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Municipal Geographic Information System (GIS), Surat Municipality, India

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***On this page:** A case study on Municipal Geographic Information System (GIS), Surat Municipality, India. Find more at the [Municipal Public-Private Partnership Framework - Project Summaries](#) section for brief summaries of around 100 projects from around the world, examples of successes and challenges, as well as innovative ideas on solutions, or visit the [Guidelines on Innovative Revenues for Infrastructure](#) section.*

Project Summary:

Background

In India, many municipalities and urban local bodies (ULBs) have adopted a “Municipal Geographic Information System (GIS).” The Municipal GIS aims to create, store, maintain, and facilitate retrieval of property data in digital format along with geocoordinates. This is particularly helpful for the municipalities and ULBs when facing increased population growth and urbanization. There are many advantages associated with Municipal GIS, including:

- Enhancing tax collection and thereby increasing revenues;

- Improving the city's information system for urban planning, monitoring, administration, licenses and approval, and community development; and
- Better monitoring and maintenance of infrastructure such as roads, street lights, electric poles, footpaths, and maintenance holes.

Surat Municipal Corporation (SMC) is one of the municipalities in India which has designed, developed, and implemented a Web-based GIS application with GIS database.

Project Structure

SMC awarded the GIS project to Antrix corporation, GoI, and its partner Scanpoint Geomatics Ltd. The project was structured in six phases, with the first five phases to be completed in 18 months. The phases are: 1) Project design; 2) Preparation of base map with geo-corrected coordinates; 3) Data collection (primary and secondary); 4) GIS project development – the Web GIS application was customized for public use and SMC departments; 5) Testing, installation, and commissioning of GIS project and training; and 6) Maintenance – three years of post-implementation support to SMC by the private partner.

Lessons Learned

The project provides an excellent example of how incorporating a GIS system into the e-governance system through PPP can be valuable to a municipality. SMC's GIS system launched in January 2015 and has helped with improving asset management, increasing revenue realization, efficient planning, and general decision-making processes. SMC recently added new services for the public through the GIS system, namely health monitoring using dynamic health heat maps, information on permission issuance for citizens, and details on building usage certificate (BUC) issued. In the future, SMC plans to expand its GIS services to integrate water supply connections with property map data and to map and track container pickups for a solid waste management system.¹

Footnote 1: Case source(s): <https://www.ceinsys.com/success-stories/government-successstory/technologyadvancementmunicipal-gis/> Accessed on May 20, 2019.

https://darpg.gov.in/sites/default/files/SMC%20GIS%20Project%20Implementation%20%281%29-min_0.pdf Accessed on May 20, 2019.

Related Content

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Additional Resources

- [Climate-Smart PPPs](#)
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Partner Resources

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The [Guidelines on Innovative Revenues for Infrastructure \(IRI\)](#) is intended to be a living document and will be reviewed at regular intervals. They have not been prepared with any specific transaction in mind and are meant to serve only as general guidance. It is therefore critical that the Guidelines be reviewed and adapted for specific transactions.

To find more, visit the [Innovative Revenues for Infrastructure](#) section and the [Content Outline](#), or [Download the Full Report](#). For [feedback](#) on the content of this section of the website or suggestions for links or materials that could be included, please contact the Public-Private Partnership Resource Center at ppp@worldbank.org.

