

A first: Drone survey to acquire land

GMADA begins work to develop new township, Aerotropolis, on 5,350 acres in Mohali

TRIBUNE NEWS SERVICE

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In a first, the Greater Mohali Area Development Authority (GMADA) has begun a drone survey to acquire 5,350 acres that fall in 14 villages of Mohali in the vicinity of Chandigarh international airport by way of land pooling.

This is for the first time in the state that a survey of land to be acquired for development is being undertaken by using the services of drones. The data collected with the drones provides a clear demarcation of properties to a larger extent, as it gives an accuracy of even up to 2 cm. Conducting the survey with drones would be beneficial to the Authority in identifying the use of various land parcels

OBJECTIVES

- To acquire very high resolution geo-referenced drone data
- Mapping of categories such as built-up properties, vacant plots, vacant land in GIS
- Digitisation of existing roads as transport network
- Integration of the attribute information with GIS map, as provided by GMADA

STUDY AREA

The study area in Chandigarh international airport vicinity spreads around 20 square km

– residential, commercial, institutional and services – for proper planning as also prevention of encroachments on vacant lands.

With this, the GMADA has also kick-started work to develop a new township in Mohali, Aerotropolis, as it has been christened, will be fourth independent township

after Knowledge City, Aerocity and IT City, which have turned out to be a great success in Mohali, and eighth in the Greater Mohali area after EcoCity, EduCity and MediCity in New Chandigarh.

Disclosing this, Additional Chief Secretary (ACS), Housing and Urban Development, and Financial Commissioner

Revenue (FCR), Vini Mahajan, told The Tribune that to propel the process of obtaining land and to gather near accurate data for the purpose of future urbanisation, GMADA had undertaken work of collecting data, such as built-up properties, vacant plots and vacant land in GIS, by mapping the land under question with the help of a drone survey.

The earlier techniques of land survey included plain table and theodolite survey, which used to take a lot of time to collect data. Even after the data collection, at times, the interpretation and analysis of information collected was a cumbersome process. The satellite data and aerial photography have been the other recent tools of mapping, but these have

proved to be costlier.

However, GMADA has entrusted the work of 3D mapping to Punjab Remote Sensing Centre (PSRC), a nodal agency of the Punjab Government. For the execution of the project, services of M/s RSI Softech India Pvt Ltd are being taken by the PSRC. "The company has vast experience and specialises in drone flying and mapping activities. It has agreed to do this pilot project free of cost for GMADA," she revealed.

Divulging the details, GMADA Chief Administrator Ravi Bhagat said on the first day of the drone survey, mapping of around 2-sq km area around NH-64 that fell in villages of Kurari and Azizpur was completed.

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The other villages to be covered are Patton, Seon, Matran, Kisanpura, and Sekhan Majra besides areas in their periphery.

"Approximately 20 sq km area will be covered by the drone survey and the whole activity for collection of data would be completed within four days. The focus of the work would include demarcation of vacant plots, vacant land, built-up properties besides interpreting the roads, railways, canals and drains, if any that would fall in the area under survey. The images obtained in the 2D shape will be processed in the laboratory to get their 3D images," said Bhagat.

Scope of work:

- The mapping, especially of vacant plots, vacant lands and individual properties would help the authorities to levy tax, manage vacant plots and lands and prevent encroachments on vacant lands.
- The focus of work would be on demarcating vacant plots, vacant land and built-up

property in the Area of Interest (AOI).

■ Roads, railways, canals and drains, if any, in the AOI would also be interpreted.

■ Each plot of land is represented on the digital map as a closed polygon. The unique plot numbers would be finalised in consultation with GMADA. This provides a basis for integration of digital map data with the ancillary data (if any) provided by GMADA.

■ PRSC would provide GIS data in digital format to GMADA.