

# GIS-Enabled Collaborative Platform boosting GMDA's Intelligent Decision Support System

## Client

Gurugram Metropolitan Development Authority

## Website

<https://onemapggm.gmda.gov.in/>

## Location

Gurugram

## Industry

Urban

## Organization Profile

Gurugram Metropolitan Development Authority (GMDA) is responsible for the planned development of the area under the authority which is currently estimated to be covering 675 Sq. Km. The main function of GMDA is to prepare plans, policies and proposals for guiding GMDA's planned development through the process of Master Plans, Zonal Plans, Layout Plans and Urban Extension Projects etc.

## Solution

ArcGIS

## Highlights

- One collaborative infrastructure framework for multiple stakeholders across departments
- An evidence-based decision support system

## Project Summary

Gurugram Metropolitan Development Authority (GMDA) is responsible for the planned development of the area under the authority which is currently estimated to be covering 675 Sq. Km. The main function of GMDA is to prepare plans, policies and proposals for guiding GMDA's planned development. In order to accomplish the mission of GMDA, to be a major support in governance by embedding GIS in all aspects of decision making, planning & management, Onemap Gurugram was developed on Esri platform by GIS division of GMDA.

## Challenges

GMDA covers an area of 675 sq km including 4 urban habitations. Under GMDA, there are various agencies and multiple stakeholders like Municipal corporations, Gram panchayats, TCPO Haryana, Revenue and Disaster Management department, Haryana Industrial Development Authority, Public works department, Haryana Urban Development Authority, Public Engineering department etc. The challenge was the lack of a common decision which support system or common decision-making platform, for all these departments, was resulting in lack of coordination among the different departments and delay in execution of development initiatives as per the plan.

The other challenges while formulating and implementing development schemes were due to the existing data management systems. These were not fully equipped to address the information prerequisites for planning purposes. Since it was an information intensive task, GMDA had to also deal with:

- I. Incompatible and non- standard datasets inhibiting integration
- II. Inefficient inter-sectoral data flow
- III. Lack of information on quality, completeness and lineage of data

## Solution

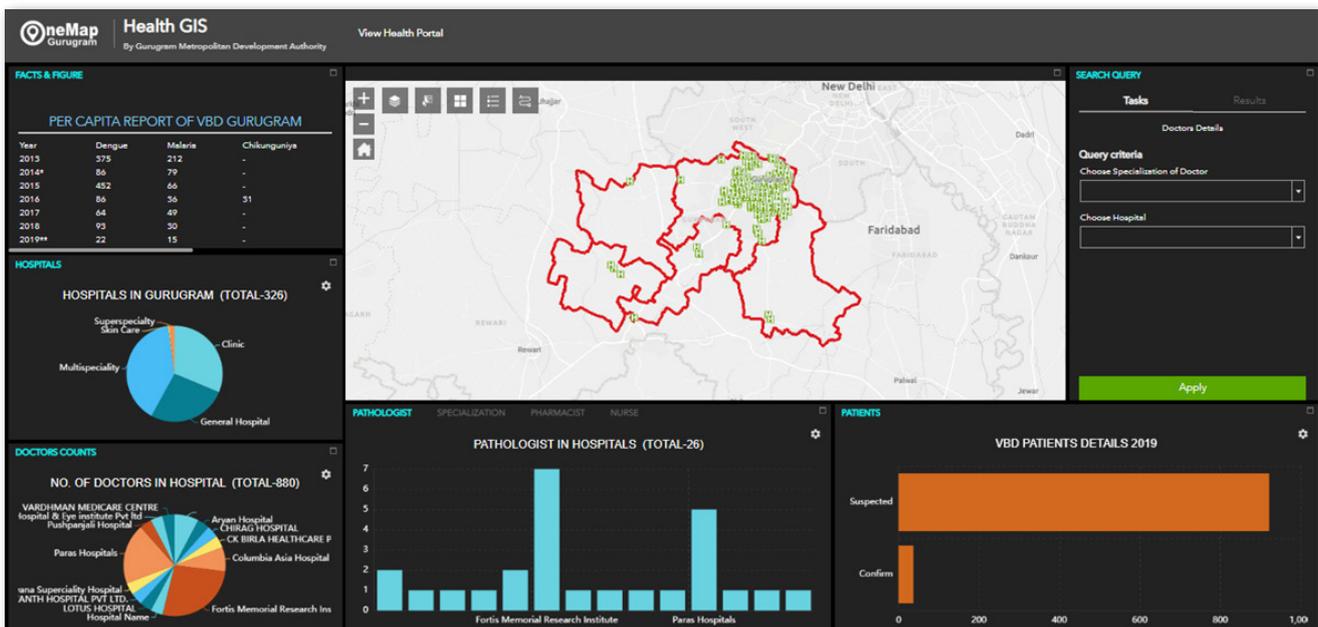
A modern geospatial based system was established for planning purposes of land, infrastructure, urban amenities and urban environment in the notified area. GMDA created a central and robust GIS integrated Decision Support System with spatial information as well as citizen engagement for GMDA in particular and for other allied departments & district authority of Gurugram.

To reshape the urban governance processes and provide an impetus to infrastructure development One Map Gurugram, a GIS-integrated support system was developed. The Platform clustered the GIS layers of information

into different applications as per departmental requirements. GMDA decided to go with an Enterprise Wide GIS Portal to facilitate the integration of all departmental work with Enterprise GIS, to bring about Spatial Decision Support System and collaboration of different departments on common base maps.

One Map Gurugram provides a vivid details of various infrastructure in the city through its webGIS portal named "Onemapggrm". The site provides details of dry infrastructure like Rail, Road, Telecom Towers and Metrolines. It also provides wet infrastructure details like Water Distribution Network, Sewage Network, Drainage network and recycled network with Network Asset details and Power infrastructure, Public transportation facilities, Land Governance Layers, health facilities, homeland security, image services and similar other information. Onemapggrm is a detailed and accurate geo-enabled intelligent Decision Support Systems, aligned with objectives of development of the state that increases effectiveness of land acquisition, planning, compensation and providing urban services, etc.

The GMDA has adopted a hub type framework for the collaboration of different departments under the Smart City. The platform clusters GIS layers of information into different applications as per the departmental requirements. The same platform is also being leveraged for integrated Command & Control Centre under mission through various interactive dashboards.



## Benefits

One map gurugram is the first of its kind Federated Architecture in GIS to be used by different departments within and outside GMDA. Described as a GIS-integrated support system, One map gurugram is not just a navigation application, but also a data mine, with information from different government departments collated, digitised and accessible at a single point. The key benefits of OneMap Gurugram are:

1. A conjunction platform for spatial and non-spatial details about the city, provides all departments with updated dataset on One map gurugram.
2. One collaborative platform for different departments to interact with one other and take decisions.
3. An evidence-based decision support system.
4. Intelligent governance through map-based decision making.
5. Visibility of ongoing & upcoming projects.
6. Links to different organizational apps.
7. Provides Citizen engagement through visibility of their area on One map gurugram.

// GMDA has leveraged Esri ArcGIS beyond being a platform. GIS is utilized to create a centralised services framework for citizens, businesses and various government departments. Onemap Gurugram is the core infrastructure providing various services like map, image, data, webGIS application development, GeoDatabase, Capacity building, and many more services to multiple stakeholders across departments and citizens. //

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