



No more la-la land

A new market in location intelligence opens up as records become more accessible.

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U.S.-based cybersecurity architect Loganathan Krishnan was appalled when he saw people lining up to buy his 1-acre plot in Karnataka during a visit to India. Krishnan had bought the land in 2013, hoping to live there with his family after he moved back to India. Then he found that without his knowledge, the people appointed to take care of the land were carving out plots and selling them. “I could rarely visit the site in person, and I trusted them (the caretakers) blindly. But they transferred the land to their family name,” he says. After a 12-year legal battle, Krishnan has now won back half an acre, while the other half is still in dispute.

His start-up NILAMorbit was born in 2025 out of this dispute. Looking for a way to better protect properties from afar, Krishnan combined satellite monitoring

with computer vision, land intelligence, and on-ground verification to create the start-up. The company sends out land encroachment alerts to clients and deploys surveyors, fencers, or lawyers to resolve disputes. “There are so many others like me, who, in search of job opportunities, cannot stay close to their land. They become easy targets for the land mafia,” he says.

In the long term, NILAM aims to collect land intelligence at the neighbourhood or locality level. “We want to provide insights such as flooding risks, encroachment trends, and regional land-related issues. For example, we might be able to point out which locality in a city has a higher risk of land disputes,” says Manivanna Raja, Chief Product Officer at NILAM.

Companies such as NILAM have discovered a new market in spatial intelligence, at

the intersection of fields such as real estate, marketing, climate intelligence, and Earth observation. Spatial intelligence companies including Terrastack, Landeed and AGT Intelligence use satellite and geospatial data, pair them with publicly available land records, population records, and climate data, and use artificial intelligence (AI) to address questions about land parcels — from loan underwriting and property valuation to encroachment and disaster risks.

Historically, satellite data have mainly been used by the defence sector. For use in the private sector, satellite data needed to become cheaper, more frequent, and higher-resolution. States have also begun digitising land records under the Digital India Land Records Modernization Programme. Parallel developments in AI have made it possible to read these regional-language records scattered across various offices and generate insights. Vision models, too, have become better at detecting structures and extracting information from satellite imagery. All these developments have come together to open up a new market in spatial intelligence.

Ask the map

In 2024, Aaryan Dangi, and Milind Sohoni, a Professor at the Indian Institute of Technology (IIT) Bombay, were working with the Maharashtra government’s Department of Land Records before they went on to set up their spatial intelligence start-up, Terrastack. Land record maps originally existed

on paper. When they were scanned, digitised, and approximately scaled, they often didn’t correspond with actual farm boundaries, Sohoni explains. “If a neighbouring farmer disappears for 10 years, boundaries gradually shift. There is encroachment. Streams move. Roads get built,” he says.

The two had to reconcile the ownership boundaries onto satellite-derived field boundaries, using mathematical modelling and optimisation algorithms. “While the project was still ongoing, we felt the work was solid enough so that it could scale across India,” says Dangi.

For their start-up, they turned to the private sector — any industry that depends on land records, from banking and financial services to insurance, real estate and agriculture. Terrastack also helps guide clients on where to open the next branch of their business by assessing the number of hospitals, schools, markets, and footfall in a particular area, Dangi says. For this, it combines satellite data with government data such as electoral rolls, Aadhaar-linked datasets, land records in maps and textual formats, and private datasets such as market listings. “Even something like a news clipping should eventually be processed and placed on a map somewhere, so that an agentic intelligence module can consider that information when generating insights,” he adds.

Companies such as SatSure and Pixxel already offer analytics services to the banking, financial services, and insurance sectors based on satellite imagery. However, Tanmay Chauhan, the Chief Executive Officer of AGT Intelligence, argues that while satellite imagery can shed light on roads, farms, infrastructure, and physical changes on the ground, it should not be the only source of intelligence. “In our case, satellite imagery is just one layer among many. We’re combining satellite imagery with authoritative government records, surveys, reports, and large volumes of textual information. The imagery helps validate what we’re already producing through other sources,” he says.

In 2025, Chauhan built AGT Intelligence with his cousin, Gaurav Singh. Their platform features AGT Map, an interface where customers search for a location anywhere in India, mark the land parcel they want to analyse, and ask a chat agent to generate a site feasibility report. The report includes details such as the land parcel’s survey number, measured area, district, taluka, and related land records. It also tests for sustainability by measuring environmental risks, terrain and soil conditions, weather patterns and groundwater availability. Based on these metrics, it then



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generates a verdict score indicating its investment potential.

The company relies on data directly sourced from government departments, such as land titles, ownership records and revenue records. “We also have our own regression models and machine learning models built on top of geospatial datasets. For satellite imagery in particular, we have partnered with the GMR Group, and we’re using computer vision models to generate insights from them,” Singh says.

Data across portals

The idea behind AGT Maps, Chauhan says, was to simplify location-based decisions. “Every decision in your life is influenced by the location you live and work in, and the environment it creates.” While the data needed to make such decisions were always available, the information was fragmented across different government portals. Land title and ownership data are in a State’s revenue department, environmental data with

the groundwater department, zoning laws are on one portal, information on schemes is available on another, and so on. “The problem is that none of these portals talks to each other. That was where we wanted to step in and offer a unified view,” he says.

In Coimbatore, engineering students Adhvik Vithun, Vikashini S., and Vishal M. had a similar idea. They started HataD, a platform to verify land clearances in Tamil Nadu. HataD collects information across six government departments — revenue, registration, survey office, tahsildar, local body and land records — to prevent forging of deeds and other frauds in land deals. Its clients range from people who have inherited land and want to manage its paperwork to those looking to investigate a piece of land before buying it.

“If a *patta* says a particular person owns the land and specifies its area, that information should be verified through other documents as well,” says Vishal. Once the chain of ownership is established, it checks whether the land has any mortgages, is disputed, or was the subject of previous court cases. “We collect all of that information and connect everything. Essentially, we’re creating a knowledge base around the property.”

The trio was working on another product for architects and civil engineers when it decided the bigger problem to resolve was the issue of bad land investments. The group started researching how land transactions are conducted in Tamil Nadu. “If someone decides not to buy a property because of our report, we count that as a success,” says Vishal. “It means we’ve prevented a future problem.” ●

(See also ‘Intel and vitals’, page 16.)