

On the map and in the loop

As India urbanises, small towns are emerging as critical sites of transition. Yet these towns are often ill-equipped to manage rapid and unplanned urbanisation, facing a host of difficulties in delivering basic services, addressing inequities and preparing for disasters.

A key challenge in low-income settlements in these small towns and semi-urban spreads is the absence of formal, verifiable household addresses. This limits residents' access to essential services. Simultaneously, urban local bodies face constraints in planning, prioritisation and service delivery due to the lack of reliable spatial and infrastructure data.

A Tata Trusts programme in Uttar Pradesh is currently engaged in the spatial mapping of three towns close to Lucknow, the state capital: Mohanlal Ganj, Banthra and Ram Sanahi Ghat. When it's done, every building, home, water body and road in these towns will have a digital address, which means they can be included in urban planning and management.

When the state government launched its Akankshi Nagar Yojana (aspirational cities programme), the aim was to develop small and transitioning towns — taking 100 at a time — that had been left out of larger urban reform initiatives and provide them with better infrastructure and amenities. This



A municipal officer speaks to a resident during a visit to a settlement in Banthra near Lucknow to collect data for the spatial mapping exercise

is essentially an urban planning and systems strengthening initiative for smaller centres lacking the resources for the rapid and inevitable urbanisation they are caught up in.

The Trusts have collaborated with an organisation called Shelter Associates to undertake spatial mapping of the three towns. The project maps the urban landscape at a granular level, capturing key infrastructure and public assets. The resulting maps provide authorities with a clearer understanding of what exists on the ground and where gaps in infrastructure and services are.

The programme has also incorporated the DigiPin system introduced by the Department of Posts, which takes the familiar concept of a pin code a step further. While a conventional pin code typically covers an entire

neighbourhood or area, a DigiPin provides a precise digital address for a specific location, making it possible to identify individual homes and structures.

This is particularly useful in dense settlements where conventional addresses may not clearly identify a particular household. It can help emergency services locate homes quickly, enable doorstep delivery of goods and services, and make it easier for authorities and service providers to reach households.

"The data has brought insights while also highlighting gaps," says Bigrai Narzari, programme officer, urban inclusion, with the Tata Trusts. "Now local bodies have a better idea of where they stand with respect to civic infrastructure in these three towns, and how problems can be addressed in their overall plans." ■