Municipal Corporation

State/City: Maharashtra/ Pimpri Chinchwad
BP Code: URF-##-###-1670-1109-3

**Previous Situation**

The city of Pimpri Chinchwad is situated towards the northwest of Pune and 160 km from Mumbai, the capital city of Maharashtra. It is predominantly an industrial area, which has developed chiefly during the last four decades. The city has an area of 171 sq. km with an estimated population of over 12.5 lakhs.

With rapid population growth, the city’s service levels have been severely strained. This pressure is expected to intensify, since the population of Pimpri Chinchwad is expected to grow at a high rate in the subsequent three decades due to the all round economic development of the Pune region. Accordingly, the population of the city is estimated to reach 15.07 lakhs and 21.50 lakhs by 2011 and 2021 respectively. To service this increased population efficiently, Pimpri Chinchwad Municipal Corporation (PCMC) has taken steps towards implementing various urban reforms and e-governance being one of the prime focus areas.

**The Reform**

PCMC is having special section to accept citizen’s complaints at Customer Facilitation Centre (CFC). People have to submit their complaints in written format at the desk and a reference no. will be given for next follow-ups. Citizens can also register a complaint on Municipal Corporations web site www.pcmcindia.gov.in.

In the first process citizen have to come to the municipal Corporations Head office or any of the ward office located at various corner of the city and in second process customer should have some knowledge and availability of Internet connection.

These limitations of access reduce people’s interest from the process. So PCMC come up with a latest solution named Short Message Service (SMS) based grievance redressal system. The core advantage of the system is the penetration of Mobile phones. As mentioned the penetration of mobile device is very high than any other communication device. The citizens have to write a SMS about his complaint to Municipal Corporation. The SMS is immediately been added in database. The cutoff time of daily report is 4.00pm. A print-out of all received SMS complaint been taken by CFC department. The report is submitted to Hon’ble Commissioner, a scrutiny of every complaint been done at their end and it will instruct to the operator to launch final complaints to the system.

**Implementation Strategies**

This is a web base application developed in PHP and My-SQL is used as back-end. An administrator login is allowed to launch complaint. The database of application contains mobile no. and email ids of all departments and their respective heads. Administrators have to select department, a name, mobile number and email ID appears automatically from the database. As soon as administrator submits the complaint an SMS as well as email is immediately forwarded to his details with a unique complaint number.

An administrator can launch many complaints in a day. An admin menu can search / print complaints by the unique complaint numbers. Different login IDs for different departments to view the unsolved
complaints and to know the attended complaints.

![Complaint Registration Menu, PCMC]

A report section of application helps administrator to view solved as well as unsolved complaints. A report of pending complaints is available on single click. Administrator can view time taken to solve particular complaint.

![Report Details]

The civic authorities classify the complaints as either simple or complex. Simple complaints would be those which can be solved in a few days, like potholes, choked drainages, and so on. The complex ones are those that require a longer time for redressal. SMSs can be sent to the mobile phone number. Citizens should include their name and address in their text message.

![Sample Report]

There are various departments and committees for looking after the complaints such as SMS committee. To work the process smoothly the corporations have formed the committee to keep close watch on the complete procedure. Committee conducts meeting twice in a month and concentrate on pending complaints.

Through the system of the complaint, 242 complaints were received which shows that it is very efficient system for lodging complaints. If the complaint is not resolved, the citizen will have to be told about its status through SMS.

![Table 23: Statistical Information of Applications]

<table>
<thead>
<tr>
<th>Number Statistics</th>
<th></th>
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<tbody>
<tr>
<td>Complaints received from April 09</td>
<td>414</td>
</tr>
<tr>
<td>Through Email</td>
<td>110</td>
</tr>
<tr>
<td>Through C.F.C</td>
<td>62</td>
</tr>
<tr>
<td>Through SMS</td>
<td>242</td>
</tr>
<tr>
<td>Attended Complaints</td>
<td>389</td>
</tr>
<tr>
<td>Complaints in process</td>
<td>25</td>
</tr>
</tbody>
</table>

Source: PCMC

It is important to note that the grievance redressal system is mandatory under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM).
Achievements/ Results

PCMC launched the SMS complaint service on a trial basis on 20th March 2009. However, it is very early to assess the performance of the system but till date it is proving to be a successful reform initiative.

Replicability

It is good to see that the municipal authorities are taking action that is helpful to citizens, and one hopes that other municipal corporations also adopt such practices.

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</table>
Title of the Reform:

e-Governance Initiatives
Ahmedabad Municipal Corporation

State/City: Gujarat / Ahmedabad
BP Code: URF-##-####-0812-1109-2

Previous Situation

The city of Ahmedabad, being the largest and one of the most industrialized areas in the Gujarat region, crows many flourishing industries which have supported the activities of the local government by way of taxes. With Ahmedabad’s position as an urban centrum in the region, the city is home to approximately 5 million people whose needs are likewise ever-growing. Consequently, the city has been in constant struggle to meet the inevitable challenges brought about by a distressing combination of burgeoning population and poor social infrastructure in the area.

In order to better understand the challenges that confront the Ahmedabad Municipal Corporation (AMC), it is imperative to grasp the complexity of the tax collection system. As stipulated in the regulations of AMC, property tax collected from every building within the jurisdiction limits of the AMC requires a tax assessment. The exercise of tax assessment entails gathering data of various characteristics of the property like usage, area and value among others.

The issuance of licenses to set up and run business establishments in the city is another important regulatory activity of AMC is solely managed by the Gumasadhara department. The Department had the full charge of the receipt and scrutiny of applications relating to registration, renewal, and renewal modification, duplication of licenses, insurance and sign boards as well as issuance of the same. As reported, there has been glaring opportunities for mismanagement and even corruption since the entire process entailed massive paper work under infamous bureaucratic procedures.

Some of the key problems encountered in the manual system were:

- Unnecessary delays due to non-attendance or lack of tax collection personnel to accommodate the taxpayer. This inevitably leads to uncalled for or multiple visits to the ward office
- Unsystematic process of archiving old documents and records. This practice unavoidably creates delay and non-transparency on the part of the official and hence the opportunity for rent-seeking behavior.
- Miscalculation of tax and interest
- Due to the inefficient manual processing of documents, delays in issuing certificates and chances for error in inputting identification details were very common.
- Disorganized and inefficient internal management processes of most of the departments
- Citizen charter was not operational. Citizens’ complaints of harassment against the administration
- Reinforcement of red tapism, bribery and other forms of malfeasance

Examining the summary of institutional problems met by AMC, interest has been focused on seeking viable solution to the problem. Learning from the experiences of developed and even other developing countries, investing on Information and Communications Technology (ICT) infrastructure through e-Governance seems to be a panacea in promoting transparency and accountability within the corporation.
The Reform

As part of AMC’s commitment to good governance, e-Governance was introduced to alleviate the problems encountered by both the administration and the citizens. e-Governance is a form of public administration making use of ICT to enhance the access and delivery of government services to benefit citizens, employees and management of urban local bodies. It aims to help strengthen government’s drive toward effective governance and increase transparency to better manage social and economic resources for development. Government of India (GoI) has launched a National e-Governance Plan (NeGP). NeGP intends to institute and enable mechanisms to improve the system of governance and thus provide better services to the citizens by effective use of ICT. Implementation of e-Governance reform is one of the mandatory reforms under Jawaharlal Nehru National Urban Renewal Mission (JNNURM).

Following services are to be covered under this reform:

- Basic citizen services: Birth and death registration and health programs
- Revenue earning services: Property tax and licenses
- Development services: Water supply and other utilities, building plan approval
- Efficiency improvement services: Procurement and monitoring of Projects
- Back office improvements: Accounting and personnel management system
- Monitoring: Citizen Grievance Redressal.

The driving force of AMC to introduce comprehensive reforms was to make the Corporation function in a more efficient, transparent and citizen-responsive system. The key idea is to institute changes within the corporation to bring about progressive outcomes for the city.

Goals of the Reform

ICT has truly revolutionized the government-citizen relationship because of its emphasis on the people’s right to proper information and better service from the government. Working on the context of the AMC, the broad goal of the reform was to use ICT in the most innovative way to mobilize resources for the AMC and to provide better services to citizens. Other important objectives were to:

- Provide to the citizens of Ahmedabad, easy access to the information and better services of the corporation.
- Eliminate discretionary human interface in the decision making processes while dealing with public.
- Reduce files, process data and make the decision process faster and efficient.
- Raise resources for AMC in order to make the system of administration sustainable.

Implementation Strategies

With the need transform the AMC system, planners created strategies on how to carry out short and long-terms goals of the reform. Laying out these strategies has facilitated wise appropriation of funds and resources. Stated here are the strategies which were drawn out for the e-Governance reform:

- Adopt a city-wide approach for designing the systems and in planning implementation of the e-Governance project. This will not only bring uniformity across the city, but also will result in cost and time optimization.
- Focus should not be on just procurement of hardware or software, but primarily on a critical study of the
existing system and processes for delivery of services to citizens and in providing easy access to information in a transparent manner.

- Focus should be on creating a centralized and unified database across various services.
- Design systems and processes at the state level in order to have uniformity within the state.
- Integrate with other Information Technology (IT) initiatives in the state and leverage core infrastructure, rather than create separate infrastructure thus bringing down the overall cost.
- Build flexibility in the system to meet future needs of Urban Local Bodies (ULBs).
- Involvement of the employees of the corporation from all departments at every step.

The broad strategies described earlier have greatly helped AMC in shaping the activities that were implemented to realize the goals of the reform. These activities provided an avenue for AMC officers to rethink the wasteful practices and unsatisfactory work flow plans that they had adhered to and transform them into a dynamic, efficient and citizen-responsive system. Participatory in nature, these activities allowed the AMC workforce to recognize the exigency of establishing a new infrastructure as well as participate in the decision-making process.

The activities were also aimed at testing the new infrastructure. By doing so, comparisons between the old and the new infrastructure may be made so that limitations on both infrastructures may be pointed and deliberated upon.

This subsection generally describes the specific steps undertaken to make the e-Governance reform possible:

- Formation of task teams and preparation of flow charts;
- Modification of flow charts;
- Preparation of System Requirement Specification (SRS) document;
- System design;
- System architecture;

### Challenges / Constraints Encountered

Reforms do not happen overnight as they are met with resistance, criticisms and more importantly financial constraints. As challenges are a persistent feature of any project, they may either hamper present actions or provide opportunity for teamwork and new learning’s as in the AMC experience. This section briefly describes the challenges in enabling the reform and how they were overcome by the sustained efforts of the various department teams.

- Resource mobilization

Limited government fund and its wise appropriation are two of the main concerns in realizing the reform. The total project cost (excluding civil works) was Rs. 2 crore. This includes the cost of computer hardware, communication equipment and software development. The 26 civic centers were established in the existing buildings of AMC, mostly the zonal offices. The incremental cost of civil works though was not very large. The Team Software Process (TSP) would continue to provide software support for the next three years under the existing contract. These became possible due to the careful planning with AMC department teams.

![Fig 30: IT Officials at work](image)
immediately respond to and act on cases of incorrect assessments made or modifications to property characteristics. The strategy of converting AMC’s own assets into civic center’s was a cost-effective approach to raise the required infrastructure.

Required computer hardware of best available brands in the country was purchased to guarantee the reliability of the products.

- Leadership roles and political support
Reforms may not be possible without the political will of the local government heads. Without the conviction and efforts of the AMC Municipal Commissioner together with the other officers, the initiative could have been futile.

Outcome of the Reform

Around 84 officers from each AMC department were included in the preparation of activity flow charts which form the foundation of this initiative. During the operational phase of the project, each civic centre employed twelve staff members to better assist the citizens seeking AMC service.

There are 10 node operators, 1 system manager, and 1 system operator in each centre. One of the main reasons for the successful development and implementation of this initiative is the large number of capable and committed AMC staff deployed in this project.

In a relatively short period of time, many things have been made possible through this initiative. A utility driven website was established. A simplified and convenient property tax collection scheme was launched. Manual archiving was replaced by a modern data management system. Applications and feedback system have been made available online. A detailed description of each accomplishment is as follows:

- A utility driven website (www.egovamc.org or www.egovamc.com) - It is a single window to gain access to AMC’s intranet and the local area network.
- Collection of property tax - the simplified tax collection system has been put on the website.
- Payment of motor vehicle tax - collection of ‘municipal lifetime vehicle tax’ has been decentralized. Citizens can now pay this tax at any of the 26 civic centers.
- ICICI bank as backend for Finance and Accounts of AMC - This is a unique system, pioneered by ICICI bank and AMC in developing total pay-in and total pay-out system of AMC.
- Online complaint registration system - All 56 wards are connected through intranet and internet to receive and redress complaints on civic services or matters related to municipal dues.
- Online building plan approvals - All city civic centers are equipped to conduct instant scrutiny and to issue, approval of building plans through predetermined parameters as stipulated by the General Development and Control Regulations (GDCR). AMC is the first in the country and perhaps among the very few in the world that have computerized and automated the approval of building plans.
- License for shops and establishments - The civic center’s issue licenses for shops and establishments instantly.
- Instant issuance of birth and death certificates - The Website of AMC provides access to all hospitals to register the birth and death online.
- Online information of infrastructural works and tenders - The process of issuing tenders, sanctioning of infrastructural works, and processing within the organization has been computerized.
- Engineering module - The system has been planned to eliminate rampant indiscipline in the departments related to project planning and implementation.
- Strengthening of institutional capacity - All departments of the AMC is integrated through the intranet.
Achievements/ Results

Some of the successful (positive and sustainable) results/factors/conditions for the Reforms are:

- The civic centre initiative has brought visible benefits to AMC as well as the citizens. The use of ICT in the functions of AMC has not only streamlined the storage and retrieval of information but also has enhanced the quality of services provided to citizens by making the information more accessible.
- The number of services of AMC increased from 3 to 10.
- The number of users increased from 2 Lacs to 10 Lacs.

From the AMC point of view there has been substantial increase in the collection of various kinds of taxes.

- Tax Collection

<table>
<thead>
<tr>
<th>Year</th>
<th>Transactions</th>
<th>% Increase</th>
<th>Amounts (Rs in Millions)</th>
<th>Annual Increase %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>1247613</td>
<td>28.53%</td>
<td>4123.82</td>
<td>45.76%</td>
</tr>
<tr>
<td>2007-08</td>
<td>970686</td>
<td>41.49%</td>
<td>2829.22</td>
<td>20.79%</td>
</tr>
<tr>
<td>2006-07</td>
<td>686050</td>
<td>11.17%</td>
<td>2342.22</td>
<td>15.52%</td>
</tr>
<tr>
<td>2005-06</td>
<td>617105</td>
<td>8.44%</td>
<td>2027.57</td>
<td>-6.23%</td>
</tr>
<tr>
<td>2004-05</td>
<td>569096</td>
<td>14.64%</td>
<td>2162.32</td>
<td>44.94%</td>
</tr>
<tr>
<td>2003-04</td>
<td>496415</td>
<td>150.10%</td>
<td>1491.87</td>
<td>116.57%</td>
</tr>
<tr>
<td>2002-03</td>
<td>198489</td>
<td></td>
<td>886.87</td>
<td></td>
</tr>
</tbody>
</table>

Source: www.egovamc.com

- Property Tax Collection

In 2002-03, the amount of property tax collected was Rs. 130 crore, which is the highest ever for AMC.

<table>
<thead>
<tr>
<th>Year</th>
<th>Amounts (Rs. in Millions)</th>
<th>Annual Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>109086</td>
<td>190.36</td>
</tr>
<tr>
<td>2007-08</td>
<td>30109</td>
<td>20.58</td>
</tr>
<tr>
<td>2006-07</td>
<td>401</td>
<td>0.26</td>
</tr>
<tr>
<td>2005-06</td>
<td>739</td>
<td>0.48</td>
</tr>
<tr>
<td>2004-05</td>
<td>2319</td>
<td>1.46</td>
</tr>
<tr>
<td>2003-04</td>
<td>12752</td>
<td>9.46</td>
</tr>
<tr>
<td>2002-03</td>
<td>13443</td>
<td>8.94</td>
</tr>
</tbody>
</table>

Source: www.egovamc.com

- Motor Vehicle Tax Collection

The new system by the virtue of its being connected with the RTO has the necessary information to assess tax liability and issues demand notices to the vehicle owner. With the present reform, vehicle tax can now be paid at any of the civic centers or at any octroi station. Increase in the number of collection centers has made the system more convenient for the tax payers. This has resulted in additional revenue of Rs.2 crore from vehicle tax within six months.

<table>
<thead>
<tr>
<th>Year</th>
<th>Vehicle tax Transactions</th>
<th>Amount (Rs. In Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>109086</td>
<td>190.36</td>
</tr>
<tr>
<td>2007-08</td>
<td>30109</td>
<td>20.58</td>
</tr>
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</tr>
<tr>
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<td>739</td>
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</tr>
<tr>
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<td>2319</td>
<td>1.46</td>
</tr>
<tr>
<td>2003-04</td>
<td>12752</td>
<td>9.46</td>
</tr>
<tr>
<td>2002-03</td>
<td>13443</td>
<td>8.94</td>
</tr>
</tbody>
</table>

Source: www.egovamc.com

- Shops

Besides these monetary benefits accruing to the AMC, significant gains have been realized in processing and dispensing of licenses. Earlier, the renewal or issue of licenses for shops needed verification of property tax details among other things. The current system has released the AMC of all this work. This has been made possible as the shops and property tax databases are logically linked based on unique

Table 24: Tax Collections of AMC till date

<table>
<thead>
<tr>
<th>Year</th>
<th>Trans-</th>
<th>% Increase</th>
<th>Amounts (Rs in Millions)</th>
<th>Annual Increase %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>1247613</td>
<td>28.53%</td>
<td>4123.82</td>
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</tr>
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<td>41.49%</td>
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<tr>
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<td>2027.57</td>
<td>-6.23%</td>
</tr>
<tr>
<td>2004-05</td>
<td>569096</td>
<td>14.64%</td>
<td>2162.32</td>
<td>44.94%</td>
</tr>
<tr>
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<td>496415</td>
<td>150.10%</td>
<td>1491.87</td>
<td>116.57%</td>
</tr>
<tr>
<td>2002-03</td>
<td>198489</td>
<td></td>
<td>886.87</td>
<td></td>
</tr>
</tbody>
</table>

Source: www.egovamc.com

Table 25: Collection of Property tax

<table>
<thead>
<tr>
<th>Year</th>
<th>Transaction</th>
<th>% Increase</th>
<th>Amounts (Rs in Millions)</th>
<th>Annual Increase %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>903004</td>
<td>8.34%</td>
<td>3191.53</td>
<td>19.66%</td>
</tr>
<tr>
<td>2007-08</td>
<td>833457</td>
<td>39.49%</td>
<td>2667.16</td>
<td>16.94%</td>
</tr>
<tr>
<td>2006-07</td>
<td>597489</td>
<td>11.09%</td>
<td>2280.84</td>
<td>15.56%</td>
</tr>
<tr>
<td>2005-06</td>
<td>537831</td>
<td>10.53%</td>
<td>1973.78</td>
<td>13.10%</td>
</tr>
<tr>
<td>2004-05</td>
<td>486604</td>
<td>5.97%</td>
<td>1745.17</td>
<td>28.58%</td>
</tr>
</tbody>
</table>

Source: www.egovamc.com
identification number i.e. the tenement number.

Table 27: Collection of Taxes from Shops

<table>
<thead>
<tr>
<th>Year</th>
<th>Shops</th>
<th>Transactions</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/04/09 To 13/10/09</td>
<td>14,006</td>
<td>1242061</td>
<td></td>
</tr>
<tr>
<td>2008-09</td>
<td>25,676</td>
<td>2278150</td>
<td></td>
</tr>
<tr>
<td>2007-08</td>
<td>25,567</td>
<td>2998947</td>
<td></td>
</tr>
<tr>
<td>2006-07</td>
<td>24,500</td>
<td>1636116</td>
<td></td>
</tr>
<tr>
<td>2005-06</td>
<td>25,208</td>
<td>1712527</td>
<td></td>
</tr>
<tr>
<td>2004-05</td>
<td>23,062</td>
<td>1636116</td>
<td></td>
</tr>
<tr>
<td>2003-04</td>
<td>17,703</td>
<td>1546679</td>
<td></td>
</tr>
<tr>
<td>2002-03</td>
<td>8,599</td>
<td>604829</td>
<td></td>
</tr>
</tbody>
</table>

Source: www.egovamc.com

- Reduction in the Number of Litigations:

Another gain to AMC has been the ability to assess the total number of citizen complaints received on various accounts. The complaint reporting system now provides AMC with accurate data on real time basis of all complaints lodged by the citizen.

- Birth and Death Certificates

Now for a payment of Rs. 25 birth and death certificates can be obtained in a matter of two days in most normal cases. The AMC has got into an arrangement with the Post and Telegraph department for printing, laminating and dispatch of birth and death certificates to the applicant. The database now contains all records on birth and deaths from 1981 onwards. The data entry work is in progress and soon all records will be transferred from paper files to databases.

Table 28: Issue of Birth Death Certificate through E-Governance

<table>
<thead>
<tr>
<th>Year</th>
<th>B/D CERT</th>
<th>Transactions</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/03/09 To 13/10/09</td>
<td>45,498</td>
<td>1846035</td>
<td></td>
</tr>
<tr>
<td>2008-09</td>
<td>82,09</td>
<td>3375030</td>
<td></td>
</tr>
<tr>
<td>2007-08</td>
<td>73,928</td>
<td>3016175</td>
<td></td>
</tr>
<tr>
<td>2006-07</td>
<td>57,068</td>
<td>2174275</td>
<td></td>
</tr>
<tr>
<td>2005-06</td>
<td>48,297</td>
<td>1788925</td>
<td></td>
</tr>
<tr>
<td>2004-05</td>
<td>42,447</td>
<td>1584075</td>
<td></td>
</tr>
<tr>
<td>2003-04</td>
<td>1,317</td>
<td>57500</td>
<td></td>
</tr>
<tr>
<td>2002-03</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Source: www.egovamc.com

- Citizen gains

The citizens too have benefited significantly from the e-government project. The citizens now have more access to municipal government services. The 26 civic centers and 24-hour website access have allowed the citizen to assess and pay the dues and check status of applications seamlessly. Overall the citizens have greatly benefited from the reform as most transactions only take 10 minutes to accomplish unlike the earlier systems which took hours and even several visits to complete the work.

Based on citizen interviews regarding the service quality offered at the civic centers, improvements have been present which include:

- Up-to-date equipment
- Appealing Physical facilities
- Operators are sympathetic and reassuring when citizens have problem
- Operators are dependable
- The system has accurate records
- Less time required for getting service
- Quick and clear answer to query
- Knowledge of person to be contacted for service
- Access to information and knowledge of procedures

Table 29: Benefits to Citizens from E-government at AMC

<table>
<thead>
<tr>
<th>Application/Service</th>
<th>Before Description</th>
<th>After Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth and Death certificates</td>
<td>Several days/multiple visits</td>
<td>Two days in most cases</td>
</tr>
<tr>
<td>Property tax payment</td>
<td>Hours, multiple visits</td>
<td>Under 10 minutes</td>
</tr>
<tr>
<td>Vehicle tax</td>
<td>Hours, multiple visits, evasion</td>
<td>Under 10 minutes</td>
</tr>
<tr>
<td>Building Plan approval</td>
<td>Average of 6 months</td>
<td>Instantly if application is in order, further refinements are in progress</td>
</tr>
<tr>
<td>Complaints</td>
<td>No way of knowing status,</td>
<td>Status known immediately, attended within 24 Hrs in majority of cases</td>
</tr>
<tr>
<td>Licenses for shops and establishment</td>
<td>Several days, multiple visits and middle men</td>
<td>Under 10 minutes</td>
</tr>
</tbody>
</table>

Source: www.egovamc.com

- Social gains

Finally transparency and better service delivery has brought in overall societal gains, though only in small way. In the earlier system property tax assessment was not well understood by the citizens and the assessor was also the collector thus leaving many opportunities for malpractices. Now
with the interface between government and the citizen being just a computer operator, the tax assessment procedure having been simplified and understandable and ease of payment, people no longer have to worry about the tax their neighbors are paying.

In other words social capital is likely to be fostered as trust levels increase and reciprocal behavior in society becomes more common and frequent.

**Replicability**

According to the AMC officials who were involved in this initiative, the most easily transferable aspect of this initiative is the software itself. They feel that the system architecture and the software available with AMC can be easily adapted. Other urban local bodies may approach them to explore this possibility.

The two most aspects of this initiative that the other urban local bodies may wish to adopt are the concept of the city civic center and the system development approach taken by AMC. The concept of establishing such centers at different locations in a city shows the urban local body’s proactive approach to citizen-centric governance. The AMC’s strategy for involving a large number of its existing staff in making information flow charts and system design was the key to its success in achieving all of the key objectives of this initiative.

**Impact of the Reform**

The e-governance module of AMC has bagged several awards. Some of worth mentioning awards are:

- International Best Practices 2004 at Melbourne, Australia for City Civic Centers & e-Governance which was selected as one of the six best practices in the world and has been termed as a Community Service Revolution by International City /Country Management Association (ICMA), Washington D.C.
- National Award 2008, Govt for e-Governance 2008-09 by Department of Administrative Reforms & Public Grievances, Ministry of Personnel, Public Grievances & Pensions, and Department of Information Technology (DIT), Govt, (Uttar Pradesh, Kerala) at ICT event on e-Governance at Hyderabad.
- This reform has been documented in the “JNNURM Primers on e-Governance” also by AMC.

---

Fig 31: Govt. of India’s National Awards for e-Governance 2008-09 for AMC

- e-India 2009 Awards, by Department of administrative reforms & Public Grievances, Ministry of Personnel, Public Grievances & Pensions and Department of Information Technology (DIT), Govt, (Uttar Pradesh, Kerala) at ICT event on e-Governance at Hyderabad.
- This reform has been documented in the “JNNURM Primers on e-Governance” also by AMC.
Contact:

<table>
<thead>
<tr>
<th>Contact Person:</th>
<th>Capt. Shri Dilip Mahajan, Ahmedabad Municipal Corporation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone No.:</td>
<td>+91-79-2755 6633</td>
</tr>
<tr>
<td></td>
<td>+91-79-2756 0594 (fax)</td>
</tr>
<tr>
<td></td>
<td>+91-982501 3010 (Mb)</td>
</tr>
<tr>
<td>E-mail:</td>
<td><a href="mailto:dilipmahajan@egovamc.com">dilipmahajan@egovamc.com</a></td>
</tr>
</tbody>
</table>
Title of the Reform:
GIS Survey of Moradabad Nagar Nigam
Moradabad City Corporation

State/City: Uttar Pradesh/Moradabad
BP Code: URF-##-###-2873-1109

Previous Situation

Way back in January 2007, the Moradabad City Corporation (MCC) resolved to implement Geographic Information System (GIS) principally to augment and rationalize Property Tax Assessment System. Human interface was causing great depletion of revenue, not only in assessing and collations of Property Taxes but large scale complaints were aired by the public in general about the inequity and lack of natural justice in assessment process of properties of the denizens. As a result when Government of India introduced Urban Reform Incentive Fund (URIF) scheme, MCC quickly picked up the opportunity of introducing GIS mapping and assessment of properties by machines, which succeeded in substantially reducing human interface in relation to properties and thereby the general public complaints.

The Reform

MCC divided the reform work in two phases:

1st Phase

During the first phase of introduction of GIS MCC precisely measured its boundary lines and demarcated the entire area where GIS had to be done. It comprised of:
- East village Devapura and Sirsa Inayatpur Uncha.
- West village Agwanpur and Didora
- North River Ramganga.
- South Village Magupura and Umri.
- The whole city covered an area of 85 square kilometers.

In February 2007 a meeting was convened at the Regional Center for Urban and Environmental Studies (RCUES) in Lucknow in which it was decided to outsource the GIS work of MCC and same was handed over to M/S Vikas Engineers, Gorakhpur and a tripartite MOA was signed between the company, City Corporation and Regional Center.

2nd Phase

Initially lack of willingness to systemic change resulted in slower progress of the work than expected. However the company completed the first phase of activities by end of August 2007 and second phase started. Base map was prepared with the application of quick bird satellite image with the resolution of 0.65 m. Geo referencing and digitization of the map slowly picked up speed. The base map so generated showed the Municipal limit showing all the features like building, boundary walls, roads (all types), river, drains, railway lines, electric poles etc and generation of 1:1000 scales. Ground validation survey of the digitized maps in consultation with the Corporation staff for the identification of ward boundaries on site and superimposing and tallying the boundaries of wards/ sub zones and localities (mohallas). Ground validation survey nevertheless proved to be an uphill task again due to internal resistance.

Implementation Strategies

The problem motivated the administration to find out an innovative solution to overcome it. MCC has divided its strategies in two Activity areas such as:

Activity-1

- Procurement of satellite images (0.65 m resolution);
- Geo-coding and geo-referencing of satellite imagery with respect to the available property codes of municipal corporation;
• Digitization of satellite images including vectorisation, symbolization, layering, edge matching etc.; and
• Preparation of base map of municipal limit showing all the features like building, boundary walls, roads (all types), river, drains, railway lines, electric poles etc and generation of 1:1000 scale maps;

After a rapid inventory of all available information, the first step Moradabad City Corporation initiated is to divide the city into 16 wards and these wards taken into consideration in order to prepare a base map, which could be made useful to other departments also.

• Ground validation survey of the digitized maps in consultation with the Corporation staff for the identification of ward boundaries on site and superimposing and tallying the boundaries of wards/ sub zones and localities (mohallas).
• Assess, quantify and suggest the manpower requirements for the GIS cell.

The Wards covered comprised of the various Mohallas like Asalat-Ganj, Kataghar, Gandhi Nagar etc. Numbers were allotted to each Mohallas and even to un-assessed properties and then the second step of cross checking of the data from the computer has begun.

The City has grown to almost twice the size, with a proportionate increase in the number of properties. But, as was obvious, many of these properties were unaccounted for, even in the older areas of the city making reassessment of properties an essential need for the accuracy of the study.

A household survey on the basis of questionnaires was done and the data thus collected was checked, corrected and fed into MS Excel sheets at the end of each day. Thus, the most important step is to verify the data on the hard copy of map of mohalla and excel sheets of records. This
verification work is performed in the Corporation office and the field by the joint effort of company and the Corporation staff. Thereafter, the data entry of rectified tax attributes in the data base software is performed.

**Activity-2**

The Activity-2 included following tasks:

- Design of data formats that capture existing data;
- Conduct household surveys on the field on the selected data format to capture different attributes;
- Data entry of the tax attributes in data base (GIS) software so that as one click on the specific unit, it shows all the details captured on the ground;
- To verify the data on the hard copy of map of mohalla and excel sheets of records. This verification work is performed in the Corporation office and field by the joint effort of company and Corporation staff; and
- The data entry of rectified tax attributes in the data base software is performed. Now entire details of one mohalla have been entered into the software;

Further, GIS format given below was developed for data entry and information feeding related to property.

- Actual installation of software for the generation of bills.
- Assuming that mohalla is the unit for the collection of property tax.
- We will prepare the property map / base map on the unit of mohalla, then ward, then zones.
- Editing of map of one mohalla in the field including showing different land use of building, metalled, unmetalled and brick (khadanka) road.
- Dividing pocket of houses into each unit in the field in the map.
- Editing of map of mohalla on computer on the basis of corrections performed in the field.
- The complete base map of ward was prepared.
- Meetings were arranged with Corporation staff and the company for the acquisition of information on functions, services and taxation types, norms and parameters etc.

Irrespective of the reassessment stumble, financial benefits projected for the MCC were tremendous. All calculations were

---

**Fig 35: GIS Survey Format of Moradabad Nagar Nigam**

<table>
<thead>
<tr>
<th>Unique ID</th>
<th>Owner's Name</th>
<th>Tenant Name</th>
<th>House No</th>
<th>Assessment</th>
<th>Use</th>
<th>Structure</th>
<th>Building Coverage</th>
<th>Built up</th>
<th>Carpentaria</th>
<th>Floor A/B/C/D/E</th>
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<tr>
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<td>Ashok Kumar, Ayodhya Prasad</td>
<td></td>
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<td>154</td>
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<td>D</td>
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<tr>
<td>01000093-</td>
<td>Smt. Priti, Kaushal Kiran</td>
<td></td>
<td>1/1525</td>
<td>1</td>
<td>2</td>
<td>30</td>
<td>361</td>
<td>365</td>
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</tr>
<tr>
<td>01000094-</td>
<td>Prahul Niyakan, Ram Charan</td>
<td></td>
<td>1</td>
<td>2</td>
<td>35</td>
<td>722</td>
<td>1155</td>
<td>924</td>
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<td>D</td>
</tr>
<tr>
<td>01000095-</td>
<td>Manishwar Sharma, Tara Chaudhary</td>
<td></td>
<td>1</td>
<td>2</td>
<td>30</td>
<td>363</td>
<td>226</td>
<td>181</td>
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<td>01000096-</td>
<td>Saty Varti Sharma</td>
<td></td>
<td>1</td>
<td>2</td>
<td>30</td>
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<tr>
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<td>20</td>
<td>309</td>
<td>247</td>
<td>198</td>
<td>1</td>
<td>C</td>
</tr>
</tbody>
</table>
made in accordance with the tax levy on the residential population. Since this exercise was not a one-time operation, it was necessary to train the staff in order that the project could stay alive. Workshops and presentations were held within Moradabad City Corporation for creating awareness amongst the officers as well. GIS helped in methodical survey and assessment of properties based on least human interface and reduced public complaints. GIS survey has been completed and bills are being generated.

**Achievements/ Results**

The use of the new GIS was to facilitate the municipal property assessment. With the well-managed computer record system, there was no hitch in proceeding towards the next step in a GIS. A feasible reassessment methodology could be developed and implemented without concern for data management.

GIS survey has been completed and bills are being generated. Prior to GIS survey approx. 1,35,00 properties were listed in the property record of the ULB but now all the properties have been identified and the total number of properties is now 148140. This increase in property tax is mainly due to:

- Increase in the number of residential, commercial as well as semi commercial properties.
- Increase in built up area of the properties.

The other achievements of the reforms are:

- A Mandatory Reform under Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) Scheme was achieved.
- This would go a long way in helping & providing easy access to the citizens through tax collection centers (Zonal Offices). Tie up with the Banks for on line payment of property tax is another initiative being undertaken.
- New Initiative will minimize the level of corruption at the local level by scuttling the human interface as discretionary powers are reduced & will ensure rule of
law and transparency in property tax assessment and collection system.

- Will help the State Govt. in getting the correct picture of taxes as on date.
- The Corporation staff feel more confident in taking the initiative further after getting trained under the project.

**Replicability**

This reform is very much replicable and Municipal GIS to be initiated in other towns in the State like Ghaziabad, Meerut, Agra, Kanpur, Lucknow, Gorakhpur, Bareilly, Varanasi, Allahabad and Aligarh etc. Work has been started in a few cities.

![Fig 38: Launching online billing of property taxes](image)

*Fig 38: Launching online billing of property taxes*

**Impact of the Reform**

The reform process is still in progress and documentation of the project is being done.

<table>
<thead>
<tr>
<th>Contact Person:</th>
<th>Mr. Arvind Singh, City Commissioner, Moradabad Nagar Nigam, UP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address of the Organization/Agency:</td>
<td>Moradabad Nagar Nigam, Kanth road, Moradabad City, Uttar Pradesh, India Pin code/Zip: 244001</td>
</tr>
<tr>
<td>Telephone No.:</td>
<td>0591-2450465</td>
</tr>
<tr>
<td>E-mail:</td>
<td><a href="http://www.moradabad.in">www.moradabad.in</a></td>
</tr>
</tbody>
</table>

--------------------------------------------------------------------
Revision of Building By-Laws:

- Implementation of the Web- Based Online Building Plan Approval System: Surat, Gujarat
- Streamlining of Building Plan Approval Process: Pune, Maharashtra

The objective of this reform is to simplify the approval process of sanction of building plans to make it simple, transparent, and citizen friendly. The revision of building bye laws to streamline the approval process is expected to enhance compliance to the building bye laws and the Development Planning Control Rules. Many cities have taken steps to adopt various methods towards successful implementation of this reform. Pune Municipal Corporation was the first ULB in India to introduce automation of building plan approval process using a customized software solution, Auto DCR. The Surat Municipal Corporation has simplified the license issuing process and building construction approvals procedures through proper data management system.
Title of the Reform:
Implementation of the Web-Based Online Building Plan Approval System
Surat Municipal Corporation

State/City: Gujarat / Surat
BP Code: URF-##-###-0815-1109

Previous Situation

The entire process of building plan approval system was done manually in a traditional way. The licensed architects/engineers/surveyors were submitting the plan/document in hard copy to the building plan approval department. This was submitted in the form of bulky file, which contained set of building plans and the ownership documents. The file also used to contain the calculation of area statement related to Floor Space Index (FSI), coverage, parking requirements, and other required papers.

The Town Development Department of the Surat Municipal Corporation (SMC) was receiving the plan/file for approval. The Department’s files were submitted and routed from lower to higher as well as higher to lower officers through manually based system. The file used to get checked from a junior engineer to deputy engineer to an executive rank officer as well as deputy commissioner-to-commissioner rank officers for sanctioning of the plan. The entire accuracy and the efficiency of the checking and analysis were dependent upon the lower rank officer of the Department through his mental and physical ability.

The status of approval i.e. the current stage of a particular approval system was also known manually, by enquiring from the concerned officer of that Department. Submission of Development Permission Application (DPA) was in hard copy, Requirements of documents and applicability of regulations decided manually, Preparation of scrutiny report containing all required dates’ and information were also done manually. Manual Data Management led to increased process time.

The entire system was going on for several years with no progress in the increased efficiency and speedy disposal of the approval system. This led to increased paper work, bulky files for scrutiny, increased storage space and no system of query based search report. There was no data base system existing for query related report generation. All data were kept in the hand written registers, fully dependent upon the junior employees. The system became person based.

Due to manual system, the applicants were dissatisfied of delays in the approval and the lengthy paper works. The scrutiny was always subjected to manual mistakes and time taking. Lack of transparency led to the scope of accusations and unnecessary disputes.

The need of effective monitoring and data management has led to the need of a transparent and quick mechanized system of approval system. It was also felt that the system needs to be user friendly and acceptable to a common man.

The Reform

SMC in its jurisdiction limits controls and regulates the development. The planning and development is carried out in Surat under the umbrella of The Gujarat Town Planning and Urban Development Act, 1976. This act provides for the procedure of preparation and implementation of Development Plan and Town Planning Schemes. It also provides for Development Control Regulations. The Surat Urban Development Authority (SUDA) is the apex body constituted under the act, for the
development activity, SUDA has delegated the powers for the implementation of development control regulations to SMC in the SMC jurisdiction limits.

The key components of the General Development and Control Regulations (GDCR) are:
- Built up area
- Abutting road width
- Floor Space Index
- Margin
- Parking
- Height
- Use/Zone related permission.

The plan approval time is stipulated in the Act and the SMC has to abide the same. Therefore the plan submitted has to be approved in the fixed time frame.

Considering the adaptation of an automated plan approval system, various stakeholder consultations were held with the architects, engineers, builders, developers, and citizens for their suggestions. There were series of meetings among the officers of SMC to develop such a system. Similar work related studies were also conducted. Visits were made to Rajkot, Ahmedabad and Pune to understand their mechanism. Various consultants in this field were called upon formally and informally to explain and demonstrate such applications.

Expression of Interest was called upon through advertisement in National News paper and the website.

**Goals of the Reform**
- Accurate scrutiny process
- Quick scrutiny process
- Transparency in process
- Effective monitoring system
- Stage wise data management.

**Implementation Strategies**

After due process of scrutiny and presentations of the bidders, it was decided to implement a web based building plan approval system. The work was assigned to the Science and Technology Park of University of Pune.

Following applications have been prepared:
- Building Plan Approval System:
  - The data related to DPA are submitted through a predefined system - Auto DPA, which is utility software hosted on Website of SMC. The data submitted through Auto DPA are processed through Web Application – Building Plan Approval System and a comprehensive scrutiny report is generated with status of compliance.
- Stage wise Progress Certificate:
  - Checking of construction of building in four stages: (1) Plinth level checking and (2) First slab level checking and (3) Floor Slab level checking. The application generates progress certificate as the concerned supervisor gives the input from the site.
- Building Use Certificate (BUC) Process
  - The software checks all the inputs like No Objection Certificates (NCOs) and certificates and then generates the Building Use Certificate. The owner or the user of a building can use her/his building only after the BUC.
- Registration and Renewal of Professionals
  - The development permission applications are required to be submitted through registered professionals. These
professionals are registered through this application.

Features of the Application:

- File submission in electronic format
- Applicability of regulations and requirement of documents decided through system
- Scrutiny through system
- Generation of reports / notes through system
- Generation of data of Property Tax Assessment
- Management Information System (MIS)
- The system can be upgraded to include other features like internal correspondences, GIS applicability and link with property tax database.

Strategies Used

- Identification of problems with existing system
- Identification of stages of process
- Design of each stage of process.

Fig 41: Stake Holder’s Consultation

Activities Implemented

- Stake holder meeting
- Deciding the objective
- Appointment of Consultant
- Study of existing system
- Study of other similar applications elsewhere
- Design of application
- Requirements of Software and hardware
- Testing of application
- Training to users
- Implementation and Monitoring.

Challenges/ Constraints Encountered

Preparation of masters for regulatory provisions of GDCR was the main challenge that was faced by SMC. This was overcome by establishing the interrelationship and applicability of regulations to different development types.

Project Outcome

- Accuracy in process
- Minimized process time. Scrutiny period of the plans is reduced from 60 days to 15 days.
- Transparency in process
- Effective data management.

Fig 42: Screen Shot – Utility Software for Users (AutoDPA)

Achievements/ Results

The system is new and has been applied from 9th September 2009. This needs to be evaluated in the long run. However initial results are encouraging and have got citywide appreciation from various stakeholders. The initial results have given user-friendly applicability. Problems are getting identified and removed as and when found. The consultants are engaged for one-year default liability period to continuously monitor the situation. The application is web based; the utility software Auto DPA is hosted on the web site: www.suratmunicipal.gov.in. However online submission of application will be done in the next stage.
Replicability

Rajkot Municipal Corporation replicated the same model.

Impact of the Reform

The applicability is mentioned in the Quarterly Progress Report, which is submitted every quarter of the year to the State Government and Ministry of Urban Development.
Title of the Reform:
Streamlining of Building Plan Approval Process
Pune Municipal Corporation

State/City: Maharashtra/Pune
BP Code: URF-##-###-1635-1109-2

Previous Situation

The city of Pune has witnessed rapid urbanization. The Pune Municipal Corporation (PMC) was facing several challenges such as haphazard development, lack of proper monitoring system leading to inefficiency, eroding accountability due to delay in permissions among others. The public image of the Corporation was declining due to increasing gap between service delivery and public expectations.

As per the Maharashtra Regional and Town Planning (MR&TP) Act 1966, Pune Municipal Corporation is the legitimate authority to prepare and implement land use plans, and to manage the growth of the city. The main objective was to ensure planned development, promote healthy urban environment, reduce congestion, prevent the development of conflicting-land use, etc.

Before constructing any building in a plot, the plot owner needs to apply for a land use clearance to check its conformity with the master plan’s land use proposals. If the applied land use confirms to the master plan’s proposal, the plot owners gets the land use clearance certificate and applies for planning-permission for constructing the building with detailed plan and design of the site and building. This process is same for residential, commercial and industrial plots. Earlier getting Land use Clearance Certificate and Building Permission was very complicated.

The problem of haphazard development, the lack of a proper monitoring system, and the undue delay in giving permissions were addressed with this reform.

Reform

With the implementation of this reform, now there is a single window for architects or license engineers to submit the proposal at PMC for approval. The application user logs in by using Biometric Login Verification. The single window user reads a CD from the architect or fills the proposal information. The scrutiny amount to be deposited at PMC is calculated afterwards. The mandatory and conditional mandatory documents are to be submitted along with the proposal. A challan for scrutiny fee (if the documents are submitted) and on payment, Baseline Change Proposal (BCP) Number is generated. An SMS is sent to both the Building Inspector (BI) and subsequently the architect mentioning the site, who visits it within 7 working days.

Next, the proposal is sent to BI for site visit, document validation scrutiny and Development Control Rules (DCR) scrutiny. BI during the site visit captures information including photographs on Personal Digital
Assistant (PDA). Auto DCR creates new project reading entities like plot, building layout, roads etc. from drawings based on layers and colors, geometrical mapping and reports of detailed scrutiny, local language and failed list. Some of the innovative features of this system are:

- Auto-Scanning;
- Rules database;
- Dynamic Scrutiny;
- Reports;
- Auto-Calculation;
- Automated proposal workflow and alerts; and
- MIS reports on revenue, efficiency etc.

The online system is applicable to both ordinary citizens and the building community. The builders and citizens can also make the payment online. This could be through credit cards or electronic clearing system. The approval of the building will also be done online.

PMC’s objective of this reform is to ensure that citizens can submit their building permission proposals online, know the status of their proposals, and receive sanctions without any delay using new electronic channels.

To achieve the objectives of the reform, capacity building of the staff had to be undertaken, training modules were organized for stakeholders, decentralization of building permission developed the need for provision of supporting system, and periodic training of staff newly appointed in the department has been implemented.

**Fig 46: Trainings were organized for stakeholders at PMC**

**Challenges/constraints encountered:**

The two main constraints with the earlier planning permission process i.e. operation in the traditional system and getting a building permission being lengthy and complicated for the general applicant were overcome.

**Project Outcome:**

- Citizens can now submit their building permission proposals online, know the
status of their proposals, and receive sanctions without any delay via new electronic channels.

- An attempt has been made to bring the system closer to the people and speed up the administrative work for public good.
- The online system saved a lot of time for people seeking approval for their building plan.
- Introduction of a unique idea and a distinctively new approach.
- Facilitation of democratic processes and functioning.

This move is part of the e-governance system being implemented by the administration.

- Good governance.
- Secured system.
- Reducing the Architect’s/Authority’s efforts for drawing and calculations.
- Eliminates human errors and manipulation, and produces accurate reports.
- Tremendously reduce the time cycle of approval.
- Escalation of alerts on unnecessary delays.
- Standardize the submission and scrutiny process.

**Replicability**

PMC and many Municipal Corporations in India have started taking major initiatives for policy changes, re-engineering the processes, finding more ways to substitute old methods of governance, expensive and oversized administration, delays and heaps of files.

**Impact of the Reform**

PMC bagged The World-Leadership-Award 2007 for the reform.
### Contact:

<table>
<thead>
<tr>
<th>Contact Person:</th>
<th>Mr. Anniruddha G. Pawaskar, Deputy City Engineer, Pune Municipal Corporation</th>
</tr>
</thead>
</table>
| Address of the Organization/Agency: | City Engineer Department  
Pune Municipal Corporation  
Shivaji Nagar, Pune 411005 |
| Telephone No.:           | 09689931324/ 020-25501000                                                   |
| E-mail:                  | aniruddha.pawaskar@punecorporation.org                                       |
Computerized Land & Property Registration:

- Computer- Aided Administration of Registration Department (CARD): Andhra Pradesh Government
- Registration of Property Document: Karnataka State Government

The principal objective of computerizing the process of registration of land and property is to simplify the process and bring in speed and efficiency in the system. It would also result in transparency in valuation of stamp duty and other fees thus improving the revenue collection from such taxes and fees. Many states have taken the initiative of computerization of land and property registration. CARD System introduced by Andhra Pradesh Government and Registration of Property Document (KAVERI) in Karnataka State Government are some of the best examples of the same.
Title of the Reform:

**Computer-Aided Administration of Registration Department**

Andhra Pradesh State Government

State/City: Andhra Pradesh
BP Code: URF-##-###-0100-1109

**Previous Situation**

Computer-aided Administration of Registration Department (CARD) project has brought about computerized counters at land registration offices throughout Andhra Pradesh. The project aimed at altering the antiquated procedures that had governed the registration system of the state, which included the laborious copying, and indexing of documents as well as their unscientific space-consuming preservation in ill-maintained backrooms. The state had a flourishing business of brokers and middlemen who exploited citizens selling or buying property. CARD project is an attempt to reform this system through the use of IT. With the introduction of CARD, citizens now complete registration formalities within a few hours. CARD project illustrates some of the key implementation issues the state and national governments may face in their efforts to use IT to improve citizen-government interfaces and serves as a best practice to be replicated by them.

The manual system in all the activities caused long delays, red-tape and corrupt practices. The project aimed at altering the antiquated procedures that had governed the registration system of the state, which included the laborious copying, and indexing of documents as well as their unscientific space consuming preservation in ill-maintained backrooms.

Moreover, the Registration Department was an age old Department having history of more than 150 Years. The Department preserved the extract of Title Deeds of the Citizens. They are transcribed in Book volumes and preserved since then. The Department is under legal obligation to preserve such copies of Title Deeds for eternity but due to advent of time and due to natural wear and tear, the Book volumes were getting brittle and decaying. As a result, some of the precious copies of Title Deeds were even destroyed. The details of the Parties and description of the property in respect of specified transaction is given in the shape of a certificate known as Encumbrance Certificate (EC). The Granting of EC is a laborious and time consuming process wherein the transactions in respect of a specified property have to be searched manually throughout a given period. The Market Values were prone for manipulation due to lack of transparency. Therefore, the CARD project is an attempt to reform this system.

CARD project aims at providing improved quality of services at the registration department by providing a computer interface between citizens and government. The tedious procedures that took weeks have been replaced by a system that can be accomplished in just a few minutes. The market value assistance and issue of the EC takes five minutes each. The sale of stamp papers, document writing and registration of the documents takes ten minutes, thirty minutes and one hour respectively.

**The Reform**

CARD is a catchy name given to the comprehensive project of computerizing one of the oldest wings of the Government...
namely, “The Registration and Stamps Department”. The project was originally conceived in August 1996 and implemented at two test sites in August /September 1997. Judging the project by its initial success and the immense potential it has in transforming the concept of public service, the Government decided to replicate it all over the state. Thus, began an intensive and dedicated effort, which is now the watchword of the Department of CARD.

The Registration Department of the Government of Andhra Pradesh performs the function of registration of deeds, valuation of immovable property, collection of revenue (stamp duty and registration fee), preservation of copies of documents, issuance of certified copies of documents, issue of encumbrance certificates and registration of societies, firms, marriages etc. A cadre of dedicated 239 Data Proceeding Officers (DPO) has been built from among the employees of the Department to form the core team responsible for the transfer of skills to the operational staff on an ongoing basis. The department has 387 Sub Registrar Offices (SRO) in 23 districts of Andhra Pradesh. The gross revenue earned by the department is Rs. 12 billion. The CARD project was conceptualized to computerize all the activities and procedures of the Registration Department. A pilot was conducted at two SROs in August - September, 1997. The project was started on 4th November 1998. Presently, the project covers the whole state of Andhra Pradesh.

Goals of the Reform

- Demystify the Registration procedure
- Ensure transparency in the assessment of Market Values and duties levied thereon
- Enhance the speed, reliability and accuracy in granting of EC
- Replace the age old copying/filing with imaging
- Preserve the documents on CDs
- Prescribe time frames for all the Registration Services

Implementation Strategies

The Strategy that was used to achieve the desired goals and implement the reform is:

- Planning

After the success of the two pilots, the project was scaled up in two phases. In the year 2000, the first phase was extended to 181 SROs. In the year 2001, the second phase was extended to 214 SROs. By the time of the study, all 432 SROs were covered under the CARD project.

- Services Provided

All the services of the Registration Department are provided to citizens in a short period for nominal user charges. The most popular services are registration of deeds, issue of EC and market value searches. Prevalent user charges are: Rs 95 for registration of documents (maximum of 10 pages with Rs 5 for every additional page), Rs 10 for motor vehicle (MV) search certificates, Rs 20 for EC and Rs 20 for certified copies of the documents.

- Target Group and Intended Beneficiaries

The intended beneficiaries are all the citizens who want to register their deeds, get a valuation of their immovable property, certified copies of documents, EC and to register societies, firms, marriages, etc.
Institutional Arrangements

The Inspector General (IG) of Registration and Stamps heads the project, supported by the Technical Director of the National Information Centre or (NIC), Chief Information Officer and Deputy Inspector General. Each District Registrar is responsible for the functioning of CARD in the SROs under the district. One official from each DRO, at the rank of a senior clerk, takes up the task of DPO for two to five SROs, after intensive training. Each SRO has at least two Data Entry Operators (one clerk and one section writer). All the hardware and maintenance of the LAN is handled by WIPRO, a private IT company, which has been awarded a maintenance contract for five years. All the software upgrades are done by the NIC.

Technologies

The project works on a LAN. On every 387 SRO CARD office centers there is provision for one server and four computers (three for B category SRO centres, two for C, D, E category SRO centres and one for F category centres). Each centre is provided with a scanner, a laser printer, a dot matrix printer and a UPS. The server uses Linux Operating System along with Oracle 8i for databases. The client end uses Developer 2000 whereas the front end is Window 98/95 Operating System as well as Window, 98 for Scanning.

Fig 49: Online Application for Encumbrance Certificates

Primary Access Points

Primary Access Points for the citizens are the 387 SROs in the state.

Capacity Building

The project is implemented and managed by in-house staff. There are two clerks in all SROs. In all, 1,600 clerks/section writers have been given two-week training to take up the job of Data Entry Operators; 76 senior clerks have been given 10-week training to take up the job of Data Processing Operator job; 67 Assistant District Registrars have been given three-week training; and 40 District Registrars have been given one-week training. Roughly, 3,811 man weeks (76 man years) of training have been imparted so far. Technical staff has also been given training on the CARD software. User manuals on CARD and the imaging software have also been issued.

Some legislation such as the Registration and Stamps Act, Urban Land Ceiling Act, Surplus Agriculture Land Act, Endowment Property Act, and the Property Act needed a change to accommodate the new procedure. The Government of Andhra Pradesh issued a governmental circular to provide the legal sanction for the scanned documents. All the registered documents and deeds of the previous 13 years had to be coded and digitized to ensure encumbrance certificates were valid. The properties change names, type, size and utility over time and there are discrepancies in different departmental documents. The codification of all the property types was a huge task. Similarly, guidelines for the costs of the land and buildings as well as for the different purposes and areas covered had to be
digitized. The guidelines for the market rates for Municipal Corporation, Municipality, other urban areas, major Gram Panchayats, minor Gram Panchayats, and Cantonment Board were decided differently for 80 land types (such as residential, commercial, industrial, agriculture, dry land etc).

The Registration Act of 1908, which is a legislation of the Union of India does not provide for handling the registration process on computers. The Registration Act, 1908, in its application to the state of Andhra Pradesh, has been amended to provide for the following:

♦ The process of registration of any category of documents may be completed and copying done with the help of electronic devices like computers, scanners and CDs and copies preserved and retrieved when required.
♦ Copies of documents registered and stored electronically, retrieved, printed and certified by the sub-registrar shall be received as evidence.
♦ The software to be used for registration shall be prescribed by the Inspector General.

It took over a year for the amendment to become effective across the state. It is essential to recognize that the respective states have to make concerted efforts to put the enablers in position to ensure successful replication within a limited time frame. Finally, the elimination of human interface would lead to removal of speed money, which is rampant in the manual system.

Challenges/Constraints Encountered

The documents and deeds registered since 1983 has already been scanned and stored in a CD format. Computerizing all processes solved the problem of shifting from the manual system to the new system and procedures required at all the steps from acknowledgement of receipt to issue of registered document. More than 5,000 government staff was trained in the new system. Maintenance of hardware, especially in remote rural areas, was arranged for by signing a maintenance contract with WIPRO. Installing UPSs at all the offices mitigated power cuts of more than 12 hours. The most important challenges that were faced by the project were:

♦ Building up a whole new system based on highly sophisticated technology in a department with practically no IT skills to begin with was a great challenge and maintaining the system is a more formidable challenge.
♦ Conceiving the concept, setting up of infrastructure, changing the mindset of typical Govt. servants is also a challenge that the Department have come across.

Reform Outcome

The project has increased the speed of registering property and producing related documents. Previously, citizens had to wait for three to seven days to obtain EC. After the CARD system was implemented, they received such certificates in just 10 minutes. Similarly, certified copies of the documents were issued after seven days, while through CARD; citizens can now get them in only 15 minutes. The time taken to register a deed or a document has been reduced from three to seven days to one day. The CARD project registers 1.18 million documents and serves 5 million citizens in a year. Since the inception of the project, 4 million documents have been registered, 2.16 million encumbrance certificates have been issued, 3.73 million registration check slips have been issued, and 75,907 certified copies have been provided to the public.

All the services of the Registration Department are provided to citizens in a short period for nominal user charges. The most popular services are registration of deeds, issue of EC and market value searches. Prevalent user charges are: Rs 95 for registration of documents (maximum of 10 pages with Rs 5 for every additional page), Rs 10 for Motor Vehicle (MV) search certificates, Rs 20 for encumbrance certificates and Rs 20 for certified copies of the documents.
The intended beneficiaries are all the citizens who want to register their deeds, get a valuation of their immovable property, certified copies of documents, encumbrance certificates and to register societies, firms, marriages, etc.

**Table 30: Quantitative Benefits of CARD**

<table>
<thead>
<tr>
<th>Description of registration services</th>
<th>Time taken in manual system</th>
<th>Time taken in CARD system</th>
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<tr>
<td>Encumbrance Certificate (EC)</td>
<td>1 to 5 days</td>
<td>10 minutes</td>
</tr>
<tr>
<td>Valuation of properties</td>
<td>1 hour</td>
<td>10 minutes</td>
</tr>
<tr>
<td>Sale of stamp paper</td>
<td>30 minutes</td>
<td>10 minutes</td>
</tr>
<tr>
<td>Document writing</td>
<td>1 day</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Registration</td>
<td>1 to 7 days</td>
<td>1 hour</td>
</tr>
<tr>
<td>Certified copies of documents (registration under CARD)</td>
<td>1 to 3 days</td>
<td>10 hours</td>
</tr>
</tbody>
</table>


**Achievements/Results**

- The project has been successfully implemented statewide at a minimum cost. It shows that e-government solutions can be implemented in a span of three to four years, even with innumerable complications and procedures. The project also proves the hypothesis that e-government could be implemented by just training the existing staff, without adding new technical staff.

- In the absence of PPP, public finances can be mobilized to get projects implemented.

- The project has improved the government-citizen interface. Around Rs 300 million has been spent on the project, but no impact assessment had been carried out by the time of the study. The increase in revenue collection through CARD has still not been proven, but the project has generated more than it has invested since 1999. Rs 380 million have been generated from the registration of documents, Rs 37 million from the issuance of registration check slips, Rs 43 million from EC and Rs 1 million from certified copies. Up to the time of the study, the project had earned Rs 475 million against a one-time investment of Rs 300 million. The project will become further sustainable if all the services could be successfully made available on-line.

**Human Interest Stories**

*In a Few Seconds, Please…*

- Thirty-six year old S.K. Gase works as an Estate Manager in Nagarjuna Consultancy. His employer bought 10.32 acres of land in Datanpally village, and his office sent him to discover the market value of the property, stamp duty and registration fees for the documentation. Gase came to Chevella SRO and submitted his application. Within 30 seconds, he learnt that the value of the property was Rs 29,000 per acre. He also got the information that he had to pay Rs 1,740 as Stamp Duty, Rs 1,450 as Transfer Duty Tax and Rs 145 as Registration Fee. 

- My job has become so hassle freed...said Mr. Venkateshwar Reddy, a 38-year-old Recovery Executive at Rajdhani Urban Cooperative Bank, who has been visiting many SRO offices every day to learn about the encumbrance of mortgaged properties of the bank. He has been doing this for 10 years. My job was very difficult, as I was unable to put up reports to the bank management within the time limit. The SRO used to take many days to give this information to me. His work is now completed in just 10 minutes.

- From 100-page Document-writing Every Day to a Click of the Button.... Mr. C. Hanumanthrao has been working as section writer for the Registration and Stamps Department for the last 18 years. Before CARD, he used to do writing/copying of 100 pages of registered documents every day. His fingers had started showing symptoms of arthritis. After the introduction of CARD, he saves scanned copies of registered documents on CDs.

- The project has been already implemented in all the SRO centers in the state. Now, it is planned to network all the SRO centers to the district Registrar Offices through 64 Kbps dedicated leased lines whereas all the District Registrar Offices (DROs) with state servers through 128 Kbps dedicated leased lines. It is also planned to install network-monitoring software in the system as well as to introduce
storage of scanned documents in the form of microfilms. Similarly, the department aims to provide record of documents on the Web. The long-term vision is to provide all the services of the Registration Departments through the Web.

- Moreover, Card Service levels have been defined and they have been prominently displayed in the Office premises which are as follows:
  - Registration of Document: One Hour
  - EC: Ten Minutes
  - Certified Copy: Ten Minutes
  - Market Value: Ten Minutes

- The quality of work has improved in terms of computation of tax as there is no human discretion and thereby reduced the scope for mischief as well as errors in calculation.

- The services being offered are essential for common man. That is why it was widely appreciated at the streets.

- Since the owner ship details are wide open to the public in the web, the registering public ensured themselves that they are buying a genuine property. Hence, the litigations have come down.

Replicability

The project has been replicated in the states of Maharashtra and Punjab with few modifications. In Maharashtra, the whole project is implemented in an innovative PPP mode. This highly visible project has tremendous replication potential all over India.

Impact of the Reform

The Commonwealth Association for Public Administration and Management adjudged the CARD project as one of the ten finalists in the International Innovation Awards Program.

CARD project has also received Oracle e-Governance excellence awards under IT service delivery system from Oracle.

Contact:

<table>
<thead>
<tr>
<th>Contact Person</th>
<th>Mr. B. Aravinda Reddy, I.A.S., Commissioner and Inspector General of Registration and Stamps, Andhra Pradesh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address of the Organization/Agency</td>
<td>1-7-10, NBK Estates, Golconda X Road, Musheerabad, Hyderabad 500 020, Andhra Pradesh</td>
</tr>
<tr>
<td>Telephone No.</td>
<td>040-23449157; 040-23449156</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:cig@igrs.ap.gov.in">cig@igrs.ap.gov.in</a></td>
</tr>
</tbody>
</table>
Title of the Reform:

Registration of Property Document
Karnataka State Government

State/City: Karnataka State
BP Code: URF-##-###-1400-1109

Previous Situation

The Department of Registration and Stamps is one of the oldest departments engaged in the administration of law relating to land transactions in Karnataka. For the last five decades, the process of registration of documents was done manually involving the following steps:

- Stamping,
- Presentation,
- Admission of Execution,
- Identification by Witnesses and
- Registration, as prescribed in the Karnataka Stamp Act, 1957 and Registration Act, 1908.

Under the manual registration process, the documents registered were copied manually in specified books. After that, they were verified with the original document, and the hand written documents were authenticated by Registering Officers. The registered book would serve as public document.

Since the manual procedure involved writing each document that was to be registered, the time taken for the entire registration procedure was anywhere between 2 to 3 months. Moreover, it also meant 2-3 trips to the registration office to check if the document was ready. The solution lay in finding an alternative procedure that would meet the statutory requirements and also speed up the process while preserving the accuracy of the manual procedure. Computerization was the way forward.

This process was time consuming taking 2-3 months for the registration to be complete besides causing hassles to the citizens. Now a process has been evolved which ensures that the vendor should complete the registration process within 30 minutes, besides issuance of the Encumbrance Certificate (EC) on the same day.

The Reform

The Department of Stamps and Registration, Government of Karnataka in the year 2002, had set up automated registration process in the state. 202 Sub-Registrar Offices in Karnataka came under computerization under an outsourced model whereby the vendor could complete the registration process within 30 minutes.

After making way for computerization of the process, the Centre for Development of Advanced Computing (C-DAC), Pune provided technical support in developing suitable software to cover the following aspects of registration:

- Registration of properties,
- Valuation of properties,
- Scanning and Archival of Documents,
- Reports, Vendor management system,
- Utilities, Website, Societies, Firms and Marriage Registration and Data Transmission.

The software was aptly called KAVERI, after the river Cauvery. This software was made operational throughout the state between August and December 2003.

After the introduction of KAVERI, the department has registered over 15,00,000 documents and returned the documents to the parties concerned, within 30 minutes of its presentation. Further, despite the reduction of stamp duty, the revenue increased.
The Government of Karnataka reduced the rate of stamp duty on conveyance from 10% to 8% and Registration fee from 2% to 1%, with effect from 01-04-2003. In spite of reduction in stamp duty and registration fee, there is significant growth in revenue as the KAVERI system calculates the valuation of property automatically eradicating the discretionary power of the Registering Officer in accessing the valuation of property. e-governance, thus, has not only benefited the public in getting the documents registered in 30 minutes but also the state, in getting good revenue.

Goals of the Reform

- Evolve a process whereby the vendor should complete the registration process within 30 minutes, besides issuance of the EC the same day.
- Have a MIS system developed which would help in taking policy decisions.

Implementation Strategies

Parties wanting to register a document would obtain a token electronically generated from the Citizen Care Center (CCC) set up at the Sub-Registrar office. The token automatically assigns the time for presentation of the document, which prevents crowding at the office. The CCC also assists in the registration process through a process called Public Information System (Part I), which guides the general public about the documents required for registration.

The next step involves the Sub-Registrar scrutinizing the documents presented, for their appropriateness and to check if it conforms to the schedule of the Karnataka Stamp Act. If the documents presented are appropriate and complete then these are passed on to the software called the Public Information System (Part II), which automatically generates a checklist based on the documents presented. At the time of presenting the document, the computer operator enters relevant details like property schedule, name of parties including name and age etc. If the document presented is in order, the system will permit for registration; otherwise it will mention that the document is to be kept pending for want of additional documents. At this stage, the system will generate, ‘Presentation Stamp’ with current system date and time.

Subsequently, the property valuation based on the area, survey number and schedule, and other such information required for calculating the market value are automatically calculated, which forms the basis for calculating the stamp duty. If the stamp duty is short paid, then the difference in duty is shown in the system. After the relevant duty is paid, the next step is the generation of the receipt. At this stage, the procedure of fees collection is over and the
operator generates ‘Fees Stamp’ in consultation with the Sub-Registrar.

The system then generates new receipt and all details about the receipt will be displayed. The operator then enters the details of payment and re-checks the fees calculated with the Sub-Registrar before finalizing the receipt. After confirmation, he/she proceeds further to generate the receipt.

The final step is whereby the admission and identification part is done using Web camera and fingerprint-scanning device. This procedure involves the executants to sit in front of the web camera and the operator captures the photographs. Next the thumb impression is obtained using a fingerprint-scanning device. When all the executors’ photographs and thumb impression are captured, the operator will seek permission for the ‘Admission Stamp’ from the Sub-Registrar. The thumb impressions and photographs will be printed in the appropriate space on the document where the endorsement of presentation and admission of execution are recorded as prescribed in the Karnataka Registration Rules, 1965. After this process is completed, the registration is complete. The system will generate a serial number. Once the document is registered, the software permits for scanning the document.

If for any reason, the document is not registered, the operator keeps record of the same under the guidance of the Sub-Registrar and keeps it pending until all requirements are fulfilled.

Reform Outcome

The figures in the following table indicate that there is a significant growth in the revenue to the State exchequer after the introduction of KAVERI for registration of documents.

The Department of Stamps and Registration has taken up further up-gradation of KAVERI which will enable:
- Drastically cutting down the time of registration process.
- Data will be hosted on a Central Server with all the Offices connected by WAN.
- Real time data transfer to the Central Server helps in providing on-line services to the general public.
- Inter-operability with the data bases of other departments such as Survey and Settlement, Revenue Department, Treasury, Income Tax Department, Bruhat Bengaluru Mahanagara Palike, ULBs, etc. becomes quite easy.
- Many services will be web-enabled to have better access by the general public.
Fig 52: Revenue Collection before and after Introduction of KAVERI: Bangalore

Revenue collection before and after the introduction of KAVERI: Bangalore

Source: Department of Stamps & Registration Karnataka

Achievements/ Results

So long as the system is transparent, it is more likely that the citizens will comply with the law. KAVERI is a mechanism intended to bring in transparency in administration, reducing official discretion and having fixed valuation norms. All these features help in the successful implementation of KAVERI. KAVERI Project has immensely helped in better storage and retrieval of data relating to registration of properties and encumbrance details.

This project has also helped to hasten the process of title updation because the document registration details are transmitted to the concerned Tahsildars within 24 hours.

Impact of the Reform

A paper was presented at the ‘6th National Conference on e-governance’ at Chandigarh in the year 2002 and received recognition as the best paper. The paper presented at Chandigarh documenting this reform is hosted on the website www.karigr.org.

Contact:

<table>
<thead>
<tr>
<th>Contact Person</th>
<th>Mr. K.R. Niranjan, IAS, Inspector General of Registration &amp; Commissioner of Stamps &amp; Chief Controlling Revenue Authority in Karnataka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address of the Organization / Agency</td>
<td>Inspector General of Registration &amp; Commissioner of Stamps &amp; Chief Controlling Revenue Authority in Karnataka, Shimsha Bhavan No. 720 46th cross 8th block Jayanagar (Near Sangam Circle), Bangalore-560 082</td>
</tr>
<tr>
<td>Telephone No.</td>
<td>080-26645399, 080-22457028, 080-22457028</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:igrcs@yahoo.co.in">igrcs@yahoo.co.in</a></td>
</tr>
</tbody>
</table>
Annexure:
INDIA URBAN PORTAL (www.indiaurbanportal.in)
PEARL Website:

Under JnNURM

NIUA has set up a PEARL website “India Urban Portal” www.indiaurbanportal.in that is operationalized and linked with JNNURM website. India Urban Portal is a knowledge collaborative platform that enhances the availability of quality urban information on best practices, projects, reforms, innovations etc. carried out in the selected cities under JNNURM. The goal is to provide portal to urban information and to create a network, community and resource.

The purpose of the portal is to improve access to information thus facilitating the knowledge-sharing and collaborating process. The portal will serve as an urban information and interactive center serving the informational needs of various communities of users. The site is user-friendly having standardized metadata, controlled vocabularies, and qualified sources to describe information. It contains:

- Best Practices/Projects - Sector wise projects and best practices are listed here.
- Organisations - this section provides links to the Central Government Organisations, Urban Local Bodies, Development Authorities, NGOs, Research Organisations and International Organisations etc.
- Data Resources - This section provides information on useful resources like policies, laws, maps, statistics and data related to urban India. The section is constantly being enhanced.
- About JNNURM - This section provides information on JNNURM i.e. urban reforms, project status, latest update etc.
- PEARL Newsletter, Publications, Daily news; Activities under PEARL programme, Gallery (contains video clip of the good practices and others) are also available.

All the partners contributing to the flow of urban information are invited to join us in the integrated cooperation effort with suggestions, Informations to be put up in the site, news, events, Informations on projects, best practices, etc. Please mail us at Prof. V.K. Dhar and Ms. Nilanjana Dasgupta Sur

Call for Best Practices:

Urban Local Bodies (ULBs) have initiated reform processes to improve the level of urban governance. While numerous ULBs are introducing change initiatives some of which are extremely progressive and impressive, these are being taken in isolation and without sharing the
benefits of their experiences with others. Some of these urban initiatives have been enlisted below for your reference.

You are requested to send us information on all good practices by filing-up the enclosed Best Practices Form - 1 (Annexure 2) and sending it back by e-mail to vdhar@niua.org and nsur@niua.org.

**Post News and Events:**

India Urban Portal's goal is to provide an entryway to urban information and to create an urban information network, community, and resource that will provide qualified, trusted, and verifiable information and contacts.

Contribute to the flow of urban information by submitting/posting any current news/updates/events/seminars/workshops/meetings related to the urban field via e-mail to vdhar@niua.org and nsur@niua.org.

Please give details on your organisation and contacts.
“Documentation of Best Practices”

“Documentation of Best Practices” Volume 1, under PEARL is a publication designed to document Best Practices. The best practice case studies have been drawn from the PEARL website – India Urban Portal database. Each case study presents brief summary, key dates, situation before the initiative, strategy to develop the initiative, the process, results achieved, sustainability, lessons learnt, recognition and replicability. The document has been prepared as part of PEARL activity for peer networking and horizontal learning among mission cities. The best practices include a cross-section of categories such as Sectors/Services (Water Supply, Solid Waste Management, Sewerage/Drainage, Roads/Flyovers and Public Transport System), Urban Reforms, Public Private Partnership, Urban Poverty, Disaster Management and Environment.

The details of the best practices are also available on www.indiaurbanportal.in

The following best practices are covered in the report:

- Water Quality Monitoring System: Surat, Gujarat;
- Pilot 24X7 Water Supply Project: Nagpur, Maharashtra;
- Installation of Centralized Bio-medical Waste Treatment Facility on BOOT basis: Surat, Gujarat;
- Waste Processing Plant through Public Private Partnership: Rajkot, Gujarat;
- Door to Door Refuse/Garbage Collection System: Surat, Gujarat;
- Advance Locality Management Programme: Greater Mumbai, Maharashtra;
- Green Energy Generation from Sewerage Gas: Surat, Gujarat;
- Inter-governmental Convergence for Integrated Sewerage System: Bhubaneshwar, Orissa;
- Diversion of Domestic Sewage for Improving Urban Lake Water: Bhopal, Madhya Pradesh;
- PPP for Street Lighting and Energy Conservation: Bangalore, Karnataka;
- Innovative Techniques in Construction of Footpaths: Bangalore, Karnataka;
- PPP in Street Lighting: Vijayawada, Andhra Pradesh;
- Station Area Traffic Improvement: Pune, Maharashtra;
- City Bus Service in Surat on PPP Basis: Surat, Gujarat;
- Dattak Vasti Yojana (Slum Adoption Scheme): Mumbai, Maharashtra;
- Accounting Reforms in Urban Local Bodies of Karnataka: ULBs, Karnataka;
- Ahmedabad Property Tax Reforms: Ahmedabad, Gujarat;
- Emergency Operations Centre: Mumbai, Maharashtra; and
- Idol Immersion Activities and their Management in Water Bodies: Bhopal, Madhya Pradesh.

To obtain a copy Contact:
Coordinator PEARL Project
National Institute of Urban Affairs (NIUA)
I & II Floor, Core 4B, India Habitat Center, Lodhi Road, New Delhi – 110003, India
Telephone: +91-11-24643576(Director), 24617517, 24617543, 24617769, 24643284
Fax: +91-11-24617513
Website: www.niua.org, www.indiaurbanportal.org
### BEST PRACTICE FORMAT

**“Peer Experience and Reflective Learning” (PEARL) under JNNURM**

**Best Practices Format**

**Key Informations about the project and instructions on filling up the form**

1. **About the project:**

   To achieve objectives of the Jawaharlal Nehru National Urban Renewable Mission (JNNURM), knowledge sharing amongst JNNURM cities in various sectors of urban reforms and city governance has emerged as a potential area for capacity building. It is felt that cities identified under JNNURM, for financing urban infrastructure and other aspects of urban development, can network amongst themselves for cross learning and sharing knowledge, hence effectively manage their cities. “Peer Experience and Reflective Learning” (PEARL) is an initiative under JNNURM to support cities to actively pursue activities in implementation of projects and reforms.

   Therefore, cities with similar urban issues and character are brought together. The cities have been divided into five groups, namely, (a) Mega Cities; (b) Industrial Cities; (c) Mixed economy; (d) Heritage Cities; and (e) Cities of Environmental Importance. A Network Convener and potential Knowledge Managers (KMs) were also identified for each Group.

   The main objective of PEARL is to create manageable networks between JNNURM cities for cross learning and sharing knowledge on urban reforms and city governance so that objectives of the mission can be successfully achieved to make cities more livable, economically vibrant and environmentally sustainable. The primary objective is to ensure smooth functioning of the PEARL Networks and assist the Mission Directorate in supporting and monitoring the program. Focus of PEARL activities will be on various processes and outcomes of JNNURM-projects and reforms. There is also a need to focus on the sharing of experiences on urban reforms and city governance and to sustain PEARL beyond JNNURM.

2. **About the PEARL Portal and Best Practices:**

   The proposed PEARL website – India Urban Portal (www.indiaurbanportal.in), is the gateway to the 63 cities under JnNURM and shall be linked to the main website of JnNURM. The portal is envisaged as a ready reference to best practices in planning, projects, reforms, accessible data/ resources and other innovations. The goal is to create an information network, community and resource that will provide qualified, trusted and variable information. It will also provide the stakeholders, a knowledge-sharing platform for interaction and discussion.

   The website will:

   a) Act as a platform to share knowledge among governments at national, state, and local levels as well as community groups and citizens in JNNURM cities;

   b) Focus on linking Urban Local Bodies with community groups in the JNNURM cities;

   c) Provide information on organizations, techniques, technologies, resources, innovations, best practices, etc. for the projects and reforms;

   d) Support outputs of JNNURM in terms of planning and implementation of projects and reforms; and

   e) Help to set up discussion forums, news, guidance, etc. among JNNURM cities.
3. Best Practices:
You can submit ongoing as well as past projects to this Register.

For example, such projects/programmes/reforms include local or regional projects in education, revitalisation, standardisation, community development, awareness raising, capacity building, documentation, use of new technologies, urban governance, reforms, PPP, service delivery, shelter and security of tenure, livelihood including micro credit, health and education, social development, urban mobility, etc.

4. Methodology for selection of Best Practice:
Step 1: Identification and selection of best practice through Form I
Step 2: Put up the collected best practice before the technical committee for approval for documentation.
Step 3: Documentation of the best practice.
Step 4: Publishing on website

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**FORM I**

General information about your Organisation
(Fill the following queries and provide one page write up about your organisation and project as well)

<table>
<thead>
<tr>
<th>Project Contact Person:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detailed Address of the Organization/Agency</td>
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<tr>
<td>Telephone No.</td>
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<th>Type of the Organization</th>
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<td>Other</td>
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</table>

<table>
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<tr>
<th>Partnering agencies/individuals</th>
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</table>

**INFORMATION ABOUT REFORM**
(Illustrative)

A: Context
1. Title of the Reform:
2. Geographic Location:
3. Focus Area:

B: Situation before implementation of Reform
1. Describe in brief (not more than 200 words), the situation as it was before the start of the project: (Describe in narrative form rather than in bullet form):
2. What were the problems/needs addressed by the Reform?
C. Implementation of the Reform
1. Describe the Reform in narrative form (in 500 words)
2. Goals of the Reform
3. Strategy used to achieve the desired goals
4. Activities implemented to achieve the above goals
5. Challenges/constraints encountered and how it was conquered
6. Outcome of the Reform

D. Factors of Success
1. Describe the main successful (positive and sustainable) results/factors/conditions for the Reform

F. Replicability
1. Is the Reform being replicated in any other region

G. Impact of the Reform
1. Have the Reform been disseminated in any forum and have received any recognition
2. Documentation and Research work/References for the Reform, if any
3. Please enclose any photographs and resource products, paper clippings along with the entry.
4. Any other

PLEASE SEND THIS FORM AS AN ATTACHMENT TO:

cvaidya@niua.org, vdhar@niua.org, nsur@niua.org.

OR

Post/fax a copy to:

Coordinator PEARL Project
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I & II Floor, Core 4B, India Habitat Center, Lodhi Road, New Delhi – 110003, India
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Fax: +91-11-24617513
Website: www.niua.org, www.indiaurbanportal.org

THANK YOU FOR YOUR PARTICIPATION