

## Focus: e-Governance

e-Governance for Good Governance in Punjab

Comprehensive Knowledge Management Framework

Capacity Building and People's Participation

Re-inforcement of Knowledge Grid Multi-Agent Model

Changing Parameters of Customer-Bank Relationship

Implementations of Publicly Funded Projects

Effectiveness of Watershed Development

Technical Efficiency of Manufacturing Sector

Development of Ornamental Plants in Indonesia

Application of Quality Filter Mapping

# e-Governance Implementation of Publicly Funded Projects/Portfolios using Global Project Monitoring System (GPMS) Cloud: Lessons Learnt

RAJA SEEVAN

*This article describes the lessons learnt and best practices evolving from case studies, pilot projects and research in large scale implementation of e-governance projects. It covers the end-to-end spectrum starting from:- viz: current challenges in e-governance projects, Evolving Innovative solutions, Piloting them in the 3rd largest City Municipality, Sustaining the implementation through the challenges over a period of 3 years, Demonstrating benefits on key Governance parameters including ROI. The source of much of the article is from the practical experience of the author in implementing GPMS-FMS-IRMS municipality e-governance solutions modules in BBMP that looked at needs of municipalities and their citizens towards improving city governance, bringing efficiency, transparency, accountability and the use of GPMS-FMS-IRMS to deliver public services.*

## 1. INTRODUCTION

This article brings out the case study of an incredible journey (spanning 3.5 years) in designing and delivering such an innovative solution in the e-governance field. It would focus on the key differentiators, innovative approaches and paradigm shift in the way e-governance projects can be implemented.

It is hoped that the learning shared in this paper would enable policy makers and implementers at various levels in the Governance structure ( at country, state, district, city and unit level) to effectively manage all types of resources, derive productivity improvements at each phase of the project implementation and achieve the outcomes expected.

A typical Municipality delivers comprehensive citizen services. This can be taken as a fractal. If the proposed model for effective e-governance implementation can succeed in this fractal, we can replicate it with similar success in other fractals across the country.

*Raja Seevan is Founder Trustee, Indian Centre for Social Transformation, A Public Charitable Trust.*

## 2. Glimpse of an e-governance Fractal:

To give an idea of what all is involved in 1 Municipality, here are a few metrics.

### **The numbers behind a typical Municipality(3<sup>rd</sup> largest in India)**

.....seeking to deliver better citizen services

*Bangalore Municipality – with for 16,657+Employees, 27 departments, Administration, Health, Accounts, Forest, Revenue, Engineering, Horticulture, Education, Legal Cell, Welfare, JNNURM, Estate, Town Planning, Markets, Advertisement, TVCC, Land Acquisition, Animal Husbandry, Solid Waste Management Cell, Lakes across head office, all 8 zones, Divisions, Sub-Divisions, 198 wards, 450 offices, etc., Accounts departments, 327 Receipt-codes, Payment codes, 936 bank branches, 1800 hospitals, schools, colleges, universities, over 92,000 works/projects with a value over Rs 14000 crores to be monitored online (in 1 of the 21 departments alone) by 7500 Engineers, 20lakhs+ properties registered, Area : 800 SqKm, Zones: 08, Wards: 198, Assembly Constituencies : 28, Population : 100 lakhs, Road Length : 10121 Kms, Primary & Secondary Storm Water Drains : 840 kms; Road Side Drains : 13000 kms; Play Grounds and Stadium : 154; Parks : 1079.... And so on...*

3. The team trying to design and develop the Solution soon had a glimpse of the expected challenges and issues that would need to be addressed across the Project lifecycle.

A typical (partial) list of Challenges faced was as follows

### **Partial list of challenges:-**

*Overburdened municipalities, lack of transparency within working bodies in sharing information, existence of multiple agencies with minimum coordination resulting in poor levels of citizen service delivery, delays and overruns., low accountability as a result of crisscrossing administrative jurisdictions of city agencies that have no congruence with political boundaries e.g. Bangalore is divided into 278 parts for garbage collection division, 88 parts for policing, 39 for electricity, 30 for property tax, 12 by the PWD etc. In none of the above is there overlap between the administrative jurisdictions of these agencies, or congruence with the ward boundary. The result: the citizen is confused, the local politician is confused, the agency representatives are confused.*

### **Difficulties faced:**

1. Non-cooperation of departments
  2. Giving false information/data
  3. Shortage of manpower/resources at ward level
  4. Fear among wards for sharing data.
  5. No verification/checking of data
  6. There are 530 accounts for salary disbursement and issuance of letter of credit.
  7. Threat perception due to increased transparency and more Accountability
- and so on.

4. It was in this backdrop that Indian CST took up this challenge and put together and a unique model for executing e-governance projects.

The Team drew up a Solution wish list that started from scratch and took some very unconventional decisions. This was based on the wisdom that

---

**"The way we approach a Problem, can alter the very nature of the Problem"**

The team decided to approach the eGovernance challenge not as an IT company delivering services; but as a Social Entrepreneurship Organization delivering transformational change in the Quality of life of citizens. What this meant was that IT was only one of the many components. Many missing components were identified that would enhance the Solution with "What More is Possible?".

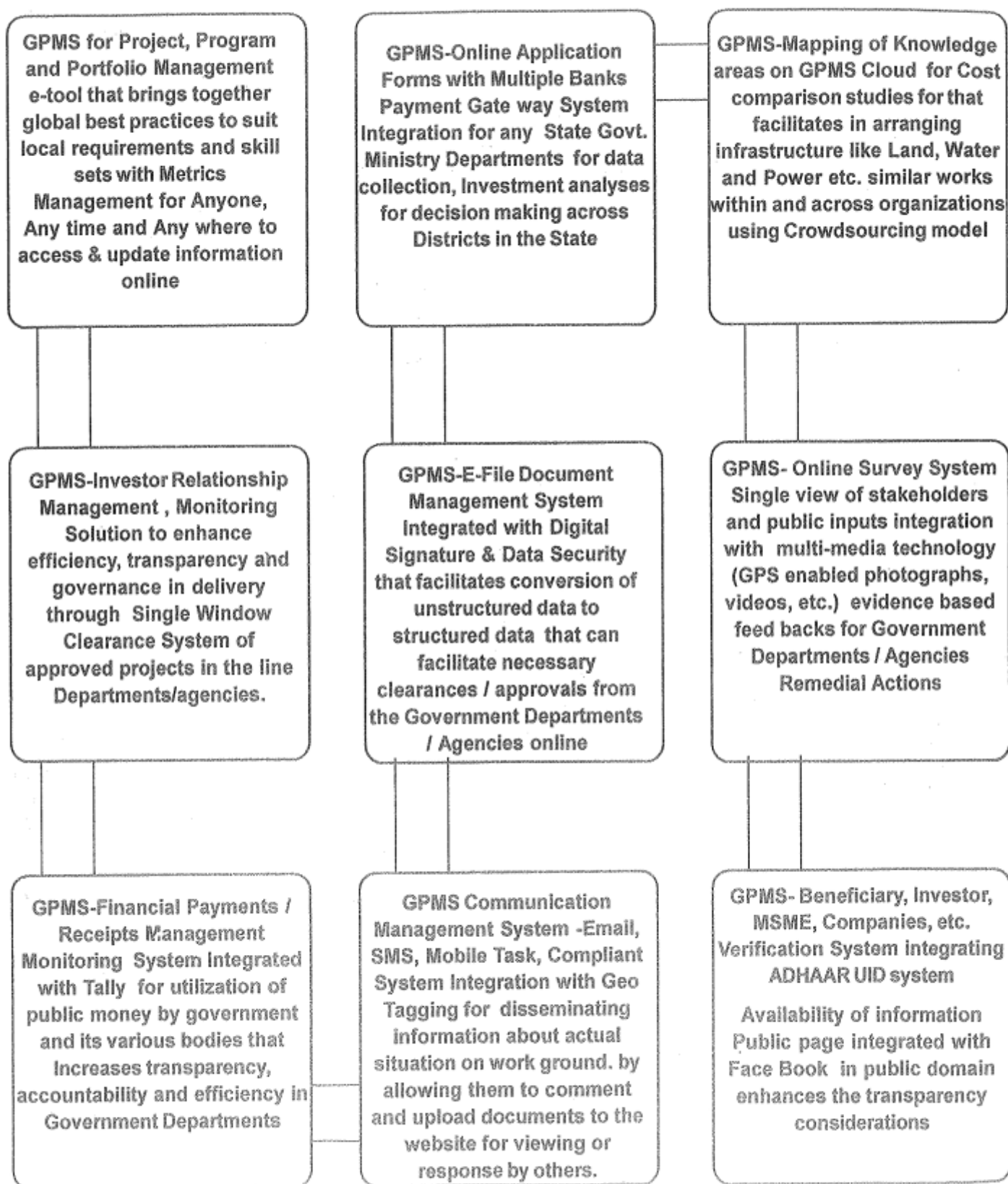
**5.0 Solution Wish list :- A glimpse into the solution wish list arrived at is as below (this is a partial list)**

**Solution Wish list** (not in any particular order)

- *Make the use of the global best practices to process the information, as it gets validated, collated, analysed and transformed to actionable intelligence*
- *Use of Crowd sourcing*
- *Track progress (specially of public funded projects) from conception to completion*
- *Information continuously gets collated, analysed and presented to domain experts for their inputs and interventions — at source and instantly disseminated*
- *serve as a knowledge management through which capacity and skill building interventions for all stakeholders is made possible*
- *Create a network of networks to get things done*
- *Real time monitoring*
- *Capture audio, video, text and other information as required by tasks – with authentication. This geo-stamped data to get updated against specified project task and reside in server ; accessible to concerned.*
- *Strengthen the power of oversight, review and administrative control mechanism of elected leaders, departmental heads and other stakeholders over the functioning of government organizations.*
- *Public page that displays the real time information for citizens to make their comments online,*
- *Beneficiary verification using mobiles using remote eye monitoring devices. (eg- reliably verify whether a house construction and the corresponding beneficiary are as stated in the priority list. There must be a one-to-one correspondence between beneficiary and house. The idea is to use GPS to locate the house and then associate the beneficiary record with the geo-location.*
- *Affordable solution, adaptable to local conditions, amenable to quick deployment and a fool proof System*
- *Track changes and audit trails*
- *Enable exception reporting*
- *Alert generation for higher echelons*
- *Flexible Model (Building blocks of solution) that can be added as and when the Municipality is ready to rollout each one*
- *Enable collaboration and citizen participation in governance*

Having a wish list is easy. Translating it into a framework that can seamlessly deliver the wish list is indeed challenging. The Indian CST framework arrived at by the Team was as follows.

#### 6. The Indian CST Cloud Computing Solution Framework – Deliveries.



## 7.0 The GPMS Solution:

Indian CST designed, tested, and piloted on over 20 Beta sites to fine tune their Solution framework – called GPMS (Global Project Monitoring System).

The salient features of the GPMS Solution that seamlessly embeds the Solution wish list is as shown below. (Again this is a partial glimpse – to balance with the objective of bringing out best practices as the objective of the paper).

**Indian CST's In-House GPMS cloud computing solution [www.gpmswiki.org](http://www.gpmswiki.org)**

### **Salient features of the GPMS Solution :**

1. *Global Project Monitoring Solution (GPMS) is a cloud computing platform with integrated system tools that takes care of the complete life cycle of the projects based on a CVCMARK framework (Capture, Validate, Check, Measure, Analyze, Reports) .*
2. *Uses open platform tools for more collaboration, inclusive decision making with civil society, partners ,and private sector actors .*
3. *It Enables, Empowers and Engages stakeholders and has developed unique features for enhanced transparency by allowing public access to its web based monitoring systems.*
4. *It has ability to send in actual geo-tagged photographs of work locations that can then be used to discuss and disseminate information about actual situation on work ground.*
5. *It enables public to register complaints, view projects of their interest and update delays or inconvenience caused." They are able to view details of projects and able to comment and upload related GPS photographs or videos to the website for viewing or response by others.*

### **This is an extremely powerful tool for transparency and useful to:**

1. *Show accurate, verifiable and approved data from the authorities providing the base data.*
  2. *Monitor data and comments to avoid any infringements of the law and allow freedom to reply.*
  3. *Upload videos of meetings where extracts can be taken out of context and misrepresented for public consumption. Provides a single platform for citizens to access services..*
  4. *Highly Replicable Model with Potential to replicate, with customized changes , across other states in India and across other countries.*
  5. *Anyone, Any time and Anywhere to access & update information online*
  6. *Complete monitoring of projects from start to end*
  7. *Sufficient inputs for easy decision making*
  8. *Single view of stakeholders and public inputs*
  9. *Cost comparison for similar works within and across organizations*
  10. *Clarifications asked through auto generated questionnaires*
8. It dawned on us that all Government departments are interdependent for ultimately delivering a solution to the citizen. Any e-Governance solution has to necessarily have a basket of sub solutions ready that cuts across the departmental boundaries, virtually and seamlessly. This would avoid endless effort and rework to make the system current to provide integrated resources for any solution.



A sample list of Solution components that can be used as 'plug and play' components was developed by Indian CST. Discerning Customers in the Departments were quick to recognize the productivity gains that their departments and functions could gain, by having access to this suite of GPMS Solutions.

A sample list of plug and play Solution components (not exhaustive) is as listed below

1. **GPMS-Global Project Monitoring System** – is an end-to-end solution for any Government department to manage their projects online and get real time information updates across stake holders
2. **GPMS- E-File management System** for any Government department to move files online for giving approvals/rejection. Facility to digitize data by viewing the scanned documents online.
3. **GPMS-Investor Relationship Management System** for any government department to manage investors investing in the country, monitor communications, projects, tracks various stages of investments, schemes and grants, etc.
4. **GPMS-Online Survey System with Geo tagging** for any Government Project, for conducting Implementation feedback / Impact Analysis Studies/Program Surveys etc. The location Latitude / Longitude is captured automatically. Hand Held/Mobile Devices Capture Data from Ground; Beneficiary Verification System. Data and Metrics get stored in a Central Location/Data Centre.
5. **GPMS-Task Management System** for any Government Project monitoring online. Facility to use through mobile phone to assist task teams by having a wide array of reliable data. Decreased the need for Supervision efforts.
6. **GPMS-Environment Health Safety System** for any Government Project to monitor remote sites with Video Surveillance: monitoring medical reimbursement schemes online of the organization or project stakeholders/ employees.
7. **GPMS-Compliant Management System** for any Government Project or Citizen charter's use and for bringing in the public participation in this specific project or view status of complaints online.
8. **GPMS-Financial Management System** for any government department to scan and upload their vendor bills online, digitize and post to Accounting software for generating various tax compliance reports or mismatch tax wise reports etc. Enabling respective departments to track their incoming receipts and outgoing payments happening in real time along with bank reconciliation facility enabled online.
9. **GPMS-Public page integrated with facebook** for any government department to display their project status for public to view, send their feedback, comments, complaints or upload the photos, videos, audios, documents, etc.
10. **GPMS-Stake holder Management System** for any Government department to validate their vendors, beneficiaries, organizations employees, NGOs, MSMEs, etc. online and update the information in real time to Improve governance and accountability, public voice in governance, public pressure, and civil society engagement: Information collected from the field can be made available through public sites to improve transparency on program performance and public voice in governance. Stakeholder teams can access the dashboard through the internet and engage in continuous supervision from their offices
11. **GPMS-Family Tree** for any government department or Individual to create or validate their tree information etc.
12. **GPMS-Bullion Network System** for any Intelligence agency or government department to use to track the network information related to that particular project.

13. **GPMS-Financial Transaction Tracking System** for income tax department or any other tax department or Investigating Agency use for collecting details for evidence of the particular transaction related to the individual or organization
14. **GPMS-Vault System** for any Individual person or any government department use to validate the repository based on GPMS databases.
15. **GPMS- Beneficiary Verification System** for any government department use to improve evidence based decision making by policy-makers; governance and accountability; continuous monitoring of progress towards output / outcome indicators and collection of reliable information from the field
16. **GPMS for Municipalities** for monitoring infrastructure projects,
17. **GPMS for Finance Management System (FMS)**-General Payments and Receipts monitoring online,
18. **GPMS for Birth and Death Monitoring** taking place in the particular location and for monitoring online reporting from various hospitals, PHC's, nursing homes, etc.
19. **GPMS for Education for monitoring students examinations** ( for Preliminary, High school, Pre-University, UG and PG )
20. **GPMS for Health Information Monitoring** -- cloud based solutions for Hospital Information monitoring system, Patient Monitoring System, for PHC, State,
21. **GPMS-Connect**-A cloud based video conferencing and surveillance online facility

22. **GPMS Survey System** for Beneficiary monitoring of BPL families along with their social-demographic details for online capturing
23. **GPMS for MSME**- A cloud based solution to monitor MSME programs and registrations online, Indian CST consultancy for preparing Business Proposals, Connect for Offering Video conferencing, MSME GPMS IRMS customer relationship management system
24. **GPMS-IRMS-CRM** cloud solutions, GPMS-e-file management system for documentation monitoring system, citizens charter services.
25. **GPMS-Cloud computing End-to-end solutions are available** for programs government Schemes, Fund, CSIR-Products and technologies monitoring as services online.
26. **GPMS for PostalBallot Monitoring and Management System** for the benefit of lakhs of employees who will be on election duty is been enabled to cast their votes into their Local Assembly Constituency.
27. **GPMS e-Governance Facilitation Council Services**-Subject Matter Experts available online, Governance Experts—Retired IAS, IPS, IRS Officials, Bureaucrats, Judicial authorities, Public Sector & like-minded Public Servants etc., Domain Experts-Doctors, Engineers (major discipline), Auditors, Chartered Accountants, Lawyers, Project Management Professionals etc., Information Technology Experts, Specialized in e-Governance, Project Management, Cloud Computing, Mobile, Security Technologies etc., Media, Public relations, Coverage, Case Study, Publications etc. offered as consultancy services under Indian CST.

9. Having in-depth domain knowledge of government departments, the processes , challenges and human frailties that are part of the challenge was crucial . This has influenced the solution design, in terms of using the best that technology has to offer. Several challenges were pre-empted by having a technology intervention embedded eg: REMS Remote Eye Monitoring, simple and innovative ways to induce public participation to steer the success of these projects. This is just the tip of the iceberg of 'What More is Possible?'

**Did the GPMS Solution deliver scalable and Replicable Solutions? This was an important item on the wish list to make the solution affordable to the citizen.**



Various e-governance GPMS cloud computing solutions, pilots and prototypes done that can be replicated across India is available at Indian CST. A partial list is as below.

1. For any Municipality engineering departments GPMS-REMS project monitoring system can be replicated across India
2. For any state Municipality Accounts Departments GPMS-REMS Revenue monitoring System for Collection of Taxes and Revenues, Tolls and Taxes etc. can be replicated across India
3. For the health care departments, GPMS-REMS Birth and Death with Hospital System for Information Therapy can be replicated across India
4. For the rural districts, the Valsad GPMS-REMS Solution can be replicated across India
5. For the low cost housing, the IAY Bihar GPMS-REMS Solution can be replicated across India
6. For the entire state, the Delhi government GPMS-REMS Solution can be replicated across India
7. For PWD Departments, the GPMS-REMS-BBMP along with GPMS\_REMS NHAI solution can be replicated across India

**Key tasks that the GPMS solution can perform include:**

- Information analysis
- Strategic planning
- Process Improvement
- Human resource development
- Operational results
- Stakeholder satisfaction

#### **Benefits of GPMS System**

- **Effective Expenditure Monitoring:** Global Project Management Solutions to monitor Projects to Bring in Transparency and do effective project management for delivering, executing projects well on time for income saving.
  - **Brings Transparency for Value Increase:** Financial Management and monitoring solution for managing financial resources and to monitor income coming in and out going payments done to curb excess expenditure
  - **Increases Incomes:** GIS based Property Tax system for income generation by bringing more properties into the tax net that can make the corporation self-sustainable
  - **Improves Operational Efficiency:** Mobile Governance for monitoring Garbage clearances, Addressing Public Grievances redressal system to bring over all visibility, extra operational efficiency.
  - **Empowers Citizens: Beneficiary Monitoring System:** for monitoring government to citizen programs
- and funding schemes, health management system for monitoring citizens, health records, data captured from the population will ideally form part of an electronic health record that will help integrate information from public health Informatics, clinical informatics and demographic databases, monitoring diseases and interventions over time, public health informatics can add considerable value to the successful planning, execution and evaluation of public health programs
- **Innovative Services:** Disaster Management for Main Data Disaster recovery Back up Centre on Indian CST Infrastructure
  - Complete monitoring of projects from start to end
  - Sufficient inputs for easy decision making
  - Single view of stakeholders and public inputs
  - Cost comparison for similar works within and across organizations
  - Clarifications asked through auto generated questionnaires

# 10. Snapshot view of GPMS-FMS Solution On going Implementation at BBMP

Name of the BBMP Project	Status	Remarks
1) <b>BBMP GPMS Project: Monitoring of Municipality Projects across Urban Bengaluru and Rural Bengaluru.</b>	Implemented and currently running successfully	92000 Municipality projects worth Rs 14,000 crores across 8 Head offices, 198 wards, 7500+ Engineers get monitored for efficient Project execution and benefits reaching the public.
2) <b>GPMS-BBMP FMS Project: Integrated Financial Management System for Payments and Revenue Receipts.</b>	Implemented and running successfully.	Incoming general receipts (including help-centres) of approx. 27 departments of BBMP (covering 8 zones, 1 Head Office, 450 Offices)
3) <b>GPMS-BBMP-Health Birth and Death Records system</b>	Pilot Implemented	Used for records, verification, printing of birth and death certificates.
4) <b>BBMP Health Care Services</b>	System study done. Implementation in progress.	This is for their staff of 12000 plus BBMP employees medical reimbursements.
5) <b>BBMP Property Tax Management System:</b>	System study done. Integration with GPMS-FMS	Property tax collection and decision reports across 20 + Lakh Property entities and generate real time Receipts online for citizens along with Multiple Payment Gateway integration underway
6) <b>BBMP FMS Financial Management System for Receipts / Payments :</b>	Ongoing Pilot project Implementation that is running successfully at Head office and now is being extended to all their 450 BBMP offices and Bangalore One Centres across Bangalore.	Seeing the successful implementation of the Payments, Receipts systems that has been integrated with 936 bank branches across employee payments, contractor payments, salary, tax deduction etc.

# 11. How the GPMS-FMS implementation improved municipality department's efficiencies and performances?

## A few of the activities at ground level that enabled implementation:

Periodical training programs, fortnightly reviews meeting and status updates were conducted on regular basis for all the engineers, staff and officers. This was done by fixing responsibility for initiating the majority of actions required to guide the projects and programs as they started. They were trained to report current progress, to update status and asked to add missing data information, validate the data, and generate their daily / monthly/ quarterly types of reports online. They showed continuous improvement and an substantial increase in the working efficiency of these department engineers, officers and its staff. Overall it resulted in bringing more transparency across all the departments reporting online, on-going projects status, financial approvals status, payments done etc.

Now in the last few years BBMP engineers and staff have been using **GPMS-BBMP-FMS** e-governance municipality integrated solution which has all the various 936 Nationalized, private, Cooperative, bank branches across Bengaluru associated with all BBMP departments together. A total number of 2,50,000 plus general receipts has been generated online and issued to citizens of Bangalore, bank challan's have too been automatically generated online and submitted to the respective banks, totalling an amount of several thousand has been updated in real time online from across all BBMP offices as on 24-02-2013 against the 327 R-CODEs. Property Tax Amount, General Receipts, Total Receipts Amount Payment Amount Re. 4500 plus crores plus has been updated online into GPMS-FMS in real time by the BBMP engineers and staff themselves.

**GPMS Enables Real Time Citizen Engagement & Feedback** on outcomes and consequences of actions at each stage of the service delivery chain Connecting Policy Makers, Providers, Beneficiaries and their Voice that Enables Results Agenda, Good Governance and Clients.

**BBMP Accounts Department and Revenue department** also has been benefited by in the head office, 8 zones, Divisions, Sub-divisions, 198 wards and 450 offices for each engineer to report revenue collected daily basis and payments done to be reported in real time brining in total transparency in its BBMP operations.

#### **Multiple bank payment gateways integrations enabled**

Hence better delivery of services was achieved by identifying strengths and weaknesses in each of its offices by remote monitoring of project status was possible to improve efficiency, reduce costs, Thus this in turn has enabled a sustainable improvement in the performance of the urban municipality as a whole. This became the first time in the country where one could see 92,000+ publically funded projects online with an approximately value of above Rs.14000 crores.

#### **Return on investment to the Municipality**

This by far is the single largest collection of civil infrastructure project information in any government body in Karnataka or across India.

The BBMP is transforming from its archaic system of financial monitoring to the modern financial management system on real-time basis with the help of a pioneering technology developed by the Indian CST. The service is scalable, Secure and efficient, while improving over all service and reducing costs.

Further, to address the sensitivity of information in various e-governance projects as well as information about citizens, data security as the NDSAP standards is being enabled.

#### **12. How does GPMS-Financial Management / Monitoring System work?**

GPMS essentially addresses the complete life cycle of a project by using the technique of capture, validate, check, measure, analyse, report along with key performance indicators. While it enables organizations to easily monitor their projects, it can also be successfully used for pre and post award analysis of projects besides enabling investigations if any that need to be carried out. While the projects are effectively checked, analysed, measured and reported using relevant indicators, the data gathered is used as a Knowledge Management System which holds vast repository of RFPs (Request for Proposals), tender processes, vendors and their performances, rate as well as technologies available in the market.

The GPMS also stores data on the brief history of the organization, details, tenders, analysis of payment process, tax deduction practices, duplicity, besides also analysing the necessity of a project under consideration. Further, apart from the 360 degree view of the projects under consideration, the employee's and contractor's history is also stored, facilitating a detailed analysis from all angles and when required.

#### **GPMS-FMS-BBMP Financial Management System consists of:**

1. Revenue Monitoring system
2. Revenue Receipts data entry sheets
3. Generation of Automatic receipts online
4. View Receipts online
5. Generation of relevant MIS reports

Incidentally, the capturing of this data makes it the single largest information collection system in civil infrastructure project any government body in Karnataka or across India, offering information on payment, collection and deposit into the various bank accounts of the BBMP.

**Some of these details can be viewed here online:**

- a. <http://bbmp.gov.in/web-based-project-management-system>
  - b. BBMP Financial Management Solution Login Page
  - c. BBMP Financial Management Public Information
  - d. Up to Date Summary of Online Receipts of Property Tax
  - e. Work Bill Report of 15 Nov 2012 (Similar reports can be generated for other days)
1. *Bruhat Bengaluru MahanagaraPalike (BBMP) has collected funds and processed and paid payments totaling Rs. 10 billion in 2012-13 ₹ 2,230,548,919.34 Received in Jan 2013*
  2. *In this financial year so far—Bengaluru citizens have received payments, receipts from the BBMP cloud after depositing—house tax, building cess, conservancy charges and fees for birth and death registration etc etc.*
  3. *Though the Ministry of Urban Development (MoUD) has issued a set of guidelines for implementing the project to the various state governments, it did not specify the solution to be applied in rolling out the project. Other factors apart, lack of standardised application to roll out this massive plan has been widely felt in all such projects being undertaken by different municipal bodies across the country.*
  4. *Hence, it is very important to bring in the awareness to the government agencies to change their traditional procurement models if they are serious about procuring GPMS resources from the cloud.*

**How GPMS open source integrated platform tools enables, empowers, engages social, local, mobile, video ... cloud apps and the future of content.**

The system called Global Project Monitoring System has been developed by Indian Centre for Social Transformation that has developed a unique feature for enhanced transparency by allowing public access to its web based

monitoring systems. It includes the ability to send in actual geo-tagged photographs of work locations that can then be used to discuss and disseminate information about actual situation on work ground.

Indian Centre for Social Transformation system – particularly for GPS / GIS based imagery – transparency

Indian CST states it brings "transparency into the activities of public funded projects under the Right to information Act. Our GPMS<sup>1</sup> enables public to register complaints, view projects of their interest and update delays or inconvenience caused."<sup>2</sup>

The detailed demonstration showed the GPMS based on Wiki technology to be an extremely powerful tool. Indian CST has already populated the system from many states in India. The Wiki technology members of the public are able to view details of projects and allowing them to comment and upload related GPS photographs or videos to the website for viewing or response by others. This appeared to be an extremely powerful tool however to be transparent and useful it has to:

- Show accurate, verifiable and approved data from the authorities providing the base data.
- Monitor data and comments to avoid any infringements of the law and allow freedom to reply.
- Ensure care is taken in the use of uploading of videos of meetings where extracts can be taken out of context and misrepresented for public consumption.

Global Project Management Solution (GPMS Version 3.0) is offered as a management tool that will introduce high end technological platforms like cloud computing and crowd sourcing to bring about efficiency, transparency and accountability in a user friendly fashion. Global Project Management System (GPMS 3.0) is an e-tool that brings together global best practices to suit local requirements and skill sets. GPMS 3.0 is a cost effective and continual improvement program which enhances the use of e-tools in the management/monitoring of projects to enhance efficiency, transparency and governance in delivery. The most important component of the GPMS 3.0 is the Metrics Management system (MMS). It enables measurement of areas of concern or targets set periodically and compare the same from the "As is" situation, thereby increasing the success of any project or program and assess its impact potential.

<sup>1</sup>GPMS Global Project Management Solutions

<sup>2</sup>Extracted from ICST website <http://www.indiancst.in>

## Key Strength in Transparency

GPMS solution may have unique advantages in terms of transparency considerations. In particular, integration of multi-media technology (GPS enabled photographs, videos, etc.) with the project management system has the potential to increase service delivery by the contractors and put pressure on the agencies to act faster. Availability of information in public domain enhances the transparency considerations.

There is integration available with popular Web 2.0 platforms as face book where even logins from Face Book accounts are permitted. This product thus aims to bring crowd sourcing in the public sector projects.

1. Indian CST's Products, Technologies, Integrated Solutions are made available for all Citizens, MSMEs, NGOs, Central, State Government, Companies and International Organizations to trade online.

**GPMS enables real time Citizen Engagement & Feedback** on outcomes and consequences of actions at each stage of the service delivery chain Connecting Policy Makers, Providers, Beneficiaries and their Voice that Enables Results Agenda, Good Governance and Clients.

The success is mainly attributed to the continuous hand holding and periodic training programs done on regular basis for a period of three and half years over and still continuing to bring about transparency in public funded project or programs transactions at grass root level.

In short, GPMS-REMS act as an important and cost-effective means to make the project management/ monitoring in real time working more efficient introducing higher levels of accountability and transparency in the system.

**Acknowledgements** to the people and organizations who supported Indian CST Social Transformation Initiatives otherwise without all their cooperation or help or support involved in bringing this kind transformation at this city municipality would not have been possible: Karnataka state Government departments, Chief Secretary, Bruhat Bengaluru MahanagaraPalike Mayor, Deputy Mayor, Commissioner/s, Special commissioner, Special Finance Officer, CAO, CFO, EIC, engineers, department head, staff, IT Advisor, Indian CST team members, Network of Social Entrepreneurs, Network of Volunteers, Network of Students, Network of citizens, Network of NGOs, Network of Professionals & Experts from Various domains, Network of International supporters and clients, Network of Information Analysis Experts, Network of Process Improvement Experts, Network of Retired Civil Servants, Commissioners, IAS, IPS, IRS, IFS Officers, Scientists, Technologists, Doctors and organizations like Karnataka Police Housing Corporation Limited, ETAMINE PGG India Pvt. Ltd., Business Intelligence Technologies India Pvt. Ltd., Integrated Quality Certification Pvt. Ltd., Athena Academy Pvt.Ltd., Indian Telephone Industries Data center, NetzaryInfodynamics Inc. Wizards Technologies Pvt. Ltd., Tally Solutions, Resource Value and all others well-wishers etc.

*"Do your little bit of good where you are; its those little bits of good put together that overwhelm the world."*

*—Desmond Tutu*